Health Centers in Trenton and Newark: Building New Jersey's Primary Care Safety Net

Feasibility Study of Newark, New Jersey

Submitted by:

Nurse Practitioner Healthcare Foundation

and

New Jersey Health Care Quality Institute

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Executive Summary

Newark is a racially and culturally diverse city with significant challenges including high poverty rates, significant under- and unemployment, and rampant crime. These social factors negatively impact the ability of the city's residents to access quality healthcare. As a result of poor access, the City has a large number of medically complex individuals, straining the capacity of on Newark's healthcare facilities to provide care. Low reimbursement rates from government payers and provision of uncompensated care to undocumented individuals challenge the fiscal strength of both the city's hospitals and primary care facilities. Adding to this problem is the lack of a diverse payer mix, especially the more generous commercial payers. The City of Newark continues to display some of the worst health outcomes of any city in the United States. Despite important efforts in the last decade to increase access to care through a variety of local and federal programs, one only has to walk the streets of this City to see the ongoing healthcare needs for mental health services, substance abuse help, and general healthcare. It is essential to identify more solutions to improve the health status of many of Newark's adults and children.

Improving and increasing primary care and behavioral health services in Newark are important elements of creating a healthier city. Abundant literature demonstrates the effectiveness and quality of advanced nurse practitioner (APN) care to meet primary care needs. The patient-centric care provided by nurse practitioners is essential to serve the complex populations in underserved low income communities.

This Feasibility Study was undertaken to help address the need for a more comprehensive primary care infrastructure in Newark by assessing the feasibility of establishing nurse practitioner led healthcare services in Newark.

Using interviews, surveys, focus groups and extensive research, this Feasibility Study provides a community health needs assessment, as well as summarizes the perspectives of patients and leaders in the community and healthcare industry. There is general agreement that more neighborhood-based primary care, including mental and behavioral health services, is needed in the City; community, business and foundation leadership indicated support for efforts to bring this care in an innovative and cost-effective way through APN-led clinics. A review of legal and regulatory constraints on APN-led practices highlights the challenge of structuring a primary care practice. Although legal structures do exist for APN-led practice, careful legal advice is essential in creating innovative models for practice that avoid violating corporate practice of medicine regulations.

The Study reviews various clinical and financial models and proposes a sustainable APN-led practice committed to patient engagement as a core organizational value. The recommended model would offer consistent patient-centered care delivered by community health teams led by nurse practitioners.

Key components of the model include:

- risk stratification
- evidence-based treatment protocols
- comprehensive and continuous assessment
- data-driven decision-making
- redesign of the primary care visit
- community partnerships
- patient-designed plans of care
- care coordination
- case management
- patient education
- system navigation
- health information technology

To be financially feasible, the APN practice must swiftly meet the criteria for designation as a primary care medical home, achieve necessary patient/provider ratios and volume, and have an appropriate payer mix. Given the strong relationship of the social determinants of health to general health status, a practice that provides social services, or has access to needed social services, is highly desirable.

In evaluating the various barriers and challenges an APN-led primary care center would face, certain elements need to be in place to ensure the success of the model in Newark. Involving existing community/neighborhood organizations and local leaders, as well as developing relationships with existing health facilities in the city will be of utmost importance. The safety of healthcare workers and the patients must be a critical factor in deciding upon the location of a practice in Newark. Long-term success relies on financial viability; it is essential to secure adequate start-up funding and an appropriate patient mix that leads to a reimbursement structure/payer mix to support the practice over time.

Three criteria were identified in Newark to be essential in the successful creation of an APN-led practice:

1. patient care need
2. community partnerships
3. sustainability

RECOMMENDATION:

This Study concludes that it is feasible to establish an APN-led practice in the City of Newark because all three factors can be met. It has been established that there is significant unmet patient care need, especially in primary care. Business, foundation and community leaders and members of the healthcare industry in the City have expressed willingness to work with an APN-led practice. Finally, the report has proposed a financial model that, if all elements are met, would make such a clinic financially sustainable.

Specifically, the Study recommends partnering with the New Community Corporation (NCC) located in the Central Ward of Newark, as it has a track record of providing successful social services in Newark for underserved populations, and already has strong relationships with political and community leaders. Space is available immediately in their ADA compliant building, which has onsite security. NCC offers an array of needed social

services to supplement the primary care services to be offered in the APN-led health center. This partnership also offers the opportunity to link with four clinical sites in the New Community elder housing complexes. The geriatrician that oversees these clinics has offered to serve as the required collaborating physician for this practice. In addition, a large hospital system has indicated interest in supporting the establishment of this nurse-led practice. While in the early discussion phase, it seems reasonable that this collaboration might include some onsite specialty services at the main health center location, easy access to hospital services, and possible financial support for start-up. Preliminary conversations with philanthropic organizations have indicated an interest in funding as well. Long term financial stability is likely to be achieved based on an examination of the population to be served which indicates a sufficient payer mix. In addition, NCC has indicated an interest in making the new health center available to their 500 employees, all of whom have commercial insurance coverage.

Finally, the Feasibility Study offers additional suggestions to support a committed and sustainable nurse practitioner workforce to better ensure success in opening an NP-led clinic in Newark, or other underserved communities. Three proposals include:

1. Establish a multi-site, multi-city Nurse Practitioner Residency Program to aid APN-led clinics in recruiting and retaining qualified Nurse Practitioners. A residency program would allow individuals to train in underserved communities, giving them practical experience in serving these complex patient populations. The residency program would help speed a successful transition of new graduates and make it less likely for them to feel overwhelmed working with this special group of high-need clients. The residency program could concentrate on four essential areas: clinical skills, leadership skills, healthcare business/practice management (including use of data), and working with vulnerable multi-cultural populations.
2. Initiate a New Jersey APN Practice Network to support NP-managed clinics by connecting them with resources. Offering a means to create practice efficiencies and share best clinical and management practices, mentoring, and even shared savings would further support and encourage this clinic model.
3. Expand the state nurse-loan program to include graduate education to support a diverse group of clinicians entering the workforce. In particular, initiating a program that supports nurses living and working in Newark to obtain graduate school tuition assistance for APN education would be a step toward securing a stable APN workforce in Newark.

Table of Contents

I. Introduction

The City of Newark continues to display some of the worst health outcomes of any city in the United States. Despite important efforts in the last decade to increase access to care through a variety of local and federal programs, one only has to walk the streets of this city to see the ongoing healthcare needs for mental health services, substance abuse help, and general healthcare.

Abundant literature demonstrates the effectiveness and quality of nurse practitioner care to meet primary care needs.[1] Nurse Practitioner (NP) outcomes have been shown to be equivalent to, or better than, those of physicians.[2] The patient-centric care provided by nurse practitioners is essential to serve the complex populations in underserved low income communities. Offering traditional healthcare services, while also considering the social determinants that are impacting the health of the patient, nurse practitioners are best poised to serve the state's neediest residents. Additionally, data indicate that primary care NPs are increasing in significantly larger numbers than primary care physicians.[3] These increasing numbers of primary care NPs will have a major, mounting role in meeting the nation's primary care needs. As a result, nurse practitioners have been identified as the key professional group that is well positioned to meet the growing demand for healthcare services, especially in underserved communities.[4]

This Project was developed to address the need for a more comprehensive primary care infrastructure in New Jersey that would provide necessary healthcare services to benefit the sickest and most underserved populations in Trenton and Newark. Specifically, this

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[1] Brown, S.A. & Grimes, D.E. (1995). A meta-analysis of nurse practitioners and nurse midwives in primary care. *Nursing Research*, 44(6), 332-339.

[2] Kuo, Y., Chen, N., Baillargeon, J., Raji, M. A., & Goodwin, J. S. (2015). Potentially Preventable Hospitalizations in Medicare Patients With Diabetes: A Comparison of Primary Care Provided by Nurse Practitioners Versus Physicians. *Medical Care*, 53(9), 776-783. doi:10.1097/MLR.0000000000000406; Oliver, G. M., Pennington, L., Revelle, S., & Rantz, M. (2014). Impact of nurse practitioners on health outcomes of Medicare and Medicaid patients. *Nursing Outlook*, 62(6), 440-447. doi:10.1016/j.outlook. 2014.07.004; Ritsema, T. S., Bingenheimer, J. B., Scholting, P., & Cawley, J. F. (2014). Differences in the delivery of health education to patients with chronic disease by provider type, 2005-2009. *Preventing Chronic Disease*, 11E33. doi:10.5888/pcd11.13017; Martsolf, G., Auerbach, D., Arifkhanova, A. The Impact of Full Practice Authority for Nurse Practitioners and Other Advanced Practitioners in Ohio. Santa Monica, CA: Rand Corporation, 2015; Mundinger, M.O., Kane, R.L., Lenz, E.R., Totten, A.M., Tsai, W.Y., Cleary, P.D., et al. (2000). Primary care outcomes in patients treated by nurse practitioners or physicians: A randomized trial. *Journal of the American Medical Association*, 283(1), 59-68; Stanik-Hutt, J., Newhouse, R., (2013). The quality and effectiveness of care provided by Nurse Practitioners. *The Journal for Nurse Practitioners*, 9 (8). doi:10.1016/j.nurpra.2013.07.004

[3] The 2012 nurse practitioner graduation rates announced by the American Association of Colleges of Nursing and the National Organization of Nurse Practitioner Faculties (AACN/NONPF, 2013) showed a continued increase in primary care NPs. Primary care NP graduates increased 18.6% or 2,228 NPs between 2011 and 2012. Primary Care NP graduates accounted for 84% of all NP graduates in 2012 whereas U.S. medical school primary care matches accounted for only 11.6% of the 16,390 matches.

[4] Laurant, M. et al. (2006). Substitution of doctors by nurses in primary care. *Cochrane Database of Systematic Reviews 2006*. Issue 1

Project was initiated to assess the feasibility of nurse-led health services in Trenton and Newark. This report focuses on the City of Newark.

The Project Team has conducted numerous interviews, surveys, focus groups and extensive research to inform the content of this Feasibility Study. What follows is an overview of a community health needs assessment, a community and health needs evaluation, and practice options considering relevant financial models to develop a sustainable nurse-led practice. Challenges have been identified but solutions are also offered, including a proposed practice model which demonstrates the feasibility of a NP-led practice in the City of Newark.

II. Newark Community Assessment

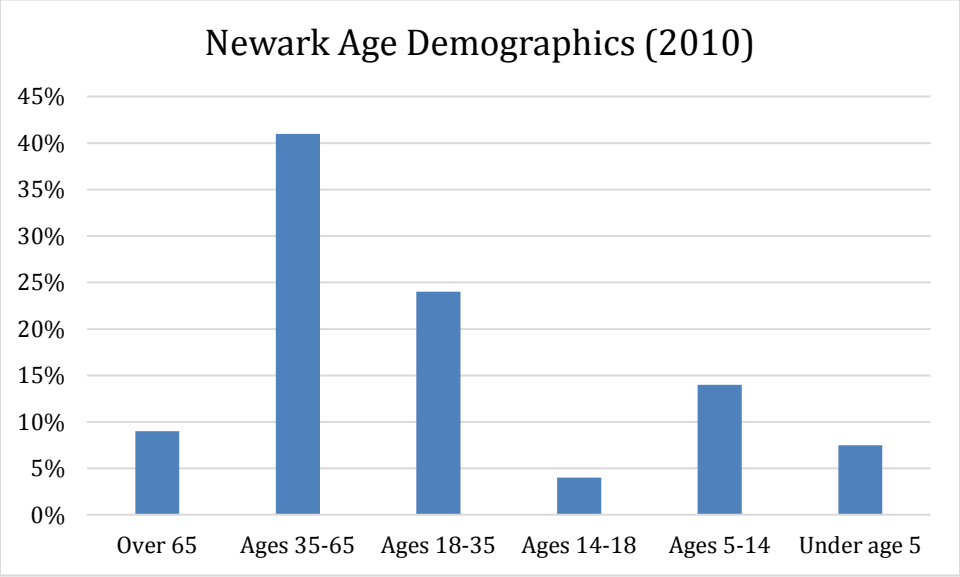
President Obama signed the Patient Protection and Affordable Care Act (ACA) into law on March 23, 2010. With a predicted 32 million uninsured people entering the system by 2019, existing primary care structures will soon be overwhelmed unless new models of care delivery are enacted immediately. Even before passage of the ACA and the expected influx of an additional 600,000 insured individuals[5], New Jersey was facing significant challenges in meeting primary care needs in the state. Studies have shown there is a current shortage of family medicine physicians in New Jersey and a projected shortfall of 1,000 primary care physicians by 2020.[6] Although the primary care physician to patient ratio in the state (94.0 per 100,000 people) is higher than the national average (88.1 per 100,000 people), the totals fail to recognize the shortages in specific geographic regions.[7] Unmet needs are documented in many New Jersey counties including Essex.[8] And even more specifically, Newark has been listed as medically underserved based on the New Jersey Medically Underserved Index.[9] Medically Underserved Areas are areas designated by Health Resources and Services Administration (HRSA), an agency under the U.S. Department of Health and Human Services as having too few primary care providers, high infant mortality, high poverty or a high elderly population.[10]

A. Newark and Essex County Demographics

As of the most recent census in 2010, Newark's population was 278,427 with a median income of $33,960.[11] The largest segment of the population (37%) was between the ages of

[5] *A Medical Malady: Where are New Jersey's Primary Care Physicians*. NJ Spotlight. July 5, 2011. http://www.njspotlight.com/stories/11/0704/2329/ Web. 13 November 2013
[6] *NJ Physician Workforce Task Force Report*. New Jersey Council of Teaching Hospitals, undated. http://www.njcth.org/NJCTH/media/NJCTH-Media/pdfs/FINAL-NJ-Physician-Workforce-Report--w-appendices-012910.pdf p.4 Web. 12 November 2013
[7] Ibid.
[8] Ibid.
[9] Ibid., Appendix 7, p. 1. Web. 12 November 2013
[10] *NJ Physician Workforce Task Force Report*. New Jersey Council of Teaching Hospitals, undated. http://www.njcth.org/NJCTH/media/NJCTH-Media/pdfs/FINAL-NJ-Physician-Workforce-Report--w-appendices-012910.pdf p.4 Web. 12 November 2013
[11] http://quickfacts.census.gov/qfd/states/34/3451000.html Web. 3 July 2015.

35 and 65, and the next largest age group (almost 14%) are between the ages of 5 and 14.[12] One quarter of the city's population is 18 or younger, with 7.5% age 5 and younger.[13] Newark's senior population is not large compared to the rest of the state at 13.5%; Newark citizens age 65 and over make up 8.6 % of the population.[14]



Newark is the largest city in New Jersey and second only to Jersey City in diversity, with 52% Black, 34% Hispanic or Latino, 12% White, and 2% Asian.[15] Over 45% speak a language other than English in the home[16], with 30% of the population speaking Spanish as the primary language.[17]

[12] NJ Chartbook of Substance Abuse Related Social Indicators, Essex County, Division of Mental Health and Addiction Services. May 2013. http://www.state.nj.us/humanservices/dmhas/publications/epidemiological/State%20Chart%20Books/Essex.pdf

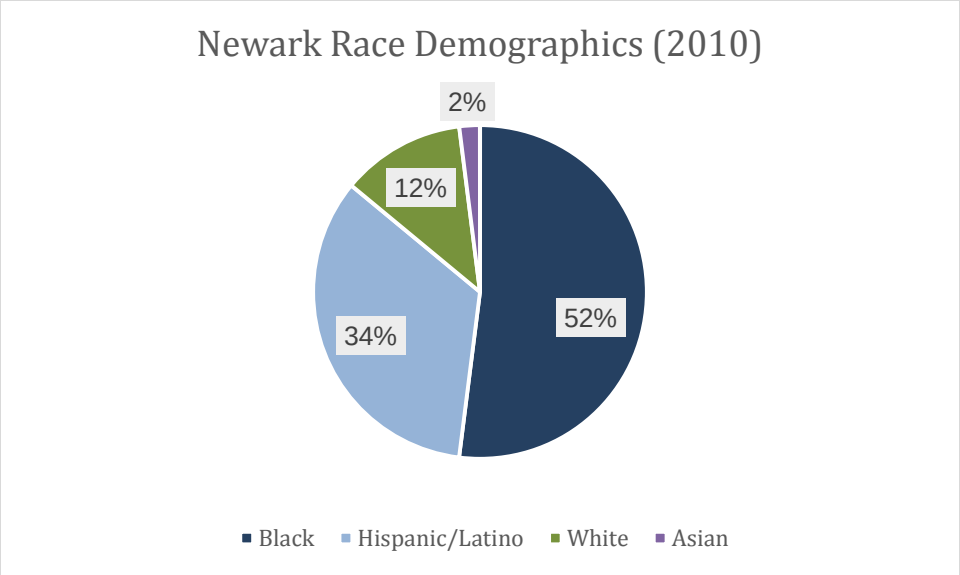
[13] http://quickfacts.census.gov/qfd/states/34/3451000.html Web. 3 July 2015.

[14] Ibid.

[15] Ibid.

[16] Ibid.

[17] NJ Chartbook of Substance Abuse Related Social Indicators, Essex County, Division of Mental Health and Addiction Services. May 2013. http://www.state.nj.us/humanservices/dmhas/publications/epidemiological/State%20Chart%20Books/Essex.pdf



Close to one-third of Newark residents are below the poverty level.[18] In November 2015, the unemployment rate was 7.7%, compared to 5% for the state.[19] Statistics from 2013 show 7.3% of Newark households were receiving public assistance benefits.[20] Almost 29% of households are headed by females with no male significant other present.[21]

B. One City, Many Communities

The provision of community-based primary healthcare across a populous and diverse city such as Newark has many challenges and opportunities. According to a brief from the Newark Community Economic Development Corporation, the city's diverse residents are comprised of African Americans, Puerto Ricans, Dominicans, Italians, Irish, Spaniards, Jamaicans, Haitians, Portuguese, Brazilians and many more.[22] Although many cities have neighborhoods and political subdivisions, Newark takes this concept to new heights. It has five separate, distinct and fiercely loyal wards. Residents see these neighborhoods as "home" and tend to view themselves as outsiders when they find themselves beyond the bounds of their specific ward. The city's wards, each with its own unique neighborhoods are important to consider in providing services to its residents. The North, Central and West Wards are primarily residential, while industry is located largely in the East and South Wards near the airport and seaport.

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[18] http://quickfacts.census.gov/qfd/states/34/3451000.html Web. 3 July 2015.
[19] US Bureau of Labor Statistics.
[20] NJ Chartbook of Substance Abuse Related Social Indicators, Essex County, Division of Mental Health and Addiction Services. May 2013. http://www.state.nj.us/humanservices/dmhas/publications/epidemiological/State%20Chart%20Books/Essex.pdf
[21] US Census Bureau, 2010
[22] New Community Economic Development Corporation. https://newarkcedc.org/neighborhoods-wards/ Web. Feb. 18, 2016.

Central Ward
This ward includes the central business district, the University Heights neighborhood, as well as the Prudential Center Arena and the Performing Arts Center. The Central Ward is the site of Newark's most recent development activity. Six colleges and universities are located in the University Heights neighborhood. One million square feet of high-tech laboratories, offices, incubator space, housing and a technology-oriented high school are being developed in the new Science Park. It is also the location of major corporations, including Panasonic and Audible, that have moved their headquarters to the city.

East Ward
The East Ward is the most densely populated section of Newark and home to one of the largest Portuguese-speaking communities in the country. The Ironbound District, so named by virtue of the railroad tracks that border the area, is known for its more than 20 Portuguese and Spanish restaurants that line its streets. The East Ward contains Newark's highest concentration of industrial businesses, many of which supports The Port Newark/Port Elizabeth marine terminal which occupies 2,100 acres along the western shore of Newark Bay. It is the largest cargo handling complex on the East Coast of the United States.

North Ward
The North Ward is primarily residential with a mixture of high-rise, high density housing as well as detached single-family homes. Bordered by the neighborhoods of Roseville and the more affluent Forest Hill, Branch Brook Park, accessible by the Newark city subway, is one of the largest county parks in the country. Living in the North Ward is a diverse population comprised of Latino, Italian and Irish communities, as well as individuals from South America and Puerto Rico.

South Ward
Clinton Hill and Weequahic are the two primary neighborhoods in the South Ward. This area is home to Newark Beth Israel Medical Center, the city's second largest hospital. The businesses in the Ward provide support to Newark Liberty International Airport.

West Ward
The West Ward is known for its diverse immigrant community (Latinos, African Americans and Caribbean Americans) and residential neighborhoods including Ivy Hill and Vailsburg sections. Located near the Garden State Parkway, the West Ward borders Maplewood and South Orange, and is next to Seton Hall University. The area recently has been struggling with particularly high crime rates.

If it is true that "healthcare is local," then it is especially critical that any successful health service in Newark will acknowledge the unique nature of each of ward and consider the desire of its residents to meet their healthcare needs within their own neighborhoods. To be effective, care must be provided in a way that is based upon and reflective of a true understanding of variable cultural and societal needs of the populations living within these distinct neighborhoods. Creating culturally sensitive primary care services that address the needs of each ward is key to promoting access to care. This might include an understanding

of issues related to gender, religious beliefs, diet, language, and even family hierarchy in terms of advice. In some cultures, religious leaders may have greater influence than any clinician in terms of promoting behavior change.

C. Citywide Challenges

Food Desert

New Jersey has over 25% fewer per capita supermarkets compared to national averages.[23] As of late 2013, there were only three full size supermarkets in the 24 square–mile city.[24] One is Whole Foods which is likely to be overpriced for the average Newark resident.[25]

Homelessness

Homelessness is a significant problem in the city as evidenced by the low median income and the average gross rent of $927/month.[26] The city addresses this problem through a number of shelters, meal programs and housing agencies in and around the metro area.[27]

Education

Education levels in Newark are lower than the rest of the Essex County with only 68% of students graduating from high school, and only 12% with a college degree.[28] As of the 2009-10 school year, the district's 75 schools had an enrollment of 39,443 students and 2,685 classroom teachers (on an FTE basis), for a student-teacher ratio of 14.69.[29]

Crime

The high rate of crime is a significant environmental factor in Newark. The city's crime rate is considerably higher than the national average across all communities in the U.S. at 41 crimes per one thousand residents.[30] Newark has a crime rate that is higher than 95% of the state's cities and towns of all sizes.[31] The chance of becoming a victim of either violent or property crime in Newark is one in 24.[32] Newark's violent crime rate is one of the

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[23] Food for Every Child: The need for more Supermarkets in NJ, Brian Lang, The Food Trust. (undated) http://www.tulloch.rutgers.edu/Maps/NJSupermarkets_PhillyFoodTrust.pdf

[24] Ibid.

[25] http://www.pbs.org/newshour/rundown/cory-booker-finally-gets-a-whole-foods-in-newark/ October 2013.

[26] http://www.city-data.com/city/Newark-New-Jersey.html Web. 3 July 2015.

[27] http://www.homelessshelterdirectory.org/cgi-bin/id/city.cgi?city=Newark&state=NJ Web. 3 July 2015.

[28] NJ Chartbook of Substance Abuse Related Social Indicators, Essex County, Division of Mental Health and Addiction Services. May 2013. http://www.state.nj.us/humanservices/dmhas/publications/epidemiological/State%20Chart%20Books/Essex.pdf

[29] Wikipedia.

[30] The crime data that NeighborhoodScout used for this analysis are the seven offenses from the uniform crime reports, collected by the FBI from 17,000 local law enforcement agencies, and include both violent and property crimes, combined. http://www.neighborhoodscout.com/nj/newark/crime/#description Web. January 20, 2015.

[31] www.neighborhoodscout.com

[32] Ibid.

highest in the nation, across communities of all sizes.[33] Violent offenses tracked include rape, murder and non-negligent manslaughter, armed robbery, and aggravated assault, including assault with a deadly weapon. The chance of becoming a victim of one of these crimes in Newark is one in 90.[34]

D. Newark Health Status

Newark's health status is in jeopardy. The average age of death in Newark is 72.2 for White, non-Hispanic, 63.8 for Black, non-Hispanic and 60.9 for Hispanics.[35] An active and engaged network of primary care services is needed to service the many needs of the state's residents, especially in low income and medically underserved areas such as Newark. An overview of a sampling of healthcare needs is listed below:

Cancer

The incidence rate for all cancers in New Jersey is higher than the U.S. rate, except for Asian and Pacific Islander men and women.[36] Cancer incidence in New Jersey is 495.8 per 100,000.[37] Essex County is a bit lower at 459.6 (age adjusted).[38] Early detection can provide a key role in decreasing mortality rates. Disturbingly, early stage diagnosis for colorectal, prostate, and lung cancers was much lower in black men compared to white men.[39] For black women, compared to white women, early detection was lower for breast, cervical and lung cancers in New Jersey.[40] In Newark, from 2009-2011, cancer took lives of more Blacks (non-Hispanic)(65%) than either Hispanics and Whites, each at 16%.[41]

Diabetes

In New Jersey, there are an estimated 440,000 residents diagnosed with diabetes and another 178,000 who are unaware that they have the disease.[42] The disease is not evenly distributed among the population; studies show that Blacks, Hispanics, Asians and Native Americans are more likely to have the disease.[43] Additionally, diabetes becomes more prevalent with age. With US census statistics showing that New Jersey's population is older

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[33] Ibid.
[34] Ibid.
[35] NJ State Health Assessment Data. Data set updated Sept 24, 2015, reflecting 2012 data. https://www26.state.nj.us/doh-shad/query/Introduction.html Web. 8 January 2016.
[36] Niu, Xiaoling et al. *Cancer Incidence and Mortality in New Jersey (2006-2010)*. Cancer Epidemiology Services, Public Health Services Branch, NJ Department of Health. p. 4. Web. 11 November 2013.
[37] http://www.cancer-rates.info/nj/ Based on Feb 2015 NJ Cancer Registry Data File. Web. June 3, 2015.
[38] Ibid.
[39] Niu, Xiaoling et al. *Cancer Incidence and Mortality in New Jersey (2006-2010)*. Cancer Epidemiology Services, Public Health Services Branch, NJ Department of Health. p. 4. Web. 11 November 2013.
[40] Ibid.
[41] NJ State Health Assessment Data. https://www26.state.nj.us/doh-shad/query/Introduction.html
[42] *The Burden of Diabetes in New Jersey: A Surveillance Report (2005, 2006)*. Division of Family Services, NJ Department of Health and Human Services. p. 1 . Web. 11 November 2015. http://www.state.nj.us/health/fhs/documents/diabetesinnj.pdf
[43] Ibid.

than most other states,[44] the number of new diagnoses of this disease is likely to rise. In Newark, in 2012, diabetes was the cause of death for 77 people, with 53 individuals being Black, non-Hispanic, and 19 were Hispanic.[45]

Heart Disease

Heart disease is the leading cause of death in New Jersey and accounted for 9,444 female deaths in 2009.[46] Again, the disease hits one ethnic minority harder. Blacks in New Jersey have higher mortality rates from cardiovascular disease than whites, for both heart disease (287.6 versus 249.6 per 100,000) and stroke (65.6 versus 41.9 per 100,000).[47] In Newark, from 2009-11, 263 people suffered from stroke (66% were Black, non-Hispanic, 15% were Hispanic, 15% were White.[48]

Infant and Child Health

Timely prenatal care improves pregnancy outcomes by identifying complications, educating patients and managing chronic and pregnancy-related health conditions. Newark's rate of infant mortality was 11.5% in 2003.[49] A study published in 2007 revealed that child-bearing women who reside in Newark received timely prenatal care at lower rates (56%) than the state (76%) or national averages (84%).[50] As of 2007, even more Newark residents received no prenatal care (rate of 4.9%); the state rate was 1.2% and national rate was .9%.[51] A 2008 Task Force awarded grants to agencies in the state's highest risk areas to improve access to prenatal care; Newark, Montclair, East Orange and Irvington were grouped together in this Project. Despite three years of additional attention and funding, Newark continues to struggle to ensure pregnant women receive early prenatal care.[52] It was the only area that showed no improvement. Rates for prenatal care

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[44] *State and County Quick Facts*. 2012. US Census Bureau. Web. 11 November 2015. http://quickfacts.census.gov/qfd/states/34000.html

[45] NJ State Health Assessment Data. Data set updated Sept 24, 2015, reflecting 2012 data. Web. 8 January 2016. https://www26.state.nj.us/doh-shad/query/Introduction.html

[46] *Women and Cardio-Vascular Disease: New Jersey.* American Heart Association/American Stroke Association. Web. 11 November 2013. http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_315530.pdf

[47] These are age-adjusted death rates, *2001Monthly health data fact sheet* Feb 2004. Center for Health Statistics. NJ Department of Health and Human Services. Web. 11 November 2013. http://www.nj.gov/health/chs/monthlyfactsheets/feb04heart.pdf

[47] *Community Health Assessment*. Newark Health Department. February 2007. http://www.ci.newark.nj.us/userimages/downloads/CHA%206-10-08%20660%20Group_0.pdf p. 40. Web. 12 November 2013.

[48] NJ State Health Assessment Data. https://www26.state.nj.us/doh-shad/query/Introduction.html

[49] *Community Health Assessment*. Newark Health Department. February 2007. http://www.ci.newark.nj.us/userimages/downloads/CHA%206-10-08%20660%20Group_0.pdf p. 40. Web. 12 November 2013.

[50] Ibid.

[51] Ibid.

[52] All grantees held Advisory Groups or Consumer driven Focus Groups. During these meetings, barriers to accessing prenatal care were identified by consumers. Insurance/Medicaid issues were identified as a barrier with the main hurdle being the lack of awareness about eligibility criteria for immigrant women. Inconsistencies in information provided by County Medicaid offices and delays in processing presumptive eligibility were also identified. The remaining barriers identified focused on language, homelessness,

in the first trimester in the Newark metro area have actually dropped from 63.7% in 2008 to 61.7% in 2011.[53] And late (third trimester) or no prenatal care rates in the same region rose slightly over the grant period, from 9.9% receiving late or no prenatal care in 2008 to 10% in 2011.[54] Newark also faces the challenge of high teen pregnancy rates. Census numbers show that there are 30 teen births per 1,000 in Newark, compared to the county rate of 20 per 1,000.[55]

Lack of prenatal care may be one reason that Newark's rate of low birth weight infants is 11.5% compared to 8% which is both the state and national rate.[56] Low weight births to Black mothers were higher at 15.4% of total Black births in Newark and 13.5% statewide and nationally.[57] Infant mortality rates are also of concern, showing distinct differences in rate among race. Infant mortality rate for Newark is 12.3 per 1,000 for Blacks, and 4.9 for Hispanics between 2009-11.[58] The ratio between infant mortality rates for non-Hispanic Black populations relative to non-Hispanic White populations is 3.3 in New Jersey, the second highest in the nation, with Washington DC at 3.8 and Delaware in third place at 2.8. [59]

Childhood obesity also creates health problems; 11% of high school students in the state were obese.[60] A 2007 study by the Urban Institute mapped the geographic patterns of childhood obesity risk factors in census tracts across the United States and revealed that children in Newark, among five other New Jersey cities are predicted to be at particularly high risk for childhood obesity.[61] The other significant health challenges faced by the city's youth are caused by smoking. About 20% of Newark youth ages 15-18 had smoked within

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domestic violence and lack of transportation. Update on Early Prenatal Care, NJ Dept of Health, March 2013. http://www.state.nj.us/health/fhs/professional/documents/early_prenatal_update.pdf

[53] Ibid.

[54] Ibid.

[55] NJ Chartbook of Substance Abuse Related Social Indicators, Essex County, Division of Mental Health and Addiction Services. May 2013. http://www.state.nj.us/humanservices/dmhas/publications/epidemiological/State%20Chart%20Books/Essex.pdf

[56] *Community Health Assessment*. Newark Health Department. February 2007. http://www.ci.newark.nj.us/userimages/downloads/CHA%206-10-08%20660%20Group_0.pdf p 40 Web. 11 November 2013.

[57] Ibid.

[58] NJ State Health Assessment Data. https://www26.state.nj.us/doh-shad/query/Introduction.html

[59] Mathews, TJ et al. "Infant Mortality Statistics from the 2009 Linked Birth/Infant Death Data Set" National Vital Statistics Report. Vol. 61 : No. 8. 23 January 2013. Web. 11 November 2013. http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_08.pdf

[59] Community Health Assessment. Newark Health Department. February 2007.

[60] *Key Health Data About New Jersey,* Trust for America's Health. 2013. http://healthyamericans.org/states/?stateid=NJ#section=4,year=2013,code=infantmort. Web. 12 November 2013.

[61] Mapping the Childhood Obesity Epidemic: A Geographic Profile of the Predicted Risk for Childhood Obesity in Communities Across the United States Sharon K. Long Leah Hendey Kathy Pettit. The Urban Institute 2007. http://www.urban.org/sites/default/files/alfresco/publication-pdfs/411773-Mapping-the-Childhood-Obesity-Epidemic.PDF

the past 30 days as did another 4%, ages 12-14, according to a 2007 health assessment report.[62]

Respiratory Problems

New Jersey adults suffer from higher rates of asthma than the national average (12.8% versus 13.3%).[63] Patient education for those suffering from the condition is sorely lacking. The CDC shows that only 64% of asthma patients were told how to recognize early signs of an asthma episode and just 32% were given an asthma action plan.[64] Race again plays a factor in respiratory problem prevalence: more Black adults and children in New Jersey had asthma than White non-Hispanics.[65] COPD prevalence decreased with increasing income levels, an indicator that poverty plays a large role in the disease.[66] In Newark, between 2009 and 2011, 169 people died from chronic lower respiratory diseases, with 71% being Black, non-Hispanic.[67]

Obesity

Obesity-related conditions include heart disease, stroke, type 2 diabetes and certain types of cancer; these are some of the leading causes of preventable death.[68] Almost a quarter of the adult New Jersey population is considered obese.[69] Obesity prevalence in women increases as either income or education levels decrease.[70]

HIV/AIDS

People living with AIDS or HIV make up 2% of the New Jersey population but the rate in Newark is significantly higher at 18%. In 2006, almost 6,000 Newark residents were living with HIV/AIDS.[71] The *2013 New Jersey HIV/AIDS Report* notes that the cities of Newark and Trenton rank in the top ten cities in New Jersey with the highest prevalence of HIV/AIDS in the state. Newark has one of the highest prevalence rates: 1 in 32 African Americans in Newark are currently living with HIV/AIDS. Twenty-two percent of African Americans

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[62] *Community Health Assessment*. Newark Health Department. February 2007. http://www.ci.newark.nj.us/userimages/downloads/CHA%206-10-08%20660%20Group_0.pdf p. 24. Web. 11 November 2013.

