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# World Hospitals and Health Services

The Official Journal of the International Hospital Federation

## Editorial

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The Columbus Effect: The donor Community's "Discovery" of Non-communicable diseases

NCD health literacy – what can hospitals do?

Dispositional and situational factors as determinants of food eating behaviour among sedentary and blue-collar workers in Nigeria's premier teaching hospital

Comparative analysis of the quality of life in home and hospital treatment of patients suffering from heart failure

Perceptions and experiences of co-delivery model for self-management training for clinicians working with patients with long-term conditions at three healthcare economies in UK

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# The Columbus Effect: The donor Community's "Discovery" of Non-communicable diseases



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**ABSTRACT:** On 28-29 April, 2011 the First Global Ministerial on Healthy Lifestyles and Noncommunicable Diseases (NCDs) convened in Moscow to galvanize support and provide policy guidance for the forthcoming UN High-Level Meeting on NCDs in September 2011. Subsequently, the World Health Organization (WHO) drafted the "Moscow Declaration", placing itself at the global epicentre of NCD prevention and control, working collaboratively with its sole client in Member States, ministries of public health. The Declaration took no note of the extensive and ongoing activities of developing country owned and operated hospitals in the developing world and their clinical participation in NCD prevention and care for the past four decades.

This article will review the global burden of NCDs in the developing world; the identification of NCDs by reliable sources decades before the "Moscow Declaration"; the role of hospitals in addressing them despite the absence of donor support; the considerable extant investments made by public and private entities in building inpatient and out-patient facilities; and how donors have overlooked the already established hospital-based industry within developing economies.

Since the founding of WHO in 1948, it has been the leading force in marshalling donor health assistance targeted on communicable diseases. However, in a 2005 report, WHO found that the highest mortality rate in the world is due to cardiovascular diseases (CVDs), which account for 31% of the total. Figure 1 depicts global deaths by specific causes for all ages in 2005. Now, years after this report, the donor community through the UN High-Level Meeting is shifting its focus onto the growing threat of NCDs in the developing world.

## Precursors to the emergence of NCDs

With NCDs, there is a "Christopher Columbus" mentality to disease interventions in the global health community. Donors are now giving attention to them as if NCDs are akin to a newly discovered continent. However, reliable sources identified their emergence decades ago, and developing countries themselves invested heavily in building and operating hospital systems to address them.

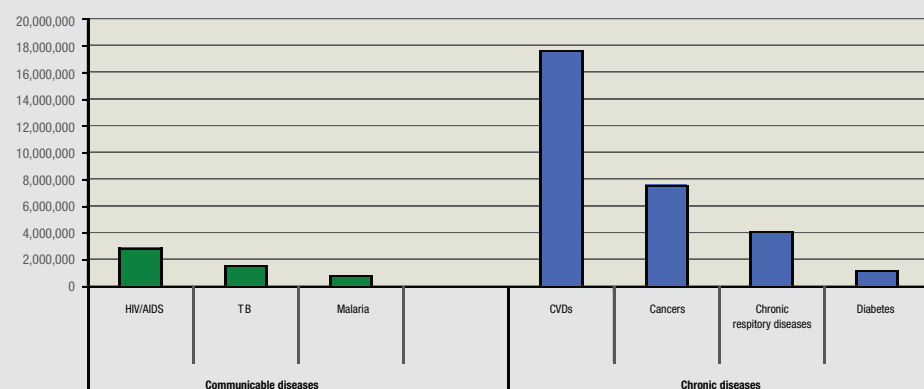
A central focus on communicable disease prevention was to decrease the rate of infant mortality. The "inevitable consequences" of success in that arena spawned the onset of "an aging population with formidable and costly

needs for care as they face the burden of chronic diseases."<sup>2</sup>

In 1992, the World Bank found that "the consequences of adult ill-health are substantial, larger than had been supposed previously, and larger than the consequences of illness in non-adults." It went on to comment "any impairment [in the health of adults] of its capacity through disease or disability will inevitably lead to a decline in national productivity and a slowdown in overall national development, affecting the health of persons of all ages within the population."<sup>3</sup>

In 1996, a collaborative study by the World Bank, WHO, and the Harvard School of Public Health stated that "adults under the age

