



## Research Article

# Incentives to Primary Care

**Joselyn Baez\***

RN MSN, CEN, FNP, Hostos Community College, USA

\*Corresponding author: Joselyn Baez, RN MSN, CEN, FNP, Hostos Community College, USA

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### Abstract

An integrated review was conducted on primary care and primary care providers in urban community. sixteen articles were selected that reflect on the state of primary care and possible interventions to improve provider retention and care delivery. Significant themes emerged within the extant literature: PCP shortage and its determinants, financial considerations and strategies to improve retention and primary care delivery.? Physician shortage remains a paradoxical issue across the United States and Advance practice Nurses play a critical role as primary care providers?

**Keywords:** Urban community; Primary care provider (PCP); Incentives; Nurse practitioner; Advance practice nurse; Retention; Bronx

### Introduction

The Bronx, New York is one of New York City's five boroughs and is home to approximately 1.4 million people [1]. The Bronx is the northernmost point of the New York City metropolitan area surrounded by the boroughs of Queens and Manhattan to the south and Westchester County to the north. The United States Census Bureau [1] reports the population of the Bronx is comprised of approximately 38,000 children under 18 years of age, 848,230 adults between the age of 19 to 64 years of age, and 193,200 seniors over 65 years. Thus, the Bronx has a high population of adults that will rely on the primary care system for their medical needs as they transition into late adulthood and their senior years.

The residents of the Bronx face a multitude of chronic diseases that affect their daily lives. The Bronx has a 33% rate of obesity, a 16% rate of diabetes, and a 33% rate of hypertension, all of which are higher than the rate for the entire city by 8%, 4%, and 6% respectively [2]. The geographical location of the Bronx plays a major role in asthma rates. The borough is surrounded by four highways and is home to one of the largest industrial shipping areas in the city. According to the NYC Department of Health [2], the Bronx is the leading borough for air pollution throughout the city (6.1 to 6.3% compared to 5.3%), causing high asthma emergency

department visits. The rates of emergency department visits are at 177.5 per 10,000 in the Bronx compared to 81.2 per 10,000 in New York City [3]. Asthma, obesity, diabetes, and hypertension can lead to heart failure, stroke, chronic obstructive airway disease, respiratory failure, and even death. The increased incidences of chronic disease in the Bronx compared to the rest of the city places the residents at higher risk for adverse events leading to the need for greater availability of primary care.

Despite the high rates of chronic disease and the need for primary care, the Bronx has about 63 primary care physicians per 100,000 persons in the county [4]. There are 888 registered nurse practitioners in the Bronx spread across 16 specialties, a portion of which would be considered primary care [5]. The Bronx is home to multiple large medical centers with multiple facilities. The NYC Health and Hospitals Cooperation has three hospital locations and four stand-alone clinics. The Bronx Care Health system has two hospital locations and four stand-alone clinics with one closed temporarily. The St. Barnabas Health system, further, has one hospital location and three stand-alone clinics. However, the medical center with the most locations is Montefiore Medical Center with three hospital centers and eleven stand-alone clinics. The purpose of this integrated review is to explore primary care in at-risk communities. It seeks to gather and synthesize information that will provide the necessary insight to create strategies to improve the delivery of primary care.

## Background

According to the World Health Organization [6], primary care provides integrated services to meet the health needs of people throughout their lifespan by including health promotion, disease prevention, counselling, education, disease prevention, diagnosis, and treatment. It is influential in situations of crisis by detecting the early signs of epidemics and responding to surges in healthcare demand. Thus, primary care providers can treat conditions like hypertension, type 2 diabetes, sexually transmitted infections, seasonal ailments like the common cold or flu, asthma, back pain, and aid in pandemic management. Primary care is limited; it cannot be the patient's main source of health care and points are reached when the primary care provider must refer to a specialized provider for the most optimal care. When these points are reached, the patient is referred to a specialized provider or specialist. For instance, this is seen in patients with uncontrolled diabetes that are referred to endocrinology to achieve target haemoglobin A1C [7].

Primary care is a driving force in healthcare. Successful primary care leads to improvement in both physical and mental health. The availability of primary care has shown improvement in depression symptoms that are comparable to those in other facilities [8]. These improvements in depression play a role in the treatment of mental health. Mortality rates are also improved when there is adequate availability of primary care. According to Lautamatti et al. [9], the mortality rate is improved due to the availability to provide continuity of care, which increases the use of preventive and life-protective services. The primary care system improves population health outcomes and reduces the demand for non-emergency care in the emergency department thus, reducing the number of emergency department visits.