[63] *Asthma in New Jersey*. Center for Disease Control, 2008 data. http://www.cdc.gov/asthma/stateprofiles/Asthma_in_NJ.pdf . Web. 13 November 2013.

[64] Ibid.

[65] Ibid.

[66] *Chronic Obstructive Pulmonary Disease Among Adults Aged 18 and Over in the US, 1998-2009*. Centers for Disease Control, http://www.cdc.gov/nchs/data/databriefs/db63.pdf 5 Web. 11 November 2013.

[67] NJ State Health Assessment Data. https://www26.state.nj.us/doh-shad/query/Introduction.html

[68] *Adult Obesity Facts*, Centers for Disease Control, http://www.cdc.gov/obesity/data/adult.html Web. 13 November 2013

[69] Ibid.

[70] *Obesity and Socioeconomic Status in Adults,* United States, 2005-2008. Centers for Disease Control. December 2010. http://www.cdc.gov/nchs/data/databriefs/db50.pdf Web. 13 November 2013

[71] *Community Health Assessment*. Newark Health Department. February 2007. http://www.ci.newark.nj.us/userimages/downloads/CHA%206-10-08%20660%20Group_0.pdf p 33 Web. 12 November 2013

currently living with HIV/ADS in the state live in Newark.[72] As of December 2013, data shows more than 14,756 cumulative HIV/AIDS cases in Newark.[73]

Mental Health and Addictions

Suicide caused the death of 47 people between 2009-11, in Newark.[74] One half of suicides were Black, non-Hispanic. Drug and alcohol abuse is a significant health concern in Newark and Essex County as a whole. Per 1,000 residents, Newark has 2.35 admissions for alcohol treatment and 10.94 for drug treatment, well above the average for Essex County (1.9 and 6.5).[75] Among Essex County admissions for substance abuse, 49% had heroin as the primary substance of abuse, and 22% was for alcohol. Drug use in youth in Essex County is troubling. In 2010, 6.2% of Essex County middle schoolers have used marijuana within the past year.[76] In 2008, 20.3% of high school students had used marijuana within the past year.[77] A 2010 State assessment of the treatment needs of each county for alcohol and drug addictions identified 7.8% of Essex residents needing alcohol treatment and 6.2% needing drug treatment; a total of 82,415 Essex County residents need treatment for these substances.[78]

These daunting health problems are best met through consistent quality care, most often provided by primary care professionals managing chronic disease. Nurse practitioners are the ideal primary care provider in the State of New Jersey to alleviate the urgent need for medical care, especially in underserved areas.

E. Access to Healthcare

It can be said that healthcare in Newark is in transition and perhaps at a tipping point in terms of the overall direction of how care will be provided to its residents. Of note are the changes that have occurred in the area of hospital-based care. Not only are the number of hospitals dwindling, but the focus of their care is shifting, with greater emphasis on articulation with, or provision of, primary care. The Rutgers School of Nursing is also increasing its engagement in primary care in Newark. In the government sector, where the commitment from the State, county and city governments towards community-based care has often fluctuated based on the politics and fiscal environment of the time, significant changes are occurring which will affect access to healthcare in Newark.

Newark was once the home to six acute care hospitals including Newark Beth Israel, University Hospital, United Hospital, Saint Michael's Medical Center, St. James and

[72] 2013 New Jersey HIV/AIDs Report.
[73] NJ Department of Health, Division of HIV, STD and TB Services, Epidemiologic Services Unit. http://www.state.nj.us/health/aids/repa/topcity/documents/topcity.pdf Web. 3 July 2015.
[74] NJ State Health Assessment Data. https://www26.state.nj.us/doh-shad/query/Introduction.html
[75] NJ Chartbook of Substance Abuse Related Social Indicators, Essex County, Division of Mental Health and Addiction Services. May 2013.
[76] Ibid.
[77] Ibid.
[78] Estimate of Treatment Need for Alcohol and Drug Addiction, NJ Dept of Human Services, 2010. http://www.state.nj.us/humanservices/dmhas/publications/need/Tx_by_Type_2010.pdf

Columbus Hospital. Today, just three remain in the city, and it is questionable[79] whether there are still too many hospital beds in the city. The three hospitals that remain are Beth Israel, University Hospital and St. Michael's.

In November 2015, a bankruptcy court approved the sale of St. Michael's, one of the city's oldest hospitals, to Prime Healthcare, a for-profit hospital chain.[80] The outcome of this sale may impact both access to and the quality of care delivered in Newark. Questions raised include: Will the hospital be converted to an ambulatory care center? Or will it be downsized to a smaller community hospital that offers a mixture of secondary and specialty care that will seek to meet the financial needs of the new owner at the possible expense of the community's health?

Also in question is the future of University Hospital which is owned by the State and is facing millions of dollars of losses going forward. While the plans for these institutions are being debated and the consequences unknown, the harsh reality and statistics of living in the city remain.

It is important to note that some of the safety net hospitals in Newark may be adversely affected by a tiered network product, Omnia, recently offered through Horizon Blue Cross Blue Shield of New Jersey. The consequences of this tiered network offering are uncertain but could be profound for those who provide care to an inner city at-risk population. The Omnia product may result in a decrease in access to care and overall revenue to safety net hospitals. A shift of hospital admissions of commercially-insured patients could lead to further strain on the financial stability of safety net hospitals which are already in a perilous condition. Shifting commercial payers from the payer mix of safety net hospitals strains hospital budgets that have traditionally used the more generous commercial reimbursements to offset the losses from low Medicaid reimbursement and uncompensated care cost.

There has been some recent good news about improving primary care access in the city. From a community health standpoint, Barnabas Health, the parent company of Newark Beth Israel, has expressed a strong commitment to wellness and community/population health management. It is uncertain what resources will be committed to meeting the more intractable health problems facing Newark.

Similarly, efforts to improve primary care in Newark are continuing to unfold. In 1986, the Newark Community Health Centers program was founded to address persistent health disparities in Newark. Today there are seven health centers in Newark, East Orange, Irvington, and Orange offering a range of medical and dental services for children, adults

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[79] Greater Newark Healthcare Services Evaluation, Navigant Consulting, March 2, 2015, http://www.njhcffa.com/njhcffa/what/pdfs/NJHCFFA%20Final%20Report.pdf

[80] Bankruptcy Judge Approves $62M St. Michael's Hospital Sale, Nov. 12, 2015, http://www.nj.com/healthfit/index.ssf/2015/11/nj_bankruptcy_judge_approves_622m_st_michaels_purc.html. The sale is pending further review by State officials.

and seniors. In August 2015, the Newark Community Health Center's headquarters and medical complex in the North Ward was renovated and services in ob/gyn care and adult and pediatric dental care were expanded.

The Rutgers School of Nursing is engaged in developing nurse-managed primary care services in Newark. In 2013, through a large grant from the U.S. Health Resources & Services Administration (HRSA), the School of Nursing opened the Focus Wellness Center, serving a largely Hispanic population. The Center is an inter-professional collaborative practice, offered through a partnership with the FOCUS Hispanic Center for Community Development. In 2015, the Center was awarded Federally Qualified Health Center (FQHC) status, and received an additional two years of federal funding. The FQHC status makes the Center eligible for special Medicare and Medicaid reimbursement rates, discounted pharmaceutical products and free vaccines for uninsured children, as well as other special programs. It will also enable their participation in selected state-funded initiatives. In addition to the FOCUS Wellness Center, the Rutgers School of Nursing supports the community through the New Jersey Children's Health Project which provides primary care to children and adults on a mobile medical unit that travels to six different sites in the City. The School of Nursing also supports the Jordan and Harris Community Health Center, which provides on-site nursing services at four public housing locations.

Additionally, two more primary care health centers are planned for the city.[81] As part of the Model Neighborhood Initiative, a collaborative effort by multiple city departments, private sector organizations and residents, construction has begun for Newark's first stand-alone health center, to be located in the South Ward. The new FQHC, expected to open in July 2016, will provide comprehensive primary care as well as OB-GYN services, a birthing center, and access to lactation counselors. With appointments on weekends and after traditional working hours, the center's primary goals are to educate women on health issues and provide care regardless of ability to pay or immigration status. The other health center is planned to serve residents in the West and South wards.

F. Overview Health Services in Newark

To put the challenge of improving the health status of Newark residents in context, one need only to consider a recent piece from The Center for Collaborative Change:

> "Newark is a difficult place to live. In this, the largest city in the second wealthiest state in the nation, 25 % of the families live in poverty; 25% of individuals lack health insurance; 44% of children are overweight or obese; and 25% of children

[81] Baraka, RJ. (Press Release). Mayor Ras J. Baraka, City of Newark, Break Ground for Newark's First Stand-Alone Center for Women in City's South Ward; Project is Another Step Forward in Model Neighborhood Initiative. January 24, 2016. http://www.ci.newark.nj.us/news/mayor-ras-j-baraka-city-of-newark-break-ground-for-newarks-first-stand-alone-health-center-for-women-in-citys-south-ward-project-is-another-step-forward-in-model-neighborhood-initiative/

have asthma. Just over half of Newark students complete high school, nearly half of whom lack basic eighth grade skills."[82]

The profile of Newark goes on:

> "[T]he circumstances prompting these statistics are not unrelated. Decades of disinvestment and isolation from what we call a 'wellness economy' have resulted in a weak local market for healthful options and high rates of illness with devastating social and economic consequences. Newark's low-income residents cannot afford to live in a healthful environment; and the costs of unhealthy living further destabilizes families and entrench people in poverty."[83]

Further exacerbating the health status of the region is the low rate of health insurance coverage. According to the Newark New Jersey 2012-2013 Community Needs Assessment Report by The Center for Collaborative Change, "Almost 30% of Newarkers are estimated to be without health insurance[84], a percentage twice as high as for New Jersey."[85] The Affordable Care Act may have somewhat mitigated this situation. Bringing preventive and wellness services to Newark schools is greatly needed. While inroads are being made, health statistics show more needs to done to reduce the high incidence of asthma in children and other chronic diseases.

Despite these bleak statistics and seemingly insurmountable healthcare challenges, efforts are underway throughout Newark to creatively and collaboratively address some of the more compelling healthcare and community concerns in the city. (See Appendix 1 for a comprehensive list of healthcare resources in Newark.) Support for these initiatives come from local businesses, larger corporations, large and small foundations as well as leaders in the political, academic and religious communities. Projects and initiatives worth noting include but are not limited to:

- Strong Health Communities Initiative (SHCI): Led by the Center for Collaborative Change and Prudential, SHCI was established to create opportunities for Newark residents of all ages by infusing the target neighborhoods with more effective, attractive, safe, and affordable activities, services and goods to enhance their individual and collective health and wellness. Some examples include generating affordable, quality housing, addressing hazards in and around schools and community spaces, bringing affordable, fresh and healthy foods to the community and educating residents about nutrition, healthy eating and other healthy lifestyle options. Other SHCI efforts include expanding access to quality

[82] Correcting the Facts About the One Newark Plan. http://www.nps.k12.nj.us/wp-content/uploads/2014/08/StrategicApproach.pdf
[83] Ibid.
[84] United States Census Bureau, 2011 American Community Survey.
[85] Greater Newark Healthcare Coalition. Community Health Needs Assessment: Essex County Health Indicators.

healthcare by creating new school and neighborhood-based health centers, and providing employment and job training opportunities. The focus of this initiative is on the South and East Wards with funding provided by the Victoria Foundation, the Prudential Foundation and others.

- Urban Healthcare Initiative Program (UHIP): The mission of this effort is to utilize basic health literacy training and patient-centered health strategies to improve outcomes for health problems directly affecting communities. UHIP promotes low cost preventive care, regular medical screenings, and coordinates the provision of primary care services to individuals who may otherwise not have access to receive such services. Funding for this initiative comes from healthcare and pharmaceutical companies.
- New Jersey Innovation Institute (NJII): Big ideas are coming out of thought leaders in the Newark area; this Institute might be a source of some powerful innovations in the city. For example, the Institute launched its Healthcare iLab. The president of NJII recently presented an updated version of his TED talk "Take Two Apps and Call me in the Morning." The presentation described a physician's response to real time data delivered from an ear cuff taking a non-intrusive optical measurement of a diabetic patient's blood sugar levels.
- Greater Newark Health Care Coalition: Funded by the Visiting Nurse Health Group, The Nicholson Foundation and four hospitals, this effort is designed to provide early intervention to those who would otherwise end up in one of the emergency rooms in the city. The program provides a nurse practitioner who, through outreach on the street, helps the chronically ill and uninsured get the medical attention they need; patients are mostly poor, some homeless, and others are drug addicts.
- The Partnership for Maternal and Child Health: This non-profit organization provides education and increases community awareness by facilitating collaboration among the private and public sectors, and maternal and child healthcare providers for the delivery of high quality coordinated maternal and child healthcare.
- New Jersey Partnership for Healthy Kids/Newark: Among the 2015 class of preschoolers in Newark, many of whom face serious health issues, childhood obesity was the second greatest medical need, second only to asthma. Offered through the YMCA of Newark, the workshop provides food demonstrations, physical activity and hands-on activities to educate and immerse parents in healthy choices in meal preparation.
- The Focus Wellness Center: The Center, which recently achieved FQHC status, is recognized for meeting the needs of patients who are often grappling with mental health issues and chronic conditions such as diabetes, hypertension and asthma. It operates in the North Ward.
- Model Neighborhood Initiative: The Mayor's Office has launched this Initiative in an effort to transform neighborhoods into model communities of prosperity. Two communities, Clinton Hill in the South Ward and the Lower West Ward have developed plans to identify and address quality of life and public safety issues, and to improve the physical environment.

- AeroFarms: In July, 2015 AeroFarms broke ground for the world's largest indoor vertical farm. The 69,000 square foot facility will grow 2 million pounds/year of leafy green vegetables and herbs, offering 75 times more productivity per square foot annually than a traditional field, while using no pesticides and consuming 95% less water. This facility will create 78 jobs in the Central Ward, and will contribute to providing healthy food to the community.

Despite the above innovation and advances being achieved, there is still a very fragmented system of care in a city that is burdened by years of neglect. To change that dynamic, leadership is emerging from within the broader community to begin to address many of the barriers to care that have resulted in Newark residents being one of the most underserved for basic healthcare in the United States.

KEY FINDINGS

Newark is a racially and culturally diverse city with significant challenges: troubling poverty rates, low access to quality healthcare, and a large number of medically complex individuals, straining the capacity of Newark's healthcare facilities to provide care. The City's residents identify closely with the Ward in which they live; inadequate infrastructure and high crime rates discourage individuals from seeking healthcare beyond their neighborhood. There are pockets of impressive community involvement from local leaders, foundations, businesses, and government that seek to serve the needs of Newark's residents, but there is ongoing need to identify solutions to improve the health status of many adults and children.

III. Current Status of Care in Newark & Emerging Trends

To evaluate the current status of care in Newark, in-person interviews, online surveys and focus groups were conducted with a wide range of stakeholders. The health statistics above combined with the stakeholder input summarized later in this report must be viewed in the light of the health care trends happening nationally and in the state as a whole.

With the introduction of the Affordable Care Act (ACA) in March 2010, significant and rapid change has occurred in the healthcare marketplace in general and the New Jersey healthcare marketplace in particular. Although many of the provisions of the ACA were already in place in New Jersey (guaranteed issue, no pre-existing condition declination, small group market, individual market), these marketplace solutions had been less than successful because they lacked the essential element found in the ACA – an individual mandate for coverage.

From the consumer perspective, the ACA brought about necessary and important changes. Most significantly, it allowed many people who were not insured to gain access to health insurance and healthcare itself. Although New Jersey had a system for providing care for the uninsured (charity care), it was predicated on an already inadequate Medicaid reimbursement system. Additionally, the limited charity care dollars are allocated politically rather than on the actual delivery of charity care to regional patient populations.[86] Every hospital in the state received charity care dollars even though the charity care provided by suburban hospitals more easily could be shifted to a commercial base.[87] Charity care and reimbursement by commercial payers are simply not covering the costs of providing care to the uninsured and Medicaid recipients.

The ACA appears to make a significant dent in the problems of access and affordability. The biggest impact was on the uninsured since the access was so severely restricted for those without any coverage. The ACA also opened access to Medicaid coverage to single males, which previously was nonexistent. However, while the ACA guaranteed access to health insurance, it did not guarantee access to adequate health insurance. Most persons brought into coverage under the ACA came in through Medicaid expansion and are now covered under New Jersey's Medicaid program. This is especially true in our targeted community of Newark. Access to health insurance does not mean access to care.

Concurrent with the implementation of the Affordable Care Act in New Jersey, was the granting of a global waiver to New Jersey Medicaid from the Centers for Medicaid and Medicare services (CMS). This global waiver permitted Medicaid to further extend its existing contracts with Medicaid managed care organization (MCO) and assign essentially all Medicaid beneficiaries to an MCO to manage their care and assume risk of the cost of care. Conceptually, proper care management and shifting of the risk from Medicaid to the MCOs would result in lower overall costs with a financial margin for the MCOs within the allowed medical loss ratio. Unfortunately, reality is far more challenging and complex. Managed care organizations and the delivery systems continue to struggle to find the proper balance. Confounding factors include attribution of patients, understanding patient engagement, deep social challenges, a completely broken fee-for-service financing model with perverse incentives for all parties, lackluster adoption of viable value-based contracting approaches and a lack of readiness for the delivery system to assume greater levels of accountability and financial risk. The broken financing system has unwittingly resulted in managed care organization profitability while maintaining one of the lowest Medicaid provider payment schedules in the nation.[88]

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[86] Governor Christie announced, in his 2016 budget address, a 22.8% ($148 million) cut in charity care dollars in his proposed budget. Feb. 25, 2016. http://www.njbiz.com/article/20150225/NJBIZ01/150229882/updated-hospitals-charity-care-funds-are-cut-in-latest-christie-budget

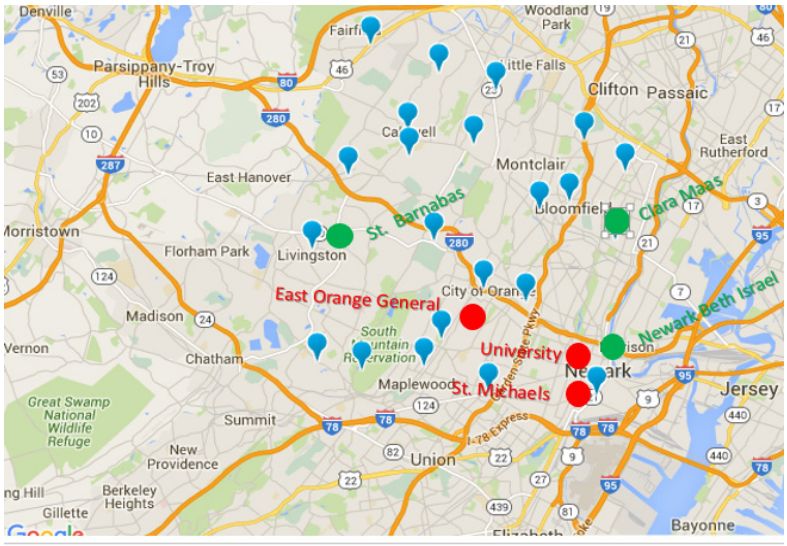
[87] It is not clear yet, in the new proposed budget, how charity care dollars would be allocated to New Jersey hospitals for the 2016-17 fiscal year. Ibid.

[88] Kaiser Family Foundation report. http://kff.org/medicaid/state-indicator/medicaid-to-medicare-fee-index/ Web. 12 Jan. 2015.

As the ACA Marketplace began to stabilize, health plans first moved their attention to competing in the marketplace through lower premium plans by structuring products with narrowed or tiered networks. In the fall of 2015, the largest health plan in the state, Horizon Blue Cross Blue Shield of New Jersey (Horizon), announced a new tiered network health product named Omnia. Providers are grouped into two tiers; enrollees pay a higher out of pocket cost for care from providers in Tier Two. Using this type of significant financial disincentive, the product pushes enrollees to seek care almost exclusively from a Tier One provider. It is unclear what the impact of this new tiered product will have on the financial viability of safety-net hospitals. In Newark, there is a single Tier One hospital: Newark Beth Israel. Of the hospitals in the Newark area, East Orange General, St. Michael's Medical Center, and the government-sponsored University Medical Center are not included in Tier 1. To place this in context, the City of Newark has a total area of 26 square miles but is among the 100 most populous cities in the US. It is doubtful that a single urban hospital can serve the needs of Newark. The impact of the tiered product from the state's largest insurer is that significant populations will switch their access to Tier One hospitals as the populations in the Marketplace are least able to afford healthcare and therefore are most sensitive to out of pocket costs that using a Tier Two hospital would impose. It also seems unlikely that hospitals excluded from Tier One are going to continue to serve Medicaid patients on behalf of Horizon, the state's primary MCO for Medicaid, after Horizon has extinguished these hospitals' ability to cost shift Medicaid costs to their (Horizon's) commercial base.

Access is not the only concern. Quality should be an important factor in evaluating the current status of care in Newark as well. Using the national program for evaluating hospital quality, the Leapfrog Hospital Safety Score, two of the Tier One hospitals in Essex County received a Leapfrog "A" rating (Clara Maas and St. Barnabas) but they are not within Newark's borders.[89] Within the City of Newark, all hospitals received a "C" rating from Leapfrog.[90]

[89] See the Leapfrog Hospital Safety Score at http://www.hospitalsafetyscore.org/
[90] Ibid.



Although there are no claims experiences with the Omnia product yet, there is no question that, as it is currently configured, this product, which is being offered by the health plan with the largest market share in the state, may negatively impact access to care and may decrease overall revenue to safety net hospitals.

An alternative view is that the product will be attractive to those who could not otherwise afford health insurance and that its presence may further the move towards alternative payment and delivery models. See this map. Red dots are Tier Two hospitals and green dots represent Tier One hospitals.

Note that those in the inner city environment, with the exception of Newark Beth Israel Medical Center, are Tier Two.

It remains to be seen whether this product will result in not only a shift of hospital admissions (which it undoubtedly will) but also a shift in provider loyalty which, for the already challenged safety net hospitals, could have a catastrophic result. Physicians also will respond to reimbursement. If they do not believe that their patients can gain access to them because of their involvement with a Tier Two hospital, they will switch their loyalties (and their patients) to a Tier One hospital. Geographic and economic reality may force the State to make some accommodations for safety net providers but it remains to be seen whether this lifeline will be thrown in time to save at risk hospitals and direct care providers. Meanwhile, safety net providers in Newark may need to rely upon philanthropic funding to stay afloat to meet the needs of those they serve.

As ACA provisions continue to be implemented and more enrollees seek coverage in state and federal Marketplaces, we can expect further initiatives by the federal and state governments to limit cost. Indeed, the Governor's 2016-17 budget proposal includes a significant reduction in charity care dollars. And because most of the state cost is borne in the Medicaid program, new cost cutting initiatives will directly impact providers serving that market. The safety net crisis has never been greater.

There are emerging opportunities to improve care delivery in terms of cost and quality, but some require changes in licensure and regulation. Telemedicine innovations are growing in popularity but are primarily health plan initiatives targeted to their commercial members; few telemedicine innovations are seen in Medicaid services. Additionally, there have been state efforts to restrict access to mental health care in primary health delivery areas by establishing restrictions on primary care practices such that primary care patients cannot

sit in the same waiting areas as mental health patients. While well-meaning in intent, it has created havoc in primary care practices and clinics. These restrictions had a chilling effect on integration of primary care and behavioral health services. Although it has yet to be announced, the State appears to be prepared to grant some relief in this area.

Another potentially "game changing" event in Newark is the recent status change of the Focus Wellness Center to that of an FQHC. This certification will improve the Center's financial viability because of the enhanced reimbursement that comes concurrently with FQHC status. It also has the potential to mitigate the pressure for the Center to find a path to independent sustainability and may make this collaborative organization more sensitive to competitive incursions and, therefore, less likely to partner.

Finally, because of the lack of direct profitability in the Medicaid/safety net environment, pre-and perinatal care and birthing services are especially at risk in Newark. State intervention and cooperation from secondary and tertiary providers (hospitals, NICUs and PICUs) with perhaps a NP-led model, will be required. The newly announced Mary Elizabeth Mahoney Women's Health and Wellness Center in the South Ward will offer OB-GYN services and a birthing center – this service should improve pre-and perinatal health outcomes if properly structured and financed.

KEY FINDINGS

The implementation of the Affordable Care Act has brought many uninsured individuals into Medicaid programs, straining an already overburdened healthcare system in Newark. Low reimbursement rates from government payers and provision of uncompensated care to undocumented individuals challenge the fiscal strength of both the city's hospitals and primary care facilities. Adding to this problem is the lack of a diverse payer mix, especially the more generous commercial payers. Quality care is far from realized in Newark's hospitals according to national report cards and measurements. Some services, such as pre- and perinatal care, are particularly impacted by the lack of sustainable funding.

IV. Stakeholder Interviews

To supplement the reports and statistics in analyzing the status of care in Newark, a series of interviews and surveys were conducted with a variety of stakeholder groups and individuals to better understand the unique features of the community, the current resources available, and the unmet service needs. These interviews, advisory group meetings, focus groups, and surveys informed the process of needs assessment and provided an important narrative to better understand the statistics. This process identified relevant background information to identify the range of services that can/should be

offered in the community and contributed information as to what type of service model would be feasible. Following are summary reports from a wide range of stakeholders representing the business and philanthropic communities, government agencies, religious organizations, voluntary and civic organizations, healthcare providers/insurers/health boards/mental health agencies, educational institutions, and others. Two focus groups in Newark also provided us with patients' perspectives on the experience of care in Newark.

A. Business Community and Foundation Support

The Business Community and Foundation Support Analysis was initiated to achieve three goals:

1. Determine the business communities' assessment of the need for primary care services in Trenton and Newark, and specifically, whether employers would have a need for particular healthcare services for their employees.
2. Assess the business communities' interest in funding specific healthcare initiatives in Trenton and/or Newark.
3. Determine the level of foundation interest in supporting nurse practitioner practices in Newark and/or Trenton.

To meet these goals, the Project Team interviewed key business leaders in Newark and Trenton, representatives of the payer community, and individuals representing the philanthropic community. In addition, an online survey for the business community was developed and sent to the business leadership in each community. Given that much of the feedback was elicited from organizations representing employers and/or foundations or payers which reach both communities, and also the limited survey response, results for Trenton and Newark are combined in this section.

1. Employer/Corporate Assessment

The Project engaged individuals known to corporate leadership and others from the business community in Newark and Trenton to gain their views on the health of their community and the need for additional primary care services. We sought input into the health status of individuals working and living in their respective cities. A key objective was to ascertain the extent to which employers would be willing to directly or indirectly support an APN-led primary care center, as well as their views on related services. Towards that end, discussions were held with individuals who could provide guidance and insights into the content of an employer survey and who could also identify business dynamics that might help or preclude employers from participating in this effort.

Clearly, the design and objectives of the proposed Project in and of itself created some significant barriers to employer participation. This includes the fact that a large segment of the population to be served may be unemployed or underemployed. Also, the poor or near poor in both Newark and Trenton may be receiving Medicare or Medicaid, therefore out of the workforce. That being said, there is no question that despite these dynamics, both large and small employers have a vested interest in the health of their local communities. From a business perspective, a healthy community may provide a more productive workforce, with

reduced absenteeism. A "business healthy" community promotes a less costly business environment. In that spirit, business leaders took the time to respond to the Project Team and offered thoughtful input. It appeared that employers understood that while the services provided through the proposed Project might not directly impact them and their employees, they could support the overall health of their communities, and as a consequence, enhance their broader business interests.

To gain insight into the business community in Newark and Trenton, we reached out to organizations (below) that represent large and mid-size employers and who seek to influence and support economic and social policy to the betterment of their members and the public. Each of these organizations expressed value in the Project and offered their assistance in sending the employer survey to their members. It was acknowledged that employers were unlikely to complete a survey that might not directly affect their business and employees. However, as stated in the preamble to the employer survey, it is believed that these groups were driven by the notion that healthy and vibrant communities help draw new talent and retain staff. Most importantly, they understand that supporting community health is good for business and tied to the broader objective of being a good corporate citizen. Nonetheless, the willingness of these groups to support this effort is testimony to their recognition of the importance of community health as an issue.

> **Newark Alliance:** Membership includes influential employers and others such as: Essex County College, New Jersey Institute of Technology, Verizon, Barnabas Health, Rutgers University, Edison Properties, Public Service Electric and Gas, Horizon Blue Cross Blue Shield of New Jersey, Prudential Financial, The Star Ledger Newspaper, and Amelior Foundation.
>
> **Employers Association of New Jersey:** Comprised of over 1,000 employers throughout the state of New Jersey representing small, family-owned and multinational companies.
>
> **Newark Regional Business Partnership:** Represents nearly 450 corporations, professional firms, small businesses, educational institutions, and not-for-profit organizations.
>
> **City of Trenton, Division of Economic and Industrial Development:** Works to create, encourage, and enhance job growth and promote business retention and development within its borders.

Although we had only 13 respondents to the survey, many were business leaders speaking for a much wider base who would likely share many of the views set forth in the key findings. For the full Business Community Survey Results, see Appendix 2. Some of the valuable insights from business/community leaders include the following:

- 92% surveyed stated that a new APN-led center providing a full range of services would be helpful to their company and employees.

- 92% agree that a healthier population is good for business and for the community as a whole.
- When asked to rank the outcomes expected from using a primary care center, 92% said better managed chronic conditions and health risks, reduced emergency room visits, and reduced healthcare costs were very or extremely important.
- 75% answered that they would refer employees to an APN-led center in Newark/Trenton. Five respondents would promote the center to customers and other businesses.
- 64% said that there is a need for additional primary care services in Newark/ Trenton.
- 60% said that employees in Newark/Trenton do not have access to conveniently located primary care services that are affordable.
- 58% of respondents said that their employees go to the emergency room and 42% go to urgent care if they need primary care.
- 42% said that they have experience with APN primary care practices and an equal percentage have not.
- 90% of respondents said that if a new APN-led primary care health center, providing a full range of services, opened in Newark/Trenton, it would be helpful to their company and employees.

When asked to "describe optimal health services for your employees"; respondents answered as follows:

- "Good insurance, low co-pays, access to care."
- "Need a comprehensive network of primary care physicians accessible in-network (Horizon). Need a second line of defense of comprehensive urgent care with both early and late hours for non-life threatening illness/accident care; a comprehensive network of specialists and hospitals."
- "Coordinated comprehensive primary care delivered using an inter-professional team model with easily accessible acute care services that are available 18 hours a day."
- "For employees, the ability to get seen quickly near home or office without going to the emergency room, and in a way that complements the primary care provider."

Employer/Corporate Assessment Key Insights and Findings

Interviews and surveys indicated that:

- Businesses prefer that their employees receive care in a setting that is convenient (local) to the workplace and reflective of their HR profile.
- Large corporations, through their foundations and community and medical affairs groups, have demonstrated an interest in supporting healthcare programs and services that benefit at risk populations and local needs.
- Employers are open to new approaches to primary care that are easily accessible to the workplace and linked to existing providers.

- Knowledge gained from this survey and interviews, combined with further discussions with employers, may inform the construct of services that has the potential to serve a diverse population in a cost effective way.

2. Payer Support

A critical aspect of financial sustainability for an APN-led practice is to secure adequate reimbursement for services provided from key healthcare payers. In that regard, meetings were held with executives from Horizon Blue Cross Blue Shield of New Jersey and Health Republic. Both organizations expressed a willingness to consider innovative payment schemes that might include bundled payments, grants, etc. Other means of support could be referrals or subsidized payment for certain services.

3. Foundation Assessment

A major challenge to any community-based health-related service that provides care to a largely underserved and at-risk population is financial sustainability. This would be true for the proposed APN-led primary care projects that are being explored for Trenton and Newark. In that regard, a key objective of this Project was to assess potential funding sources to support programs that might otherwise not be as financially secure without external funding. Grants could be used to supplement limited and insufficient reimbursement revenue streams from government payers. Towards that end, preliminary discussions were held with select business and community-based foundations (below) that have a history and profile of supporting innovative healthcare programs and services in either or both Newark and Trenton, and whose mission and purpose appears to be compatible with this Project. The Horizon Foundation is listed below because the Senior Medical Director for Clinical Innovations offered to forward a future grant request in support of the Project to the foundation at the appropriate time. Some of these foundations may support programs in both Newark and Trenton, while others focus on local needs only. A brief overview of these foundations is outlined below:

- **The Healthcare Foundation of New Jersey:** A grant-making organization dedicated to reducing disparities in the delivery of healthcare and improving access to quality healthcare for vulnerable populations in the greater Newark, New Jersey area and the Jewish Community of Metro-West, New Jersey. The Foundation seeks to seed new initiatives, identify and expand existing healthcare programs, support appropriate clinical and medical research, promote medical education to positively impact its targeted communities, and engage in partnerships to foster its goals.

- **The Horizon Foundation for New Jersey:** A charitable organization created by Horizon Blue Cross Blue Shield of New Jersey whose mission is to improve the health of New Jersey residents through health promotion, prevention and education programs. The Foundation strives to increase access to quality healthcare for all New Jersey residents, while increasing and enhancing the arts and cultural opportunities.