**FIGURE 1: GLOBAL DEATHS BY CAUSE FOR ALL AGES IN 2005**  
(SOURCE: WORLD HEALTH ORGANIZATION)<sup>1</sup>



**FIGURE 2: HOSPITAL BEDS IN THE DEVELOPING WORLD VS. THE DEVELOPED WORLD<sup>12</sup>**

Region		Hospital Beds (per 10,000 people)
Developing World	Central Africa	43
	Southeastern Africa	13
Developed World	Western Europe	69

Hospital beds are defined to include inpatient beds available in public, private, general, and specialised hospitals and rehabilitation centres.

of 70 in sub-saharan Africa today face a higher probability of death from a non communicable disease than adults of the same age in the Established Market Economies.”<sup>4</sup>

As children survive the ravages of parasitic and infectious diseases, the surviving cohorts become candidates for chronic diseases. Therefore, a clear signal for the emergence of NCDs can be found in the successful battle against communicable diseases. In the World Bank report for 1999, statistical tables illustrated that in Lower Middle Income Countries, the infant mortality rate declined from 61/1000 in 1980 to 38/1000 in 1997.<sup>5</sup>

According to the World Economic Forum’s 2009 report, “noncommunicable diseases are among the most severe threats to global economic development, more likely to be realized and potentially more detrimental than fiscal crisis, natural disasters, or pandemic influenza.”<sup>6</sup>

The threat of NCDs should have been no surprise to policy-makers, but just as it took Spain centuries to understand that the world isn’t flat, donors have ignored these signs and are now “discovering” NCDs.

### The demographic transition and its effects on hospitalization

The root causes behind the emergence of NCDs in the developing world can be found in the demographic component of the health transition which has inexorably increased the proportion of adults relative to the under 14 population. In 1989, the World Bank reviewed the propensity to hospitalise in China and Cote d’Ivoire, scaled to be proportional to the “rate of hospitalisation among five to fourteen year olds in each country. The five to fourteen year olds were not only less likely to be ill, but also least likely to be hospitalised when ill. In contrast, adults were more likely to be ill and more likely to incur the substantial expense of hospitalization.”<sup>7</sup>

The World Bank commented further in its 1989 report by saying “the current 60 to 80% of hospital care devoted to adults will increase even further and the demand for treatment of NCDs will also increase. More specifically, adults dominate Korean hospital activity in the forty to fifty-nine age group, NCDs represent 82 percent of admissions and 76% of outpatient visits.”<sup>8</sup>

In the interim from 1989 to the present, the demographic transition has continued apace, with improvements in infant mortality and life expectancy rates. By 2020, “more than two-thirds of the world’s population over 60 will live in developing countries.”<sup>9</sup>

What is the supply of hospital beds in the developing world to manage this new demand for NCDs, and how would it compare with the developed world? Central and Southeastern Africa have a population roughly equal to that of Western Europe, 380 million to 392 million, respectively<sup>10</sup>. Obviously, they have major differences in life expectancy, with it being on average 63 years of age in Africa and 77 in Western Europe. Still, in time, Africa – with

a 5.5% economic growth rate in 2010, will move to where Western Europe is today.<sup>11</sup>

### Developing countries capacity in addressing NCDs

Absent donor assistance to the growing threat of NCDs, developing countries have taken their own measures to combat them. They have been expending the majority of their national health resources in hospitals since at least 1984, and as the World Bank has reported, largely for patients above the age of 15 years with chronic conditions. In addition, many of the healthcare facilities have earned approval ratings through the highly reputable Joint Commission International (JCI) which has accredited organisations in 39 countries and over 300 public and private healthcare facilities. Most are in aid-assisted countries, e.g., 45 are in Turkey, 25 in Brazil, 17 in India. Others with more than two facilities are located in Bangladesh, China, Costa Rica, Ecuador, Egypt, Ethiopia, Indonesia, Jordan, South Korea, Lebanon, Malaysia, Mexico, Pakistan, the Philippines, Thailand, Viet Nam and Yemen<sup>13</sup>.

One hospital network, the Aga Kahn Hospitals, is in Dar es Salaam, Mumbai, Kisumu, Mombasa, Nairobi and Pakistan. The services provided range from pediatric closed heart surgery to post-graduate medical education in all major clinical specialties. The hospitals are managed by the Aga Kahn Health Services, one of the most comprehensive non-profit health systems in the developing world. It manages nine hospitals and 325 health facilities, 15 referral facilities, including diagnostic centres, rural medical and maternal care centres and six general and three women hospitals. All of their inpatient and out-patient services are free of charge, and mainly serve the poor<sup>14</sup>.