Without primary care, access to specialty services would provide difficulty to patients. There is difficulty in bridging the gap between mental health services and patients. According to Powers et al. [8], primary care offices treat mental health conditions and carry less stigma than psychiatrist offices. Thus, a lack of primary care will leave those who are fearful of the stigma of psychiatric care reluctant to seek care. The lack of primary care is relevant when it pertains to the increased rates of deaths from treatable diseases like heart disease, stroke, and injuries; and the decrease in patient education on health promotion [10]. Health promotion plays a role in getting patients to understand the behaviors that affect their health and how they improve. The improper use of the Emergency Department is another deferential aspect of the lack of primary care, due to increasing visits for treatment of chronic diseases that are treated in primary care.

Despite the known benefits of primary care, there are factors that impede care. One key factor is the lack of physicians going into primary care. The American Association of Medical Colleges has predicted that primary care will face a shortage of 17,800 to 48,000

doctors by 2034; leading to the growth of advanced practice nurses by 235% to be used to fill in the gaps in primary care [11]. Another reason for a lack of primary care providers is the lack of financial gain for the provider with the use fee-for-service model. In a fee-for-service system, provider incentives result from overutilization of services, thus patients' utilization of health care reactively like the emergency room and urgent care lead to decreased incentives or reimbursement in primary care [12].

## Methods

A review of the available literature was performed using databases PubMed, Medline, EBSCOHOST and CINAHL. The initial search term "primary care" resulted in 710,267. The addition of the term "incentives to practice" resulted in 34,167, the addition of "Satisfaction" resulted in 10,496, and the addition of "provider retention" resulted in 1,669. The literature narrowed down by academic peer-reviewed articles and publication dates within the last five years (2018-2023). The terms were combined to provide suitable search results and additional evaluation done to remove duplicate articles. The remainder of the articles were screened for their quality of evidence, resulting in the selection of seventeen articles. The selected sixteen articles reflect on the state of primary care and possible interventions to improve provider retention and care delivery.

## Review of the Literature

Significant themes emerged within the extant literature: PCP shortage and its determinants, financial considerations and strategies to improve retention and primary care delivery.

### PCP Shortage and Its Determinants

Although primary care remains the bedrock of the health care system, access remains an ongoing challenge across the US. Many areas in the country are categorized as primary care Health Professional Shortage Areas (pcHPSAs) and others medically underserved. Evidence shows that PCP shortage in the country will continue increasing in the absence of appropriate measures. For example, Zhang et al. [13] examined the shortage trends of primary care physicians across the U.S. from 2017 to 2030. The study found that states assigned grade "D" or "F" for their shortage ratio will rise from four in 2017 to 23 by 2030. Quoting the Association of American Medical Colleges, Ahmed and Carmody [14] noted that the country would face a shortage of almost 122,000 primary care physicians by 2032 based on the current trends. Projections suggest that states will experience different levels of shortage, with California having the largest shortage and New York the least [15]. Nonetheless, the current and projected shortages have occurred amid the expansion of the healthcare workforce across their country. For example, in analysing trends across 50 states and Washington, Xue et al. [16] found that the number of primary care physicians increased from 225,687 to 243,738 and primary care

NPs from 59,442 to 123,316 from 2010 to 2016. The discrepancy between supply and demand reflects substantial differences in the geographical distribution of PCPs across the country. Although rural counties and low-income areas have experienced an increase in the mean density of PCPs, the increase has been slower compared to urban counties and metropolitan areas [13,16]. In other words, rural counties and other vulnerable areas have not benefited significantly from the expanding healthcare workforce. In light of this evidence, two subthemes highlighting the determinants of PCP shortage emerged from the literature: financial factors/considerations and inadequacy of recruitment and retention strategies.

