

Primary Care Forward: Raising the Profile of Cuba's Nursing Profession

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"Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation...It forms an integral part of both the country's health system, of which it is the central function and main focus, and of the overall social and economic development of the community."

Declaration of Alma-Ata, 1978

The Alma-Ata International Conference on Primary Health Care was a watershed in global health: the hard-won consensus established health care as a human right and accessible primary care as fundamental to 'health for all,' and especially to closing the gap between rich and poor countries. At the time, Cuba had already transformed its own health approach by adopting a single, universal public health system, and by devising primary care based on health facilities in the community. But it was on the heels of the Alma-Ata meeting that Cuba launched its most daring reform in primary health care: the Family Doctor-and-Nurse Program. Introduced in 1984, the program expanded rapidly, posting doctors and nurses in neighborhoods and rural areas across Cuba. The teams were responsible for the health of a geographically defined population and reported to a local polyclinic. Their task was to implement a strategy of integrated, community-oriented care emphasizing prevention, health promotion, public participation and patient responsibility.

Almost three decades later, the family doctor-nurse teams remain the bedrock of Cuba's primary health care system. Moreover, while many observers focus on the physician member of the duo, it is the family nurse—from Old Havana's narrow streets to the mountains of the Sierra Maestra—whose stability in the community over time centers the work and provides the all-important continuum of care for families and their neighborhoods.

Components of Cuban Primary Health Care

By locating services near where patients need them; prioritizing vulnerable populations; focusing on prevention and health promotion; and providing integrated, universal care from primary through tertiary level, Cuba's community-oriented approach has helped the nation's population achieve a health status similar to the world's developed countries. Testifying to the effectiveness of the Cuban strategy are main health indicators such as life expectancy at 78 years, infant mortality at 4.5 per 1000 live births, and 5% low birthweight infants, as well as early achievement of most of the UN's Millennium Development Goals, including eradicating extreme poverty and hunger, achieving universal primary education, promoting gender equality and reducing child mortality.[1,2]

Primary care services in Cuba are provided by family doctors and nurses working out of small neighborhood offices, known as *consultorios*. Each office is responsible for the health of up to 1500

individuals—some 375 families. In remote and rural zones where the catchment area includes fewer than 300 people, offices are headed by a nurse (master's degree in nursing or primary care specialist level), supported by the nearest doctor.[3] It is worth noting that newly-graduated physicians are required to do their first residency in family medicine—some remaining in the field, and others going on to a second specialty.

Community polyclinics are the second link in the chain of integrated primary care. Each polyclinic provides support, referrals and leadership for surrounding family doctor-and-nurse offices. Polyclinics are staffed with pediatricians, OB/GYNs, internists, physical therapists and other specialists, as well as nurses. They rely on appropriate health workers and technology to provide services such as imaging, clinical laboratory, endoscopy, ultrasound and sometimes dentistry. Each polyclinic attends a population of 20,000 to 60,000 patients, served at the neighborhood level by 40 to 60 family doctor-and-nurse offices.

Maintaining efficient coordination between family doctor-and-nurse offices and polyclinic staff, while ensuring care tailored to each community's evolving health picture, can be a challenge. One mechanism to maximize synergies between these primary care providers, also used to evaluate both organizational and health professionals' performance, is the basic work group (GBT, the Spanish acronym). Centered at polyclinics, GBTs supervise the work of family doctors and nurses, and provide the link between them and other specialty services, as well as the larger community. Each is composed of a team leader, supervising nurse, internist, pediatrician, OB/GYN, psychologist, and statistician. Depending on the health picture of an area, other specialists such as social workers and epidemiologists may be incorporated.

Primary Health Care Strategies: Prevention, Treatment and Rehabilitation

The baseline for diagnosing individual and family health in Cuba is known as *dispensarización*, a model of continuous assessment and risk evaluation (CARE), implemented by family doctors and nurses.

As each patient is registered in the CARE system through home and office visits, the family doctors and nurses formulate a plan to zero in on individuals and families most in need of their services, prioritizing them for appointments and followup as determined by primary care protocols.

