







The Developing Families Center (DFC) is a non-profit "umbrella" organisation which, through its partner organisations, provides support programmes and primary health care to low-income populations in one of the poorest areas of Washington, D.C.

In addition to housing the only free-standing birthing centre in the District, the organisations within the DFC provide midwife-led antenatal care, offer nurse-led primary health care, hold support groups for teen parents, and deliver early childhood development programmes. The DFC is a model of the success integrated programmes can have in a variety of settings.

AUTHORS

OVERVIEW OF WASHINGTON, D.C.

The capital of the United States, Washington, D.C. has one of the wealthiest and most educated adult populations in the country (see Table 1). At the same time, D.C.'s youth have below-average school enrolment, and child poverty in the District is higher than the national average. These statistics emphasise the acute inequality that prevails in the District.

Table 1: Socioeconomic and demographic indicators

INDICATOR	WASHINGTON, D.C.	UNITED STATES
Population (thousands) ¹	625	310,197
Poverty, below national poverty line, 0–18 years (%) ²	39	27
Human Development Index (HDI) ^{a,3}	6.08	5.03
Gini coefficient ³	0.53	0.45
Median household income (USD) ³	56,566	50,443
Residents with graduate or professional degree (%)4	26.9	10.3
Residents aged 3–24 enrolled in school (%) ³	74.6	77.6

a: The American Human Development Index ranges from 3.81 to 6.17. Higher HDI corresponds to higher levels of education, health, and income.

Health in Washington, D.C.

Despite its high ratio of doctors to population, the District of Columbia is home to some of the worst health indicators in the

country (see Table 2). The prevalence of HIV among adults aged 15–49 years is more than three times as high as the prevalence in any other US state. The District has almost three times the concentration of active physicians as the rest of the country, but life expectancy is lower there. Birth rates, particularly among teens, are significantly higher than the national average.

Maternal and child health indicators are especially poor. Neonatal mortality in the District is almost double the national average, and maternal mortality is more than three times the average—the worst in the country.^{6,11} African American women,

in the District and across the country, have particularly poor health outcomes compared with their non-black peers; they are more likely to give birth preterm, more likely to have low birth weight babies, more likely to suffer from stillbirths and neonatal mortality, and more likely to die themselves in childbirth.^{13,14}

Midwifery in Washington, D.C.

A growing number of women in D.C. are choosing to deliver with midwives, whether in a hospital setting or elsewhere. There are three types of accredited midwives in the U.S., although only Certified Nurse Midwives (CNMs) are legally allowed to practise in every state. CNMs have graduatelevel nurse-midwifery education and are D.C.'s only licensed providers, although Certified Professional Midwives (CPMs) can receive licenses in neighbouring Virginia. 15,16 Certified Midwives (CMs) are legally allowed to practise in only five states, none of which border D.C.15 While all midwives go through a rigorous training and certification process, the three types of accreditation have fuelled public confusion about midwifery, and many are still sceptical of midwives' value. In 2011, the Virginia case of a midwife found guilty in connection with the death of a newborn she helped deliver spurred debate about midwifery regulation and liability.¹⁷

THE DEVELOPING FAMILIES CENTER

Dr. Ruth Watson Lubic moved to D.C. in 1994 to develop a holistic, family-centred health clinic focused on maternal and newborn care. She realised that the most disadvantaged populations in D.C., namely African Americans living in the poorest neighbourhoods, had very limited access to primary health care, social services, and early childhood development opportunities. With this in mind, the Developing Families Center (DFC) was founded in 2000 in a donated, abandoned supermarket building in Northeast D.C. (Lubic RW and Randolph L 2014, oral communication, 12 Feb).

The DFC has housed several non-profits which are the direct providers of various interconnected, health-related services for the local community. The umbrella organisation seeks to "meet the primary health care, social service, and child development needs of underserved individuals and childbearing and child rearing families...and promote their empowerment." The DFC's commitment to integrating its member organisations, both with each other and with the local community, allows it to provide high-quality, patient-centred, family-focused care.