- **The PSE&G Foundation:** The Foundation invests in programs that align with their focus areas: Sustainable Neighborhoods, STEM Education, Safety and Preparedness,

and PSE&G Employee Engagement/Volunteerism. Of particular interest to this Project is the Sustainable Neighborhoods effort that seeks to sustain neighborhoods and strengthen relationships in the communities where PSE&G employees live, work and serve customers.

- **The MCJ Amelior Foundation:** The Foundation supports organizations that are committed to help those less fortunate by promoting harmony and understanding, furthering education and workplace skills, and improving the overall quality of life.

- **Robert Wood Johnson Foundation/ New Jersey Health Initiatives (NJHI):** The purpose of NJHI is to support community-based projects in New Jersey that address one or more of the Robert Wood Johnson Foundation's interest areas in health and healthcare. The program director of the NJHI was briefed on the project and expressed interest in being kept apprised of the effort proposed through this Project. He was very interested in the concept of an NP-led primary care center addressing the needs of inner city residents.

NOTE: The Nicholson Foundation was not interviewed for this Assessment as it does not provide funding for clinical services. However, it is acknowledged that The Nicholson Foundation has played, and continues to play, a major supportive role in funding important healthcare initiatives and innovative projects to address the complex needs of the underserved in the City of Newark and other communities in New Jersey.

Foundation Key Insights and Findings

Each of the foundations with whom we spoke (with the exception of the Horizon Foundation), upon learning about the proposed Project, acknowledged the need for additional primary care services for vulnerable populations in Newark. The Horizon Foundation certainly was supportive, but, since they were in the midst of a corporate strategy reconsideration, could not give a firm acknowledgment. Nevertheless, all recognized the value of and need for an APN-led primary care service that could be adapted to meet specific community healthcare needs. During our discussions with these organizations, there was understanding of the need for behavioral health support, chronic care management, and wellness and preventive services. Each person we spoke with expressed interest in exploring a proposal for an APN related project.

B. Community Leaders, Policy Makers, and Others – Interviews

Below are brief summaries of selected stakeholder interviews that provide a rich data source for this study. In each interview, respondents were asked to describe selected aspects of healthcare in Newark, identify the strengths of care, discuss a range of barriers to care, identify their view of "ideal" primary care and the strategies that would be needed in Newark to achieve that ideal. Respondents were also asked about "sensitive" issues in care provision for Newark, and finally, were asked about whether they felt the establishment of an APN-led practice was feasible. Interviews ranged from one to two hours in length, and were done either in person or by phone. Rather than an overview

summary of key themes, portions of selected interviews are presented below to offer a flavor of the conversations.

A leader in the health plan industry was asked to share thoughts on setting up APN direct care delivery in Trenton and Newark. The person was open to the idea but expressed concerns about obtaining the necessary credentialing and hospital privileges; he recommended strong relationships be developed with a medical center to help overcome that hurdle. He thought the practice restrictions placed upon APNs (joint protocol/collaborative physician) were unnecessary and function only to add additional cost to the system. He expressed frustration regarding the lack of accountability, availability and access of Federally Qualified Health Centers (FQHCs) in both Newark and Trenton and posited that more competition would be better for the FQHCs which have become complacent. Because of his view that the requirement that governing boards of these health centers contain significant membership from the treatment population caused problems, he appeared less interested in contracting with an APN primary care clinic if it was configured as a FQHC. He expressed great interest in establishing perinatal and prenatal services as well as a birthing center in Trenton and/or Newark and thought his organization could provide funding for that concept. However, because this interview was conducted prior to the announcement of the new birthing center in Newark, it is unclear if the new clinic will alter this desire.

A healthcare practitioner serving a low income population in another urban center in New Jersey acknowledged that he was not always a champion of advanced practice nursing but, based upon his experiences, he believed that the care that could be provided by these nurses was exceptional and could surpass those provided by primary care physicians. He urged a more expansive view of an APN-based practice to include all levels of nursing in the provision of care within safety net environments. Contrary to others' opinions, he did not feel that credentialing was an impediment nor did he feel that hospitals would be unwilling to extend hospital privileges.

A representative for a physician association spoke at length about the highly politicized environment of the FQHCs, expressing the opinion that it is unlikely that any clinic could be successful without the enhanced reimbursement that an FQHC enjoys. The person urged alignment of any new clinical offering within a specific service area with an FQHC as a satellite to allow for greater programming or expanded hours. The representative was favorable to the concept of an APN-based primary care practice and agreed to be helpful in moving such a concept forward.

A nurse expert in population health, care coordination and practice transformation shared her views of care in Newark. She rated access and quality of care as "very good," access to preventive care as good, but comprehensiveness of care, affordability and perceived value of care as fair. While she felt that in general, care could be accessed quickly, she noted that Medicaid patients find it difficult to get a primary care appointment and it is even more difficult for the homeless. She believed it is almost impossible for uninsured individuals to obtain a primary care appointment. In her view, emergency rooms are very often used as a primary care facility. She identified need in the areas of mental health/psychiatric health

care and preventive services. The nurse expert felt Newark was "a long way away" from offering what she described as her "ideal" primary care practice - one that is efficient, highly patient centered, uses the "right" provider or staff member for the task, and offers well–coordinated care. Barriers to achieving her vision of an ideal practice included: lack of translators, a public that is not "health literate," uncontrolled crime and lack of safety, and inefficient utilization of healthcare personnel. She was familiar with APN practices and felt that more APN providers would be a helpful addition to care in Newark.

A representative of an ACO coalition noted greater need in Newark for health promotion, as well as care for those with mental health concerns and substance abuse issues. The respondent remarked that the size and breadth of the workforce in the FQHCs is often adequate. Yet, because care coordination and care management systems have not been built out, care offered through FQHCs is not well configured nor is it well utilized. Among the problems noted by this interviewee in Newark: difficulty connecting patients to existing housing and social service supports, and long waits to receive benefits through the county welfare office. Asked to describe the "best primary care practice or an ideal practice," the representative described One Medical – a tech start-up by a physician who wanted to reinvent primary care. One Medical offers a totally integrated app which allows providers to manage and deliver consumer-driven care; decisions are made with patient involvement. Newark was considered "light years away" from having high quality care and systems in place that are patient-centered.

A well-respected attorney felt the establishment of nurse-managed clinics was "an interesting concept," although he warned one must consider how the physician community might respond to an NP practice. He believes payers are looking to invest in ideas that "distinguish themselves from the herd." He advised us to: a) seek an NP service that would increase the Medicare star rating for the payer; b) leverage technology to provide services and c) focus on ensuring that an NP service has high quality data analytics. Finally, he recommended consideration of a niche within Worker's Compensation - primarily a nurse-driven business, that has a significant financial margin.

A nurse practitioner professor at a local university who practices part-time in Newark gave careful insight to the status of healthcare delivery in Newark. She rated access to care, comprehensiveness of care and value of care as "good." However, quality of care and affordability were rated "fair" and access to preventive care was rated "poor." She rated cost of care, cost of insurance, and cost of co-pays as "high" and like others, said it is difficult for Medicaid patients to obtain a primary care appointment and "practically impossible" for those who are uninsured, homeless, have immigrant status, or are unemployed. She felt that Newark's healthcare priority was primary care and thought the emergency room is "always" used as a primary care facility. This NP felt that there were needs for more services for the elderly, the homebound, and those needing palliative or hospice care. She noted that healthcare in Newark is "scattered" and should be "neighborhood based." She provides care in a church, in the home, and in a bar. Newark's strengths are the Rutgers' mobile van clinic, the Medical School, and the dedication of the many people who provide care for this population. In her opinion, three services that are working well are the federal Women, Infants and Children program, the Urban Health

Initiative Program, and the Mental Health Association of Essex County (which has placed a social worker in Newark Penn Station to assist homeless patients). She noted challenges in providing care in the city included crime, "food desert", transportation and lack of trust in the healthcare providers. She felt that there are disparities in obtaining care, and noted that African American patients have a particularly difficult time. Disparities are found in each neighborhood. For example, in the Ironbound area, she felt that the Portuguese experience particular difficulty accessing care and in North Newark, people from Haiti or Ghana have problems getting care. Her "ideal" primary care practice is one "that takes care of anyone – open access – without regard to race, creed, or whether they have insurance." She indicated Newark was "far away" from that ideal. To achieve her vision of an ideal practice, this NP leader felt that facilities, providers, translators, a "health literate" public, and a proper mix of providers were all needed. The biggest barriers to getting to her ideal model are: financial barriers, securing a collaborative agreement with a physician, and insurance companies that do not admit NPs to provider panels (and therefore do not reimburse NP services). She noted that patients have cell phones, but the community does not use technology to engage patients well. Regarding the initiation of NP managed care services, she said that her perception of NP care is that NPs listen to the patient and develop wonderful provider-patient relationships. She recalled a patient from Ghana. She had seen her once, and again about a month later, and gave her a hug. The patient said that "no one ever hugged me-they are afraid to." Her patient told her that the "docs don't want to take care of us."

A pastor outlined the strengths of the City of Newark: outstanding hospitals and healthcare facilities, the Medical School, and the Barnabas system. He specifically noted excellent trauma care/orthopedics, a very good pediatric facility at Beth Israel, and good mental health facilities for those who need supervision. In contrast, he underscored the high rates of childhood poverty, noting 70% of jobs in Newark are held by people who don't live in the city. He commented "the health circumstances for the people of Newark are very different-providers face 1,000 different challenges." Newark lacks preventive care, rehabilitation services, a pastoral counseling program and enough outpatient mental health care. He remarked on the overcrowded waiting rooms in emergency rooms. He believes mental state plays a role in access to care; people in poverty do not always seek care for certain conditions and often don't know what to ask for. To address this issue, his church sponsors health fairs in partnership with University Hospital to reach individuals who don't normally seek care. One year the health fair focused on men's health to reach a population that often fails to be proactive in obtaining healthcare. He felt that the Mayor was focused on concrete problem-solving, was committed to healthcare and meeting people where they are. He pointed to the "Brick City Conversations," a broad array of stakeholders including healthcare activists, neighborhood leaders, and elected officials who dialogue to develop common priorities to advance the city. He recommended reaching out to organized groups such as existing block associations. He acknowledged there might be resistance if a nurse-led practice was considered competitive and felt that formal affiliations with healthcare institutions were essential to gain trust.

A physician active in providing primary care physician practice support services recommended linking any NP managed clinical service with a hospital and encouraged a

strong focus on population health. He urged negotiation with payers for a special pay-for-performance contract and expressed the need for an enhanced Medicaid rate in any practice in Newark, noting "no margin, no mission." He stressed the need for "a medical home approach, not an urgent care or ER approach" to care in Newark.

An important community leader in Newark noted that the city has more Section 8 housing than any other city in the U.S. He noted significant needs in the piecemeal care delivered in the city: care for seniors, immigrants, homeless, and services for the disabled. Other needs include better identification and management of chronic diseases such as diabetes and hypertension, and care for those with substance abuse or mental health problems. Inadequate transportation poses a huge barrier to receiving care: "There is a 1-2 hour window to get transportation. You can spend a whole day trying to get to and from care." He also noted the lack of programs "for the young people to grow a career in healthcare."

A representative of a foundation spoke about the importance of early interventions with children. Working with schools has been challenging, but efforts are being made to use the school-based delivery system to connect with the community and provide needed services. He recommended partnering with a school with strong leadership who will be an advocate. With kindergarten and first grade, he urged a focus on prevention, such as preventing post-traumatic stress disorders. With older students, the problems get more complex: gang issues, substance abuse, and violence in homes.

Two highly placed executives involved with Newark ACOs offered their insights into Newark's healthcare system. Although they rated quality and affordability of care as good, they found poor access to primary and preventive care. They thought the cost of healthcare for non-Medicaid patients was high, as was the cost of insurance, co-pays and medication. They felt it was difficult to obtain an appointment for Medicaid patients, and practically impossible for the uninsured, homeless, immigrants, or unemployed. They pointed to geographic areas where care is virtually not available (zip codes 07103, 07112,07108), as well as other pockets. Patients who have more difficulty than others in obtaining care are non-English speaking minorities (Hispanics, Haitian, or other Latin American patients) and African Americans. They agreed with all other interviewees that the emergency room is frequently used as a site for primary care. Insufficient care is available for the elderly, homebound, pregnant women, and patients with mental health problems. Although the city has "good people who care about healthcare," services need better coordination. The executives recommended that foundations should also coordinate their support of projects. Faith based networks and neighborhood-based services, such as the Ironbound Community Corporation, which combine health and social services are models for community-based services. Geographic-based care in wards raise "turf" issues over services; people feel they need the service in their backyard. Other challenges raised include a distinct lack of women's healthcare, transportation systems that are difficult to navigate, lack of evening and weekend care, coordinated appointments, and a lack of trust of providers. They identified Newark's health priorities as: 1) right-sizing the hospital infrastructure, 2) addressing violence and personal violence, 3) food access/obesity and physical activity and 4) a new project funded by RWJ on trauma-informed approaches. Their ideal care model would include culturally competent, accessible, trauma informed, preventative and holistic

care which combines physical and behavioral health components with social services. These executives felt that it would be a 10-year effort for Newark to achieve this sort of primary care and that the following would be needed: neighborhood-based facilities, leadership "buy-in," alignment of medical and nursing schools' workforce with patient care needs, payment reforms and better payer mix, more NPs and Physician Assistants, a community workforce, better use of nurses, translators and multi-lingual providers. Recruiting workers to Newark is challenging because of the high cost of living, high crime, low payment for services, inappropriate mandates, and complex patient populations. Sensitive political issues include hospital "turf" issues and "cronyism." They believe the FQHCs (both city-run and others) need to improve their levels of service and be better collaborators. Both of the interviewees said that the Navigant report will activate political pressure. Technology is another area needing attention. They felt that there is no patient engagement technology, and electronic medical record capability is limited. Both felt the APNs at the FOCUS clinic had built trusted relationships with patients. They recommended that a successful APN practice should focus on patient education, linkages and navigation of care, accessibility (language, appointments, relation-based care), inclusion of social services and behavioral health. Concern was expressed about midwifery services, as midwives are not being allowed to admit to the hospital.

An interview with a nurse leader in the community focused on nursing care in Newark. The Rutgers FOCUS clinic, with its commitment to train students, comes at a cost, as the clinic sometimes sees fewer patients. Because that practice sees a high percentage of undocumented immigrants for whom they do not receive reimbursement, it is not a financially sustainable model. Community health workers are a central component of care delivery in Rutgers' three nurse-run HRSA-funded clinics in Ironbound public housing. A training curriculum has been developed and can be expanded. Challenges noted by the nurse leader include the inability for midwives to obtain admitting privileges and low APN reimbursement levels.

A leading public health official in Newark, upon hearing the concept of a proposed NP-led primary care center said, "You speak to my heart" and "You are heaven-sent to this office." The official felt that Newark is fertile ground for NP services and expressed strong interest in and support for a primary care center that would be collaborative with existing medical and social service providers. It was acknowledged that providing easy access, a focus on wellness and prevention, convenient hours, and addressing prevalent chronic conditions would be important to the success of any new program. This individual offered to be as helpful as possible in bringing the initiative to fruition. These efforts might include seeking letters of support from key political and governmental leaders. In addition, this official offered strong endorsement and financial resources toward a multi-site NP Residency Program in Newark.

C. Community Leaders Online Survey

While most healthcare and related governmental representatives were interviewed in person, a short online survey was created via Survey Monkey. (See Appendix 3) The survey was emailed to social service agencies, educational institutions, the media, and religious,

civic, and labor organizations. Despite its short 17 question format and follow up emails and personal telephone calls, in total, only seven individuals in Newark completed the survey.

Newark respondents rated the city's overall healthcare as only fair or good when asked about access to primary and preventative care, the quality and comprehensiveness of healthcare, and the affordability of care. There was consensus that the cost of both healthcare and insurance is high, but responses were split as to whether the costs of co-pays and medicines are high. Respondents agreed that it is difficult to practically impossible to get an appointment for the homeless, immigrant, unemployed and uninsured while fairly easy to very easy for those on Medicaid or those who are racially/ethnically diverse. The majority did not know if there are geographic areas where primary care is not available. However, most agreed that emergency rooms were overused.

The areas of greatest need for healthcare services identified in the online survey were mental health and care for those who are homebound. When asked to name their city's strengths, respondents provided the following answers: FQHCs, good hospitals, services are distributed throughout the city, and multilingual services are available. All agreed that safety/crime and lack of trust in the healthcare providers were challenges in delivering/receiving healthcare. Most noted that Newark's "food dessert" posed a challenge in care. Transportation was seen as a challenge by more than half of respondents.

Respondents rated primary and preventative care, mental health and transportation as the most important needs that are not being met. One respondent noted that there is need for knowledge to access the system. Others expressed a need for neighborhood-based healthcare providers (by ward), as well as a need for multi-lingual providers.

Respondents named the following as key community groups or churches that provide healthcare leadership in Newark: the Ironbound Community-Based Organizations, Rutgers School of Nursing and its FOCUS clinic, New Jersey Citizen Action, Legal Services of New Jersey, community charity, and Jewish Vocational Services. Provider groups that were acknowledged include FQHCs, Rutgers, and the Veterans' Administration Division of Vocational Rehabilitation Services. Obstacles to providing healthcare enumerated by some respondents included sensitive competition issues, political issues, as well as cultural barriers, language barriers and immigration status.

Most Newark respondents did not have much experience with an Advanced Practice Nurse (APN), but those that did rated the care they received from good to excellent. All respondents agreed that adding more services from APNs would improve their city's healthcare. They added that APNs could fill the gaps in healthcare in the following areas: prenatal care, family care, mental health, health promotion/preventive care/education, women's health, men's health, and care for the elderly. However, when asked if APNs face political, financial or professional barriers, the majority said yes. Most respondents noted political and financial barriers to APN practice; all noted professional barriers.

KEY FINDINGS

Interviews with business and community leaders, foundations, and payers have identified consensus that there is a great need for more primary care in Newark, especially for mental and behavioral health services. Neighborhood based care will best support the residents' needs, especially the homebound. There is respect for the profession of advanced practice nursing and acknowledgement of the value APNs could bring to providing primary care to the underserved communities in Newark. The keys to success in pursuing an APN-led primary care center include involving existing community/neighborhood organizations and local leaders, and developing relationships with existing health facilities in the city.

D. Patient Focus Groups

In evaluating healthcare delivery systems and markets, an important perspective can be overlooked: that of the patient. Perceptions by those who deliver care and those who receive it may not be in alignment. To be sure that we allowed all stakeholders to have a voice in this evaluation of the community and its healthcare needs, we conducted two focus groups in Newark through the Jordan and Harris Community Health Center. A staff member in each clinical site in the East Ward - Hyatt Court and Pennington Court -offered patients the opportunity to participate. At the time of the focus group meeting, the purpose of this Project was explained. Patients signed a consent form and a media release giving permission for a photo of the session. The focus group participants were asked for some limited demographic information. We gathered their feedback based on a series of questions about their experiences with and thoughts on healthcare in Newark. Upon completion of the focus group, participants were given a $10 Subway restaurant gift card as a thank you.

Twenty-one patients agreed to participate in the two focus groups, including 18 women and 3 men. The patients ranged in age from 36 to 81 years old. Sixty-seven percent (67%) of the patients were on Medicaid, three (17%) were uninsured, and one-third (33%) of the participants were on Medicare. Half of the patients rated their current health as "fair" and 17 of 21 had seen a healthcare professional in the last three months. Of note, the most common site of a healthcare visit in the last three months was the emergency room; 13 patients indicated that that is where they usually receive their care.

1. The Patient Healthcare Experience

Several themes emerged from the focus groups regarding how patients experienced healthcare delivery and services in Newark. On the positive side, patients noted that transportation to clinical services is good, especially the Medicaid vans. They also commented that the specialty care in the hospitals was excellent. Although participants felt the primary care providers in the clinics were good, high provider turnover made it next to impossible for patients to develop a sustained relationship. Most striking was the comment

that the clinics in which the focus groups were held (Hyatt Court and Pennington Court) were "*the best thing that has ever happened to us."* The reasons for the high praise for the clinics included:

- services are easily accessible. These clinics are sited in the public housing developments where the patients live.
- the absence of waiting times; patients can be seen right away.
- availability of community worker outreach to people in their homes, when needed.
- the caring concern by staff.

Several patients commented that the clinic staff were like family.

2. System Challenges for Patients

The experience of care in Newark has a number of system challenges for these patients.

Insurance: Insurance, or lack thereof, is a huge driver of access to care. Signing up for Medicaid is a lengthy and time-consuming process. Participants noted a lack of staff present when they go to sign up at the social service agency, and no consistency of staff support through the process. Participants described difficulties with *"finding a clinic that fits with your insurance"* – both for primary care and specialty care services. One participant noted, *"You hope you have the right paperwork to be seen"*; another noted that you "*pray your income isn't too high so that you'll be seen*." Insurance is needed to qualify for medical transportation. Participants felt that insurance is the key to access to care, to how much care you receive, and to the quality of care.

Waiting: Patients described waiting to qualify for Medicaid or Medicare or for another insurance. They wait for first appointments (sometimes up to two months), and then they wait for hours in the clinics to be seen by a provider, only to have a 5-10 minute appointment that often fails to address all of the patient's health concerns. Patients reported waiting up to three months for specialty care appointments. Long waiting times in emergency rooms were also a common experience.

Transportation: Although some transportation efforts have been made to assist patients in reaching care, both focus groups talked about transportation as a barrier to access care when it's needed. The bus service stops at midnight or 1 am; vouchers are not available for bus or taxi services. Despite the cost, the strategy most patients talked about was calling an ambulance after 6 pm because it was the safest way to travel in the evening/at night.

Clinic Schedules: Patients indicated that current clinic schedules are not conducive to patient access. Clinics have rotating schedules, so it is difficult for patients to know when each clinic will be open. In addition, clinics are not open at night or on the weekends; some close on Wednesday. It is a conundrum because patients want after-hours care, yet they express concerns about being out at night in their city. When this issue was probed, patients thought a call-in number might help address the tension between the need for after-hours care and safety concerns. It was

important to patients that the call-in number lead to being able to speak with a live healthcare professional, ideally a nurse, who could offer assistance as to whether their after-hours health concerns were serious enough to warrant an emergency room visit. Patients were adamant that a call-in system with prescribed prompts would NOT meet this need.

Safety: An overarching theme expressed by patients was that Newark is not safe at night. People don't leave home after 4:30 p.m. on dark winter afternoons because they don't feel safe. Although there have been city-wide efforts to improve safety and security, through increased patrolling and even increased security measures at clinics, patients noted robberies in stores or on buses, and unsafe streets at night. Shootings and muggings continue to plague their community and make them hesitant to leave their homes in the evenings. The overall safety issue and lack of safe transportation mean that patients use the emergency room, and get there by ambulance. One patient said, *"When I need help, I go to the ER, and I make sure to pack three meals*." When the interviewer inquired about the meals, the patient replied, "*I'm going to wait for hours and hours- it's often 3 meals' worth of waiting time."*

Respect: Participants expressed concern about the lack of respect given them. Comments included *"if you don't have insurance, they (the clinic staff) don't care about you"* or *"there is a lack of personal respect for you- especially in the ER- they are the worst. They treat you like nothing.*".

Access: Services that are "hard to get" include dental care, mental health services, primary care, "after hours" and "same day" care, and social services. Although patients described adequate availability of preventive dental care (cleaning, x-rays, etc.) and care for problems such as tooth decay (fillings) or extractions, they expressed concern about long waiting times for appointments, and noted that some basic services, such as orthodontics, are difficult to obtain. Mental health services are also difficult to access, with need outpacing availability of services. Patients felt that more primary care services are needed, especially taking into account "after hours" and "same day" care. A better approach to these issues would, they said, alleviate the pressure on use of the emergency rooms.

3. Patient Recommendations to Improve Care

When patients were asked "How would you make healthcare better in Newark?" they suggested a model similar to the clinic they were in. Smaller clinics, located geographically closer to their homes, with extended hour care available in some form (even a 24 hour "hot line" as long as it's staffed by "a real person"), would be an improvement in their views. A better system to help with the administrative burden of social problems that affect healthcare was also suggested. People need help with jobs, housing, food, coordinating referrals, and completing forms for insurance or applications for financial assistance.

4. Patient Perspectives on Advanced Practice Nurse-Led Care

When asked whether they had ever seen a nurse practitioner or Advanced Practice Nurse for care, 100% of the participants said "yes." When asked what they thought about the care provided, one patient responded *"we go to nurse practitioners over doctors because the relationship is better."* They gave examples of feeling welcomed, having their healthcare needs met and at the same time receiving help with the social problems they were facing. Finally, all focus group participants agreed that having NPs provide healthcare services in Newark would improve care. The reasons they gave were "*they (the NPs) would improve care coordination"* and *"NPs would care about us."* The completed Patient Focus Group Report can be found in Appendix 4.

KEY FINDINGS

Patient focus groups identified challenges to healthcare access in the city. From difficulty in signing up for Medicaid, to getting timely appointments and consistent access to caregivers, patients indicated frustration in accessing care. Of particular concern is safety. Residents are fearful of leaving their houses after dark and because transportation through the city is difficult, many resort to using ambulances to take them to the emergency room for after-hours care. Access to care in their own neighborhoods as well as a call-in number staffed by a nurse are desired by patients. Their experience with APNs has been positive; their impression is that APNs care about each person as an individual.

V. Advanced Practice Nurses: Role in Care Delivery for the Underserved

A. The Problem: Service Delivery

There are 180,233 Nurse Practitioners (NPs)[91] licensed nationwide[92] and almost 4,000 licensed in New Jersey. Independent NP practices provide high quality primary care, and are positioned to provide a new patient-centered nursing model of care that meets patients' needs at the community level. However, most of these practices have difficulty becoming financially stable and sustaining economic viability; they function on very narrow financial margins and face the same challenges in creating cost effective business models that physicians face. Like many of their physician counterparts, NPs have traditionally not had the business training and resource support to initiate and build practices that take into account the imperatives of today's increasingly complex healthcare marketplace. Currently it is estimated that only 3% of NPs engage in independent

[91] Nationally, the title Advanced Practice Nurse (APN) refers to Nurse Practitioners (NPs), Clinical Nurse Specialists, Nurse Midwives and Nurse Anesthetists. In New Jersey, NPs are under the legal title of APN.
[92] American Journal for Nurse Practitioners, March 2012.

practice.[93] The NPs who own these practices would benefit from learning entrepreneurship and the business of practice management. Also, these practices are not networked, and do not have the ability to leverage the business components of their practices in meaningful ways.

To our knowledge, there is no similar project underway that addresses a multi-modal state-wide approach to implementation of nurse-directed clinical services in a systematic and coordinated fashion. Although there is a long history in the U.S. of successful nurse-managed centers, such as the 11th Street Center operated by Drexel University in Pennsylvania, these are single entities that are not connected to a coordinated system for changing care delivery on a statewide level. The 11th Street Clinic has demonstrated fantastic service delivery that is highly valued in the community. Using an integrative model that takes into account the social determinants of health, the Clinic offers services that blend primary care clinical services with the community services that are needed to support health: nutrition services/cooking classes, fitness center, pharmacy, etc. Other nurse-managed centers around the U.S. include other community services, such as after-school day care and home outreach. There is much to be learned from these integrative models.

The innovative health centers and networked practice model studied here builds on the conviction that a nursing model of care, e.g., care that integrates community-defined needs, quality evidence-based clinical services, and relationship-based, person-centered approaches with attention to the social determinants of health, is key to changing healthcare in New Jersey. Supporting that conviction with needed business, practice management and entrepreneurial training and proper fiscal support mechanisms will transform the delivery system in New Jersey.

To effectively evaluate the feasibility of establishing an APN practice group in New Jersey, it was essential to hear from APNs themselves so as to understand their ideas and concerns. Through an online survey and three focus groups we gathered the thoughts and ideas of this important component of the Feasibility Study – the health professionals themselves.

In partnership with The New Jersey Collaborating Center for Nursing (NJCCN), the Project Team worked to develop a new and more comprehensive primary care infrastructure for New Jersey that is based on a nursing model. To that end, the NJCCN was charged with:

1. developing, disseminating, and analyzing a statewide needs assessment survey of Advanced Practice Nurses (APNs) focused on business and practice management knowledge and skills, and
2. conducting focus groups to better understand the workforce capacity to initiate and sustain a nurse-led center, specifically as it relates to the underserved areas of Newark and Trenton. The information from the three focus groups provide context to the initial quantitative report.

[93] Rolllet, J. and Libo F, A Decade of Growth: Salaries Increase as Profession Matures, Advance for Nurse Practitioners, 2008. Htttp://nurse-practitioners.advanceweb.com/article/a-decade-of-growth.aspx.

B. Needs Assessment of APNs in New Jersey

It is important to understand if APNs are adequately prepared for independent practice as it relates to owning and operating nurse-led health centers, especially when considering the challenges APNs would face in underserved areas such as Newark. Therefore, the survey centered on the educational needs assessment around business and practice management skills.

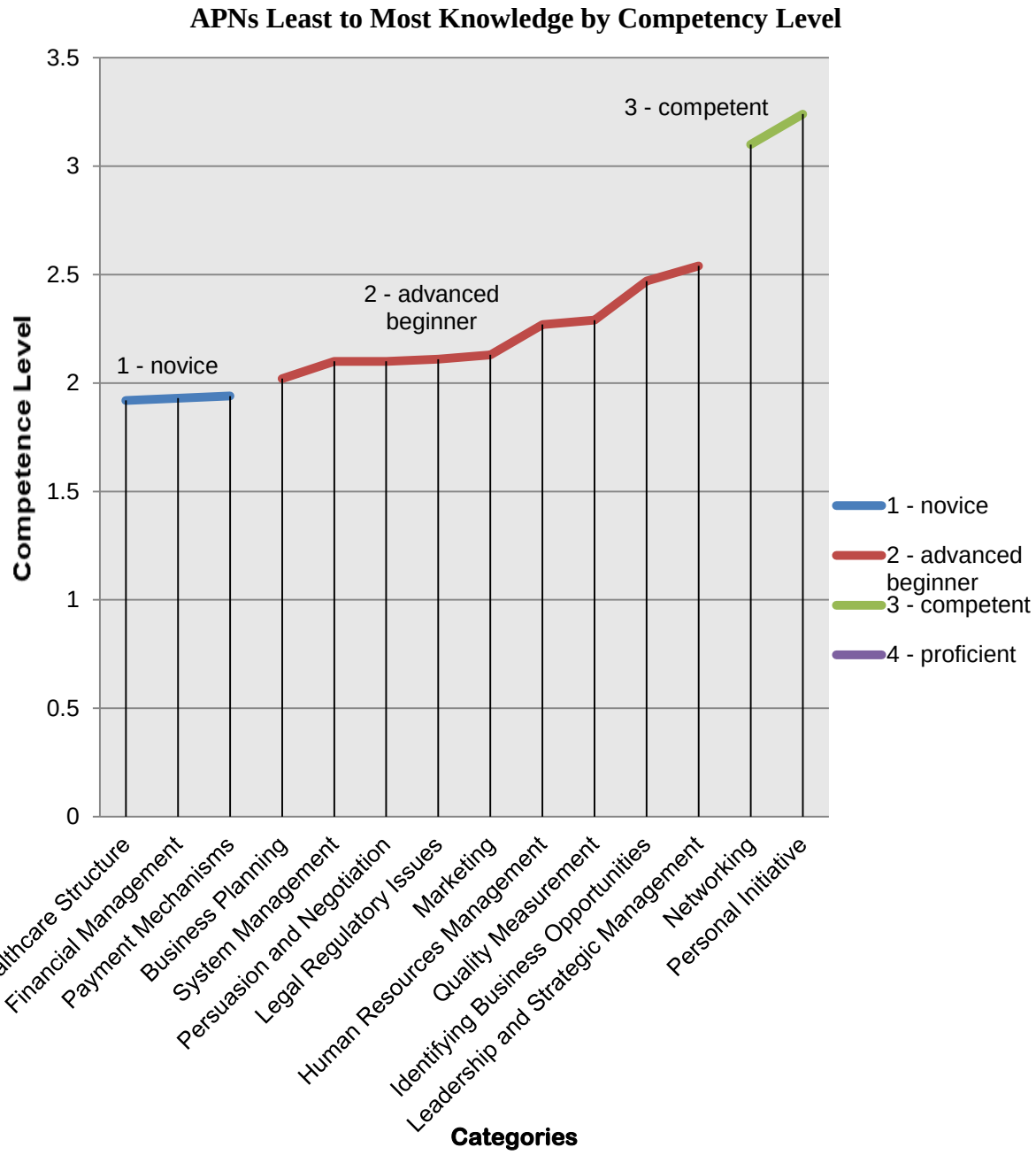
The 24 question survey was distributed to an email list of active APNs; the list was obtained from the New Jersey Board of Nursing (NJBON). The survey was disseminated by various nursing organizations and placed on the NJCCN website. According to the NJ Board of Nursing records, there are 7,166 nurses licensed as APNs and 372 respondents completed the survey.

Over 67% of the respondents were age 46 or greater, educated primarily at a Masters level, with the majority (56%) having eight years or greater in practice as an APN. The majority of respondents were credentialed as either family or adult APNs, and were working 40 hours or greater in their practice settings. Participation was evenly split between the north, central and southern parts of the state.

Between 9% and 13% of the APNs self-identified that they own their own practice (there was a discrepancy in the responses to two separate questions related to ownership), while the majority identified that they currently work in an MD owned practice or other types of facilities. It was clear from the survey results that educational programs did not prepare the APNs in business and practice management skills to lead their own practice. While most APNs did not own their own practice, more than two-thirds of the 358 respondents stated they would be interested in owning and operating their own NP practice if certain resources were made available. Participants said they would be more likely to own and operate their own NP practice if there were resources such as a healthcare business program, practice management resources, and a statewide Nurse Practitioner support network to help finance, set up, and run a practice.

The respondents were asked several questions to determine how to best deliver a business and practice management program and what they would identify as a reasonable fee. The majority of APNs (89.6%) identified that they wanted the program offered in New Jersey - preferably in the central part of the state. Sixty-two percent wanted a hybrid format (both face to face and online), with many also wanting a coach. The cost point for the one-year program identified by the majority 63.6% was in a range of $1,000 -$3,000 dollars per year.