However, designing appropriate, effective neighborhood-wide interventions and solutions requires deeper analysis and understanding of the underlying causes of disease and ill health. For this, family doctors and nurses develop an annual health situation analysis. This analysis requires identifying the "socio-psychological, economic, historical, geographic, cultural, and environmental characteristics having an impact on the health of the population, as well as the health problems that affect individuals, families, and communities, for the purpose of developing remedial actions." [4]

Continuous Assessment & Risk Evaluation (CARE)

An organized, continuous, dynamic process for evaluating individual and family health using four classifications:

Group 1: Healthy individuals free from health risks or disabilities, who can manage their daily lives in a balanced, independent and responsible manner;

Group 2: At-risk individuals exposed to conditions which, if not brought under control, can increase vulnerability to individual or family health damages;

Group 3: Sick individuals, who are diagnosed with communicable or non-communicable diseases; and

Group 4: Persons whose abilities have been impaired or who are disabled.

Source: *Family Doctor-and-Nurse Programme, Ministry of Public Health, 2011*

Cuba's family nurses, who most often live in the neighborhood they serve, are the gateway to the area's dispensarización at the household level and the neighborhood health situation analysis. Maricela Torres, nurse supervisor for primary care services in a Havana polyclinic (1993–1998) and currently coordinator of the Cuban Nursing Network for Child Health, explains: "community nurses are like family: they know their patients and share the same daily problems. They make house calls, alert patients to risk factors, advise on risk reduction and deliver health promotion messages. Nurses monitor the pregnant women in their neighborhood, advising them on how to stay healthy during pregnancy and afterwards—for instance, counseling parents about how to make their home safe once their child starts walking." Such close patient relationships and the intimate knowledge of social determinants provided by living in the community enables these nurses to identify risk factors early and help devise intersectoral responses.

Putting Policy into Practice

Nursing practice in Cuba is coordinated and overseen by the Ministry of Public Health's National Nursing Division. Responsibilities and duties of community nurses are outlined in protocols by the national Family Doctor-and-Nurse Program; the legal framework for training, responsibilities, actions and interventions permitted by all nurses are set forth in Law 396.[5]

Together, these mechanisms stipulate how family doctor-and-nurse services are organized, implemented and evaluated. The neighborhood family doctor and nurse are the "backbone for the implementation of all scheduled activities. They are both responsible for the work they do, the doctor heading the team." [4] This teamwork approach demands close coordination between doctor and nurse (and with the corresponding community polyclinic), since they share clinical and administrative responsibilities; when properly applied, this approach maximizes the possibility for comprehensive, integrated primary care and services' provision.

Family nurses are responsible for a set of actions related to documenting, following up and helping to maintain the health of the individuals and families in their community. In addition to receiving patients, sourcing and updating their clinical records, tracking their health and organizing regularly-scheduled exams and tests, these nurses:

- Identify individuals requiring home visits;
- Make daily visits to home care patients;
- Set care priorities in consultation with the family doctor;
- Deliver health promotion and educational talks;
- Measure vital signs, weight and height of patients;
- Monitor patients according to their CARE classification;
- Monitor rehabilitation progress;
- Schedule and implement (with the family doctor and specialists, as required) actions with priority patients including pregnant women, newborns, children, older adults, etc;
- Administer vaccinations;
- Coordinate nursing students during their family practice rotations; and
- Provide liaison with health promotion volunteers.

Family nurses are also responsible for well child checkups in children one to 19 years old. This regularly-scheduled (at least annual) checkup measures a child's physical and psychomotor development. It includes a physical exam, measuring weight and height, and also assesses development, including motor skills. Nurses are specially trained to carry out these exams; family doctors conduct them for infants until they reach their first birthday.[6]



A nurse makes home visits in the Sierra Maestra mountains, eastern Cuba.

Given that the Cuban strategy emphasizes an integrated, biopsychosocial approach to health and wellbeing, nurses in the community contribute to developing and implementing intersectoral actions targeting social determinants, lifestyle, risk factors and unhealthy habits. According to *Public Health Projections for 2015 in Cuba*, the first priority for improving health indicators through 2015 is achieving effective intersectorality. These guidelines note that getting relevant sectors working together is "critical to improving the health and wellbeing of the population and is the key strategy for reaching health goals for 2015." [7]

Two projects led by nurses serve as examples of effective intersectoral collaboration: the volunteer health brigades and Gender Construction for Comprehensive Child Health. The first is a nation-

al program that identifies and trains community health promoters to carry out prevention and health promotion in their neighborhoods. Founded shortly after the primary care system was established, it involves the Federation of Cuban Women—with over three million members, one of Cuba's largest civil society organizations[8]—and the family doctor-and-nurse office. Nurses supervise and coordinate volunteers and set priorities for neighborhood prevention and promotion activities. These might include vector control and dengue prevention, apprising neighbors of blood drives and encouraging them to donate, or going door-to-door to promote screening programs such as pap smears.