The Family Health and Birth Center (FHBC), one of the DFC's partner organisations which has been operated by the Community of Hope since 2010, employs a midwife-led holistic care model to provide antenatal and postnatal care, gynaecologic care, birthing services, paediatric care, and basic primary care.

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Table 2: Health and epidemiologic indicators

INDICATOR	WASHINGTON, D.C.	UNITED STATES
Average life expectancy at birth (total/female/male) ⁵	76.5 / 80.1 / 72.8	78.9 / 81.3 / 76.3
Active physicians in patient care (per 10,000 population) ⁶	68.8	24.0
Density of RNs and midwives (per 10,000 population) ⁷	167	99
HIV prevalence, ages 15–49 years (per 100,000 – total/female/male) ⁸	2704.3 / 1403.3 / 4185.5	339.4 / 165.2 / 522.3
Medicaid ^a enrolment (% of population – total/ages 0–18/ages 19–64) ⁹	50 / 21 / 27	35 / 11 /18
Birth rate (per 1,000 women – ages 10–14/ages 15–19/ages 15–44) ¹⁰	2.3 / 42.8 / 56.0	0.4 / 31.3 / 63.2
Maternal mortality ratio (per 100,000 live births) ¹¹	38.2	11.6
Infant mortality rate (per 1,000 live births – All races/White/Black-African American) $^{\rm 6}$	7.0 / 3.2 / 9.6	4.2 / 3.4 / 8.0
Birth weight < 2,500g (% of all births – All races/White/Black-African American) ¹⁰	10.4 / 6.1 / 13.5	8.1 / 7.1 / 13.3
Caesarean section rate (% of all births – All races/White/Black-African American) ¹⁰	33.9 / 33.3 / 35.7	32.8 / 32.4 / 35.5
Gestational age at birth (% of all births − > 37 weeks/≤ 37 weeks) ¹²	85.3 / 14.2	87.7 / 12.2
Home births (% of all births) ¹⁰	0.4	0.8

a: Medicaid is the federal government's health insurance programme for people with low-income. Unless they request individual appointments, women receive antenatal care in small groups beginning in the second trimester, a model which has fostered numerous friendships

and social support networks among women in the community (Flynn C 2014, oral communication, 5 Feb). Low-risk women can choose to give birth at the Birth Center or at a nearby hospital, while women with higher risk of complications receive antenatal care at the Birth Center and are referred to the local hospital for birth. The FHBC has a unique relationship with this referral hospital, which understands that midwives can safely oversee the majority of births without need for medical intervention. Thus, even in the hospital, FHBC's midwives are the primary birth attendants during labour and delivery, and physicians only intervene for consultations or to accept referrals (Lubic RW and Randolph L 2014, oral communication, 12 Feb).

As part of its mission, the DFC also aims to provide nonclinical supportive services and empower local families to utilise the services they need to improve their quality of life. The DFC has space to facilitate access to health care and health insurance, distribute pregnancy tests, and provide social support for at-risk women, teenagers, and families. Formerly carried out by an organisation called the Healthy Babies Project, the DFC is now planning to have these services provided directly through the FHBC and an early childhood development partner. Early childhood development services also meet the DFC's goal of enhancing the physical and cognitive development of children. Until quite recently, DFC housed an Early Head Start centre run by the United Planning Organization (UPO), which has twelve other early childhood development centres across D.C. However, UPO was recently offered a rentfree space for its Early Head Start centre and so has left the DFC. A new provider is expected to be operational within the DFC by summer 2014.

Providing multiple functions under one roof allows the Developing Families Center to meet a variety of needs of the families in its community. The Healthy Babies Project provided social support and parenting classes to teens and adults, men and women, and the DFC and FHBC are currently undergoing a renovation with the hopes of again providing many of those services to its clients. The same families who receive social support can attend antenatal care classes at the Birth Center and later deliver their children with Birth Center midwives; older children and men can also receive health care at the FHBC.