### **Financial Factors and Considerations**

Financial factors emerged as one of the leading determinants of geographic mal distribution at the personal and organizational levels [17-19]. Mohammadshahi et al. [19] argued about the effect of physicians' income based on the general theory of employment, money, and interest. Although PCPs incomes may be higher than in other occupations, they are not exempted from opposing income reductions. Working in rural or Medically Underserved Areas (MUAs) may not attract the income they expect. Consequently, they respond to factors that may reduce their income appropriately, for instance, by avoiding practicing in rural and vulnerable areas. Financial incentives have significantly influence turnover and retention rates, especially in rural and low-income areas. For example, PCPs tend to avoid areas because of the lower salaries than in private practices, inadequacy of housing, and lower quality schools and amenities in the areas [18]. According to Bodenheimer [17], the government's financial neglect of primary care has contributed significantly to the problem, with expenditure decreasing from 6.5% in 2002 to 4.67% in 2019. Consequently, many states and health care organizations in already underserved areas face challenges in recruiting and retaining primary care providers. The financial incentives also affect health care organizations' decisions in recruiting PCPs. With a focus on General Medical Education (GME), Ahmed and Carmody [14] argued that hospitals have expanded GME positions to respond to local market forces instead of societal needs. As such, many are inclined to add resident positions in subspecialties instead of resident in primary care to generate financial efficiencies.

### **Inadequacy of Recruitment and Retention Strategies**

The current recruitment and retention strategies in primary care exacerbates the shortages by influencing turnover intention due to workload issues and burnout. Malayala et al. [18] found that only 67% of physicians in underserved areas remained in the HPSA after their assigned three-year service. The low retention rates could reflect the degree of burnout and work-related stress that clinicians face in underserved communities [17,20] Indeed, Willard-Grace et al. [20] found that burnout and low staff engagement in primary

care increased the odds of turnover. The recruitment strategies in the vulnerable areas have not favored racial and ethnic minorities. Although racial/ethnic minorities tend to choose primary care practice, they only account for 11% of PCPs across the country [17]. However, the current strategies do not motivate the retention of individuals from this group. According to Schlak et al. [21], the underrepresentation of racial ethnic minorities reflects the effect of work environment, including exclusion, discrimination, and social isolation. The factor is critical in the context of the Bronx, considering that African Americans represent more than a third of the borough's population.

### **Strategies to Improve Retention and Primary Care Delivery**

The ongoing challenge in primary care delivery requires appropriate measures that would retain the workforce and enhance care delivery. In this regard, three subthemes related to this factor emerged from the literature: financial incentives and expenditure on primary care, career development opportunities, and overhaul of the recruitment programs.

### **Financial Incentives and Expenditure on Primary Care**

Health care organizations in medically underserved areas should understand and embrace the role of financial incentives in PCP recruitment and retention. Income level, salary, bonuses, and allowances, and in-kind benefits, including subsidized housing and loan repayment, could motivate PCPs to stay in MUAs [22-25]. In Kueakomoldej et al. [22], the study reported positive effects of financial obligations on clinicians' decisions to work in underserved areas. For underserved communities, improving the earning potential through favourable salary levels and remuneration and offering other financial supports could attract and retain PCPs [23]. The study reported that PCPs working in underdeveloped, remote, and medically underserved areas often complained of low reimbursements and income when compared with PCPs in urban areas. Health care organizations in these areas should also understand the importance of in-kind benefits. Consistent with Mohammadiaghdam et al. [23], in-kind benefits such as subsidized or free housing could counter the negative perceptions of poor housing facilities MUAs. However, financial incentives for PCPs may be inadequate in addressing the problem without additional measures. Research showed that clinicians working in underserved areas but receiving financial support did not intend to work in the service sites for long [22]. Bodenheimer [17] proposed increase in government spending on primary care to reduce the income gap and attract more PCPs into the areas. In this regard, improving primary care delivery and PCP retention in MUAs would require appropriate policy reforms to improve budgetary expenditure.

### **Career and Professional Development Opportunities**

Organizations in MUAs should focus on developing approaches

to attract and retain PCPs. Literature highlighted the importance of career and professional development opportunities in attracting, recruiting, and retaining PCPs [22,23,25,26]. In their study, Mohammadiaghdam et al. [23] found approaches such as continuing educational opportunities, evaluation, and employer support as critical to professional development. Professional planning and providing networking opportunities to clinicians in MUAs could promote identity formation in the area and enhance retention [25]. In addition, the study emphasized the role of decentralized internships for medical students in professional development and PCP retention. Besides, enhancing fellowship in rural areas and MUAs was found critical to PCPs' professional development. According to Kueakomoldej et al. [22], organization-based professional development programs could also incentivize PCPs into working in the MUAs. Indeed, the study observed that community health centers that had established career ladder programs reported fewer challenges in recruiting and retaining clinicians. Similarly, Noya et al. [25] reported job growth and leadership opportunities as crucial career development approaches that could help retain PCPs in MUAs. According to De Vries et al. (2023), appropriate transition programs for PCPs in underserved areas could also promote retention. For example, clinical support programs, extended orientation, and mentorship could reduce turnover rate in MUAs. In addition, professional development to enhance recruitment and retention in MUAs could involve enhancing PCPs' coping and resilience. As supported by Willard-Grace et al. (2019), the strategy could reduce clinician's perceived stress and turnover intention.