The results showed that, for business and practice management skills, the respondents were at the novice or advanced beginner level. They did not feel confident in 12 of the 14 categories identified in the survey around business and practice management skills. The areas identified as least competent included: financial management, payment mechanisms, and healthcare structure. Respondents assessed their skills highest in personal initiative and networking. Other business knowledge was rated at an “advanced beginner” level, such as marketing, business planning, and human resources. See chart below.



There is a troubling gap of knowledge in understanding the healthcare system and the business of healthcare for a profession that has a high level of educational preparation in their discipline. See the full report (Appendix 5) for a more extensive compilation of comments. This report highlights the need for supplemental information about healthcare delivery, and business and "real world" practice management skills. A few representative quotes are listed below to underscore APN's lack of healthcare business and practice management understanding.

Comments ranged from those who knew little:

- *"I do not know what an external environmental scan is."*
- *"I do not know what HEDIS or clinical metric management is."*
- *"I do not know what a FQHC or an accountable care organization is."*

To those who wanted to know more:

- *"I was never encouraged to own my own practice even though I knew where the needs were."*
- *"Nurses are not typically socialized to pay attention to marketing…unless they have had business courses or experience in the business world…with healthcare being a tremendous business in the Western World, nurses must become more proficient in this area."*
- *"Billing and coding is a very important part of APN practice and should be taught."*

To those who seem to have significant, but disappointing, experience with the business of health care:

- *"One would need at least an MBA to be proficient in health and regulatory policy… or have consulting and accounting services. In other words, it is not enough to look up the current regulations and guidelines. It is wise and effective to obtain experts in the field to assist in areas where you have no practice experience."*
- *"Negotiating business loans is not dependent on the skills or knowledge of the APN. It is completely dependent on the financial institutions giving the loans."*
- *"Negotiating contracts with payers is becoming increasingly more difficult, because most have pre-existing prejudices against APNs. It is extremely limiting for APNs to not be in insurance plans. This impacts their ability to function autonomously."*
- *"I have had many years of experience in high level business negotiations…but negotiating with payers is an absolute nightmare and proficiency is seemingly impossible."*
- *"Credentialing is the biggest nightmare and the biggest loss of revenue due to poor information, little support, no structured leadership or contract structure within the insurance credentialing framework."*

It is encouraging that with proper education and resource access, 67.3% of the APN respondents expressed interest in owning and operating a nurse-led practice. The results of this needs assessment for APNs demonstrate gaps in knowledge as it relates to business

and practice management skills, serving as a starting point to develop an educational program to support APNs in their desire to own and operate their own practices. *NOTE: it is acknowledged that these findings are somewhat limited due to the relatively low participation rate of licensed APNs, despite multiple email outreach efforts from the various nursing associations in the state, and personal outreach through the focus groups.*

C. APN Focus Groups

In addition to the Needs Assessment, The New Jersey Collaborating Center for Nursing collaborated with the Project Team to conduct three APN focus groups to better understand the workforce capacity to initiate and sustain a nurse-led center, specifically as it relates to the underserved areas, such as Newark. These focus groups provide context to the initial quantitative report. See Appendix 6 for the full report of the Focus Groups.

Three focus groups were conducted with participants invited through the Forum of Nurses in Advanced Practice-NJ, the Society of Psychiatric Advanced Practice Nurses of the New Jersey State Nurses Association, and the APN-NJ as well as key hospitals that had a large number of APNs working in their facilities. One hour sessions were conducted at each of the following locations: NJCCN in Newark, NJ; Atlanticare in Atlantic City, NJ; and at an APN conference sponsored by NJSNA in Trenton, NJ. Demographic data were obtained from each of the participants. No follow-up focus groups or additional questions were able to be raised which is a limiting factor. The focus group sessions were recorded with verbal consent from the participants. The 15 questions were targeted at understanding the APNs: 1) vision of what a nurse-led primary care practice would look like, 2) reflections on how a nurse-led practice would look different in the inner city, 3) business and practice management skills needed, 4) the need for a nurse residency model.

A total of 19 APNs participated in the focus groups, representing geographic diversity (10 central, 7 northern, and 2 from the southern locations in the state). The majority of participants in the focus groups were certified, and worked in primary care full-time in an urban setting. Five participants reported being engaged in research, with several of them in school to complete their Doctor of Nursing Practice degree.

1. Major Themes

The overarching reason that participants were attracted to the profession of APN was "to be the best nurse you can be." One commented that *"Nursing was always an interest of mine. I wanted to go beyond what the basic scope was to refine my skills, education, and refine my practice and expand it to the maximum."* The holistic approach of an APN was the agreed upon value that APNs offer to the care of the patient and to improve healthcare outcomes. A participant remarked, *"I think what APNs bring is a patient-centered approach…we try to empower our patients - that is not the medical model."*

Focus group participants underscored the schism between practicing as a clinician and trying to reconcile with the business component. Among some of the skills identified as needed are setting up a business (including billing, contracting, technology, marketing, and technology) and leadership skills (including public speaking, political savvy, change

management and dealing with the competition). Expressing this theme was the comment, "*The business part of it is mysterious to APNs."*

But APNS in the focus groups felt up to the task identifying their unique skills such as the ability to collaborate, educate, organize, and seek out community resources for patients. One commented, "*They (MDs) don't look at the whole picture, so I think that we teach and that we look at patients in an entirely different way."*

When asked to envision an APN practice, participants expected a healthcare team that looks at all aspects of the patient, with a patient-centered care philosophy. An APN practice working with inner city populations would require different resources, according to focus group participants, including addressing needs such as patient's lack of insurance, transportation, flexible schedules, and other social determinants. Among the barriers to setting up an APN practice that participants expected were seed money/investment, collaborating physicians, financial viability, and credentialing by hospitals. One APN expressed this concern: *"It took me months to find a new collaborating physician…and so I had to pack up shop, and I had a month to find a new collaborator and move and then it really did come back to the 11th hour to find someone to do it."*

In determining what was needed to overcome these kinds of barriers, the need for funding assistance, clarity in state regulations and better business skills were cited. Participants also supported the idea of a residency program which would bring credibility to an APN practice. *"I think the biggest argument we have, the biggest hill we have to climb, is that {physicians tell patients} we are not as educated and not as clinically trained as physicians. Patients come in and say, "Oh my doctor told me to stop coming—my cardiologist told me to stop coming to you because he has two years of residency and you have none."* Residency programs that focus on the needs of the poverty-stricken populations would need to be innovative and creative. *"That's the trenches {inner city}, and yet those are the people who need us the most. In nursing school, in APN school, you just write an order and send the patient to a cardiologist. In real life you are trying to find someone to take the patient. Nobody wants a Medicaid patient or a Horizon patient. You are sometimes spending an hour trying to get them social services or housing or whatever they need. You soon find out that's the stuff patients really need."*

Some expressed the courage to take the chance to set up an APN practice: *"I think APNs would take the risk. It is not really a risk. It is a way of elevating your profession to that next rung on the ladder. That is how I see it."* Another remarked, *"If you don't take risks, you will never move from A to B. The main thing {risk} would be leaving the company I work for when I have a salary, and good benefits. I would really have to think twice to understand what I was stepping into."*

2. APN Survey & Focus Group Key Insights and Findings

APNs perceive that they are unique in that they use a holistic approach and are strong collaborators due to their nursing education. The focus groups provided valuable insight and validated the need for business skills and practice management education. However,

key issues were identified in the focus groups that went beyond the educational needs of the APNs. They are as follows:

- APNs need assistance in setting up successful practice models that are sustainable.

- There is a need for a paid APN residency model. The focus groups identified a perceived gap in the new APN's ability to transition from an academic to a practice setting. Many of the nurses entering into an APN role have limited experience practicing as a registered nurse. This can present an issue of credibility as well as a concern related to patient safety and quality of care.

- Residency programs that are in the inner city need to address the unique needs of the population they serve. Inner city patients have limited or no access to resources resulting in the inability of the APN to provide comprehensive quality care. This is due primarily to either limited or lack of healthcare insurance, competing financial obligations, or transportation. This in turn, creates issues in time spent in finding and coordinating available resources. Innovative and creative options for resources should be considered by the APN.

- There is a need to develop turn-key resources and funding options for APNs to set up independent practice. This model currently exists for Nurse Anesthetists through their national organization and should be explored as a potential prototype.

These recommendations should be considered in moving forward the ability of APNs in New Jersey to pursue opening their own practices.

KEY FINDINGS

Advanced practice nurses believe their profession offers comprehensive, holistic and patient-centered care. APNs in New Jersey show interest in opening their own practices but many lack significant business and practice management skills to do so. There is expressed desire to obtain training to address this knowledge gap. Securing a collaborating physician and obtaining admitting privileges also hinder the opening of APN-led sites. Financial barriers such as lower reimbursement rates for APN services and lack of start-up funds also challenge those interested in setting up their own practices.

VI. Legal & Regulatory Analysis of APN Practice in New Jersey

A review of legal and regulatory issues that affect initiating and sustaining a new Advanced Practice Nurse-led health center in an underserved city is an important part of evaluating the feasibility of the Project. A threshold question faced is whether and how an APN-led

entity can function within the legal and regulatory environment of New Jersey and two of its neediest cities, Newark and Trenton.

A. Entity Structure and the Corporate Practice of Medicine

New Jersey has a relatively strict view of the relationship between corporate structure and medical professionals, especially physicians. The New Jersey Board of Medical Examiners' restrictions on the ability of corporations to hire, and thus control physicians are designed to ensure the independence of medical decision-making. These restrictions on the so-called "corporate practice of medicine" ("CPM") are not shared by APNs. Conversely, APNs, who are regulated by the New Jersey Board of Nursing, may be freely employed by corporate entities, but their ability to practice is subject to the requirement that they collaborate with a physician. To reiterate, other than collaborative model restrictions, there are no professional practice structure restrictions (CPM) placed on APNs by the New Jersey Board of Nursing regulations.

1. Collaborative Practice

The APN's mandatory collaboration is expressed in the requirement that each APN enter into a joint protocol which has been cooperatively agreed upon and signed by the APN's designated collaborating physician. Pursuant to that document, each member of the healthcare team functions within her/his scope of practice using developed guidelines and established formularies where appropriate. The document contains guidelines for prescribing medications and devices for an APN in a specific practice setting. The document must be signed by the APN and her/his designated collaborating physician, and reviewed, updated and co-signed, at least annually. Though the particular language in the joint protocol may vary from practice to practice, each joint protocol must follow the outline defined by New Jersey State Board of Nursing regulations at 13:37-6.3.

Unlike many states, New Jersey does not require the physician to be physically present or within a certain geographic radius of the APN. Nor do physicians need to meet with their collaborating APNs, although periodic review of a number of charts is required. There is no specific number of reviews required, but as the agreement itself must be reviewed annually, the time period for chart review should be at least annually.

2. Collaborative Practice-Prescriptive Scope

The practical import of this protocol may be limited to a level which his or her physician deems fit. Assuming the broadest prescriptive scope within the protocol, a registered and licensed APN may prescribe non-controlled drugs and devices pursuant to the protocol. In order to prescribe Class II-V controlled substances as is allowed by law, the APN must first obtain a controlled and dangerous substances (NJ CDS) license number, followed by securing a Federal Drug Enforcement Agency (DEA) number. In addition, in the outpatient setting, APNs must have their own NPI number and their own uniform prescription blank pads, specifically designed for an individual APN prescriber. Prescriptions must be printed

on special paper as required in NJ. New Jersey law is unclear on electronic prescribing,[94] but usual and customary practice is that APNs are using electronic prescribing where it is available in their particular practice setting.

B. Impact of Physician Practice Proscriptions on APN Ownership

When it comes to operating a healthcare facility, APNs are less likely to face legal difficulty from their own professional restrictions (assuming a satisfactory collaborating physician may be found) than they are to feel the pinch of the restrictions placed on their collaborating physicians, psychiatrists, or psychologists. In New Jersey, an APN may not employ a physician. This is because a person with a broader scope of practice (a physician has the broadest scope possible) may not, in general, be employed by a person with a narrower scope, such as an APN. To state it in another way, a physician may not be employed by or serve as an independent contractor for an APN-owned company, because a physician cannot work for someone with a more limited scope of practice. This does not preclude co-ownership of an entity between allied health professions. Any practice, clinic, health center, or facility owned or otherwise controlled by an APN and enjoying the services of a physician, will have to be carefully structured, in order to ensure that the appropriate licensed healthcare professional is permitted to work there. For example, the APN and physician may have mutual ownership in the practice. Clearly the structuring of the APN/Physician relationship should be reviewed by an attorney specializing in representation of providers. As written in the Board of Medicine regulations, the corporate practice of medicine doctrine, coupled with the collaborative requirement, create a concern for the collaborating physician, if s/he accepts payment. Still, while this proscription is "on the books," contracting and reimbursement of collaborating physicians is commonplace, perhaps more the rule than the exception. We could not find an instance when a contract for APN collaboration was considered by the BME as a prohibited relationship, nor has it been used as an argument by a payer or any third-party against a physician in any reported instance.

In general, where a physician's participation is required for the provision of care, and where the physician expects to be hired by or contracted to the entity, the entity must either be a private practice owned or operated at least in part by the physician, or the corporate structure needs to fall within a regulatory exception. Licensure by the New Jersey Department of Health as a health maintenance organization, hospital, long or short-term care facility, ambulatory care facility, or other type of healthcare facility constitutes an exception to the practice proscription. Clearly the structuring of the APN/Physician relationship should be reviewed by an attorney specializing in representation of providers. There is no question that the corporate practice of medicine doctrine coupled with the collaborative requirement and the likelihood that a physician might wish to be remunerated for his or her collaboration services creates challenges for the creation of a

[94] APN regulations prohibit electronic prescribing yet other regulations specifically permit it for licensed professionals, "such as certified nurse midwives." The two conflicting regulations can be found at NJAC § 13:37-7.9 and 45:14-57.

solely APN-owned and operated entity, absent licensure.

C. Primary Care Center: An Example of an Allowable Practice Structure

Accordingly, an APN could own or operate a primary care center. The state defines "primary care" to mean "the provision by a healthcare facility of preventive, diagnostic, treatment, management, and reassessment services to individuals with acute or chronic illness." The term is used in reference to facilities providing family practice, general internal medicine, general pediatrics, obstetrics, gynecology, and/or clinical preventive services, including community health centers providing comprehensive primary care. Comprehensive primary care may include the provision of sick and well care to all age groups, from perinatal and pediatric care to geriatric care. Primary care is further characterized by the fact that it represents the initial point of contact between an individual and the healthcare system, by the assumption of responsibility for the person regardless of the presence or absence of disease, by the ongoing responsibility for coordination of medical care for the person, by its family-centeredness, and by its community orientation.

Should the APN wish to own or operate a center meeting the definition of a primary care center, that facility must be licensed as an ambulatory care center. The New Jersey Department of Health ("NJDOH") licenses "all healthcare facilities that provide ambulatory care services, including, but not limited to: primary care…family practice, family planning, outpatient drug abuse treatment, chronic dialysis, computerized tomography, magnetic resonance imaging, extracorporeal shock wave lithotripsy, and radiological services;" and defines an "ambulatory care facility" as a facility that provides preventive, diagnostic, and treatment services to persons who come to the facility to receive services and depart from the facility on the same day. Physicians may be employed by such a licensed entity without fear of violating corporate practice restrictions.

While there is no need for a Certificate of Need for a primary care center, there is significant other regulation surrounding, for example, the physical plant: Any ambulatory care facility that intends to undertake any alteration, renovation, or new construction of the physical plant must submit plans to the Health Plan Review Program of the Department of Community Affairs for review and approval or, in cases of existing construction where no Department of Community Affairs review is required, to the Office of Certificate of Need and Healthcare Facility Licensure for review to verify that the facility's physical plant is consistent with the licensure standards prior to the initiation of any work. See, N.J.A.C. 8:43A-2.4. These requirements may be seen as burdensome, and certainly involve costs. In some cases, the regulators' requirements may be counter-intuitive, such as the enforcement of standards that are interpreted to require separate entrances/waiting rooms for centers which provide both mental health and primary care services. These issues would not arise if the APN pursued a private practice structure, but again, the private practice structure might not allow for the full integration of the collaborating physician unless that physician were an owner.

An additional requirement for licensed ambulatory care facilities is that there must be a physician to serve as medical director, and the medical director or his or her designee must

be available to the facility at all times. The medical director is responsible for the direction, provision, and quality of medical services provided to patients, including developing and maintaining written objectives, policies, a procedure manual, an organizational plan, and a quality assurance program for the medical service. This medical director could also, of course, serve as the collaborating physician of the APN. Again, a physician may be hired or contracted by a licensed facility to perform this role, but such hiring or contracting of a physician by a corporation or an APN would be prohibited for most un-licensed entities.

While we cannot identify issues specific to APN-run entities in Newark, as such, other scope of practice issues need to be recognized in light of the challenges or opportunities they may pose for the needs of the patient population. For example, New Jersey hospitals may privilege or otherwise credential APNs, and permit them to admit or discharge patients. But they are not required to do so. As other aspects of this report reveal, an APN forming a new provider entity will need to be sensitive to the existing relationships and territories formed by other providers. *Note: The New Jersey Collaborating Center for Nursing is currently completing a survey of APNs' ability to admit to hospitals in New Jersey.*

In addition, and most importantly, APNs may be reimbursed in New Jersey from Medicare, New Jersey Medicaid, and some insurance companies. According to the New Jersey State Nurses Association, the following payers credential APNs as providers of patient care: Horizon, Oxford, Qualcare, United Healthcare, Horizon Mercy and Magellan Behavioral Health. Direct reimbursement is granted when services are provided to members of the uniformed services and their families under the Civilian Health and Medical Program of the Uniformed Services Act and federal employees under the Federal Employee Health Benefit Plan. Medicare and Medicaid reimburse approved services at 85% of the rate paid to the physician for similar services.

APNs can also seek reimbursement "incident to" the physician and obtain reimbursement at a 100% rate. The qualifier "incident to" is strictly defined and may not be desirable in a collaborative practice health center setting, because there must be a physician service to which the "incident to" services are incidental. The physician must see the patient with sufficient frequency to demonstrate the physician's involvement in the patient's care. Some of these requirements may defeat the purpose of APN services in needy areas, where the ability to make frequent, lengthy visits is compromised, and where direct physician involvement may not be necessary. "Incident to" services performed by an APN would not be visible on the claim form. The service is submitted as if the physician rendered it.

D. Other Settings and Structures for the Provision of Care

As noted above, APNs may create private practices with other allied professionals, and/or on their own, and may provide services within each of their scopes of practice.

They may likewise, and within the restrictions noted above, form and lead Federally Qualified Health Centers (FQHCs), and look-like FQHCs, hybrid governmental agencies, and private practices located as retail clinics. FQHC's, as NJDOH-licensed facilities, allow for the hiring of a physician without falling afoul of the Corporate Practice of Medicine restrictions.

They may form any of the above as a for-profit structure, or seek the tax advantages of non-profit status. They may also form Professional Corporations which are managed by larger corporate entities (Captive PCs) and which contract for services from that corporate entity, or Medical Services Organizations (MSOs).

If the facility is a private practice, an MSO could be hired to take care of all administrative services, including providing the collaborating physician. The administrative services provided by an MSO do not include the provision of direct care to patients. As the recommendations demonstrate, there are a number of specific areas of need which APNs may fill, and there will be regulatory, structural and operational challenges and opportunities applicable to each endeavor. Given the complex web of relationships between providers with varying scopes of practice, and the corporate practice of medicine, legal advice should be sought before structuring a practice.

KEY FINDINGS

Legal and regulatory structures create some challenges to the establishment of NP-led practices. Corporate practice of medicine regulations, which are intended to protect independence of medical decision making, create APN practice structure complications when securing an agreement with the required collaborating physician. Although legal structures do exist for APN-led practice careful legal advice is essential in creating innovative models for practice to avoid violating corporate practice of medicine regulations.

VII. Caring for Vulnerable Populations: A Nursing Model of Care Delivery

Newark and Trenton are both listed on the New Jersey Medically Underserved Index and have major unmet health needs. Health disparities in these two cities have been identified for both the African American and Hispanic populations in the areas of early cancer detection, cardiovascular disease, perinatal and well child care, diabetes, and asthma to name a few. Disparities result from a complex mixture of systematic quality and access issues, disease prevalence, and social health determinants (poverty, housing, education/health literacy, etc.). Evidence of these health disparities is found in outcomes such as increased infant mortality, and lower life expectancy. To eliminate such disparities healthcare must be transformed by focusing on improving the quality of care delivered to the individual. Moving toward a system with greater ease of access, more care coordination and deliberate patient engagement has the potential to not only improve the quality of care but also improve health outcomes in a financially viable manner.

To improve health outcomes, care systems or models of care need to address a patient's full engagement in prevention, decision-making, and self-management activities. Patient engagement in such activities is vital to the business of delivering care and essential to achieving the Triple Aim of healthcare: improving the patient experience, advancing population health, and reducing costs. Yet relatively few care systems or models of care operate today with a thorough understanding of the elements of a successful patient engagement strategy supported by sound care coordination practices and improved access. Achieving this level of engagement continues to challenge the healthcare delivery system today in part due to the many definitions of the term "patient engagement." The model described here is formulated using the following definition:

> Patient engagement is the active collaboration between patients and providers to design, manage and achieve positive health outcomes. It is collaborative care coordination that is relationship-based with an orientation toward the whole person inclusive of their family or health partners.

It is care that the patient has been or will be actively involved in given he/she has agreed to the care, had input in the plan of care, takes responsibility for self-management, and is care that is therefore patient driven.

We propose a healthcare practice that will be committed to patient engagement as a core organizational value and that has infused that value into all aspects of its daily operations. We propose that this type of practice can best respond to the health problems identified in underserved communities such as Newark and Trenton, and can achieve success by providing consistent care delivered by community health teams led by Nurse Practitioners.

A. Nurse Practitioners Role in Care Delivery

Nurse practitioners deliver primary care in small and large, private and public practices and in clinics, schools, and workplaces. They function in both independent and collaborative practice arrangements, often taking the lead clinical, management, and accountability roles in innovative primary care models.[95] Evidence indicates that patient outcomes on satisfaction with care, health status, functional status, number of emergency department visits and hospitalizations, blood glucose, blood pressure, and mortality are similar for nurse practitioners and physicians. [96]

In its landmark report on the future of nursing, the Institute of Medicine points out that nurses will have a critical role in the future of healthcare especially in producing safe,

[95] Naylor, M.D. & Kurtzman, E.T. (2010) The Role of Nurse Practitioners in Reinventing Primary Care. *Health Affairs,* 29 (5), 893-899.
[96] Stanik-Hutt, J., Newhouse, R.P., White, K. M., Johantgen, M. et al. (2013) The Quality and Effectiveness of Care Provided by Nurse Practitioners. *The Journal for Nurse Practitioners,* 9 (8), 492-500.

quality care for all patients.[97] In this time of healthcare reform and system evolution, to best meet the needs of Americans, it is essential that models of care take full advantage of nurse practitioners. They are more likely than primary care physicians to practice in urban areas, provide care in a wider range of community settings, and serve a high proportion of uninsured patients and other vulnerable populations.[98] They have and can play an integral role in team-based and patient-centered models of care. They have demonstrated participation in primary care that has helped to increase access and improve quality especially for those populations in underserved areas through the establishment of nurse-managed clinics, participation in medical homes, and engagement in FQHCs. They have the ability to lead the utilization of the emerging evidence gathered from these multiple primary care innovation initiatives, and a history of establishing new comprehensive models of care.

B. Existing Models of Care

A number of care delivery models operate today with varying degrees of maturity. Some models are focused on redesign of specific delivery for a group of services, and some are intended to redesign healthcare across the full spectrum of healthcare delivery. Finally, some models build on the current open system using fee-for-service payments with small adjustments; others were set up to create an entirely new concept in healthcare delivery.

Most new models are designed to effect an increase in the quality and efficiency of care delivery for the patient's benefit. These efforts have expanded the notion of who might provide care as well as how care might be delivered outside the traditional face-to-face visit. Team-based care and non-face-to-face modalities for ensuring patient engagement and care coordination have become prominent components of these redesign efforts. The early research regarding the outcomes from these redesign efforts has fostered a rethinking of primary care visits: how much can be eliminated, delegated, or performed outside of the face-to-face visit?[99]

1. The Chronic Care and PCMH Models

Alongside efforts to re-evaluate and reorganize healthcare and staff roles, efforts are being tested to incorporate new ways to deliver care such as round-the-clock primary and specialty care access, virtual care coordination support, home-based monitoring, and interactive voice-response surveillance. These innovations combined with the application of the multicomponent practice changes that formed the basis for the Chronic Care Model (CCM) developed more than a decade ago may well be informative to the development of new models of care that will improve care and impact health outcomes.

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[97] Committee on the Robert Wood Johnson Institute on the Future of Nursing. (2011). The Future of Nursing: Leading Change, Advancing Health. *Institute of Medicine Recommendations*. 247-252.
[98] Van Vleet, A. & Paradise, J. (2015) Tapping Nurse Practitioners to Meet Rising Demand for Primary Care. *The Henry Kaiser Family Foundation Issue Brief.* January 20, 1-9.
[99] Pelak,M., Pettit, A.R., Terwiesch, C., Gutierrez, J.C. (2015) Rethinking primary care visits: how much can be eliminated, delegated or performed outside the face-to-face visit? *Journal of Evaluation of Clinical Practice,* 21 (591-596).

The aim of the CCM is to transform daily care for patients from acute and reactive to planned intervention provided by an effective care team. It is a model that provides directionality to care delivered in primary care practices and has application for special populations such as perinatal and well child practices. To be effective, the care team must be informed and skilled, patients must be engaged, and registry-based information systems must be utilized in combination with integrated decision support. These are the elements that have been incorporated into innovations such as the Geisinger Health Systems innovation strategy and are incorporated into elements of the Patient Centered Medical Home (PCMH).

Each redesign effort has focused on enhancing value by explicit care delivery system reform strategies and the associated organizational change strategies. Geisinger, as an example, suggests that sustainable healthcare value is created only when care process steps are eliminated, automated, appropriately delegated to lower-cost but capable staff or otherwise improved through innovation.[100]

As a widely adopted approach to ambulatory care improvement and as a guide to national quality improvement initiatives, the CCM model is an integral part of current patient-centered medical home models.[101] Patient-Centered Medical Homes (PCMHs) are transforming primary care practices into what patients want, focusing on patient themselves and all of their healthcare needs. This is a model that was adapted by pediatricians in response to the complex needs of children and is now being utilized in perinatal healthcare programs.

These practices are also seen as foundations for a healthcare system that gives more value by achieving the Triple Aim of better quality, experience and cost.[102] It is notable that these are primary care practices that have been in existence and therefore not in a start-up phase. Further, there is a vehicle for recognition of PCMHs by the National Committee for Quality Assurance (NCQA). To achieve recognition, practices must meet rigorous standards for addressing patient needs. The model is designed to support the primary care physician in taking the lead role in coordinating care for patients.[103] The core elements of PCMHs include the following:

- Comprehensive Care: meeting the large majority of each patient's physical and mental healthcare needs, including prevention and wellness, acute care, and

[100] Paulis,R.A., Davis, K. & Steele, G.D. , (2008) Continuous Innovation In Health Care: Implications of the Geisinger Experience. *Health Affairs,* 27 (5), 1235-1245

[101] Coleman, K., Austin, B.T., Brach, C. & Wagner, E.H. (2009) Evidence On The Chronic Care Model In The New Millennium, *Health Affairs,* 28 (1) 75 -85.

[102] Rich, E, Lipson, D, Libersky,J & Parchman, M. (2012) Coordinating Care for Adults with Complex Care Needs in the Patient-Centered Medical Home: Challenges and Solutions. White Paper (Prepared by Mathematica Policy Research under Contract No. HHSA29020090000191/HHSA29032005T) AHRQ Publication No. 12-0010-EF Rockville, MD; Agency for Healthcare Research and Quality. January 2012.

[103] American Academy of Acturaries. (2014) Examining the Health Care Equation: Actuarial Perspectives on the cost and quality. *Issue Brief.* January available at www.actuary.org.

chronic care. Providing comprehensive care means having a team of care providers.

- Patient-Centered: meeting the care coordination needs of each patient by partnering with the patient and the family, respecting their values and wishes.
- Coordinated Care: coordinating care across all segments of the broader health system.
- Accessible Services: delivering care with shorter wait times for urgent needs, enhanced in-person hours, around-the-clock telephone or electronic access to a member of the care team, and alternative methods of communication as requested by the patient or family.
- Quality and Safety: demonstration of a commitment to quality and quality improvement by ongoing engagement in activities such as using evidence-based practice and clinical decision support tools. Measuring and reporting of the patient experience, patient outcomes, and population health management is integral to the demonstration of quality.[104]

There is broad support in both public and private sectors for PCMH. The Department of Defense is working to transform all of its primary care practices into PCMHs that meet the NCQA standards for recognition. The US Department of Health and Human Services is helping community health centers and FQHCs to also become PCMHs. As of 2014 there is an increasing emphasis on team-based care, integration of behavioral health, care management of high-need populations, and encouragement of patients and family involvement in practice management.

2. Federally Qualified Health Centers

Federally Qualified Health Centers (FQHCs) are another example of primary care delivery envisioned to transform care. Their primary focus is to provide access where primary care resources are constrained and population health outcomes have therefore been compromised. They are required to be community-centered and must emphasize care coordination. Furthermore, they rely on a range of staff to provide services.

Service sites include permanent sites, which are open year-round in a defined location, seasonal sites, mobile van sites, and intermittent sites operating in a van at locations during certain times of the year. Given their role as community-based safety net providers, FQHCs are subject to fairly extensive governance requirements. They are required to have a board of between 9 and 25 people, with the majority of the members being patients receiving services from the FQHC.[105] The core elements of the FQHCs include the following:

- Provide primary and supportive services that enable access to all, regardless of ability to pay, inclusive of preventive and enabling health services.
- Offer accessible locations and hours of operation including after-hours coverage.

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[104] Bielaszka-DuVernay, C (2011) Vermont's Blueprint for medical homes, community health teams, and better health at lower cost. *Health Affairs.*30 (3): 383-386.
[105] MedPac, (2011) Federally Qualified Health Centers, *Report to the Congress: Medicrae and Health Care Delivery System, Chapter 6.* (June): 145-160.

- Hire culturally and linguistically appropriate physicians with admitting privileges at area hospitals.
- Develop and follow a quality improvement plan that is overseen by a clinical director whose focus of responsibility is to support quality improvement and who guides periodic assessment of appropriateness of utilization.
- Have established arrangements for hospitalization, discharge planning, and patient tracking to ensure continuity of care.
- Provide primary care services for all age groups; provide or arrange for dental services, mental health and substance abuse services, transportation services, and hospital and specialty care.
- Establish systems for data collection, reporting, and medical information recording.
- Maintain a core staff that can address the needs of the population being served inclusive of services delivered by physicians, nurse practitioners, physician assistants, and clinical nurse midwives. FQHCs run by a physician assistant or nurse practitioner must have an arrangement with a physician to supervise these staff.
- Offer an opportunity for medical residents and other healthcare providers to experience care delivery in an ambulatory setting.[106]

3. FQHC Look-Alikes

Federally Qualified Health Center Look-Alikes (FQHC-LAs) are health centers that have been certified by the federal government as meeting all of the Health Center Program requirements, but do not receive funding under the Health Center Program. They provide primary, preventive, healthcare services to all age groups and must have arrangements for dental health, mental health, enabling services, hospital, and specialty care. Grant reporting requirements are eliminated. The care models often reflect the lack of this funding and care is delivered through arrangements with other providers and service groups using a care coordination model. As of 2012, the average FQHC-LA caseload was about 10,000 patients per center compared to 18,000 in funded centers. They provided a total of 3.4 million visits, compared to the 83.8 million provided by funded centers. Medical visits, as opposed to mental health or dental visits, appear to make up a larger share of visits and there is often a limited capacity to provide certain types of care.[107]

The culture of both the FQHCs and the FQHC-LAs emphasizes cultural competence, team-work, and patient-centrism and is well aligned with the PCMH model. Furthermore, they have experience in collaborating on quality improvement initiatives. However, they would need substantive support to make the required fundamental changes in processes and

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[106] Katz, A.B., Felland, L.E., Hill, I & Stark, L.B. (2011) A Long and Winding Road: Federally Qualified Health Centers, Community Variation and Prospects Under Reform, *Center for Studying Health System Change*, *Research Brief.* N0.21, November 2011.

[107] Shin, P, Sharac, J, Rosenbuam, S.J (2014) Community Health Centers: A 2012 Profile and Spotlight on Implications of State Medicaid Expansion Decisions. *Geiger Gibson/RCHN Community Health Foundation Research Collaborative.* Paper 38. http://hsrc.himmelfarb.gwu.edu/spphs_ggrchn/38

practice culture most notably in the areas of operational efficiencies, delegation of work to other team members, and ability to meet the demand for all services needed by the patients they serve.

4. Nurse-Managed Health Centers

Nurse-managed health centers (NMHC) as a model of service delivery have been present throughout the U.S. healthcare system for the past 22 years delivering services to client groups in various sectors of American society. NMHCs accomplish this through a variety of unique arrangements that evolved out of the opportunities provided by academic environments for nursing education, or through partnerships with academic institutions. Using this model, the healthcare services provided may range from basic health promotion and disease prevention approaches, to full service primary care, inclusive of disease management programs. The essence of the NMHC is embodied in independent nursing practice, with NPs serving as primary care providers, managers, and administrators. Structurally, the NMHC model is led by an NP with educational and experiential qualifications in leadership and supervision. The nurse leader has overall responsibility for the design and implementation of the strategic plan, as well as for the operational and financial systems of the organization. A concomitant goal is that of providing for student clinical experiences.[108]

Changing reimbursements and dependency on academic institutions continue to pose financial challenges for this model. That situation is compounded by their dependency on grants and support from the Health Resources and Services Administration (HRSA), which can end at any time. Literature on NMHCs is still relatively sparse and thus evidence of quality, access, and cost are only beginning to be validated. The populations they serve are highly variable as is the care delivery model. Some centers provide a full range of primary care services while others provide basic health promotion or specialty services.