The gender project is coordinated by the Cuban Nursing Network for Child Health, with collaboration from the Gender and Collective Health Network, the National School of Public Health, the José Martí Pioneers—the nationwide organization of school-aged youngsters—and the University of Havana. This innovative initiative brings interactive gender-perspective learning into primary school classrooms, aiming to break down gender bias to improve health and wellbeing. The Cuban Nursing Network for Child Health, again working with the Pioneers in the public schools, also hosts nursing workshops for students to introduce them to the profession, show them basic techniques, provide role models and engender enthusiasm for nursing careers. “I’ve had nurses come up to me and say they were motivated to study nursing after attending these workshops as kids,” says network coordinator Maricela Torres, who is also a professor at the National School of Public Health.

Between house calls, receiving patients, conducting physical exams, monitoring at-risk individuals, providing health promotion and prevention talks, coordinating intersectoral activities and performing administrative tasks, it would stand to reason that Cuban family nurses are under considerable work-related stress. However, none of the nurses interviewed by *MEDICC Review* reported work as a source of stress. Research shows certain nurses in specialties such as oncology and emergency care experience substantial work-related stress.[9] Yet, when Cuban family nurses were asked, they responded with comments like “Personally, I haven’t experienced stress due to my work. Community nursing is about prevention and health promotion—about helping your neighbors. It’s not that people don’t have stress in their lives, everyone does, but working in a family doctor’s office is a positive experience overall. Also, the teamwork helps mitigate stress.”[10] Working close to home, these nurses also avoid common stress factors related to overcrowded public transportation, arriving at work on time and getting home for the all-too-common “second shift” faced by Cuban women.

Nurse Training & Continuing Education

Three types of nursing careers are offered in Cuba: technical, professional (university level) and specialist (postgraduate). The difference among them turns on the quantitative and qualitative level of training. Professional nurses follow a more in-depth, scientific curriculum, allowing them a broader range of health decision making and the capacity and judgment to take corresponding actions. All students pursuing nursing careers do rotations in family doctor-and-nurse offices.

On a recent visit to the nursing department of the Manuel Fajardo Medical Sciences Faculty in Havana, the halls were a beehive of activity, with white-clad nursing students working towards

“Earning a master’s degree in primary health care taught me to differentiate between health diagnosis and health analysis. Often we equate the two, but knowing how many hypertensives or diabetics you have in your catchment area is not the same as understanding what causes these conditions or how to address them. My postgraduate work taught me how to integrate the health diagnosis with related social factors and determinants, as well as the concerns of my community. The coursework gave me the tools to prioritize those problems and develop actions to improve community health—the ultimate goal, after all.

—Caridad Dandicourt

technical and professional degrees[11] hustling to class and gathering to compare notes, their energy palpable.

“Over the past several years, the country has been making efforts to raise the profile of nursing as a profession and we’re starting to see results. Before, we used to have incoming classes of 10 or 15 students,” says Caridad Dandicourt, chief of nursing education at the school. “Today, I have 62 technical and 40 professional nursing students. There’s a lot of enthusiasm for the profession right now and these young people are motivated.”

Postgraduate opportunities for nurses have expanded exponentially since first introduced in the 1990s and demand for postgraduate training is keeping pace. Currently nurses can pursue postgraduate training in medical specialties (pediatrics, cardiology, oncology, OB/GYN, etc); disciplines related to public health such as primary care, epidemiology, health psychology, health economics and the like; or multidisciplinary degrees in communications, statistics, and pedagogy. Cuba has been relatively slow to introduce a doctorate in nursing, but with support from the University of Manitoba, Canada, developed a curriculum (based on international nursing PhD programs) and now has conferred two doctorates.



An obstetric nurse in a neonatal unit, Pinar del Río, Cuba.

Dandicourt was motivated to get a master's in public health when she was serving as director of nursing services in a Havana municipality, feeling the need for more knowledge and better tools to be more effective in her position. "I got those tools, but to my surprise, I also learned how to identify problems within the primary care system and to develop actions to solve them," she told *MEDICC Review*. "I learned about intersectorality, how it can—and should—be integrated with primary care. Above all, it showed me that problems can't be solved by health professionals alone, but must involve the whole community."