### **Overhaul of Recruitment Strategies and Programs**

The current recruitment programs have experienced significant challenges, especially for primary care physicians. Although New York is among the states projected to have a PCP surplus by 2030 Zhang et al. [15] the geographical distribution would require an overhaul of recruitment and retention strategies. A possible solution is developing and implementing policies aimed at encouraging people to pursue healthcare-related careers. As supported by Schlak et al. [21], policies should help attract people from racial/ethnic minority groups. In addition, policymakers should develop appropriate policies targeting Graduate Medical Education (GME). The current cap on Medicare support to GME has significantly stymied increases in residency training. States with disproportionate distribution of PCPs could benefit from policies that would offer provisional licenses to graduates who have not found residency positions. According to Zhang et al. [15], the provisional licenses would allow them to practice primary care under another physician's medical residence within an underserved area.

Evidence also shows the importance of leveraging programs that target foreign medical students (FMGs). The U.S. benefits

significantly from FMGs who make approximately a third of the physicians' workforce. The Conrad 30 J1 program is among the federal recruitment programs that could fill the gap in the supply of PCPs in MUAs. Established in 1994 through the Immigration and Nationality Technical Correction Act, the Conrad program allows states to recruit about 30 FMGs per year [18]. The Conrad program had recruited 18,504 physicians from 2001 to 2020, with the annual number increasing from 550 to 1162 in the same period [27]. While this is the case, evidence shows that the program has not been successful in meeting the needs of underserved communities. As revealed by Malayala et al. [18], 80% of FMGs were actively considering leaving the U.S. because of physician immigration policies. In addition, the proportion of PCPs under the program has significantly fell. From 2001 to 2020, PCPs supported under the program decreased from 82% to 28%, with the number of Conrad PCPs in underserved areas declining from 49% to 34% [27]. Although designed to meet physician shortages, the trends show that the program has not fulfilled its objectives optimally.

The shortcomings of the program indicate the need for an overhaul of the recruitment program. Current evidence discussed earlier shows that the current trends expose the country to a severe shortage of PCPs in the future [14]. Policymakers should address the "immigration backlog" that has recently increased the migration of FMGs from the U.S. to Canada [18]. In addition, policies should also reconsider the current Conrad 30 visa system and FMGs' work conditions. As revealed by Al Ashry et al. [28], FMGs often work in underserved areas and experience unfair burden from call schedules, sexual harassment, and pay disparities. In addition, they have worksite restrictions and cannot use telemedicine in their designated states [29]. Although states mandate that Conrad 30 FMGs should be paid consistent with the "prevailing wage," they often serve as sole providers in MUAs, leading to prolonged work hours [28]. The vulnerabilities account significantly to the low levels of retention of FMGs in underserved areas. In addition, the acquisition of a visa for a Conrad 30 FMGs can take up to 14 months, with the practitioners having few options for visa waiver. The long waiting period could lead to the loss of a spot. In this regard, the visa system and process of acquiring waivers should undergo changes to ensure the retention of FMGs in the underserved areas.

### **Discussion**

Physician shortage remains a paradoxical issue across the United States considering the recent expansion of the healthcare workforce. Primary care suffers a disproportionate burden, despite being the gateway to specialist care. The mal-distribution of PCPs has led to some vulnerable areas having a substantially low clinician-patient ratio. Bronx, New York, has only 63 PCPs per 100,000 persons, despite the state having a surplus [4]. However, the borough has a disproportionate chronic disease, including

obesity, diabetes, hypertension, and asthma. The shortage of PCPs implies that a significant percentage of the population does not receive optimal primary care. In the backdrop of these observations, this integrated review sought to explore primary care in at-risk communities such as the Bronx and synthesize information on intervention to improve PCP retention and care delivery.