In an effort to retain a viable practice, some NHMCs have expanded their services. A number of the NMHCs have elected to integrate mental health into primary care to provide a holistic, comprehensive model. In some models studied, visits average 20 to 30 minutes and increased efficiency was noted when primary care visits for less complex patients were initiated by an RN followed by a few minutes with the NP, allowing the NP to focus on the more complex patients.[109] This type of study is foundational to the emerging literature on a new model for NP utilization in primary care to increase productivity and cost efficiency and thus will be discussed as integral to the model proposed for care delivery in Trenton and Newark.

Note: Appendix 7 provides additional insight to nurse-managed clinics and FQHCs from the perspective of national nurse leaders from around the country.

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[108] Esperant, M.C. R., Hanson-Turton, T, Richardson, M , et al. (2011) Nurse-managed health centers: Safety-net care through advanced nursing practice, *American Academy of Nurse Practitioners,* 24 : 24-31

[109] Ely, L.T (2015) Nurse-Managed Clinics: Barriers and Benefits Toward Financial Sustainability when Integrating Primary Care and Mental Health. *Nursing Economics,* July-August 33:4, 193-202

5. Accountable Care Organizations

Accountable Care Organizations, (ACOs) have the potential for delivering a high degree of integration of care, greater communication across the care continuum, and quality-based care delivery. ACOs are comprised of physicians, hospitals, and other healthcare providers who come together to demonstrate cost efficiency and quality care delivery. These "networks" share financial and medical responsibility for the patients served and primary care is at the heart of the care model. To date those ACOs which have been successful are those which have undergone entire system redesign and are employing many of the tenants of CCM. The staffing model and the care model are highly dependent on the population that the network is serving. At its core is a commitment to primary care, care coordination, and real-time information. It is a model currently under evaluation, focused on the ability to improve quality and costs for the Medicare population. The core elements must be demonstrated throughout the entire "system" of care.

6. Program of All-Inclusive Care for the Elderly (PACE®)

The Program of All-Inclusive Care for the Elderly (PACE®) provides comprehensive medical and social services to certain frail, community-dwelling elderly individuals, most of whom are dually eligible for Medicare and Medicaid benefits. An interdisciplinary team of health professionals provides PACE® participants with coordinated care. For most participants, the comprehensive service package enables them to remain in the community, rather than receive care in a nursing home. Financing for the program is capped, which allows providers to deliver all services participants need rather than limit them to those reimbursed under Medicare and Medicaid fee-for-service. The PACE® model has traditionally been physician-led with the support of an array of both professionals and paraprofessionals. Social workers are an integral part of the team as are advanced practice nurses. There does not, however, seem to be any direct impediment to this practice being APN-led.

7. Hospital at Home Model

An additional model that is important to mention is the Hospital at Home model that allows patients requiring admission to an acute care setting to consent to treatment at home. Physicians lead an interdisciplinary team in delivering care in the home setting using care pathways. Physicians and nurses are available 24 hours a day. This model allows for intensive care in the least costly, least intensive settings and the outcomes from such programs assist in informing care model development using a team approach with care guided by patient wishes and care pathways.

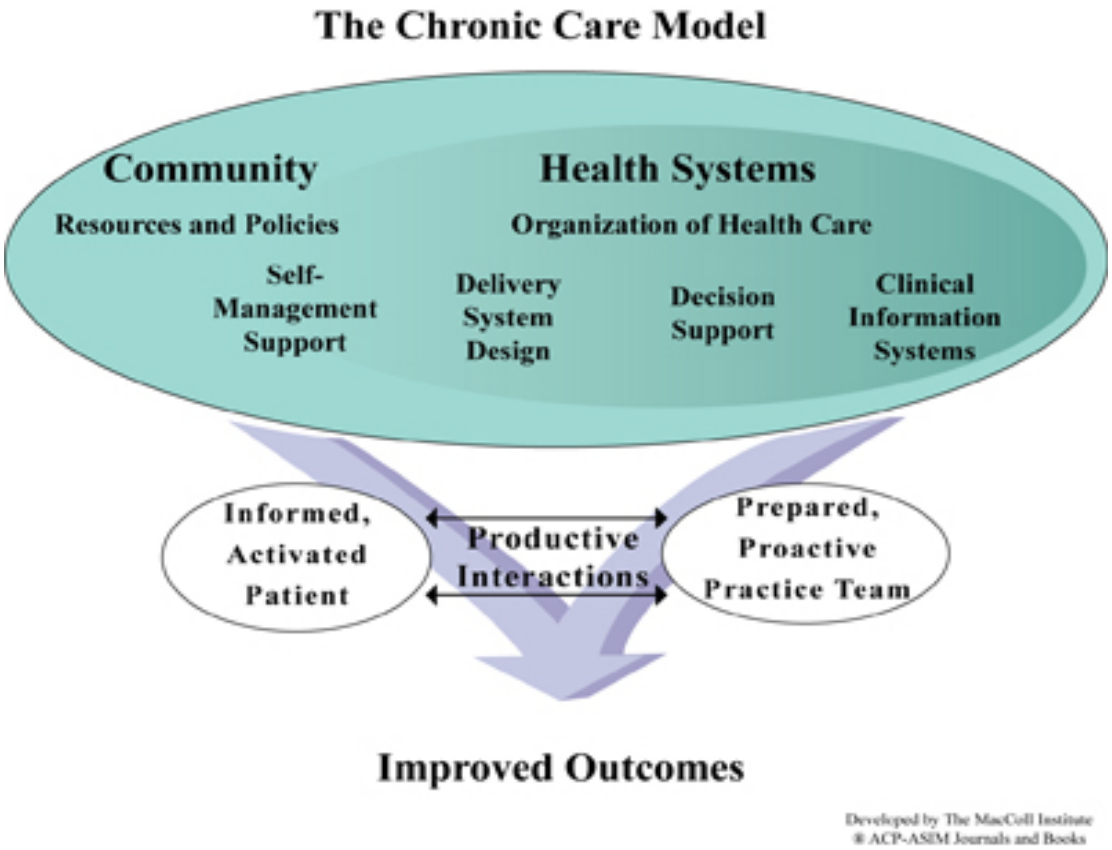
The Hospital at Home model has informed other care models through its demonstration of the use of interdisciplinary teams in the home setting that deliver intensive care. The Strong Start for Mothers and Newborns and enhanced perinatal care model is one example. This program is inclusive of comprehensive perinatal care and is providing enhanced care in maternity care homes. Care is delivered by a team of nurse practitioners and midwives that includes psychological support, education, peer counselors, and a broad array of health services.

8. Well Child Care Models

Lastly, there is a need to address well child care models and guidance on the care delivery elements of the National Health Promotion and Prevention initiative led by the American Academy of Pediatrics. The AAP provides guidance on the health screening and ongoing monitoring of the well child. The tools developed through this initiative are founded in the health home model devised and promoted by this organization and thus the care model demonstrates the application of core elements of the health home.

9. Chronic Care Model Advantages

All of the models discussed have some elements of the Chronic Care Model introduced earlier. Again note this framework and its adaptation has been well demonstrated over the years and provides guidance for emerging care models. Furthermore, it has been validated as having application when addressing even the most complex care issues such as diabetes, congestive heart failure, chronic obstructive lung disease, chronic pain, behavioral health issues, cancer, perinatal and well child care, as well as substance abuse. It is notable that the model supports the concepts being fostered today regarding patient engagement and patient driven approaches. The graphic below identifies the elements of the model that can lead to improved outcomes.

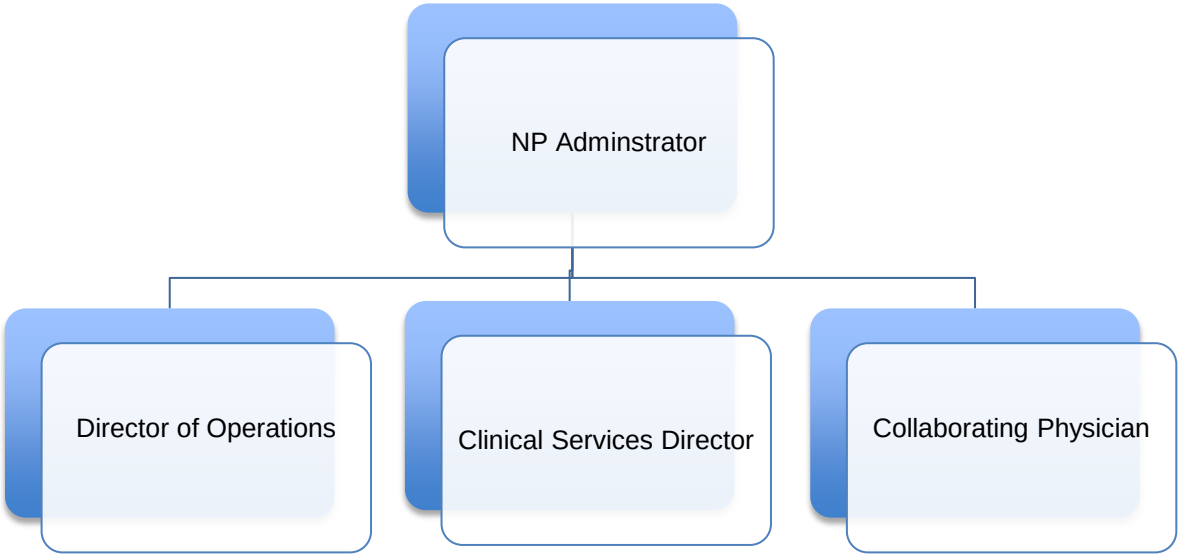


C. A Nursing Model of Care for Vulnerable, High–Risk Populations

After review of selected care models that are focused on care of those who are underserved the following is the model proposed for implementation in Trenton and Newark. The aim of

the model is to provide proactive, planned, population-based care through the use of a shared care team approach driven by the patient. Furthermore, the model is intended to be administered by a highly skilled NP. Clinical services will be organized according to the competencies and skills of the NP providers, and guided by an NP who provides direction and oversight to a team. As required by New Jersey law, a physician will be engaged part-time as a "collaborating physician."

The following figure shows the basic structure of the model:



Key Model Components

- Patient Engagement
- Risk Stratification
- Evidence-based Treatment Protocols
- Comprehensive & Continuous Assessment
- Real-time Information & Data Driven Decision Making
- Multidisciplinary Teams Inclusive of Lay Advisors
- Redesign of the Primary Care Visit Inclusive of Perinatal and Well Child Care
- Community Partnerships
- Patient Designed Plans of Care
- Adaptable to Specialty Focus: older adult, perinatal care, well child care, and birthing care

Vision: Create healthcare choices and peace of mind for each individual while ensuring his/her engagement in care and full awareness of their health status.

Mission: Improve the health and well-being of underserved individuals by coordinating care, involving them in care decisions, and providing services that will lead to positive health choices and improved health outcomes.

1. The Clinical Model

The clinical model provides a platform for systematic, comprehensive care coordination that closes the gap in the treatment of all conditions or potential condition development. The model blends traditional care coordination protocols with best practice management concepts and use of evidence-based guidelines to proactively manage the health of a population.

The clinical model design is applicable in a primary care practice or any practice specialty that has a holistic care focus and is vested in following patients over time and location. It is therefore a model that is applicable to practices that are focused on care of older adults, well child care or perinatal care inclusive of follow up in birthing centers. Each of these practice areas require a commitment to care coordination that allows for holistic care and care continuity to achieve significant health outcomes.

Care coordination is team-based and utilizes lay advisors to engage patients at the level of their interest and understanding. The model, led and implemented by NPs is intended to:

- Integrate primary, acute and long-term care services into a patient-driven, seamless system of care that patients can engage with and understand.
- Provide each individual with a timely and convenient assessment of their medically necessary healthcare needs in the least restrictive and most appropriate setting.
- Focus on preventive, primary, and secondary care that prevents the onset of chronic conditions or slows their progression.
- Involve the patient and their designated interested parties in the care planning process to ensure that the plan is one they can understand and engage with.
- Work in collaboration with all other providers and individuals that maybe involved in the care of the individual.

The recommended model will focus on the changing health issues and needs of this dynamic population. The goal is to deliver an optimal care process where none existed before. The model will provide patient-driven, coordinated care through a combination of:

<u>Clinical Interventions</u>:

- Enhanced primary and preventive care via one-on-one visits with a selected provider or a designee
- Telephonic or other designated follow-up for monitoring
- Collaborative care team approach using lay advisors and reliant on patient

<u>Customized Infrastructure</u>:

- Use of technology with decision support and protocol decision-making
- Enhanced patient access to healthcare information that can be shared with other providers

Innovative Use of Resources:

- Group visits
- Education forums
- Use of lay advisors and medical associates

2. Premise for this Model

The recommended model provides a strategy for helping individuals at risk for or living with an illness or healthcare need, improve their outcomes by engaging in their own care and driving their plan for care coordination and follow-up to prevent unnecessary health complications.

At the core of the approach is the use of nurse practitioners who lead multidisciplinary teams, use shared appointment or group visits, and are open to rethinking primary care visits to eliminate, delegate, or perform activities beyond the face-to-face visit. The proposed model is intended to utilize the CCM model to design the shared medical visits and use the proven methodologies related to cross training and peer group support alongside the use of a registry to identify patients that would benefit from such an interaction. The shared visits offer emotional support and experience sharing that otherwise would not be available to the participants. Furthermore, during the course of these visits, acute care issues are often identified and timely follow up can be scheduled. Such visits and the teams designed to support this care delivery methodology have been well documented as early as 2003.[110]

It is timely to re-envision the primary care visit within the concept of a team approach and consider alternatives to the traditional face-to-face visit. Currently there is data that provides a window into how to shift some components of healthcare to other team members.[111] Activities that this proposed care model would delegate to others include: medication review, preventive care with utilization of guidelines and best practice information, vital signs, and identification of key concerns. The staff to whom these activities could be delegated would be identified as a medical assistant (MA). It is notable that in recent studies, NPs may see 18 patients a day and with support an average of 25 is feasible. The number of patients is relative to the demographics of the population and location of service but is informative. The increase in visits as well as the associated reduction in staff costs makes this staffing model worth noting. [112]

In addition to the MA role, this model suggests that Lay Health Advisors be utilized for those patients with chronic conditions to support lifestyle changes. Lay Health Advisors are

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[110] Watts, S.A., Gee, J., O'Day, M.E. et al (2009) Nurse Practitioner-let Multidisciplinary Teams to Improve Chronic Illness Care: The unique strengths of nurse practitioners applied to shared medical appoints/group visits. *Journal of American Academy of Nurse Practitioners.* 21, 167-172.

[111] Pelak, M., Pettit, A. R., Terwiesch, C. et al (2015) Rethinking primary care visits: how much can be eliminated, delegated, or performed outside of the face to face visit?. *Jouranl of Evaluation in Clinical Practice.* 21, 591- 596.

[112] Liu,N, Finkelstein, S.R, Poghosyan, L. (2014) A new model for nurse practitioner utilization in primary care: Increased efficiency and implications. *Health Care Manage Rev.,* 39)1, 10- 20.

respected community residents who are seen as natural helpers and have been noted to promote better health by encouraging the use of community services and programs and promoting a healthier lifestyle. [113] They become an integral part of the team and may be employed or volunteer.

Registered Nurses(RNs), a case manager, a behavioral health professional, medical-records and frontline staff are other key team members for this proposed model. Every team member shares responsibility for the team's patients. MAs take histories using electronic medical record (EMR) templates and give immunizations according to protocols. Designated team members handle most of the preventive and much chronic care management by combing a patient registry[114] and independently arranging for patients to receive routine preventive care. RNs, using standard orders, treat patients with minor issues such as ear infections, obtain cultures, and handle critically important and time sensitive issues such as managing Warfarin dosing. They do all of these activities independently and input the details into the EMR for later review by the NP. Case managers focus on care coordination needs of the teams' patients and are charged with oversight needed as patients experience a transition such as occurs following a hospitalization, a visit to a specialist, or a visit to the emergency room. Additionally, case managers can arrange transportation, group visits, educate patients about appropriate care settings, educate them on self-management, and follow up with pharmacies to ensure adherence to medication regimens. Behavioral health specialists provide short-term counseling (three to eight sessions), evaluate response to medication therapy, and refer patients to community-based mental health clinicians when more intensive therapy is required.[115]

The multidisciplinary team described above utilizes a risk stratification methodology to classify patients into health or social risk categories that are clinically meaningful, determine the risk for acute health issues, and predict future healthcare usage. It serves as a guideline to prioritize care needs/visits and matches the patient to the team member most equipped to address the need. Risk is assessed in the following areas:

- Disease or health condition/progression - preventable complications, preventable acute exacerbation of existing condition(s), risk of new condition(s), risk of preventable functional loss, etc.
- Placement or service needs - housing issues, dietary needs, transportation needs
- Utilization patterns - emergency room visits, primary care visits, urgent care or retail clinic use
- Co-morbidities and complex medication regimens

[113] AHRQ Healthcare Innovations Exchange, Community Partnerships

[114] A patient registry is used to evaluate specified outcomes for a population **defined** by a particular disease, condition, or exposure, and that serves a predetermined scientific, clinical, or policy purpose(s). "Combing a registry" is a helpful tool to review patient records as a group to evaluate metrics such as date of most recent exam, results from most recent scan, immunizations, etc. to find ways to improve care.

[115] Bodenheimer, T. (2011) Lessons from the Trenches- A High-Functioning Primary Care Clinic. *The New England Journal of Medicine*. July , 365: 5-8.

The risk stratification process allows the team to provide the most appropriate care, delivered by the most appropriate person in a timely manner. This process facilitates interventions that can prevent or minimize health problems or complications. The initial stratification screening assesses the following domains:

Domains of Risk Stratification Screening			
Physical Health	Emotional Health	Functional Health	Environment
• Medical Conditions • ER or Hospital use • Physician use • Medications • Equipment and treatment use • Symptom recognition • Symptom management	• Overall self-perceived health • Behavioral health and depression • Psychological services use • Support groups	• Ability to perform ADLs and IADLs • Work history • Daily activities • Agency use or support • Work history	• Living arrangement • Support systems • Shopping

3. Populations Served in This Model

The proposed care model is designed to provide individualized healthcare services for individuals who are vulnerable or underserved by the current healthcare system. The goal is to provide services across a full continuum of care settings and in the environments that meet the needs of the population.

Individuals to be served would include:

- Those requiring health promotion, preventive primary care or episodic intensive care for short term conditions or concerns.
- Those with chronic illnesses requiring constancy of attention and guidance
- Those with a functional disability that has high impact and require multiple daily and independent living activities.
- Those who are frail and not able to function well and are at risk for a sudden catastrophic event.

4. Comprehensive, Personalized Care Planning

This clinical model targets those at risk for increased morbidity or mortality due to diseases or conditions or the development thereof. The planning services would include but are not limited to:

Assessment and understanding of individual needs

- Provide for virtual and onsite in-person assessments and education
- Provide for group interactions and sharing
- Provide access to support systems and referral

Recommend a course of action

- Develop a personalized care plan that is jointly established and contains realistic, achievable goals for which progress can be monitored
- Educate the individual on current health issues and risk for development of others
- Assist in navigation of the healthcare system and access

Identify and arrange support services

- Home and community
- Financial
- Legal assistance
- Living arrangements
- Adaptive equipment
- Personal response systems
- Caregiver support/education

Evaluate and Monitor progress

- Ongoing access 24/7
- Proactive planning support/crisis management
- Intervention impact assessment
- Established communication schedules
- Constancy of medication management and oversight
- Change of condition/status oversight
- Care transition management

5. Technology Needs

The above identified services are supported by attention to the achievement of optimum levels of efficiency through the use of technology, applying clinical guidelines to help generate reminder letters, chart reminders, standing orders, and running reports to guide the management of the practice. All services are continuously assessed for cost effectiveness, quality impact, and patient satisfaction.

The types of services are applicable to all populations with the intent that the supporting workflows, the personnel, the scheduling, the clinical decision supports can be developed and adapted to specialized needs as required. The services can be adopted for delivery by a wide range of personnel and would include the use of Lay Health Advisors who can develop and implement a variety of activities to reduce risk factors for the development of complex diseases and promote healthy lifestyles and better health. The need for services and evaluation of their adequacy and impact is core to the clinical model.

Patient centered technology requires the integration of mobile, IOT (the Internet of Things), EMR (Electronic Medical Record), HIE (Health Information Exchange), analytics, and a patient portal. Interoperability is moving rapidly across all industries and to some degree the only technology decisions that a practice can control are their selection of EMR, Patient Portal, and orientation to embrace mobile, analytics, HIE, and IOT. These critical decisions that will need routine evaluation as the landscape rapidly evolves. They will also

demand a different approach to human capital considerations. Each team member will need to embrace technology and translate that comfort level to the patients and their families.

6. Financing

It is understood that in the early implementation phase the staffing model suggested to support quality care that is also cost efficient will evolve overtime. In the initial phases, staff would be recruited who are able to perform in multiple roles and their work would be guided by explicit protocols and the use of a robust EMR.

Furthermore, the risk stratification process allows a small staff to prioritize visits and to plan for visit complexity. The stratification process combined with the use of nurse practitioner students can promote a cost efficient methodology during the implementation phase. Providing for students has long been a commitment of NMHCs, FQHCs, and FQHC-LAs. The unique team model and commitment to patient engagement in care is laden with possibilities for promoting and facilitating student learning not always available in more traditional settings.

Several key variables will need to be balanced over time to remain viable. The following are the major balance points:

- The number of revenue producing staff (i.e. NP's)
- The ratio of patient charts to revenue producing staff (2,300 Charts : 1 NP)
- The ratio of non-revenue producing staff to revenue producing staff. (Maximum 5:1 with no management services, reduced with management services based upon scope of management services)
- Careful selection and calibration of management services support to allow otherwise step-variable expenses to be indexed to revenue and cash flow during the early phases of the organization.
- Careful selection and training of clinical and non-clinical staff to ensure their self-sufficiency in a technology-heavy clinical operation

Under normal circumstances, a care model of this complexity will demand a minimum of 15-20 revenue producing full time equivalents (FTEs) which translates into a total patient population of 35,000 – 50,000 patients. It is virtually impossible to start an ambulatory care operation of this magnitude. In fact, most ambulatory care in the US is delivered in practice sites of 1-5 revenue producing providers. Even the largest group practices in the U.S. often organize their revenue producing providers into 3-5 revenue producing FTE sites. The growing pains tend to be "order of magnitude" complexity leaps as a practice grows with additional providers. As a practice grows from one to three providers to three to five providers, the growth in complexity from adding these additional providers is tenfold. There is another ten-fold growth in complexity when growing again, from five to ten providers and a third growth in complexity from 10-20 providers. These are the typical failure points of a practice and one of the reasons that even large practices tend to organize in practice sites of two to five providers. Successful growth strategies have relied heavily on carefully selected and contracted management service organizations providing revenue

cycle management, EMR, non-revenue producing staff, and staff training coupled with ample supplies of working capital.

It is not unusual for it to take 6 months to a year for a revenue producing FTE to reach his/her full production potential.

> "The new NP(e.g. newly graduated) entering FQHC practice requires up to a full year of mentorship by another clinician employee before the NP is fully 'up to speed,' confident independent, and able to manage a full panel of patients."[116]

Others note that employers should expect lower volume in the first year.[117] Impediments include building a patient base, ensuring managed care contracts are in place, ensuring credentialing with each managed care organization, learning practice operations unique to the practice, and developing tight personal patient relationships. Successful organizations have mastered the art of reducing this lag to 30-90 days for processes that can be controlled by better administration (such as contracting, training, credentialing, etc.) and strategically positioning the practice to accelerate patient engagement and retention by proper balancing of clinical site selection, management services, and key strategic relationships based upon mutually beneficial opportunities.

The care model and services are based on the premise that increasing and enhancing primary and preventive care, while providing proactive care coordination and service management, will reduce healthcare costs and supports the individual in the achievement or maintenance of the highest level of functional status possible. Using a team care model allows for a matching of personnel to the needs and wants of the individual and supports cultural or social needs and responsiveness. However, it is critical to note that healthcare cost savings is realized at the payer/purchaser level and not at the practice level. In order for savings to finance the practice level, advanced value-based managed care compensation arrangements must be in place and the scope and scale of population healthcare management intensifies tremendously. In the early stages of the practice, the value proposition for the patient and family must be paramount and engagement with the payer/purchaser community must be timed carefully.

This proposed model would begin operations with a complement of 2-3 revenue producing FTE nurse practitioners and could steadily grow to 8-10 FTE NPs in 24 months and 10-15 over 60 months. It would be essential to carefully develop well vetted management services arrangements for operations including staffing and technology on a percent of cash flow basis. Operations should be strategically constructed to complement rather than compete with existing key delivery system participants. An example financial model is shown in Appendix 8.

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[116] Flinter, M., Residency programs for primary care nurse practitioners in federally qualified health centers: A service perspective. The Online Journal of Issues in Nursing, 10(3), Sept 30, 2005.
[117] Brown, MA and Olshansky, E. From Limbo to Legitimacy: A theoretical model of the transition to the primary care nurse practitioner role. Nursing Research, 46(1), 46-51. 1997.

Unleashing the potential of nurse practitioners to lead the care effort and drive to innovative programing has the potential to improve health outcomes, improve efficiency, increase patient satisfaction, while reducing care costs. Care delivery can be reinvented.

KEY FINDINGS

There are multiple nursing models of care in operation throughout the nation. This Feasibility Study proposes a healthcare practice committed to patient engagement as a core organizational value so as to best respond to the health problems identified in Newark. The practice model proposed herein includes an APN-led team of nurse practitioners, medical assistants, lay health advisors, registered nurses, and others.

Key components of the model include:

- risk stratification
- evidence-based treatment protocols
- comprehensive and continuous assessment
- data-driven decision-making
- redesign of the primary care visit
- community partnerships
- patient-designed plans of care
- care coordination
- case management
- patient education
- system navigation
- health information technology

To be financially feasible, the APN practice must swiftly meet the criteria for designation as a primary care medical home, achieve necessary patient/provider ratios and volume, and have an appropriate payer mix. Given the strong relationship of the social determinants of health to general health status, a practice that provides social services or has access to needed social services, is highly desirable.

VIII. Barriers to Establishing Nurse Practitioner–Led Practice in Newark

The prospect of a community-based primary care practice run by an advanced practice nurse is exciting because the nature of nursing training, and specifically APN training, is incredibly patient-centric. Nursing has always understood the importance of community and environmental factors, outreach, and patient engagement in terms of preventing

disease or disease progression. From the days of Florence Nightingale to the exemplary history of the public health nurse, nursing has demonstrated that caring for patients includes treating their social and economic problems, not simply taking care of sick people. Lillian Wald, a recognized 20th century social reformer and founder of American community nursing, believed that public health nurses should be involved with the patient's entire neighborhood, and work with social agencies, schools and faith-based communities among others to improve patients' living conditions and overall health.[118]

Despite most efforts, the social determinants of health continue to impact the health status of the people of Newark. Many residents are uninsured or under-insured and the care provided under the Medicaid system is marginal at best. Factors such as poverty, poor health literacy, and joblessness deeply affect the health of the people in Newark. Thus, the orientation of the APN to treating the "whole patient" by addressing both the physical/mental health aspects of care and addressing the social determinants of health is sorely needed.

Assuming it is a worthy goal to establish APN community-based primary care practice in Newark, what stands in the way?

Low resource communities face daunting challenges. They lack the resources that provide the necessary financial capital, workforce, and infrastructure capacity to create, implement, and sustain services to meet demand. In addition, legal/regulatory restrictions, restrictions to APN practice, crime/safety concerns, and "the politics" are also barriers that must be addressed. Each of these is discussed below:

A. Financial Barriers/Sustainability

Financial concerns rank at the top of the list of barriers to an APN-led practice in Newark. Safety net clinics are at risk because:

- **Payer Mix:** Virtually all of their reimbursement/compensation comes from government-based payers such as Medicare, Medicaid (New Jersey Medicaid reimbursement is one of the lowest in the US) or is not reimbursed at all (uninsured). Throughout the state, in communities at every level of the socioeconomic ladder, healthcare providers are forced to shift revenue shortfalls from government-based payers to commercial payers. In Newark, the commercial payer footprint is very small and, therefore, the opportunity for cost shifting is severely mitigated.
- **City Costs:** Added costs for a clinic located in Newark contribute to the expenditure side of the budget and must be addressed in the financial plan for a nurse-led practice. For example, to protect patient and provider safety in a high crime environment, costly security and alarm systems may be required. Also, there tends

[118] Fee, E and Liping, B. (2010). *The Origins of Public Health Nursing: The Henry Street Visiting Nurse Service*. Alma, MI: American Public Health Association.

to be more infrastructure cost for permitting and taxes than one might find in a more suburban setting.

- **Reimbursement Levels:** APNs are reimbursed for care at a lower level than their physician colleagues. Both Medicaid and Medicare pay the APN 15% less than other healthcare providers giving exactly the same service. Commercial health plans often follow the strategy in their own payment structure, adding to the financial challenge of operating an inner city NP practice. (Note that the costs for an APN-led clinic to cover staff, supplies, and other administrative costs are not lower than the costs of other practices.)
- **Patient Population:** Newark has a high proportion of undocumented immigrants, for whom there is little to no reimbursement. In most cases, an APN practice, while highly motivated to provide care to the community that needs its services, simply cannot take on the added financial burden of unreimbursed or poorly reimbursed services. To be able to offer services to the underserved, some means of obtaining adequate reimbursement for costs to provide healthcare to this undocumented population must be arranged.
- **Consistent Funding:** Many philanthropic organizations have provided critical funding for important initiatives in the city. However, funding can be short-lived, and without replacing that funding with another, more stable and ongoing revenue source, great programs slide into oblivion. Without consistent funding, it is difficult to build systems, retain staff, invest in infrastructure and build a patient/client base. Long term commitments from funders are needed to promote stability of programs and enhancement of good ideas. Also, greater coordination across foundations could enhance success factors and create a broader, more committed source of funding for important health programs.

B. Workforce

Interviews with agencies in Newark revealed that recruiting and retaining a qualified NP workforce is a concern. Salaries are lower compared to more affluent areas of the state. Those who are hired do not have the background in the business of healthcare or practice management that they need to function effectively, and there is no extended training time for them to feel comfortable managing a very medically and socially complex patient population. The push to see patients is overarching, mentoring is highly variable, and often absent. And the resources needed (social workers, therapists, colleagues, support staff, etc.) are frequently limited, making practice feel overwhelming. These problems are exacerbated by safety fears – clinicians don't feel secure getting to and from work or while at work.

C. Infrastructure

Patient and other stakeholder interviews reveal that the transportation infrastructure to support access to care is lacking - especially at night. In addition, there are long delays in receiving assistance with applying for Medicaid, and long waits in clinics and ERs for care. Additionally, healthy living supports are virtually nonexistent. Although efforts are underway to improve daily living, Newark doesn't have the resources or infrastructure in place to support a sufficient number of safe playgrounds for children after school, or to

provide markets that carry fresh fruits, vegetables and other healthful products.

D. Legal/Regulatory Barriers

Professional barriers and city and state regulations are barriers to APN community-based practice in Newark.

- **APN Scope of Practice**: Although APNs are permitted to provide full-scope primary care, they cannot do so without a collaborating physician. This requirement controls many aspects of the practice, including physician agreement as to what the nurse can prescribe within the practice. The collaborating physician must also review some patient cases for quality assurance. This creates a practice barrier (finding a physician who will agree to this role), a legal barrier (finding a way to do this without violating the New Jersey corporate practice of medicine rules) and a financial barrier (funding an additional practitioner at some level to meet this collaboration requirement in an already flattened reimbursement environment). Many physicians charge a monthly fee to serve as the collaborating physician even though the actual time commitment is minimal.

- **Admitting Privileges**: Although New Jersey law permits healthcare facilities to allow APNs to admit patients, such privileges are often denied by the hospital review board, which is controlled by the institution's medical staff. Without the ability to get patients admitted into hospitals, nursing homes, psychiatric institutions, rehabilitation centers, and other facilities, a primary care practice may not be practical or prudent. Certainly, this situation would require a "work around" strategy to ensure needed services are provided.

- **City/State Regulatory Barriers**: It is unlikely that there are intentional regulatory barriers to the establishment of responsive primary care centers in Newark. Still, the regulatory road to healthcare is frequently blocked by well-intended regulations which may do more harm than good. The scope of practice regulations described above, emanating from the Board of Medical Examiners and the Board of Nursing (both governed by New Jersey's Division of Consumer Affairs, headquartered in Newark) are an example. Similarly, the State Department of Health's interpretation of licensure standards for ambulatory care facilities' waiting rooms may preclude the sharing of waiting rooms between pediatric populations, and those who may have mental health diagnoses. While the purpose of this restriction may be safety, it creates cost and efficiency barriers for all providers in the delivery of primary care services to both children and the rest of the Newark population, who suffer from co-morbidities including mental health diagnoses.

It should be noted that one example of a seemingly discrete regulatory concern could have a large impact on care access. While this report is anecdotal,[119] it is also both an apt example and instructive. Apparently, the City of Newark had previously provided the first copy of a birth certificate for free, via mail, to the parents of newborns. This document is essential for obtaining health insurance for that infant, whose parents may be undocumented or otherwise uninsured. A change in policy has resulted in a $25 charge for the document, payable only by money order or cashiers' check. Further, the new policy requires the certificate must be either picked up at Mary Eliza Mahoney Health Center on University Avenue, or be obtained by mail. Parents must prove identification with a Motor Vehicle Commission ID. These barriers result in the addition of uninsured newborns to the rolls, due to the sheer difficulty and cost of obtaining lawful documentation.