In Cuba, where professional salaries are low, it's important to note that nurses pursuing postgraduate degrees continue to receive their salary in a work-study system. Once nurses complete their postgraduate programs, they receive a corresponding increase in pay. Both these factors have contributed to high postgraduate matriculation rates.[6] The respect and recognition family nurses receive in their communities is another motivating factor for continuing education and helps mitigate low remuneration.



Service learning at a Havana polyclinic.

Elephant in the Room: Scientific Research

In Cuba, as internationally, developing research and publishing capacities among nurses is a priority. However, major obstacles make this a challenge. These include lack of research requirements by, and support from, research institutes, and weak linkage between national priorities and research related to nursing, especially at the primary care level.[12]

In Cuba, the *Revista Cubana de Enfermería* is dedicated to publishing original nurse-led research, but, like most of the international scientific literature, focuses on patient care and clinical research. Studies contributing to qualitative improvement of nursing services at the primary care level and throughout the health system would require a greater focus on health systems' research.

"We have a lot of work to do on this issue," says Professor Maricela Torres, who has led and published scientific research and was the first Cuban nurse to obtain a PhD (in health sciences).

"For me, developing the research capacity of nurses and motivating them to conduct and lead research, is the most important challenge facing Cuban nursing today."

Torres underscores the importance of multidisciplinary research, not just that which focuses exclusively on nurses, citing the interdisciplinary nature of public health and the importance of intersectorality. The variety of postgraduate degrees offered and the requirements for attaining them is placing increased emphasis on research. "As nurses gain research experience, sit on scientific councils, and put that research into practice to help solve health problems and improve health service delivery, it's changing the perception of nurses; we're no longer just practitioners, but researchers," she says.

President of the community nursing division of the Cuban Nursing Society, Dandicourt is addressing the research capacity challenge head on. Supported by an executive committee, she receives, organizes, analyzes and prioritizes information submitted by municipal and provincial branches of the Society.

This includes communities' health problems, primary care service delivery, nursing performance and more. "It's extremely important for accurate data analysis that the information comes from the nurses working in the communities—from the base—since they're the ones who are most familiar with the problems and challenges."

This information travels from the municipal to provincial and finally the national level. Once the health problems have been identified and prioritized, an action plan is developed, coordinated by the different divisions of the Society.

Not all provinces face the same challenges. By way of example, Dandicourt cites Havana (the capital, considered a province), where organization and training of nurses conducting well child checkups has been identified as a problem area. In other provinces, lack of research capacity and opportunities for scientific research has been singled out as a challenge—especially in community nursing. To address these gaps,

the scientific research division of the Nursing Society assesses actions needed in each province, such as workshops on qualitative research and scientific publishing or attendance at related congresses.

On the day Dandicourt spoke with *MEDICC Review*, she was preparing for the national meeting of the scientific research division. The event evaluates progress in nursing research, measure development of nurses' research capacity, and analyzes which provinces are excelling (and why), as well as which are falling short, defining the support they need. "Some provinces are doing extraordinarily well in developing their research capacity and we plan to see how we can replicate that success throughout the country," she comments.

With a laugh, she declined to give *MEDICC Review* readers an exclusive on which provinces are leading the pack on nursing research, but says she is confident some of that research will eventually make its way into our pages.

Conclusions

Accessible, community-oriented primary care services staffed by properly trained health professionals constitute an effective and replicable strategy to improve population health and support well-being—especially in resource-scarce settings. Prevention, including vaccination programs, risk-factor reduction, and promotion of healthy habits and lifestyles, have proven effective as a first line of defense.

The Cuban family doctor-and-nurse model, which trains and empowers community nurses to diagnose, analyze, and design responses to community health problems in a supportive,

teamwork-reliant culture, has helped Cuba achieve formidable health indicators countrywide. This success has engendered respect and recognition for Cuba's family nurses, which continues to build as more nurses pursue postgraduate degrees and attain specialization in community nursing and other key areas for public health care. Nevertheless, in order to maintain and improve the population health status achieved, nurses and the health system are challenged to develop and apply a scientific research capacity, broaden and strengthen intersectoral actions; and continue to encourage greater public participation in improving community health. 

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