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Trigger for Innovation

By February 2014, Dr. Ruth Watson Lubic had been a midwife and birth centre champion for over four decades. In 1993, at 67 years old, Lubic won a MacArthur Genius Grant after she successfully developed and led two midwife-run birth centres: one in Manhattan's Carnegie Hill neighbourhood and one in the South Bronx

Dr. Lubic recognised that the majority of women can have normal pregnancies and healthy births without specialised maternity care – regardless of their income level or cultural background.

After showing that the birth centre model could improve birth outcomes in an impoverished neighbourhood in New York, Lubic wanted to use her MacArthur Grant to prove that the same model could be effective among the population with the poorest health outcomes in the country: low-income African Americans in the nation's capital.

DFC leadership is still working to find the most effective way to get representatives from its member groups to work together, with the presumption that working together is key for making DFC stronger while also making each individual organisation more effective. In addition to the maternity care, paediatrics, family planning, and HIV testing services already available at the DFC, Community of Hope has significantly expanded the amount of primary care provided, including serving men and addressing more chronic diseases.

MONITORING, EVALUATION, AND RESULTS

Families who come to the DFC have had significantly better outcomes than similar families who do not have access to DFC services. In 2006, analyses of FHBC records showed that women who initially presented at the FHBC for labour had a rate of preterm births of just 9% (95% CI 5.3–11.8), compared with 12.3% in D.C. Babies born at the FHBC were also significantly less likely to have low birth weight (7%, 95% CI 3.3–9.5) compared with D.C. babies (11.6%).¹⁹

A more recent study used a propensity score analysis to compare women who had received at least two antenatal care visits at the FHBC with similar women in the District who had not. This study not only corroborated the results of the 2006 analysis, but also found that regardless of location of delivery, FHBC-associated women were significantly less likely to have a Caesarean section (OR=0.59, p<0.01), less likely to have vacuum or forceps-assisted births (OR=0.45, p<0.01), and more likely to have a vaginal birth after Caesarean section (OR=3.50, p<0.01). 20

In addition, women have positive perceptions of the care they receive at the FHBC. Whether they give birth at the Center or at the hospital, the midwives treat them with respect, empower them to take part in their care, and give them the resources they need to make informed decisions about their bodies and their treatment (Flynn C 2014, oral communication, 5 Feb). A 2010 study showed that women particularly appreciated the comprehensive care provided through the group antenatal sessions, as well as the unlimited family support available for FHBC births.21 A focus group of women who had received care at the FHBC spoke about the support they received. One woman said, "that's the experience you get [at the hospital]: 'just because I said so...' Here [at the FHBC] it's totally different: I could call 20 times a day and every time it's the same comfort you get... [they] can't give you personal one on one...[in the] hospital."22

Another woman, who ultimately gave birth in the hospital, agreed: "That's one good thing here: even if you don't have your baby here, you come here for your prenatal care; it helps you when it's time to have the baby, even if you don't have it here.

When you get to the hospital you're well educated...that's a good thing."²²

SCALABILITY, SUSTAINABILITY, AND FUTURE DIRECTIONS

The DFC itself has few staff: Dr. Lubic still plays a significant role as founder of the Center, working closely with the current CEO, Dr. Linda Randolph, and three other non-clinical staff members. Randolph is a public health paediatrician who, along with Lubic, has been instrumental in fostering the relationships between the partner organisations housed at the DFC. Community of Hope at the Family Health and Birth Center employs five CNMs along with four Nurse Practitioners and various support staff, including front desk receptionists, medical assistants, a Registered Nurse, a patient navigator and a lactation consultant. Midwives report to Community of Hope's Chief Medical Officer and consult with a Medical Director at Washington Hospital Center and an intrapartum specialist at Community of Hope. Community of Hope also has a network of doulas who women can request to attend and assist during labour.