The extant literature reveals the trends in the shortage of PCPs and some of the critical determinants. Evidence shows that the U.S. could face a severe shortage of PCPs by 2030 if it does not take corrective measures [14]. However, the shortage is paradoxical considering that some states, including New York, almost have a surplus. The observation reifies the existing supply gaps even in states that do not face severe shortages. Notably, the evidence shows significant shortages in rural areas and vulnerable regions, despite experiencing an increase in PCPs in recent years. Streeter et al. [30] supported the idea that expanding PCP reach in geographically, economically, and medically vulnerable regions such as the Bronx could help address the social determinants of health. However, the reviewed studies agreed on multiple factors that have curtailed the expansion of PCP coverage in MUAs. Financial factors or considerations at the individual and organizational levels emerged as a crucial determinant of the shortage. PCPs may choose to work in urban areas because of their individual financial considerations. Normative theories such as the Rational Choice Theory suggest that individuals make choices based on utility maximization strategies and stable preferences [31]. In this regard, lower financial incentives in rural and underserved areas may demotivate PCPs from working there. Indeed, Weeks and Wallace [32] reified the argument, revealing that PCPs in underserved areas receive 5% less salary than their counterparts in urban areas. Besides, the government expenditure on primary care has significantly declined, creating bottlenecks in recruiting and retaining PCPs in underserved areas [14]. The observation aligns with the Academies of Sciences, Engineering and Medicine [33] report that warned about the slow death of primary care because of funding problems. Under the same subtheme, evidence revealed that healthcare organizations have little incentives to add PCP positions because of the low financial efficiencies. The second determinant of the shortage entailed the inadequacies of the current recruitment and retention strategies, especially in MUAs. The mismatch between the supply of PCPs and demand for services creates heavy workloads that expose clinicians to burnout [20]. In addition, the recruitment strategies in underserved areas have not focused on racial/ethnic minority groups [14]. The factor is critical in underserved areas such as the Bronx with a large population of ethnic minorities.

The second theme focused on the strategies to improve PCP retention and care delivery. The synthesis of the literature identified financial incentives and expenditure on primary care, career development opportunities, and overhaul of the recruitment

programs as crucial approaches to addressing the problem. As highlighted, financial considerations have dissuaded many PCPs from practicing in MUAs. Consequently, financial incentives, including higher salaries, bonuses, and allowances could motivate PCPs into these areas. Moreover, in-kind benefits such as subsidized housing and loan repayment could help in retaining the workforce. However, such incentives should accompany increased government spending on primary care [14]. Increased government spending could indirectly influence PCP retention by increasing their numbers, reducing workloads, and preventing burnout.

In addition, recruitment and retention of PCPs in the underserved areas requires appropriate career and professional development opportunities. For instance, opportunities for continuing education, networking, and employment support were identified as essential to professional development of PCPs [25,26]. Cosgrave [34] supported the idea, arguing that professional development that embraces a whole-of-community response can mitigate turnover, especially in rural areas. Furthermore, retaining PCPs in the underserved areas requires the establishment of career advancement opportunities. Many PCPs in underserved areas are new job entrants and may face significant challenges in acclimatizing to the workplace environment [35]. Transition programs such as extended orientation, clinical support, and mentorship would also play a critical role in retaining new entrants.

Finally, the review identified the need to overhaul the current recruitment and retention strategies and programs. The changes require appropriate policy interventions that could target PCPs who have not found residency positions [15]. In addition, reforms to the visa system and work conditions for FMGs could expand care delivery in MUAs. As explicated in the review, the Conrad 30 J1 program could benefit these areas [18]. However, the program has faced challenges that should be addressed to ensure it meets its goals of improving PCP coverage in MUAs. Notably, this could involve reducing the bureaucratic challenges in acquiring visas and aligning Conrad 30 FMG's salaries with other PCPs.

### **Implications for Nursing**

Nurses play a critical role as primary care providers, which implies that the shortages affect their work significantly. As the shortages continue rising, nurses should take a frontline role and embrace additional responsibilities in patient care consistent with their scope of practice. APRNs in New York have full practice authority but some states require legislation to ensure full scope of practice in providing primary care. Nurses' role in direct patient care exposes them to situations that may lead to burnout and emotional exhaustion, hence, motivating them to leave the profession or move to other states. Consequently, workplace solutions such as emotional support and provision of resources to counteract work-related stress could support their retention in

underserved areas. In addition, the shortages imply the need for policy reforms that would expand PCP coverage in MUAs. Nurses can engage in political advocacy through professional nursing organizations to promote policy changes. For example, this could involve advocating for increased government spending on primary care. Finally, health care organizations in underserved areas should provide opportunities for continuing education and career development.

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