E. Safety/Crime

In 2015, Newark ranked #9 in the *"Top Ten Most Dangerous Cities Over 200,000."*[120] The city moved up 10 places in 2015 because the city's violent crime rate rose by nearly 10%, the largest increase among the cities on the list. The rise in rankings was primarily due to a 23% increase in the number of robberies, and the total number of murders increased over 16%, from 96 in 2012 to 112 in 2015.[121] Compared to the State of New Jersey, Newark's "crime rate is higher than 95% of the state's cities and towns of all sizes."[3] A high crime rate has a direct effect on healthcare - not only from the injuries or psychiatric effects, but also by impeding access to care, especially in the evening and at night. In this Feasibility Study, patients said they would not leave their homes in the evening because "it wouldn't be safe." This leads to overuse of the emergency room and ambulance services, two services that drive up healthcare costs. And, as noted above, a high crime rate makes it hard to recruit NP providers and difficult to schedule NPs to work extended evening hours.

F. The Politics of Healthcare in Newark

The lack of sufficient resources breeds a culture of competition, rather than a patient-centered collaboration**.** In one interview, the individual being queried told the interviewer that their organization would not support new clinical services because it would be in "competition" with their clinic and might take away resources that could otherwise be allocated to their clinical service. Concerns were raised by many that obtaining credentialing and admitting practices may be a sensitive issue but crucial for an effective APN practice. Forming strong relationships with local leadership in the community and among the healthcare delivery industry in the City will be essential. For an APN practice to

[119] As of January 25, 2015, the Newark City website link for birth certificates was down. Following a complicated chain, we located the Department of Health and Community Wellness. The first three numbers dialed there were either unanswered or not in service. The fourth number 973 733 6510 led to a pre-recorded instruction message on how to obtain the record, as noted above. An attempt to reach a customer service representative was unsuccessful.

[120] *Crime in America 2015: Top 10 Most Dangerous Cities Over 200,000*. January 20, 2016. http://lawstreetmedia.com/crime-america-2015-top-10-dangerous-cities-200000-2/

[121] Ibid.

be successful, it will require a community partner, and "new" resources that do not diminish support for another group.

IX. Summary Conclusions

Through stakeholder interviews, patient and APN focus groups, online surveys, and literature reviews and research, there is evidence of a continuing compelling need in Newark for basic primary care services, as well as a greater emphasis on wellness and prevention, chronic care management, and mental health/behavioral health services. In addition, there are focused needs in specialized areas such as childhood asthma and care of older adults with complex medical conditions. Further, it is clear that political will, resources, leverage and a laser-like focus will be required to affect the comprehensive changes needed in care delivery, education, employment, housing, infrastructure, and systems to realize a city that embodies a healthful environment. It truly will take all the stakeholder groups - not merely the healthcare community - to achieve this success.

As demonstrated, the health needs identified cannot be met in a traditional medical model of care. Many people in Newark are not only dealing with significant medical and mental health problems, their health status is also related to abject poverty, lack of jobs, inadequate housing, limited transportation, poor health literacy, language barriers, high crime, and many other factors. While brick-and-mortar centers have a place in the overall structure of health services, it was impressed upon the Project Team that care needed to be much more accessible, and ideally, geographically located in the neighborhood where people live, work, and play. The importance of more access points was one of the "no regret imperatives" (an initiative that will have a positive impact on healthcare "no matter what") identified in the Final Report for Greater Newark Healthcare Services Evaluation.[122] Recognizing that we cannot fully address any one of these issues alone, a new entity forces the creation of innovative solutions, partnerships, and relationships that can enhance the ability to succeed even with these challenges and in this environment.

A number of factors are beginning to set the stage for change. The Greater Newark Healthcare Coalition is "comprised of area health care stakeholders working together to improve outcomes by increasing quality and access to care." These partners coalesced in 2009 to address the primary healthcare crisis facing the city with hospitals closing, and to develop and implement a long-term strategy to improve the health and health services for the people of the Greater Newark area, particularly the poor and medically underserved. A key goal is to try to collaborate more effectively.

Similarly, Newark's Mayor Baraka has gone on record to support better healthcare. The Model Neighborhood Initiative is one such example. On January 14, 2016, the Mayor's Office announced that the Model Neighborhood Initiative was breaking ground for the Mary Elizabeth Mahoney Women's Health and Wellness Center. This facility is the city's

[122] Final Report for Greater Newark Healthcare Services Evaluation, March 2, 2015, p. 90. http://www.nj.gov/njhcffa/what/pdfs/NJHCFFA%20Final%20Report.pdf.

first stand–alone health center, and is scheduled to open in July 2016. The new Center will offer primary care services, ob-gyn services, a birthing center, and lactation counseling - evidence of both commitment and action to improve health services.

The business community also seems poised to offer support for an APN-led practice. It was heartening to learn that 90% of our business survey respondents agreed with the idea that a healthier population is good for business and the community as a whole. Most believed that there was a need for additional primary care services for both the inner city population and for the working population and that employees don't have access to conveniently located affordable primary care services. Many Newark employers indicated their support for an APN-led center by saying they would refer their employees to the center and/or promote a new APN center to customers and other businesses. Over a third of the business respondents said they would contract with the center to provide services.

Finally, the philanthropic community, which has already invested millions into supporting the City of Newark's healthcare, was receptive to the concept of an APN-led clinic. Several foundations indicated an interest in receiving proposals for any specific projects that might emerge from completion of this Feasibility Study.

The barriers an APN clinic will face are real, but not insurmountable. After reviewing nine models of care that have been tested in primary care settings and reviewing the elements of success in each of them, the Project developed an APN care model that we believe encompasses the necessary pieces to be successful and sustainable. In addition, we have identified key criteria for successful implementation of such a practice.

X. Key Findings

Key findings are presented in summary form herein. We have included findings for both Newark and Trenton, as well as specific findings related to Newark alone:

A. Findings for BOTH Newark and Trenton:

- APN Practice Support: There appears to be a high acceptance of the nurse practitioner as a primary care provider - acceptance from stakeholders, policy makers, payers, patients and the business community.
- Partnering Hospital: A cooperating acute care hospital will optimize the success of any APN primary care service.
- Inadequate Public Health System: Both cities suffer from a lack of public health infrastructure and coordination.
- Lack of Oversight: Although both cities have a Department of Health, neither exercises regulatory oversight in a consistent and ordered manner.
- Poor Linkage Between Payer and Needs: The public health needs vary greatly in these underserved and impoverished environments, especially for the poor, but those which determine the public health services that will be delivered are those who pay for them – capitated Medicaid HMOs and, to a lesser extent, Medicaid itself.

- Profits Over Care: Unfortunately, both the government and the health plans are focused on profitability within a rate-compressed, capitated environment, rather than on the overall health of the population.
- Competitive Environment: The relationships between the various provider entities seem more competitive than collaborative; this competitiveness is especially evident between the hospitals and among the Federally Qualified Health Centers.
- Community Buy-In: An array of community leaders and organizations identified through this study could be very helpful in seeking support from the business and philanthropic communities for an APN-led, community-based primary care practice. This might include, but not be limited to, assistance through their foundations, securing patient referrals where and when appropriate, as well as providing political and community insights.

B. Specific Newark Findings:

- Uncoordinated Care Options: There are a number of treatment options in the City of Newark but they are operated by different organizations with very little coordination.
- Mixed Quality Ratings: The best alternative for quality acute care delivery in Newark rests with Newark Beth Israel Medical Center. Both University Hospital and St. Michael's have been viewed as needing quality improvement by the State Department of Health, the New Jersey Health Care Quality Institute, and the national Leapfrog Group.
- Locally Delivered Healthcare: Healthcare is delivered in culturally and ethnically distinct communities in each ward of Newark with very little crossover. Thus a large, global health center taking advantage of economies of scale is not practical in that environment. Alternatively, there are several offers of space for smaller clinical services from community leaders.
- Local Identity: For a delivery system or new model of care to be successful, it would need community support and would need to be perceived as "local."
- Willing Partners: There are a variety of community and business organizations in the City of Newark which are not only aware of the problem of care access but also willing to get involved in the solution.
- Women's Health: Prenatal and maternity care are inadequate and desired. There also appears to be significant support (including financial) from the health plans in this regard.
- Partnering Potential: There is some preliminary interest in Newark for a consolidated clinical offering in partnership with a large acute care hospital.
- Financial Viability: The Rutgers School of Nursing has approached primary care delivery through clinic-based services (the Focus Clinic) but found that their approach was not financially sustainable. A very high percentage of their patient population is undocumented immigrants, for whom there was no source of reimbursement. Despite the Clinic's recent designation as an FQHC, absent other fiscal intervention, it is unlikely the Clinic has discovered a sustainable model.

C. Criteria for a Successful APN Practice for Vulnerable Populations

The individuals who will be served by an APN practice are highly vulnerable to both physical and mental illness, exacerbated by social, economic, and environmental factors that determine overall health and well-being. Such a care model emphasizes comprehensive, coordinated, intense services for the vulnerable populations of Newark provided in the least intensive setting. The model centers on ensuring patients' well-being through community-based services, carefully coordinated and focused for those suffering from severe health disparities. This model builds from key elements of the Chronic Care Model, and effective elements from several other models, including the successful Program of All-Inclusive Care for the Elderly (PACE®) discussed earlier in this report. Further, this model is designed to meet the requirements of a health home (federally designated as a Primary Care Medical Home) and even expand on such an offering through technology and home visits.

Critical success factors to a successful APN practice with vulnerable populations include:

- Evidence of sufficient demand for services
- Strong state/local support
- Adequate payment for services
- Sustained organizational capacity and commitment
- Adequate capitalization

In addition, we believe successful new services in Newark must:

- Utilize innovative technology
- Complement and/or extend existing services
- Develop creative linkages to essential services
- Meet a distinct, identified need
- Engage in training the next generation of providers to develop a pipeline of clinicians for the future
- Utilize contracting schemes that reward better outcomes and more efficient use of services
- Provide hours of service that are more sensitive to patient needs
- Provide services that enhance health literacy and medication compliance
- Be based in locations convenient to the population to be served
- Most importantly, provide a safe and caring environment that is patient-centric and known for quality care

Based upon our research, we continue to believe strongly that APNs are the ideal provider to engage in needed services in these communities, but our statewide survey and APN focus groups highlight the need for:

- Robust APN training in business, practice management and entrepreneurship
- Sophisticated IT support
- Targeted practice resources to support providers and ensure quality services

XI. Summary Recommendations

Based on our Community Assessment (stakeholder interviews, surveys, research), Business and Philanthropic Communities Assessment (interviews and surveys), Patient Focus Groups, and Focus Group of National Nurse Managed Clinic Leaders, the Project Team offers the following recommendations in support of the conclusion that:

An Advanced Nurse Practitioner led primary care practice is feasible in the City of Newark.

In determining the feasibility of opening an NP-led primary care practice, the Project Team identified the following criteria that must be met:

1. Meet a recognized patient care need
2. Have one or more identified community partner(s) who share(s) the values of the APN practice model described herein
3. Meet the financial requirements of both potential capital funding for start-up and have an appropriate patient mix that leads to a financially viable reimbursement structure/ payer mix to support the practice over time

It is possible to meet all three criteria in Newark. Therefore, all recommendations are guided by 1) patient care need, 2) community partnerships, and 3) sustainability. We believe it is imperative that the recommended services address needs not being met by the current mix of providers to a specific subset(s) of the population. Given the low reimbursement rates for the primary population that would be served, a successful approach should include a package of services, payment approaches, contracts, and grants to ensure a viable and sustainable practice model. Finally, it is important to be sensitive to the local political environment, which indicated the importance of working collaboratively with well-respected community partners who will support any new clinical offering.

Based upon this finding, we believe the best opportunity lies in the following specific venture:

The Project Team recommends the establishment of a nurse practitioner led primary care practice (including mental health) in Newark.

A well-respected community partner, New Community Corporation, Inc. (NCC), has been identified as supportive of collaborating with an APN-led community-based family practice in the Central Ward. The New Community Corporation is a comprehensive community development corporation and a 501(c)(3) nonprofit active in housing, education, training, childcare, economic development and healthcare. It runs multiple programs including for-profit businesses, a community newspaper and a federally-insured credit union. This 45-year-old organization is strongly immersed in Newark and has a record of success in its many programs. Partnering with NCC, an APN-led primary practice would provide a full range of primary care services for children and adults, including mental health services. Depending on the evolution of the newly announced Mary Elizabeth Mahoney Women's

Health Center, it may be possible to also provide prenatal and post-partum care in the envisioned APN-led health center, and collaborate with the new birthing center for intrapartum care (deliveries).

New Community Corporation, Inc. appears to be an ideal partner as it has a track record of providing successful social services in Newark for underserved populations. A health center could easily be layered with an array of programs that address many of the healthcare needs found within this population. Given NCC's reputation and track record, it would be possible to secure grants together that would provide at least initial support for this project. NCC also has very good relationships with political and community leaders in the Newark which would be helpful in securing approvals for the clinic, transportation, etc.

A large space is immediately available in the New Community Corporation building that could easily be built out to accommodate a clinical service. The space is ADA compliant, has onsite security in place, and is located in the neighborhood to be served. It is also accessible via a major bus line with a bus stop right in front of the building. More importantly, partnership with New Community Corporation brings forth an array of needed social services to supplement the primary care services to be offered in the nurse-led health center.

In addition to using the existing building space for a community-based family practice service, there is an opportunity to link four clinical sites in the New Community housing complexes for elders. Currently, the four sites have identified space available, and a geriatrician sees patients in each site one day a week. A registered nurse currently in the practice provides skilled nursing outpatient services, care coordination and follow-up, and is interested in pursuing advanced preparation as a nurse practitioner. The geriatrician has offered to serve as the required collaborating physician for this practice. Establishing a nurse practitioner in the satellite clinics would greatly expand the care that is currently available.

In addition, a large hospital system has indicated interest in supporting the establishment of this nurse-led practice. While in the early discussion phase, it seems reasonable that this collaboration might include some onsite specialty services at the main health center location, easy access to hospital services, and possible financial support for start-up. Preliminary conversations with philanthropic organizations have indicated an interest in funding as well.

An examination of the population to be served indicated that the payer mix would lead to a sustainable practice. In addition, the New Community Corporation has indicated an interest in making the new health center available to their 500 employees, all of whom have commercial insurance coverage.

In addition to the finding that an NP-led practice is feasible, we offer the following suggestions which would better ensure success in opening an NP-led clinic in Newark, or other underserved communities.

Suggestion #1: Support a committed and sustainable nurse practitioner workforce in Newark. Three strategies are recommended to accomplish this goal:

a. Establish a multi-site, multi-city nurse practitioner Residency Program to aid the NP clinic in recruiting and retaining qualified Nurse Practitioners.

A number of interviews highlighted the need to recruit and retain qualified healthcare professionals, including nurse practitioners, who can help fill the health service gaps in underserved communities. Currently, the existing healthcare facilities offer preceptorships for APNs in training, but practice in a community such as Newark is highly complex and warrants additional time and training. Patients present with multiple healthcare needs, complicated by significant social problems. In addition, the ethnic and cultural diversity of the population adds additional complexity to care. As previously noted in this report, it can take new graduates a year to become "fully up to speed" and able to manage a panel of patients in underserved diverse communities.

While NPs receive clinical training as part of their educational programs, and have a documented record of success in practice without a residency, a residency program could speed a successful transition from "new graduate" to "full professional status." This is especially true in settings such as those in Newark, where the patients' needs for care and other services can feel overwhelming. Through intense mentoring, education in needed clinical areas, such as chronic disease management, and ongoing support, there is a greater likelihood that the new clinician will experience a smoother transition and greater job satisfaction, both of which is likely to lead to a more committed practitioner who will serve the community for an extended time.

Studies have shown that individuals who live in underserved communities are those most likely to return to that community to practice after receiving advanced training and education.[123] In addition, individuals who train in underserved communities during residency training are more likely to stay in that community.[124] One residency program for NPs, based in Connecticut, is an example. The Community Health Center, Inc. (CHCI) is a multi-site FQHC. In 2007, an NP residency program was initiated and specifically designed for family nurse practitioners intending to practice as primary care providers in FQHCs. CHCI data show that of the 16 NP

[123] Brooks, RG, Walsh, M., Russell, E., Lewis, M. and Clawson, A. (August 2002). The roles of nature and nurture in the recruitment and retention of primary care physicians in rural areas: A review of the literature. *Academic Medicine*, 77(8), 790-798.

[124] Walker, K.O. et al (November, 2010). Recruiting and Retaining Primary Care Physicians in Underserved Communities: The importance of having a mission to serve. *Am J Public Health*, 100(11), 2168-2175.

residents who started the program since 2007, all but one is practicing as primary care providers in FQHCs.[125]

The Project Team recommends a Residency Program focused on care delivery in low resourced communities. We suggest four areas of concentration: clinical skills, leadership skills, healthcare business/practice management (including use of data), and working with vulnerable multi-cultural populations. The program would be open to all NP graduates, and residents would apply to the practice of their choice and "matched" by the Residency Program. Residents would receive a stipend (usually less than a full time position) from the agency in which they are placed. The curriculum would be a combination of online modules and in-person teaching. The New Jersey Collaborating Center for Nursing has expressed interest in administering such a pilot program for Newark and Trenton. With success of the pilot program, it would be possible to expand this program to other low-resourced cities around the state. A Residency Program targeted to the special needs of practitioners in inner city environments would develop a pipeline of clinicians for the future and would be an immediate benefit to the Federally Qualified Health Centers, hospitals, and Schools of Nursing, all of which would be invited to participate in this program.

b. Initiate a New Jersey APN Practice Network to support NP-managed clinics by connecting them with resources.

The Feasibility Study revealed that there are a number of APNs in New Jersey who own and operate their own practices. Establishing a formal network of nurse-owned or nurse managed practices would provide a means for exchange of practice efficiencies, best clinical and management practices, mentoring, and shared savings. There is interest in supporting this recommendation from the state nursing organizations.

c. Expand the nurse-loan program at the state level to include graduate education to support a diverse group of clinicians entering the workforce.

The State of New Jersey has a program in place that provides support for students to become nurses. However, a similar program does not exist to support graduate level education. To assist nurses in moving into advanced practice roles, it is often imperative to offer financial support. This is especially true for individuals from underrepresented communities who may not have the financial resources for education. Initiating a program that supports nurses living and working in Newark to obtain tuition assistance for APN education would be a step toward securing a stable APN workforce in Newark.

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[125] Flinter, M. (November 28, 2011). From new nurse practitioner to primary care provider: Bridging the transition through FQHC-based residency training. *OJIN: The Online Journal of Issues in Nursing*, 17(1).
his recommendation.

Suggestion #2: Create a statewide data repository for information about APN practice to track the deployment of clinicians throughout the state.

In trying to identify APNs and their contact information for the survey and focus group components of this study, it became evident that there is not a clean source of data. For example, separate databases of the various APN groups plus information from the State Board of Nursing had to be accessed in order to deploy the statewide APN survey. This makes it difficult not only in obtaining contact information but in identifying various APN specialties, or practice characteristics. A statewide data repository and minimum data set would provide needed information about APN practice in New Jersey and in Newark specifically. It would provide needed clinical information as well as data to inform and support policy recommendations for the State. The Project Team is eager to provide consultation in the development of a robust database that would serve the needs of Newark and the State. This Project brought together the APN groups, New Jersey State Nurses Association, Board of Nursing and the Collaborating Center for Nursing to accomplish our data collection. A similar effort could be mounted to address this recommendation.

Based on extensive research, interviews, focus groups and discussions with community and state leaders, it is evident that an APN-led primary care practice is feasible and could play a significant role in serving the complex health needs of the residents of Newark.

XII. APPENDICES

Appendix 1
Healthcare Resources in Newark, New Jersey

Healthcare Resources in Newark, New Jersey
January 1, 2016

(Note: This list was compiled from multiple sources, but is not a complete listing)

Agency	Services	Web Address
Catholic Charities	Behavioral health	www.ccannj.com
Children's Hospital of NJ	Pediatric/young adult	www.barnabashealth.org
Concentra Urgent Care	General healthcare	www.concentra.com
Connie Dwyer Breast Center	Breast cancer and health issues	www.smmcnj.org
Covenant House	Shelter for homeless teens	www.nj.covenanthouse.org
Dayton Street Healthcare	Adult/Pediatric/Dental and Podiatry	www.freeclinics.com
Essex County Division of Community Action	Social services to prevent homelessness	www.essexcountynj.org
Essex-Passaic Wellness Coalition	Pregnancy and parenting	www.essexpregnancyandparenting.org
Family Justice Center	Services for battered women	www.essexcountyfjc.org
First Choices Women's Resource Center	Pregnancy health	www.1stchoice.org
Focus Hispanic Center for Community Development	Social services	www.focus411.org
FOCUS Wellness Center-Rutgers University	General healthcare	www.nursing.rutgers.edu/focus
Global Tuberculosis Institute	Tuberculosis	www.globaltb.njms.rutgers.edu
Greater Newark Health Care Coalition	Resource organization connecting partners to improve health	www.greaternewarkhcc.org
Homeless Mobile Medical Van Unit	Homeless adult health services	www.freeclinics.com
Integrity House	Addiction services	www.integrityhouse.org
Ironbound Community Corporation	Social services	www.ironboundcc.org
Ironbound Health Center	Planned Parenthood	www.plannedparenthood.org
Jewish Renaissance Medical Center-Barringer High School	School-based FQHC	www.jrmc.us

Agency	Services	Web Address
Jewish Renaissance Medical Center- Central High School	School-based FQHC	www.jrmc.us
Jewish Renaissance Medical Center- George Washington Carver School	School-based FQHC	www.jrmc.us
Jewish Renaissance Medical Center- Quiltman Street School	School-based FQHC	www.jrmc.us
Jewish Renaissance Medical Center- Teen Health Center	FQHC	www.jrmc.us
Jewish Renaissance Medical Center- The Mobile Unit	FQHC	www.jrmc.us
Jewish Renaissance Medical Center- North Ward Park Elementary School	School-based FQHC	www.jrmc.us
La Casa De Don Pedro	Social services	www.lacasanwk.org
Mt. Carmel Guild	Mental Health/ addiction	www.ccannj.org
Newark Beth Israel Hospital	Hospital healthcare	www.barnabashealth.org
Newark Community Health Care- Broadway Ave	OB/GYN, Dental, Podiatry	www.freeclinics.com
Newark Community Health Care- Jefferson Street	OB/GYN services for women	www.freeclinics.com
Newark Community Health Center	FQHC	www.nchcfqhc.org
Newark Health and Community Wellness	Healthcare, social services, environmental health advocacy	www.ci.newark.nj.us
Newark Health Department	Health and social services	www.ci.newark.nj.us
Newark Homeless Healthcare	Homeless adult health services	www.freeclinics.com
New Community Corporation	Healthcare/ Behavioral Health	www.newcommunity.org

Agency	Services	Web Address
North Newark Health Care	General healthcare	www.freeclinics.com
Partnership for Maternal And Child Health	Education/community awareness and promoting multi-sector collaboration in maternal-child health services	http://partnershipmch.org/about-us/mission/
Peter Ho Medical Center	HIV/AIDS	www.smmcnj.org
Programs for Parents	Child care/child health resource & referrals	www.programsforparents.net
Quitman Street Community School	General healthcare	www.freeclinics.com
Renaissance House	Addiction Services	www.nrh.org
Rutgers Behavioral Health	Mental health for children and adults	www.ubhc.rutgers.edu
Rutgers Biomedical & Health Services	Mental Health/ Behavioral Health	www.rbhs.rutgers.edu
Rutgers Community Health	FQHC	www.rbhs.rutgers.edu
Rutgers NJ Medical School	Hospital healthcare	www.njms.rutgers.edu
Rutgers University Student Health	Hospital healthcare	www.health.newark.rutgers.edu
Salvation Army	Adult rehabilitation, food, housing	www.newjersey.salvationarmy.org
St. Barnabas Hospital	Hospital healthcare	www.barnabashealth.org
St. Michael's Medical Center	Hospital healthcare	www.smmcnj.org
The Jordan & Harris Community Health Center	Healthcare to residents of public housing	www.nursing.rutgers.edu
University Hospital	Hospital healthcare	www.uhnj.org
Urban Renewal Corp.	General healthcare	www.freeclinics.com
Visiting Nurse Association of Central Jersey	Home care for health and hospice services	www.vnahg.org
WIC	Women, infant, and children's health and wellness	www.womeninfantchildrenoffice.com
Wynona's House	Housing for victims of domestic violence/child advocacy	www.wynonhouse.org
Youth Consultation Svc.	Mental health- children	www.ycs.org

APPENDIX 2
Business Community Survey Results

Business Community Survey Results
November 2015

Q1
My Information

- Answered: 12
- Skipped: 1

Q2
I am responding to the healthcare needs in:

- Answered: 12
- Skipped: 1

Answer Choices	Responses
Trenton	**33.33%** **4**
Newark	**66.67%** **8**
Total	**12**

Q3
Do you believe that employees in Newark/Trenton have access to conveniently located primary care services that are Comprehensive?

- Answered: 12
- Skipped: 1

Answer Choices	Responses
Yes	**66.67%** **8**
No	**33.33%** **4**
Total	**12**

Q4
Do you believe that employees in Newark/Trenton have access to conveniently located primary care services that are Affordable?

- Answered: 12
- Skipped: 1

Answer Choices	Responses
Yes	**50.00%** **6**
No	**50.00%** **6**
Total	**12**

Q5

Do you believe that employees in Newark/Trenton have access to conveniently located primary care services that meet the primary health care needs of employees?

- Answered: 13
- Skipped: 0

Answer Choices	Responses	
Yes	**61.54%**	**8**
No	**38.46%**	**5**
Total		**13**

Q6

Do you agree that a healthier population is good for business and for the community as a whole?

- Answered: 12
- Skipped: 1

Answer Choices	Responses	
Yes	**91.67%**	**11**
No	**8.33%**	**1**
Total		**12**

Q7

How important are each of the following conditions to your employees' health?

- Answered: 12
- Skipped: 1

	Not Important	Somewhat Important	Important	Very Important	Extremely Important	Total	Weighted Average
Adult Smoking	**8.33% 1**	**8.33% 1**	**25.00% 3**	**25.00% 3**	**33.33% 4**	**12**	**3.67**
Obesity	**0.00% 0**	**0.00% 0**	**25.00% 3**	**33.33% 4**	**41.67% 5**	**12**	**4.17**
Stress	**0.00% 0**	**0.00% 0**	**50.00% 6**	**25.00% 3**	**25.00% 3**	**12**	**3.75**
Asthma	**0.00% 0**	**0.00% 0**	**50.00% 6**	**33.33% 4**	**16.67% 2**	**12**	**3.67**
Depression	**0.00% 0**	**0.00% 0**	**50.00% 6**	**33.33% 4**	**16.67% 2**	**12**	**3.67**
Chronic Obstructive Pulmonary Disease (COPD)	**9.09% 1**	**9.09% 1**	**45.45% 5**	**18.18% 2**	**18.18% 2**	**11**	**3.27**
Diabetes	**0.00% 0**	**0.00% 0**	**16.67% 2**	**33.33% 4**	**50.00% 6**	**12**	**4.33**

	Not Important	Somewhat Important	Important	Very Important	Extremely Important	Total	Weighted Average
Congestive Heart Failure (CHF)	**0.00% 0**	**0.00% 0**	**33.33% 4**	**33.33% 4**	**33.33% 4**	**12**	**4.00**
Hypertension	**0.00% 0**	**0.00% 0**	**33.33% 4**	**50.00% 6**	**16.67% 2**	**12**	**3.83**

Q8

How important do you believe that each of the following health services is to your employees?

- Answered: 12
- Skipped: 1

	Not Important	Somewhat Important	Important	Very Important	Extremely Important	Total	Weighted Average
Same Day, Convenient Access to Care	**0.00% 0**	**8.33% 1**	**8.33% 1**	**50.00% 6**	**33.33% 4**	**12**	**4.08**
Preventive Care (immunizations, screening tests, health education, etc.)	**0.00% 0**	**0.00% 0**	**8.33% 1**	**50.00% 6**	**41.67% 5**	**12**	**4.33**
Treatment of common medical conditions (colds, sore throats, sinus infections, etc.)	**0.00% 0**	**0.00% 0**	**25.00% 3**	**50.00% 6**	**25.00% 3**	**12**	**4.00**
Treatment of chronic medical conditions (high blood pressure, diabetes, asthma, chronic obstructive pulmonary disease, congestive health failure, smoking, etc.)	**0.00% 0**	**0.00% 0**	**25.00% 3**	**25.00% 3**	**50.00% 6**	**12**	**4.25**
Prenatal Care	**0.00% 0**	**8.33% 1**	**8.33% 1**	**50.00% 6**	**33.33% 4**	**12**	**4.08**
Chronic Obstructive Pulmonary Disease (COPD)	**0.00% 0**	**8.33% 1**	**33.33% 4**	**25.00% 3**	**33.33% 4**	**12**	**3.83**
Treatment of emotional/mental health conditions	**0.00% 0**	**0.00% 0**	**25.00% 3**	**50.00% 6**	**25.00% 3**	**12**	**4.00**
Making referrals to	**0.00% 0**	**0.00% 0**	**41.67% 5**	**33.33% 4**	**25.00% 3**	**12**	**3.83**

	Not Important	Somewhat Important	Important	Very Important	Extremely Important	Total	Weighted Average
medical/psych specialists when necessary							

Q9

If your employees need primary care, where do they usually go? (check all that apply)

- Answered: 12
- Skipped: 1

Answer Choices	Responses
Company - Sponsored Clinic	**16.67% 2**
Convenient Care Clinic (Pharmacy Walk-In Clinic)	**16.67% 2**
Urgent Care Center	**41.67% 5**
Community Clinic	**33.33% 4**
Physician Office	**83.33% 10**
Nurse Practitioner Practice	**8.33% 1**
Hospital Emergency Room	**58.33% 7**

Total Respondents: 12

Comment:

ER utilization is MUCH too high for our population - we need to stem the flow of use of the ER for non-emergency illness

Q10

Please rank the outcomes that you would expect from using a primary care center.

- Answered: 12
- Skipped: 1

	Not Important	Somewhat Important	Important	Very Important	Extremely Important	Total	Weighted Average
Reduced unnecessary emergency room visits	0.00% 0	0.00% 0	8.33% 1	41.67% 5	50.00% 6	12	4.42
Reduces hospital readmissions	0.00% 0	0.00% 0	27.27% 3	27.27% 3	45.45% 5	11	4.18
Reduced health care costs	0.00% 0	0.00% 0	8.33% 1	41.67% 5	50.00% 6	12	4.42
Better managed chronic conditions and health risks	0.00% 0	0.00% 0	8.33% 1	33.33% 4	58.33% 7	12	4.50
Coordinated care with other providers	0.00% 0	0.00% 0	16.67% 2	33.33% 4	50.00% 6	12	4.33
Reduced employee absenteeism	0.00% 0	8.33% 1	8.33% 1	41.67% 5	41.67% 5	12	4.17
Reduced presenteeism (the lack of productivity while at work)	0.00% 0	0.00% 0	8.33% 1	58.33% 7	33.33% 4	12	4.25

Q11

Do you believe that there is a need for additional primary care services in Newark/Trenton?

- Answered: 11
- Skipped: 2

Answer Choices	Responses
No, there are plenty of primary care services in Newark/Trenton	**9.09% 1**
Yes, for the inner city population	**18.18% 2**
Yes, for the working population	**9.09% 1**
Yes, for both the inner city and working population	**63.64% 7**
Total	**11**

Comments:

In the community and in the workplace

Answer Choices	Responses
On Broad Street	
Downtown central location, such as near Rutgers Newark	

Q12

Would services that rotated to different locations, or were mobile, help meet the needs of multiple employers?

- Answered: 12
- Skipped: 1

Answer Choices	Responses
Yes	**58.33% 7**
No	**41.67% 5**
Total	**12**

Q13

Describe the level of experience you have with APN (Advanced Practice Nurse) primary care practices:

- Answered: 12
- Skipped: 1

Answer Choices	Responses
No Experience (You are not familiar with APN practice)	**41.67% 5**
Some Experience (You know about APN practice from a friend or family member or you have read/seen a media report about APN practice)	**16.67% 2**
Very Familiar with APN practice (You see an APN for your own primary care or you are very familiar with APN primary care practice from the media, family/friends, or other sources of information.)	**41.67% 5**
Total	**12**

Q14

How would you describe optimal health services for your employees?

- Answered: 8
- Skipped: 5

Good insurance, low co-pays, access to care

Limited number of health care providers in Newark .

Need a comprehensive network of PCP's - accessible - in-network (Horizon) Need a second line defense of comprehensive Urgent care / early late hours for non-life threatening illness/accident Comprehensive network of specialists and Hospitals

Coordinated comprehensive primary care delivered using an Inter-professional team model with easily accessible acute care services that are available18 hours a day.

Pretty Good

Good

For employees, the ability to get seen quickly near home or office, without going to the emergency room, and in a way the complements the primary care provider.

Make me richer

Q15

If a new APN-led health center providing a full range of series opened in Newark/Trenton, would it be helpful to your company and your employees?

- Answered: 12
- Skipped: 1

Answer Choices	Responses
No	**8.33% 1**
Yes	**91.67% 11**
Total	**12**

Comments:

Yes, any increase in access to healthcare in the city of Newark would help, you would hopefully see better quality of life, better understanding of disease process which would help population have better health outcome.

Yes, provided it was an in-network (Horizon BC/BS) accredited facility

It would be even more helpful if there was an Inter-professional model that includes primary care physicians, nurses, and pharmacists.

Accessibility, flexibility and wide APNs provide a wide range of preventative care assistance to the public at a lower cost.

If the service were "walk-in" or same day appointment with limited wait, it would provide an option other than taking the entire day off if a quick assessment is needed. Also would

Answer Choices	Responses
be helpful for workers comp where we need the employee to seek treatment immediately.	