The FHBC's relationship with the nearby hospital has been crucial to the Center's institutional stability, allowing the midwives to refer and admit patients with ease while also maintaining the autonomy needed for the midwifery-led model at the Birth Center to succeed. This affiliation has increased the hospital staff's positive exposure to midwives and their work.

The Developing Families Center has been valued in the community since before the DFC opened its doors. Beginning in the 1990s, community leaders have assisted with spreading the word about the DFC, ensuring they were respected by the community, and providing a way for community members to give feedback. Since the DFC opened in 2000, it has been accepted as a safe haven for empowering and improving the community (Lubic RW and Randolph L 2014, oral communication, 12 Feb).

At the same time, the FHBC's financial stability was limited by its status as a privately-run free-standing birth centre, which made it ineligible for insurance reimbursements on par with those that hospitals receive. Since 2010, the FHBC has been operated as a Federally-Qualified Health Center (FQHC) through the Community of Hope. This arrangement allows the Birth Center to receive increased reimbursements from Medicaid and Medicare and provides federal tort coverage for the Center, increasing its financial sustainability. The FQHC health care delivery standard emphasises quality, which supports the Birth Center's nurse-midwife practice model (Lubic RW and Randolph L 2014, oral communication, 12 Feb).²³

From the beginning, the DFC has been interested in studying health outcomes and user perception in a more systematic way, including maternal and newborn outcomes as well as family satisfaction. With recent support from the W.K. Kellogg Foundation and the National Institute of Child Health and Human Development, DFC leadership hopes to show how the DFC has improved health outcomes in its target population while also highlighting the effects that the FQHC requirements have had on the FHBC's birth outcomes and patient satisfaction (Lubic RW and Randolph L 2014, oral communication, 12 Feb).

INSIGHTS FROM THE DFC

- **Community support is vital.** Before the DFC opened, it made connections with community leaders who saw the need for an integrated health care provider such as the DFC. The DFC continues to foster community involvement through its Community Advisory Board, comprised of local residents, as well as frequent invitation for feedback from clients and community members.²²
- **Co-location benefits clients.** The 'one-stop shop' model used by the DFC presents an opportunity for different organisations to work together and for their clients to receive better care, providing a mechanism for the local community to receive high-quality care in the same location that meets their needs.
- **Collaboration can be challenging.** As the organisations under the DFC umbrella have served similar populations, they often applied for the same limited funding sources, creating tension and inhibiting their ability to work together as a cohesive group. The organisations have had other project sites across the District, requiring them to distribute their limited resources across multiple sites. Funding requirements have also made it hard at times to serve the same people and collect data across a variety of data systems.

Even with the challenges presented by the integration of services, the benefits to the local community have been clear:

"I was a client at the Birth Center, [a] client at Healthy Babies [Project]. I liked it so much I came back. I came back and started working for Healthy Babies. I'm no longer with [them] but I still can't stay out of this building because I just feel so connected. I received my prenatal care for both of my children through here, and I had the last one here."²²

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ACKNOWLEDGEMENTS

This working paper was written as part of the Adding Content to Contact project, which aims to systematically assess the obstacles that prevent and the factors that enable the adoption and implementation of cost-effective interventions for antenatal and post-natal care along the care continuum. As part of this process, the project is working to identify existing and potentially innovative approaches to improve delivery of antenatal and postnatal health services through interviews with key informants.

We extend sincere gratitude to Ruth Watson Lubic and Linda Randolph from the Developing Families Center for their time and assistance on this case study. Arlene Katz from the Department of Global Health and Social Medicine at Harvard Medical School, as well as birth centre consultant Cynthia Flynn, also provided valuable insight. ACC was made possible by Grant Number OPP1084319 from the Bill & Melinda Gates Foundation, and is a collaboration between the Maternal Health Task Force and Department of Global Health and Population at the Harvard School of Public Health, HRP/WHO, and ICS Integrare..

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April 2014 (Revised August 2014)