Q16

If a new APN-led health center were to open in Newark/Trenton how might you support it? (check all that apply)

- Answered: 8
- Skipped: 5

Answer Choices	Responses
Provide start-up funding	0.00% 0
Provide space for one or more facilities	0.00% 0
Provide equipment	0.00% 0
Provide funding for staff positions	0.00% 0
Provide support for a community-based foundation that would support a health center	0.00% 0
Refer employees to the Center	75.00% 6
Contract directly with the Center to provide services for employees	25.00% 2
Incentivize/subsidize employees to utilize the Center	0.00% 0
Promote the Center to customers and other businesses	62.50% 5

Total Respondents: 8

Comment:

I would need to learn more

APPENDIX 3

Stakeholder Survey: Community Leaders (Newark)

Stakeholder Survey: Community Leaders (Newark, NJ)
November 2015

Q1
Address

- **Answered: 6**
- **Skipped: 1**

Q2
On a 1 to 5 scale (1- Poor, 2- Fair, 3- Good, 4- Very Good, 5- Excellent), how would you rate the following in Newark:

- **Answered: 7**
- **Skipped: 0**

	1	2	3	4	5	Total
Access to Primary Care	0.00% 0	42.86% 3	42.86% 3	14.29% 1	0.00% 0	7
Access to Preventive Care	0.00% 0	71.43% 5	14.29% 1	14.29% 1	0.00% 0	7
Quality of Healthcare Services	0.00% 0	28.57% 2	42.86% 3	14.29% 1	14.29% 1	7
Comprehensiveness of Care	0.00% 0	57.14% 4	14.29% 1	14.29% 1	14.29% 1	7
Affordability of Care	0.00% 0	28.57% 2	42.86% 3	28.57% 2	0.00% 0	7

Q3
On a 1 to 3 scale (1= low cost; 2 = reasonable; 3= high cost), how would you rate:

- **Answered: 7**
- **Skipped: 0**

	1	2	3	Total
The cost of healthcare	0.00% 0	28.57% 2	71.43% 5	7
The cost of insurance	14.29% 1	14.29% 1	71.43% 5	7
The cost of co-pays	14.29% 1	42.86% 3	42.86% 3	7
The cost of medicines	14.29% 1	42.86% 3	42.86% 3	7

Q4
How easy is it to get an appointment for care if you are:

- **Answered: 7**
- **Skipped: 0**

	practically impossible	difficult	fairly easy	easy	very easy	don't know	Total
Homeless	28.57% 2	42.86% 3	28.57% 2	0.00% 0	0.00% 0	0.00% 0	7
An immigrant	28.57% 2	57.14% 4	14.29% 1	0.00% 0	0.00% 0	0.00% 0	7
Unemployed	0.00% 0	71.43% 5	14.29% 1	14.29% 1	0.00% 0	0.00% 0	7
On Medicaid	0.00% 0	14.29% 1	57.14% 4	28.57% 2	0.00% 0	0.00% 0	7
Uninsured	16.67% 1	83.33% 5	0.00% 0	0.00% 0	0.00% 0	0.00% 0	6
Racially or ethnically diverse	0.00% 0	42.86% 3	28.57% 2	28.57% 2	0.00% 0	0.00% 0	7

Q5
Are there geographic areas in your city where primary care is not available?

- **Answered: 7**
- **Skipped: 0**

Answer Choices	Responses
Yes	14.29% 1
No	14.29% 1
I do not know	71.43% 5
Total	7

Comments: (0)

Q6
To what extent do people in Newark use the Emergency Room as a primary care facility?

- **Answered: 7**
- **Skipped: 0**

Answer Choices	Responses
Never	0.00% 0
Seldom	0.00% 0
Occasionally	0.00% 0
Often	28.57% 2

Answer Choices	Responses
Frequently	28.57% 2
Very Frequently	28.57% 2
Always	14.29% 1
Total	7

Q7
Is there enough care for:

- **Answered: 7**
- **Skipped: 0**

	Yes	No	Don't Know	Total
The elderly	42.86% 3	28.57% 2	28.57% 2	7
Homebound	28.57% 2	42.86% 3	28.57% 2	7
People who are dying/need hospice	42.86% 3	28.57% 2	28.57% 2	7
Women who are pregnant (prenatal care)	42.86% 3	28.57% 2	28.57% 2	7
People who need mental health/psychiatric care	0.00% 0	57.14% 4	42.86% 3	7

Q8
List 3 of Newark's strengths in providing healthcare:

- **Answered: 3**
- **Skipped: 4**

Location, university hospital, Rutgers programs

FQHCs, public transportation increases access, bilingual

Home to several big name hospitals and universities specializing in health fields; home to several health insurance providers (biggest is Horizon BC & BS of NJ); proximity to NYC (lower and midtown Manhattan, easy access via transit to specialized services, if required)

Q9
Mark each item in the following columns stating whether this issue is a challenge in delivering/receiving healthcare in Newark:

- **Answered: 7**
- **Skipped: 0**

	Yes, this is a challenge/problem	No, this is not a problem in delivering/receiving care in this city	Total
Safety/crime	100.00% 7	0.00% 0	7
Being a "food desert" (lack of fresh fruits, vegetables or other quality fresh foods)	83.33% 5	16.67% 1	6

	Yes, this is a challenge/problem	No, this is not a problem in delivering/receiving care in this city	Total
Lack of trust in the healthcare providers giving care	100.00% 6	0.00% 0	6
Transportation	66.67% 4	33.33% 2	6
Geographic barriers to access to care	85.71% 6	14.29% 1	7

Q10

What do you think are the most important healthcare needs in Newark that are not being met?

- **Answered: 5**
- **Skipped: 2**

Preventive Services

Primary/preventive care in a medical home including integration of mental health

Affordability

Safety risks. Transportation. Knowledge of how to access the system.

Neighborhood based health care providers (by ward) that have a wide range of specialties but also general practitioners; multi-lingual providers for very diverse population seeking healthcare; transit system is robust, but many "missing connections" for those seeking healthcare close in (within Newark boundaries) as transit system is traditionally designed to take riders TO other locales.

Community Support

Q11

Which key community groups/churches/others provide healthcare leadership in Newark?

- **Answered: 4**
- **Skipped: 3**

IronBound-CBO, Churches, Rutgers

NJ Citizen Action, Legal Services of NJ, ACNJ

Do not know

Community Charity, Jewish Vocational Services

Q12

Which key provider groups/agencies provide healthcare leadership in Newark?

- **Answered: 4**
- **Skipped: 3**

Rutgers

FQHCs

Do not know

Division of Vocational Rehabilitation Services, Veterans Administration

Q13
Are there sensitive issues or politics that get in the way of good healthcare in Newark?

- **Answered: 4**
- **Skipped: 3**

Cultural barriers, language barriers, immigration status

Health disparities

Yes

Yes

Advanced Practice Nursing (APN)

Q14
Do you have experience with APN-led primary care clinicians?

- **Answered: 7**
- **Skipped: 0**

Answer Choices	Responses
Yes	14.29% 1
No	85.71% 6
Total	7

Q15
How would you rate care given by an Advanced Practice Nurse Practitioner?

- **Answered: 7**
- **Skipped: 0**

		Total
Poor	0.00% 0	0
Fair	0.00% 0	0
Good	100.00% 2	2
Very Good	100.00% 1	1
Excellent	0.00% 0	0
No experience with APN practitioners	100.00% 4	4

Q16
Do APNs face barriers to practice in your community?

- **Answered: 6**
- **Skipped: 1**

	Yes	No	Total

	Yes	No	Total
Political Barriers	80.00% 4	20.00% 1	5
Financial Barriers	66.67% 4	33.33% 2	6
Professional Barriers	100.00% 6	0.00% 0	6

Q17

Do you think adding more services from Advanced Practice Nurse Practitioners would improve healthcare in Newark?

- **Answered: 7**
- **Skipped: 0**

Answer Choices	Responses
Yes	100.00% 7
No	0.00% 0
Total	7

Comments:

Prenatal, family, elderly, mental health

Prevention, Health Promotion education and Holistic health care

Primary/preventive care including mental health integration-would still need MD on site for referral

Attention to both women and men's health

APPENDIX 4

Patient Focus Groups (Newark)

Health Centers in Trenton and Newark:
Building New Jersey's Primary Care Safety Net

NEWARK PATIENT FOCUS GROUPS
(Pennington Court and Hyatt Court)

1 & 2: Intro
3. Demographics of the Group

Women	Men	Total Participants
18	3	21

Age of Participants (in years)						
18-30	31-40	41-50	51-60	61-70	71-80	81+
0	4	2	5	1	0	1

No response: 8

4. Health Insurance

a. None: 3
b. Medicaid: 12
c. Medicare: 7
d. Other: United Healthcare: 8; Aetna 2; Blue Shield 1

5. How would you rate your general health?

1 poor 11 fair 4 good 2 very good 2 excellent

6. Have you seen a HCP in the last 3 months? 17 YES 1 NO
If yes- where:

a. at the mission/clinic: 11
b. at FQHC: 3
c. at the emergency room: 17
d. I was in the hospital: 2
e. OTHER: Physician Office: 9

7. How do you usually receive care?

a. Walk in: 8
b. Appointment: 16
c. Go to ER: 13
d. Other: 0

8. Do you need help in getting healthcare services? Does someone help you with appointments, referrals, coordinating your care? Who helps you?

Yes- 2 The Community Health Worker at the Nursing Clinic helps me

9. Tell us about your experience getting healthcare (list the key themes):

Group #1:

•Medicaid "sign – up" is problematic. Long waits (30-60 days at least), lots of "run around", don't see the same person twice (too many people to serve and not enough staff); no social worker to help

•Hard to find a clinic that "fits" with your insurance."

One place had a case manager who helped me and I got insurance and a list of doctors I could go to. Most of the time there is no help". Same problem with referrals- they may not take your insurance.

•Waiting long time for new appt (I waited 2 months"). The HMO was 3 months wait. Long waiting times even once you are "in"- I wait 3-5 hours to be seen at the FQHC and then get only 5-10 minutes with the doctor.

•Lab Corp is a problem because you wait a long time for results- so you don't get a diagnosis.

Group #2:

•I have a 3-4 hour wait even w/an appt at the FQHC. You hope you have the right paperwork- pray your income isn't too high so you'll be seen.

•I wait and wait, and then only get a 5 minute appointment; and if you don't have insurance- they don't care about you.

•In the ER- 8 hour waits- and you have the problem of favoritism

•In the clinic you never see the same doctor- always see someone else and patients are not informed that their doctor is gone. New doctors every 3-4 months.

•Need insurance to qualify for medical transportation

•Appointments for specialty care can take 3 months.

10. What is "GOOD" about healthcare in Newark? What do you LIKE?

Group #1:

•HIV vans sent out; transportation on Medicaid is good.

•University hospital is good- have good doctors and specialists

•"This clinic is the best thing that ever happened to us." (referring to Pennington Court Clinic). There is no wait, it's convenient; able to get asthma Rx right away; get immunizations here for my kids. The Community Health Worker does follow-up at home. The people here are like my family."

Group #2:

•Meds are covered; no co-pay; Providers do a good job, except that there is a lot of turnover

•Specialty care at the hospitals is good

•This clinic is wonderful (referring to the Hyatt Court clinic)

11. What are the problems with getting healthcare in Newark? What doesn't work?

•No continuity of care

•The lab is far away and you have to go by bus. "The place is packed."

•Long waiting times

•Hospitals are over - crowded

•Lack of personal respect – not all the time- the ER is the worst. They ignore you and "treat you like nothing." Avoid Newark hospitals. The people are nicer in W. Orange

12. Specifically ask if each of these is a problem:

a. Transportation: Medicaid does provide transportation but no vouchers for bus or taxi services and the bus service stops at 12 midnight or 1 am. It's 1-1.5 hours on the bus to Livingston.

b. Clinic hours (both groups): the hours vary, sometimes rotating. Not open at night or on weekends (might be open a ½ d on Sat). Closed Wednesday- I guess that is "golf day". They close early- not open after 6 pm. It's rare to talk with "your doctor"- you get whoever is there.

c. Cost: Co-pay is reasonable

d. Language: not an issue in this group

e. Other: SAFETY: robbing on the buses or in the stores; no security on th streets, especially at night

13. What services can't you get?

a. Dental Care- you can get x-ray, cleaning, fillings or extractions but long waits and delays while they verify you are a patient with insurance.

•Generally good – some things, like braces, are not covered

b. Mental Health- hard to get help. Some clinics want cash; you need a police escort. The easiest help is through the Behavior Center or Crisis Unit

•need to see the provider in the van

c. Primary Care: "it's 2-3 months for a follow-up appt." You can't get mental healthcare at the same time

d. Emergency Care: it's a "handier ride" to the ER. Problem is cost. I was charged $750 from home to Beth Israel. Now with insurance it's $200. ERs are over crowded because that is where everyone goes

e. Same-day care when I'm sick

f. Social services (help with housing, food, referrals, jobs, etc). We go through the hospital and welfare- but it takes days to get help

g. Other:

14. How would you make healthcare here better? Easier to use? (more available)

•make it more available- smaller clinics, closer to us; provide 24 hour services and on-call services
•a hot line with "a real person" on it would help
•mobile van
•fill out Medicaid form right then where care being delivered- in the ER for example
•we need the "right doctor at the right time"

Nurses are the biggest healthcare workforce. Nurse practitioners have advanced training in health histories, physical exam and diagnosis and treatment. They can order tests and prescribe medicines.

15. Have you ever seen a Nurse Practitioner for your care?
YES (21 patients)

16. What did you think about the care you got from the Nurse Practitioner?
"we go to nurse practitioners over doctors because the relationship is better"

17. Would NP-provided care in Newark make healthcare better here?
YES- ALL respondents

in what way? "they can coordinate care" "they care about us"

If they wouldn't make it better, why not? N/A

APPENDIX 5

Needs Assessment: APNs in New Jersey

I. BACKGROUND

The New Jersey Collaborating Center for Nursing (NJCCN) agreed to work with the Nurse Practitioner Healthcare Foundation (NPHF) and the New Jersey Health Care Quality Institute (NJHCQI) to develop a new and more comprehensive primary care infrastructure for New Jersey (NJ) that is based on a nursing model. To that end the NJCCN was charged with: 1) developing, disseminating and analyzing a state-wide needs assessment survey of Advanced Practice Nurses (APNs) focused on the business and practice management knowledge and skills and 2) conducting focus groups to better understand the workforce capacity in initiating and sustaining a nurse-led health center, specifically in the underserved areas of Newark and Trenton.

Assuming that scope of practice issues were resolved in NJ for APNs it is important to understand if APNs are adequately prepared for independent practice as it relates to owning and operating nurse-led health centers. This is important when considering the challenges APNs would face in underserved areas such as Newark and Trenton. Therefore, for the purpose of this first report it will be centered on the educational needs assessment around business and practice management skills.

II. METHODOLOGY

A. Survey Design

A needs assessment survey was developed by The New Jersey Collaborating Center for Nursing, Nurse Practitioner Healthcare Foundation (NPHF), and the New Jersey Health Care Quality Institute (NJHCQI) with input from the Forum of Nurses in Advanced Practice-NJ (FNAP-NJ), Society of Psychiatric Advanced Practice Nurse (SPAPN) of the New Jersey State Nurses Association (NJSNA), and APN-NJ. Additionally, an email list of active APNs were obtained from the New Jersey Board of Nursing (NJBON). The survey was disseminated by these groups as well as through the e-mail list provided by the NJBON. The survey was placed on the NJCCN website. NJCCN administered the survey through SurveyMonkey.com™ for ease of access for the participants. The email to the APNs included a description of the project, description of the needs assessment on entrepreneurship, practice management, and business skills of APNs in New Jersey.

The survey consisted of 24 questions with a section for comments by the participants and 9 demographic questions. Various design formats for responding to questions were incorporated including multiple choices, yes or no, and fill in the blank. Respondents were asked to rate their comfort level in activities/skills needed for APN nurse-led practices on a Likert scale of 1-5, in which 1=novice, 2=advanced beginner, 3=competent, 4=proficient, and 5=expert. One reminder email requesting participation in the survey was sent 2 weeks after the original emailing to ensure an adequate sample size.

B. Sample

The sample of APNs were solicited through the NJSNA sub-groups of APNs and through emails provided by the NJ Board of Nursing between June 4, 2015-July 10, 2015. According to the NJ Board of Nursing records there are 7,166 nurses licensed as APNs. In this survey there were 372 respondents who completed the survey. By taking the survey consent was implied.

III. SYNTHESIS OF RESULTS

The electronic results (n=372) were aggregated through Survey Monkey™. Descriptive statistics were used to analyze the data.

A. Demographics of Respondents

Over 67% (n=204) of the respondents were age 46 or greater, educated primarily at a Masters level, with the majority (56%, n=200) having 8 years or greater in practice as an APN. The majority of respondent were credentialed as either family or adult APNs. The majority were working 40 hours or greater in their practice settings. Demographic data can be found in Table 1 below.

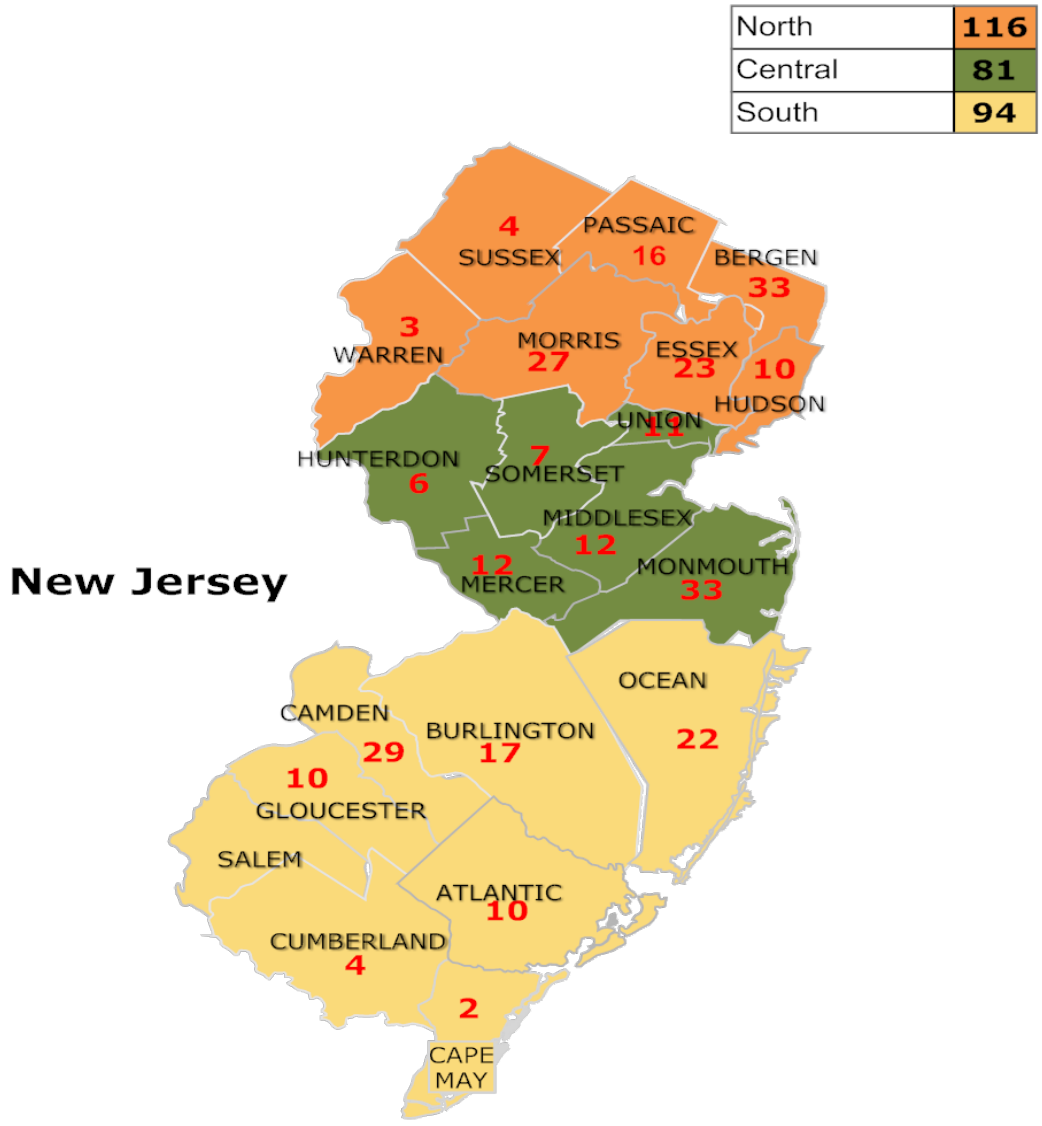
Table 1. Demographics of Respondents

Characteristics	**n**	**%**	**Characteristics continued**	**n**	**%**
Age			**Years Licensed as APN**		
25-35	35	11.4	*1970-1980*	8	2.3
36-45	68	22.1	*1981-1990*	23	6.6
46-55	81	26.4	*1991-2000*	96	27.6
56-65	98	32	*2001-2010*	117	33.6
66 or greater	25	8.1	*2011 to 2015*	104	29.9
Highest Educational Level			**Years in Practice as an APN**		
MSN, MN, MS	260	72.2	*0-1*	46	12.8
DNP	56	15.6	*2-4*	71	19.8
PhD	17	4.7	*5-7*	41	11.5
Other	27	7.5	*8-10*	40	11.2
			11 or greater	160	44.7
Certifications			**Number of Scheduled Work Hours**		
CNM	5	1.4	*0-10*	32	9.2
CRNA	16	4.5	*11-20*	32	9.2
Acute Care Adult NP	36	10.1	*21-30*	31	8.9
Acute Care Pediatrics NP	3	0.8	*31-40*	196	56.2
Adult Gero Primary Care NP	75	21.0	*41 or greater*	58	16.6
Psych/Mental Health NP	41	11.5			
Pediatric NP	27	7.6			
Family NP	88	24.6			
Women's Health NP	10	2.8			
Dual-NP	4	1.1			
CNS	24	6.7			
Other	28	7.8			

B. Primary Work Sites by Zip Code

APNs were asked to identify the primary zip code of where they worked. Those that provided the response were aggregated by county. Respondents were place in the map below to provide a geographic depiction of where they were located. See Figure 1. below.

Primary Work by Zip Code

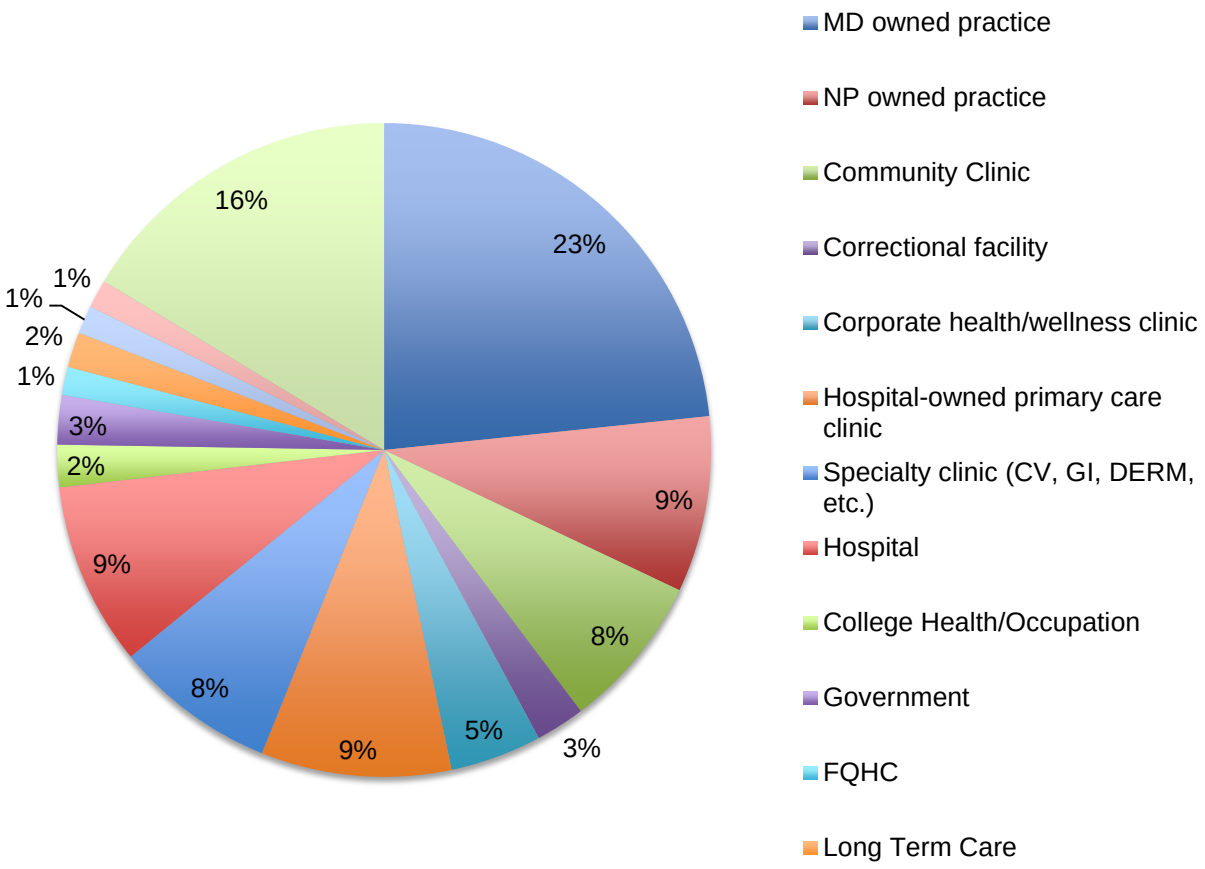


Type of Practice Sites for APNs

The type of practice settings where APNs work are broken down in Figure 2 below. As demonstrated in Figure 2, only 9% of the APNs self-identified that they own their own practice, while the majority identified that they currently work in an MD owned practice or other types of facilities. However, when asked in question 16 if they owned their own

practice 13% (n=48) out of 366 respondents answered yes. We cannot account for this discrepancy in responses.

Figure 2. Type of Practice Site for APNs



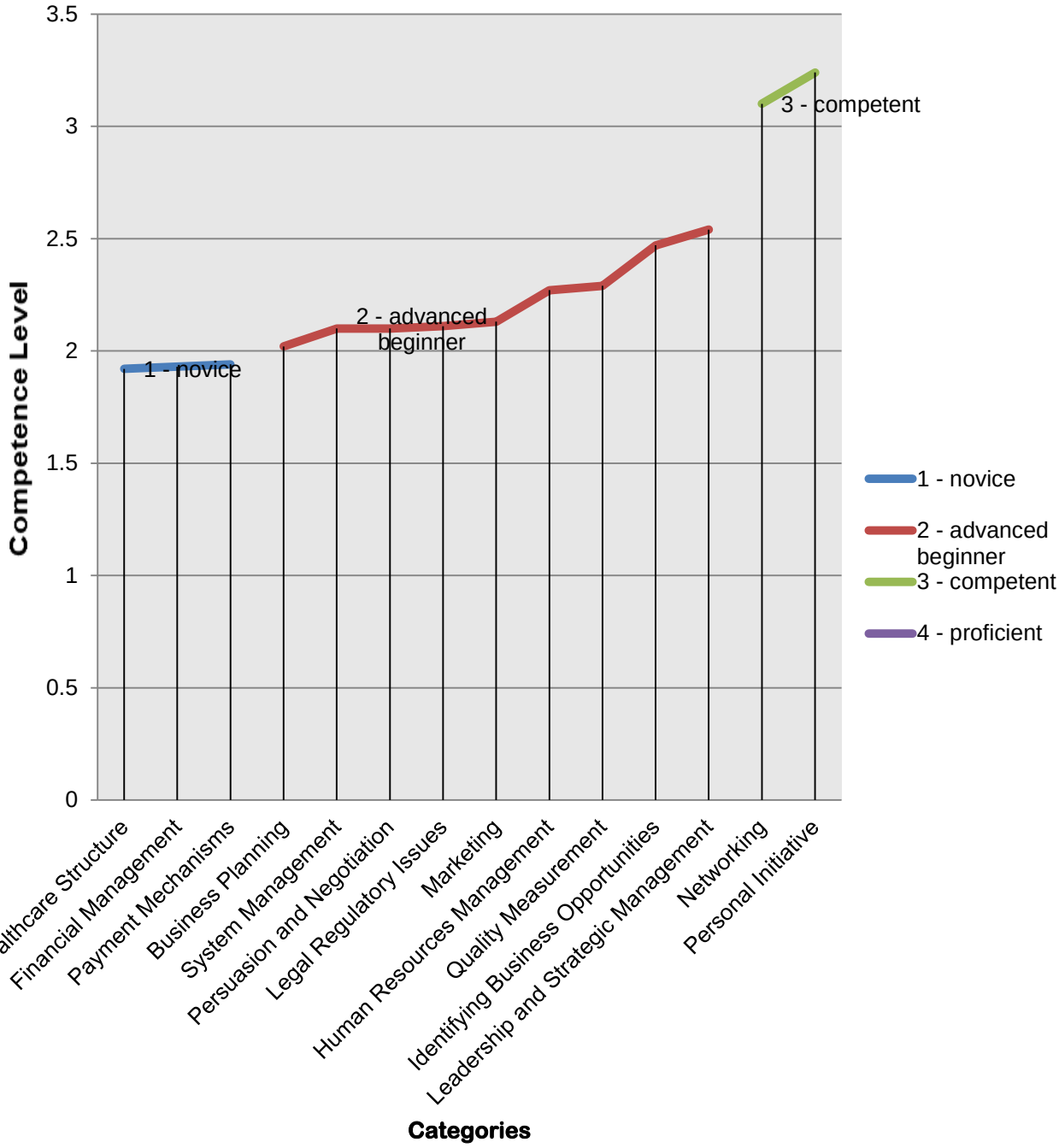
C. Educational Needs Assessment

All 14 categories in the needs assessment had a weighted average to help identify where the APNs were in each of the specific items. Twelve of the 14 categories showed that the APN were at a novice or an advanced beginner level. The other two categories were at a competent level. Of those that responded to the survey the majority had greater than 8 years as an APN in practice where one might theoretically believe that they would be more advanced. This may be congruent with the fact that 86.9% who responded to the survey did not own or operate their own practice and therefore did not have the business and practice management skills that were needed for the future healthcare demands.

Each category within the survey that focused on business and practice management skills was averaged to determine the least to greatest need by the APN respondents.

Table 2 below shows that distribution by category.

Table 2. APNs Least to Most Knowledge by Competency Level



In Table 3 each of the content categories were analyzed to look at the overall weighted average and the range within that category. Select comments were identified to illustrate the perceptions of APNs within that category.

Table 3. Category, Weighted Average, Range within the Category and Illustrative Comments by APNs

Content Category	Weighted Average	Range within Category	Illustrative Comments
Identifying Business Opportunities	2.47	2.26-2.83	
Marketing	2.13	1.95-2.45	"I do not know what an external environmental scan is." Nurses are not typically socialized to pay attention to marketing…unless they have had business courses or experience in the business world…with healthcare being a tremendous business in the Western World…nurses must become more proficient in this area."
Leadership & Strategic Management	2.53	2.43-2.77	"Many healthcare systems do not allow nursing to "fully" engage in strategic management despite their leadership roles."
Financial Management	1.93	1.75-2.15	"Negotiating business loans is not dependent on the skills or knowledge of the APN. It is completely dependent on the financial institutions giving the loans. They will not give out any loans that are not secured with capital." "Eighteen years ago I was trained as a physician extender. I was never encouraged to own my own practice even though I knew where the needs were." "We own our own APN PCP practice and we're lucky enough to have the capital between the two of us."
Persuasion and Negotiation	2.10	1.95-2.22	"Negotiating contracts with payers is becoming increasingly more difficult, because most have pre-existing prejudices against APNs. It is extremely limiting for APNs not being in insurance plans. This impacts their ability to function autonomously." "I have had many years of experience in high level business negotiations in international business but negotiating with payers is an absolute nightmare and proficiency is seemingly impossible."
Networking	3.10	2.80-3.24	"Though one can be diligent and know how

Content Category	Weighted Average	Range within Category	Illustrative Comments
			to navigate networking… will APNs be allowed to "make connections? Others may stereotype the definition of nurse and not want to include our profession."
Personal Initiative	3.24	2.89-3.42	"This requires experience and maturity.
Business Planning	2.02	2.02	"I have successfully started and run two APN organizations. One practice for 13 years which grew to 1000+ employees. My current solo practice I have run for over 4 years." "Identifying moral, ethical and legal consequences of business opportunities are important."
Legal & Regulatory	2.11	1.78-2.54	"One would need at least an MBA to be proficient in health and regulatory policy… or have consulting and accounting services. In other words it is not enough to look up the current regulations and guidelines. It is wise and effective to obtain experts in the field to assist in areas where you have no practice experience."
Payment Mechanisms	1.94	1.83-2.16	"Billing and coding is a very important part of APN practice and should be taught in programs."
Systems Management	2.10	1.81-2.64	"I work with my EHR/billing team on these matters."
Human Resource Management	2.27	1.90-2.54	"Credentialing is the biggest nightmare and the biggest loss of revenue due to poor information, little support, no structured leadership or contact structure within the insurance credentialing framework."
Quality Measurement	2.3	1.83-2.68	"I do not know what HEDIS or clinical metric management is."
Healthcare Structure	1.93	1.79-2.20	"I do not know what a FQHC or an accountable care organization is." *Note: In this question we did not ask about APN owned practices and this was a limitation of the question.*

D. Practice Patterns (Current and Future)

The majority of APNs (86.9%, n=318) do not own their own practice at this time. Forty-six percent, (n=144) of the respondents identified that they do not have the business skills and 43.9% (n=137) of the 312 respondent identified they do not have the practice management skills necessary to own and operate a nurse-led practice. However, if there were a healthcare business program offered, along with practice management resources, and a state-wide Nurse Practitioner support network to help finance, set up, and run a practice this would be attractive to APNs. In fact, 67.3 % (n=241) of the 358 respondents stated they would be interested in owning and operating their own NP practice with these resources made available.

E Learning Preferences

The respondents were asked several questions to determine how to best deliver a business and practice management program and what they would identify as a reasonable fee. The majority of APNs (89.6%, n=317) identified that they wanted the program offered in NJ preferably in central NJ. Sixty two percent (n=221) wanted a hybrid format, (both face to face and on-line) (n=221) with 173 of the 221 also wanting a coach provided. The cost point identified by the majority 63.6% (n=224) was in a range of 1000 -3000 dollars.

IV. RECOMMENDATIONS

It was clear from the survey results that educational programs did not prepare the APNs in business and practice management skills to lead their own practice. The results showed that the respondents were at the novice or advanced beginner level and did not feel confident in 12 of the 14 categories identified in the survey around business and practice management skills. (Refer back to Table 2 and 3 for specific results). Therefore, a comprehensive business and practice management program is needed for current APNs. It also provides the bases for informing academic programs to add these topics to their curricula for future APNs. Dissemination of the results to schools of nursing should be considered.

The cost of a program in business and practice management skills was important to the majority of APNs (72.2%, n=262). Sixty-four percent (n=224) of the APNs were willing to pay a fee of $1000-$3000. The format of the program that they preferred was a hybrid of weekend classes, on-line modules, (61.7%, n=221) with some (48.3%, n=173) preferring a coach. Therefore, in developing a program location, cost point, and format should be considered in the design.

V. DISCUSSION

In addition to the above recommendations several other points should be considered. In trying to identify APNs and their contact information it became evident that there is not a clean source of data. This makes it difficult not only in identifying contact information but in identifying the specialties of APNs. This is an area that needs to be improved upon and an area that the Board of Nursing in NJ and the NJCCN could work on together.

In the survey, several APNs identified that they owned their own practices and some identified they were successful. Therefore, it would seem that establishing a list of APNs

that have been successful and would be willing to mentor new APNs in their practice would be useful.

Finally, many of the APNs need assistance with setting up a practice. Therefore it would be valuable to create a toolkit and/or resource list that was accessible for APNs to use. It is important that this list of resources also be vetted by someone who has experience in these areas.

VI. SUMMARY

It is encouraging that with proper education and resource access 67.3% of the APNs would be interested in owning and operating a nurse-led practice. The results of this needs assessment for APNs demonstrate gaps in knowledge as it relates to business and practice management skills. These gaps can be easily remedied with a comprehensive educational program and resources. The survey questions and the full results are included in Appendix A and B, respectively. In addition, the focus group report will continue to add more contexts around this project and deliverables.

VII. FUNDING

Funding for this survey was provided by the Nurse Practitioner Healthcare Foundation and the New Jersey Health Care Quality Institute through a grant from The Nicholson Foundation.

VIII. APPENDICIES

a. Survey Tool

b. Full Results Without Comments

APPENDIX 6

APN Focus Group Report

APN Focus Group Report

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I. BACKGROUND

The New Jersey Collaborating Center for Nursing (NJCCN) agreed to work with the Nurse Practitioner Healthcare Foundation (NPHF) and the New Jersey Health Care Quality Institute (NJHCQI) to develop a new and more comprehensive primary care infrastructure for New Jersey that is based on a nursing model. To that end, the NJCCN was charged with 1) developing, disseminating, and analyzing a state-wide needs assessment survey of Advanced Practice Nurses (APNs) focused on business and practice management knowledge and skills, and 2) conducting focus groups to better understand the workforce capacity to initiate and sustain a nurse-led center, specifically as it relates to the underserved areas of Newark and Trenton. The 3 focus groups data provide context to the initial quantitative report.

II. METHODOLOGY

A. Focus Group Design

Focus group questions were designed by the NJCCN and then sent for input to the NPHF and NJHCQI leaders of the project for feedback. A final set of 15 questions were developed for use in the focus groups. Questions were targeted at understanding the APNs: 1) vision of what a nurse-led primary care practice would look like, 2) reflections on how a nurse-led practice would look different in the inner city, 3) business and practice management skills needed, 4) the need for a nurse residency model.

Invitations to participate in the focus groups were sent out through the Forum of Nurses in Advanced Practice-NJ, the Society of Psychiatric Advanced Practice Nurses of the New Jersey State Nurses Association, and the APN-NJ as well as key hospitals that had a large number of APNs working in their facilities. Three sites were selected for the focus groups which included: NJCCN in Newark, NJ; Atlanticare in Atlantic City, NJ; and at a conference sponsored by NJSNA in Trenton, NJ for APNs. Due to the time constraints of participants the focus groups were held for approximately 1 hour at each site. Demographic data were obtained from each of the participants. No follow-up focus groups or additional questions were able to be raised which is a limiting factor. The focus group sessions were recorded with verbal consent from the participants. The participants were instructed at the beginning of the focus group not to use their name or organization. Upon completion of the focus groups they were transcribed by a 3rd party. All names were redacted from the focus group transcripts to ensure confidentiality.

B. Sample Size

A total of 19 APNs participated in the focus groups. Distribution of the APN participants by region included 10 central, 7 northern, and 2 from the southern locations in the state. The focus groups occurred on June 18th, June 22nd and June 23rd, 2015.

III. DATA ANALYSIS

The Executive Director and the Associate Director of the NJCCN read the transcripts independently to identify themes and consistent trends in the data. After working independently the team came together to share findings, develop and refine themes, and to provide examples from the participants. It is important to note that not all questions originally designed could be utilized in each of the focus groups because of the limited time constraint and length of discussion around particular questions.

A. Demographics of APNs in Focus Groups

CERTIFICATIONS	**N=19**	**%**	**LOCATION OF SITE IN NJ**	**N=17**	**%**
CNM			Urban	9	53
CRNA	1	5.3	Suburban	5	29
Acute Care Adult NP	2	10.5	Rural	3	18
Acute Care Pediatrics NP					
Adult Geri Primary Care NP	5	26.3	**HIGHEST EDUCATIONAL LEVEL**	**N=17**	**%**
Psychiatric/Mental Health NP	4	21	MSN, MN, MS	8	47
Pediatric NP			DNP	5	29
Family NP	4	21	PhD	4	24
Women's Health NP			Other		
CNS	1	5.3			
Other	2	10.5			
PRACTICE FOCUS			**YEARS IN PRACTICE AS AN APN**	**N=17**	**%**
Primary Care Practice	9	47.3	0-5	5	29
Acute Care Hospital In-Patient	2	10.5	6-10	1	5.8
Acute Care- ER			11-15	2	12
Long Term Care, Assisted Living, Sub-Acute			16-20	3	18
Home Care	1	5.3	21 or greater	6	35.2
Palliative Care/Hospice	1	5.3			
FQHC					
Community Clinic	1	5.3	**NUMBER OF SCHEDULED WORK HOURS**	**N=15**	**%**
Private Practice with Physician	0	0.0	0-10	3	20
Private Practice (NP)	3	15.8	11-20	1	6.7
Specialty Clinic (Neuro, CV, Diabetes, etc.)	0	0.0	21-30	1	6.7
Other	2	10.5	31-40	6	40
			41 or greater	4	26.6
DO YOU TEACH IN NP PROGRAM	**N=17**	**%**	**ARE YOU ENGAGED IN POLICY/LEGISLATIVE CHANGE**	**N=17**	**%**
Yes	13	76.5	Yes	5	29.4
No	4	23.5	No	12	70.6
If yes, full or part –time			**If yes, describe**		
Full-time	1		Gave Description	8	
or Part-time	2				
DO YOU ENGAGE IN RESEARCH RELATED TO ADVANCING PRACTICE					
Yes	10	58.8			
No	7	41.2			
If yes, describe					

Gave Description	5				

The majority of participants in the focus groups were certified, and worked in primary care full-time in an urban setting. In response to the question regarding engagement in research and policy, 5 participants reported being engaged in research, with several of them in school to complete their DNP. Of the 8 who responded to the question on policy engagement, all of them responded that they were engaged in NJSNA through one of the forums.

B. <u>Focus Group Trends</u>

The data for the focus groups were organized by question. After reading the responses themes emerged. Under each theme are examples in the respondent's words to help provide context as validation of the needs assessment survey results**.** To make their comments easily readable for this report some editing has been done.

1) What attracted you to become an APN?

Theme: To be the best nurse you can be.

Quotes:

" This is *another step in climbing the ladder, to get however far I could go with my education and practice."*

"I really just always wanted to be the best I could be, and serve the patients with the highest level of education and knowledge."

"*Nursing was always an interest of mine. I wanted to go beyond what the basic scope was to refine my skills, education, and refine my practice and expand it to the maximum."*

2) Think about your practice as an APN what are the things you do that you believe add the most value to the care of the patient and improve healthcare outcomes?

Theme: A Holistic approach makes us different.

Quotes:

"*We really consider all of the aspects of the patient rather than simply the medical model. "*

"Nurses are very much patient advocates and educators."

"I think what APNs bring is a patient-centered approach…we try to empower our patients that is not the medical model."

3) If you were able to recraft your APN role for the future needs in promoting health and improving healthcare:

a. What additional skills do you believe you need that you currently do not have

Theme: There is a schism between practicing as a clinician and trying to reconcile with the business component.

Overview of the skills identified throughout all 3 focus groups

Skills Needed
Setting up a business
Technology-pharmacy and EMR
Marketing
Negotiating Contracts- insurance reimbursement
Credentialing practices

Quality improvement
Change management
Billing
Venture capital for financing
Knowing the population and demographics
Dealing with competition
Public speaking
Negotiating salary
Political savvy
Legal savvy-i.e restrictive covenants

Quotes:

"The business part of it is mysterious to APNs."

" …setting up a business, writing a business plan, creating a budget, understanding how to set salaries, and how to negotiate salaries."

(Speaking about current APN curriculum), "There is about a half hour lecture during the whole program about contracts, credentialing, and insurance reimbursements. There are nuances and they are very complex, and I don't think people realize until they're actually embedded in that and realize the there's a lot more to go into it."

"The biggest words nurses fear are competition and business."

"I have not succeeded in coming by someone who has a specific knowledge within the healthcare field about how to set up a practice through the Small Business Administration."

"Too often, you are going into these 10-15 minute med checks without saying, "No I cannot diagnose somebody and develop some sort of reasonable treatment plan and do some real patient-centered care where the patient is actually participating in his care in 10-15 minutes."

"You are on a time clock. You have to see so many patients per minute, literally."

"We are watering down our services in many, many, ways. That happens in clinics. It is happening more and more."

"I think that one of the places where our physician colleagues really out do us is in the political arena, so they get a chance to influence policy in ways we do not. What we do not have in money we have in numbers. But we have not organized. It is important that we learn to think like that and become more politically savvy and figure out what we do with our money."

"What I have garnered from some conversations with other NPs is that when they go into practice with some of the physicians there are clauses written in their contracts that say that if you leave our practice you may not establish a practice within X amount of miles."

b. What skills could you bring that would add value.

Theme: APNs bring a unique skill set that adds value.

Quotes:

"We are great organizers and great educators. We focus on social justices and we are not so profit driven yet."

"I think we are better collaborators because we are used to that."

"We're used to team care and bringing it all together and seeking out the resources in the community to help our patients."

"They (MDs) don't look at the whole picture, so I think that we teach and that we look at patients in an entirely different way."

4) **If there were no legal constraints on your practice, what would an ideal nurse-led primary care practice look like to you?**

Theme: It would look like a healthcare team that looks at all aspects of the patient.

"I think it would look like a lot of primary care practices look now. It would not look any different except you would have APNs instead of D.O.s or family physicians or internal medicine physicians. Why would it be any different except that it would have the different philosophical [underpinnings]."

" I do not see conceptually that it would be that different except that it would take on all of our values and our perspective on patient-centered care with the patient being involved in decision making, treatment planning."

a. If this primary care practice was located in the inner city, would it look different? How?

Theme: The inner city population requires different resources.

"I think I would have to see more patients {volume}. I think it would look different. I would consider an inner city demographic when setting up a practice because of course nobody wants their insurance. I will take cash payments and nobody wants the poor people's insurance or the Medicaid."

"It would be a very different model than say Princeton or somewhere else. We would have to consider transportation for people. People do not own their own cars or have ways to get places."

"You have to have a certain time when you have open hours, and they {patients} just come in without appointments. Appointments are tough to keep for those who do not have cars, do not have child care, and do not have everyday schedules."

In reference to the business model: "They are subsidized."

"Even though everybody says there are a lot of services, there are a lot service referral services rather than actual service providers of care."

'Get everybody's needs met in a one stop kind of a place that includes physical health needs, as well as mental health needs, substance abuse treatment, referrals, and workgroups. All of those services in one place would be absolutely fantastic.'

*"That ethical piece of why are we screening for depression if you do not have anywhere to send people? {*Finding resources to care for patients with mental illness is difficult}.

b. So if you had a magic wand and could set up this ideal practice what 3 things would you see as barriers that you would need to overcome? (Personal, professional, financial, etc.)

Theme: Money speaks.

"You have to have seed money to set it up. So I would have to find somebody to help me invest in setting the practice up. I would not be able to do that on my own."

"My collaborating physician is encouraging me to set up my own private practice and he has offered to be my collaborator without charging me anything. I am afraid of setting up my own practice. First, because I do not know if anything is going to happen to him. Secondly, I cannot figure out if it is going to make sense financially."

"There are two or three large medical multi-specialty groups that are just taking over everything. So part of my question is if we would be able to survive as single providers much like our physician colleagues, or would we have to have some kind of an agreement with the larger medical groups."

"Hospital acceptance of us is another big issue. If you are seeing patients on the outside and then you want to follow them when they go to the hospital, trying to get credentialed in a hospital is not always the easiest thing, depending on how comfortable they are with APNs, and what they allow. Most hospitals will not allow you to admitand then, how can you follow your patients in the hospital."

"I think the other issue is this whole ACO issue, these bundled payment issues. I work with a lot of both physicians and groups like the nursing homes which are in these bundled programs where they get money back if the patient saves in the bundle. Well, I am seeing these patients there for palliative care and pain management, keeping days low but I am not part of that bundle and I do not get anything back. And I do not even think I could be part of that bundle because I am not an admitting attending. I am not a primary."

5) **Only about 3-5% of all APNs ever start their own practices. What do you see as the reasons for this low number?**

Theme: There is no financial infrastructure to support APN practices.

"{The reason for the low APN numbers} …is 80% reimbursement. My costs are not 20% cheaper than a physician who opens a practice. I don't pay my employees, 20% less. I actually pay them better than most of the doctors' offices around. None of my expenses are 20% less, but I have to accept 20% less and sometimes even less."

"I don't think new graduates should go into private practice right away."

"I am still trying to find financing. I am still tapping into pensions and tapping into equity into the house because there is no financing. Angel investors are non- existent. I always went to the AANP, ANCC websites, and the different organization websites thinking surely there must be some funding help or loan help or small business association help for nurse practitioners trying to start and it's not there."

6) **If a program was developed that:**
   - **Provided education about the business aspects of initiating and managing a practice;**
   - **Included a support service that provided start up and did a lot of the practice management;**
   - **Aggregated practices so that independent practices could come together to get discounts for equipment, supplies, etc. and**
   - **Networked the practices so that favorable contracts could be negotiated to sustain the practices …**

   Would you want to participate in such a program? Why or why not?

Theme: Some APNs groups have figured this out.

Quotes:

"We [nurse anesthetists] have a very different approach in the way that our national association {AANA} views its roles and responsibilities to our state. I can go to my national association and tap them for $300,000 to make it happen. They see the value in it. They have attorneys at discount and lobbyists at discount and have business

consultants. The AANA has a team of people that will say, "I heard you are all starting your own practice in NJ. …Here are all of the resources."
"If there were an infrastructure system in place that would assist us, definitely."

a. Would you take the risk? And what would risk look like to you?

Theme: Informed risk taking is key.

Quotes:

"I think APNs would take the risk. It is not really a risk. It is a way of elevating your profession to that next rung on that ladder. That is how I see it."
"If you don't take risk you will never move from A to B. The main thing {risk} would be leaving the company I work for when I have a salary, and good benefits. I would really have to think twice to understand what I was stepping into."

"We're not as a group entrepreneurial because of the nature of what nursing has always been."

"I agree that having the security of an income, benefits, and support structure is important. There is a fear of going out on your own, and doing something wrong, becoming engaged in something that I really did not know what the laws are, or messing something up is a concern. I think that is a fear that has been embedded in nurses and nurse practitioners."

7) If you were designing a residency program for NPs who were going to start their own practice what content/skill would you make sure to include?

Theme: A residency program equates with credibility and safety.

"I think the biggest argument we have, the biggest hill we have to climb, is that {physicians tell patients } we are as not educated and not as clinically trained as physicians. Patients come in and say, "Oh my doctor told me to stop coming—my cardiologist told me to stop coming to you because he has two years of residency and you have none." "We do the exact same work and as a woman fighting for equal pay, I think nurse practitioners should be fighting for the same thing because it is the exact same dynamic."
"I absolutely believe there needs to be a residency program because the residency used to be that you had to be a practicing nurse for two years before you could engage in an MSN program. So, if they're going to cut off that requirement in the front end then they need to add it to the tail end and say: 'You must practice for two years under a residency, under tutelage.' To just set the nurse free after school is completed, that is a recipe for disaster."
"I do not think we should have a residency program unless we pay them. I think if you are going to be a resident, then you should be a resident like a medical resident and get paid."
"I was a national health service corps scholar. My obligation was after I finished my program I went to work. The obligation was not to get a residency or a DNP. You have obligations. I would have liked to have had a residency."
"… I would have a business aspect component, but I think the majority of it is practicing as an APN in a realistic practice setting and being accountable, but having the safety net of have a person who is experienced working with you who has already gone through that."
"When you get out there they expect you to be able to operate. I believe when physician residents come out they do not yet know how to practice. Everybody who has been a floor

nurse knows that it is a nurse's nightmare, although they {residents} have the information and they have done their rotations, it takes them 4 years after they get out of med school to learn how to practice. Whereas we throw NPs out into the trenches the day they graduate and pass that test. I just do not think it is enough."

8) **If the practice was located poverty stricken inner city and you were going to work with a very high risk population who had not had access to care for many years how would you change your residency program what additional or different skills might be needed there compared to a middle class insured population in suburbia.**

Theme: Inner city residency programs require greater innovation and creativity.

"That's the trenches {inner city}, and yet those are the people who need us the most. In nursing school, in APN school you just write an order and send the patient to a cardiologist. In real life you are trying to find someone to take the patient. Nobody wants a Medicaid patient or a Horizon patient. You are sometimes spending an hour trying to get them social services or housing or whatever they need. You soon find out that's the stuff patient's really need."

"There is a government program where if you are willing to work in an underprivileged area you can get loans and reimbursements. We {APNs} are the perfect organization and the perfect profession to say to the government: 'We are willing to send our recruits out to your local cities and your local underprivileged areas to work for a year in a residency program provided you give them a little bit of income.' A little bit of benefit as far as the loan relief or complete loan relief would be the ideal situation."

Other issues raised:

Nurse practitioners need to be more involved in policy.

"If we want to join those other 22 states who do not have collaborating agreements, we have to work together and we have to know what needs to be done."

Collaborating agreements

"It took me months to find a new collaborator because my old collaborator turned around and said: "I want $500,000 for you to stay in practice." And so I had to pack up shop, and I had a month to find a new collaborator and move and then it really did come back to the 11th hour to find someone to do it.

Clarification of Regulations in NJ

" In order to have a private practice in state of NJ , if you are not a physician and you do not heal solely by prayer, then you have to be state licensed as a facility as an ambulatory care facility in the state of NJ.

CLIA waiver identified as a barrier in NJ

IV. RECOMMENDATIONS:

APNs perceive that they are unique in that they practice using a holistic approach and are strong collaborators due to their nursing education. The focus groups provided valuable insight and validated the business skill and practice management education that is needed. However, key issues were identified in the focus groups that went beyond the educational needs of the APNs. They are as follows:

- DNP programs need to recognize that there is a schism between the APN practicing as a clinician and functioning as an entrepreneur. These programs need to ensure that their curriculum takes a comprehensive approach in preparing the APN to set up an independent practice.

- There is a need for a paid APN residency model. The focus groups identified a perceived gap in the new APNs ability to transition from an academic to practice setting. Many of the nurses entering into an APN role have limited experience practicing as a registered nurse. This can present an issue of credibility as well as a concern related to patient quality and safety.
- APNs need assistance in setting up successful practice models that are sustainable.
- APNs need to market their holistic approach to patient care and need to emphasize their unique skill set that sets them apart from the traditional physician model. APNs that are currently considering operating their own practice are following the outdated medical approach of solo practice. APNs need to consider models of group practice with varied APN specialties to meet the current and future healthcare needs of the population they are serving.
- Credentialing practices vary across healthcare settings inclusive of hospitals and long term care. This results in APNs not being able to follow their patients in these settings which impacts continuity of care for their patient.
- Residency programs that are in the inner city need to address the unique needs of the population it serves. Inner city patients have limited or no access to resources resulting in the inability of the APN to provide comprehensive quality care. This is due primarily to either limited or lack of healthcare insurance, competing financial obligations, or transportation. This in turn, creates issues in time spent in finding and coordinating available resources. Innovative and creative options for resources should be considered by the APN.
- National nursing professional organizations need to collaborate to develop turn-key resources and funding options for APNs to set up independent practice. This model currently exists for Nurse Anesthetists and should be explored as a potential prototype.

APPENDIX 7

Nursing Leaders Focus Group

And

Interview with United Family Medicine, A Community Clinic

Focus Group Call: Nursing Leaders in APN-Managed Health Centers
Meeting Minutes
Thursday, August 13, 2015

Attendees:

Pat Kappas Larson (leader)	**Bonnie Pilon, Vanderbuilt University**
Judy Formalarie (recorder)	**Chris Esperat, Texas**
Pat Dennehy, Consultant	**Patti Vanhook, East Tenneesee State**

Welcome and Background

Pat Kappas Larson welcomed all on the call and gave a brief background on the project and on The Nicholson Foundation. She had emailed all the participants a list of questions to review prior to the call and went over them for their input and responses.

Is the administrative burden problematic?

- It is valid that this is a burden
- Section 330 of the FQHC law requires that there must be someone in charge who reports to the oversight board with needed reports and quality metrics.
- Must look at someone with financial expertise to do quarterly reporting and Executive Director. The Executive Director reports to the Governing Board. The Board needs to consist of patients.
- Administration can be spread among several people, but you do not want NPs doing this work as they need to spend their time with patients. Volume will suffer if NPs do this work.
- You will need an office manager, as well, and will need to determine if outsourcing billing or managing internally
- Overheads will exist the same if you are a FQHC or not.
- FQHCs have a robust set of criteria but it provides good structure for the clinic. The annual reports that are due to the Feds do get easier each year and gives the clinic a lot of information which then can be used as justifications to leverage additional funding from other sources.
- Easier to deal with the Feds than with a variety of insurance payers and they provide malpractice protection that assists in covering some of the administrative costs.
- Biggest challenge was noted as the anger and frustration with third party payers. A SWOT analysis should find out:
    - If they can get paid
    - At what rate they will be paid
    - How difficult it will be to receive credentialing

Have you incorporated students into the work and if so, how?

- The responders from universities definitely see this as a very high priority as they consider themselves also an educational training facility as well as a clinic for those in need. It was the expectation as they are an academic teaching center.

How is productivity set as a standard?

- A template schedule is used that has blocks of time laid out
    - Patient visits are 15 minutes (30 minutes for new patients)
    - OB has 20 minute visits (40 minutes for new patients)
    - Post-partum and annual visits are also longer

- New/annual/longer visits are spread out among NPs so that no one gets too many long visits in a day
- 20-22 visits each day per NP is average
- Volume is your friend; never turn away business
- There are no-shows, and they are filled with walk-in patients
- Average over 50% uninsured
- Some NPs prefer to work longer days so that they can have days off; give them flexibility
- Open 8 to 8 and half days on Saturday 220 days a year.

How do you maintain financial sustainability?

- You must understand the payer mix: you can't survive if you have too many uninsured
    - The goal is not to have over 30% uninsured; however, if you have other funding, or can make arrangements to purchase supplies at a lower cost (through a hospital), that can help sustain you.
    - Key is what it costs you and what your payer mix is that makes the difference
- Need to keep an eye on the future requirements: for 2017, FQHC payments will be based on their quality report as wrap-around payments may not continue
- Note that it is hard to diversify when you are serving the poor.
- Consider how to obtain "donated" services

Are you doing outreach? Do you have a mobile van?

- A mobile van was cost prohibitive
- Outreach being done to the homeless, migrant workers, elders in public housing, and those in assisted living.
- Some also do home visits.

Does anyone do group visits?

- Only with pregnancy centers.

What technology are you using?

- Allscripts is used and liked by many. It has options for different plans that allow you to buy one to fit your needs/practice size/etc.
- Those from TN had used a NextGen program but were not happy with it and it will not be renewed. As they work through the State, they must go through the State purchasing process.
- Practice Fusion is free, good, and can be customized, but it can be hard to get reports.
- Important to be able to do your own reports without going to a provider.

What is the panel size per practitioner?

- Some payers have restrictions
- One stated that eight years ago, they knew it to be a limit of 1500 for NPs and 2000 for physicians but not sure what it may be now.

What kinds of activity can be delegated to others than the NPs?

- You cannot delegate too much or you cannot bill
- A Medical Assistant can do vital signs and record it; LPNs and RNs can do more such as patient history, reason for the visit, and discharge information.

- Patient education, labs, medicine refills and call backs with test results were all done by others.

What else do we need to know that we did not ask?

- It is very important to do a needs assessment
    - Is there a FQHC in your area already?
    - If so, you need to get a letter of support from them (which may be hard).
- Can you be a niche market? If so, can you afford to do just that?
- FQHC section 330 has specific requirements for the needed Board.
    - They would have the board lined up prior to submitting an application so that you have that support behind you
    - Very tricky to navigate a board
    - Majority of the board need to be patients, which can prove difficult

Reaching the end of the list of questions, Pat thanked everyone for their assistance. They all agreed that if we have additional questions, we could reach out to them with emails.

The conference call ended at 2:45PM EDT.

Interview with Melissa Parker, COO, United Family Medicine
(United Family Medicine is a Community Clinic in Saint Paul, Minnesota)

Interview Date: August 25,2015

Key Information

- All providers are salaried and must see 2.6 patient per hour
- Provider teams consist of MDs, NPs or PAs, LPN or MA, and an RN nurse leader/manager. There are residents from the nearby hospital always on the team and the MD functions as preceptors.
- Physicians also work in the hospital and follow any clinic patients admitted as well as providing after hours call coverage for the clinic.
- The hospital has not allowed NPs to be credentialed and thus they do not have hospital privileges.
- MAs are registered or certified and if not at time of employment are given six months to obtain. They receive a salary adjustment after obtaining.
- EHR is Epic the Excellian version that is leased through the local health system that includes the hospital. They were allowed to develop their own templates, which allowed them to design them in a way that captures the FQHC reporting requirements.
- They are in process of evaluating the use of scribes given need for more timely and consistent data entry by the providers.
- The MAs work under the scope of the physician, which allows for greater flexibility than using RNs or LPNs who are constrained by their scope of practice.
- They have contracted HR provided by a group out of the state and the interfaces are virtual. The RN managers have responsibility for the interface and the COO provides the administrative oversight.
- They have been able to set their Medicaid payment rate with the state and are a state designated/certified health home. This designation allows for some care management activities to be performed by state employed care coordinators. The state also provides a triage and referral line to the patients of the clinic.
- IT support for extrapolation of reports and data retrieval is contracted and there is a fulltime clinical information specialist who is responsible for the over-site and the QA program. This position also reports to the COO.
- Outreach is performed to nursing homes with physicians primarily doing those visits as well as involvement with Hospice.
- A satellite clinic exists that is manned 3 days a week in a shopping mall near the residence of clinic patients who may have more difficulty getting to the clinic. (There are plans to open a second site)
- They do group visits for OB with 10 participants in each group. They have found significant impact on birth weights since initiation of this offering. All providers are certified in a program called Centricity and follow the protocols of that program. There is global billing and often add on visit billing for problems or concerns identified during the group activity. This allows for immediacy of response.
- They offer mental health, dental, x-ray and lab services on site.
- They utilize available free interpreter services but do require all staff have some knowledge of Spanish.

- Success has been predicated on streamlined operations and rate setting negotiations with the state. They do see private individuals in a higher portion than many clinics given the clinic was a health system fee for service clinic prior to transitioning to a FQHC approximately 4 years ago. It is notable that as a FFS clinic they were losing over 1.5 million per year given their location and the numbers of underinsured or uninsured.
- Location is on a bus line and near other services such as groceries and general shopping. They have negotiated with a local company that has a mobile grocery in a bus those parks at the clinic several days a week.
- Board meetings are monthly and prescheduled and they have been challenged to retain the 51% patient participation however they have patients who have continued at the clinic from the FFS clinic who are affluent and educated who have continued to be on the Board.
- The COO indicates she and the other two administrators are required to wear many hats and that the goal is to have a LEAN organization. The other administrators are responsible for the ancillary services and business office functions.
- Billing is managed with the EHR function and electronic payment management thus requiring minimal internal staff.
- All added service have required a Change of Scope request which is labor intensive and requires approval by HRSA.
- Best advice: be prepared with all policies and procedures, a Board in place, staffing etc. prior to submission of any application. Anticipate a 60-day period for review and approval and a demand to be operational within 120 days of receiving approval.

APPENDIX 8
Example Financial Model for APN Practice

EXAMPLE FINANCIAL MODEL FOR APN PRACTICE
High Level Summary Notes to the Business Model

Introduction/Summary

The Business Model is a Nurse Practitioner centric business model. This means that all assumptions are expressed as a function of practicing Nurse Practitioner full time equivalents (NP FTEs) or are derived from an assumption that is expressed as a function of NP FTEs.

Revenue Assumptions:

The model assumes a panel size 2,000 patients per NP FTE. The model projects 4,496 annual visits per NP FTE, traditional fixed location visits split 90% direct and 10% Group visits, and an expected 10 patients per group visit. The average patient face time during a direct visit is 17.5 minutes with 5 minutes per visit of administrative time for the NP FTE. Group sessions are projected to be 1 hour with 10 minutes of administrative time for the NP FTE.

Services (Visits) are projected to encompass five different service lines including (1) Traditional Fixed Location, (2) Home Visits, (3) Nursing Home Visits, (4) Rehab Hospital Visits, and (5) Procedures. Visits for FQHC, Mobile Van, Clinical Lab/Path Visits, Inpatient Hospital Visits, Diagnostic Radiology visits and Other have not been assumed to remain conservative. 80% of the visits are assumed to be in the traditional fixed location with 20% spread across Home, Nursing Home, Rehab, and Procedures. Travel time has been assumed for services rendered outside of the traditional fixed location.

Payor Mix (Pct of Patient Panel) is assumed to be 45% Medicare and Medicare Advantage, 15% Medicaid (Traditional and Managed), 30% commercial plans, 5% Self Pay, and 5% Charity Care. Visit Volume is intensified for Medicare and Medicaid and Reimbursement Intensity is adjusted across payers. Provisions are included for Value Based Incentive Compensation due to advanced managed care contracts. Overall reimbursement is expected to approximate traditional Medicare FFS reimbursement with a blended net payment per visit in the $139 / visit range (typical visits will include between 2-3 reimbursable CPT Codes). However Commercial compensation is expected to exceed Medicare to offset lines such as Charity Care that yield less than Medicare. It should be noted that NJ Commercial Payers have traditionally compensated Primary Care at 60%-70% of Medicare and therefore a strong managed care contracting group is imperative.

NP FTEs were projected to receive 10 vacation days, 10 holidays, and 10 Personal/Sick Days and be paid on a salary basis. The model assumes a NP FTE seeing patients 1,570 hours per year, working 1,840 hours per year, with 240 hours of benefit time for a total of 2,080 hours per year.

One of the most pivotal assumptions in the model is the Visit/Provider Intensity factor to accommodate the non-productive time of new NP FTEs (either due to growth or turnover). The model assumes 80% efficiency in year one, 85% in year two, and 90% efficiency in

years three to five. There is a myriad of factors that lead to revenue generating providers not achieving 100% efficiency. These factors include:
diminished patient visit demand while building the practice,

- managed care credentialing,
- inefficient scheduling,
- overuse of travel time,
- inefficiencies in EMRs, and
- other inefficiencies leading to increased administrative time.

HCTN Balance Sheet

	Year 1	Year 2	Year 3	Year 4	Year 5
Assets					
Cash, Investments, and Cash Equivalents	$ 277,600	$ 201,415	$ 226,621	$ 392,804	$ 512,363
Accounts Receivables	$ 143,513	$ 228,723	$ 415,162	$ 415,162	$ 553,549
Subtotal	$ 421,112	$ 430,138	$ 641,783	$ 807,965	$ 1,065,912
Fixed Assets					
Buildings	$ -	$ -	$ -	$ -	$ -
Furniture and Fixed Assets	$ -	$ -	$ -	$ -	$ -
Other Fixed Assets	$ -	$ -	$ -	$ -	$ -
Total Fixed Assets	$ -	$ -	$ -	$ -	$ -
Total Assets	**$ 421,112**	**$ 430,138**	**$ 641,783**	**$ 807,965**	**$ 1,065,912**
Liabilities					
Accounts Payable	$ 42,432	$ 63,647	$ 109,110	$ 109,110	$ 145,479
Short and Long Term Debt	$ -	$ -	$ -	$ -	$ -
Total Liabilities	**$ 42,432**	**$ 63,647**	**$ 109,110**	**$ 109,110**	**$ 145,479**
Seed Capital	$ 500,000	$ 500,000	$ 500,000	$ 500,000	$ 500,000
Net Assets or Equity	**$ 378,681**	**$ 366,491**	**$ 532,673**	**$ 698,856**	**$ 920,433**
Days Cash On Hand	54.3	39.4	25.8	44.8	43.8
Debt to Asset Ratio	0.10	0.15	0.17	0.14	0.14
Return on Equity	-32%	-3%	31%	24%	24%