In addition to the establishment of hospital networks that serve the poor, developing countries have also become health care attractions for citizens of donor countries. Medical tourism is a major multi-billion dollar industry in Malaysia, India, and Thailand, each one an aid-assisted country. The largest health care group in Asia, the Apollo Hospitals, is based in India and it frequently collaborates with Johns Hopkins Medicine International<sup>15</sup>. India intends to be the global center of medical tourism. At present, it is the largest service sector with estimated revenue of US\$35 billion, constituting 5.2% of India’s GDP, and employs 4 million people. By 2012, the Indian health industry is expected to grow at 15% per annum, with revenues of US\$78.6 billion, reaching 6.1% of GDP, and employing 9 million people<sup>16</sup>.

Hospitals categorized in the rise of medical tourism offer a wide range of procedures including coronary artery bypass grafts, spinal fusions, balloon angioplasty, orthopedics, cosmetic surgery, gastric bypass, prostate surgeries, and hip and knee

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replacements. Insurance companies in the US bundle patients for overseas destinations because the cost for one of these procedures is significantly less than what it would be had they remained home. An added benefit in India, Thailand and Malaysia is that patients can recuperate in 5-star beach resorts—all for the price of a surgical procedure.

Religious organizations also have a long standing history dealing with NCDs in the developing world. The WHO estimates that in most sub-Saharan African Nations 40% of health service provision is faith-based<sup>17</sup>. In 1969, the World Bank reported that 37% of all inpatient admissions to Mission hospitals were for NCDs alone<sup>18</sup>.

### Donor NCD vs. Governments expenditures in low and middle income countries

In November 2010, the Institute for Health Metrics and Evaluation at the University of Washington published a report on Donor Assistance for Health (DAH). It found that DAH had jumped from about \$8 billion in 1995 to \$26.8 billion in 2010. In the same report, the Institute stated that DAH for NCDs had only increased from 0.10% in 2000 to 0.12% in 2008<sup>19</sup>.

However, donors' lack of resources to NCDs does not mean that countries themselves were failing to see the importance of NCDs. While donors were pouring more and more resources into communicable diseases, they failed to notice that recipient countries were expending large portions of national health allocations on hospitals for chronic care and treatment. For instance, as far back as 1984, the World Bank records that Malawi was spending 81% of its total public recurrent health expenditures on hospital care; 75% in Jordan; 74% in Lesotho; 73% in Kenya; 72% in Jamaica; 71% in the Philippines; 71% in Sri Lanka; 70% in Somalia; 68% in Brazil; 67% in Colombia; 54% in Zimbabwe. Of the hospital expenditures listed above for these countries, "all use at least 70% of their resources on adult and elderly patients."<sup>20</sup>

Although the World Bank hospital expenditures are dated, more recent data confirm the fact that they continue to increase. Brazil can be an example in this regard. In 2008, local researchers estimated the costs of severe CVD cases based on hospitalized case lethality and total CVD mortality rates. Approximately 2 million cases of severe CVD were reported in 2004, accounting for 5.2% of the population over age 35 years of age. The resulting annual costs of \$30.8 billion were divided into these categories:

- + 36.4% were for health care;
- + 8.4% for Social Security and employers' reimbursement;
- + 55.2% due to loss in productivity;
- + direct costs accounted for 8% of total national health expenditures;
- + and, 0.52% of Brazil's 2004 GNP<sup>21</sup>.

### Conclusion

WHO has recommended that the donor response to NCDs be limited to four diseases: CVDs, cancer, diabetes, and upper respiratory diseases. Only four risk factors should be considered: smoking cessation; physical inactivity; alcohol use; and diet.

These limitations are contrary the clinical standards of most developing countries which have Constitutional guarantees to open and free access on healthcare. Most importantly, they reflect donor priorities, attempting to force-fit them into those already in place by the countries themselves. They represent the values of 'discoverers' ring-fencing their newly found possessions around indigenous institutions.

Hospitals in the developing world will continue to absorb the largest share of national health expenditures, independent of anything the global health community will do with its recent "discovery" of these diseases. If WHO is successful in guiding donor support for NCDs, then it will have to post this notice in public hospitals supported by donors:

*If you have a CVD, cancer, diabetes, or an upper respiratory infection, with one of the four designated risk factors, welcome! Otherwise, please move on to one of our nation's local hospitals which offer comprehensive NCD prevention, care and treatment.*

Such a policy outcome from the WHO recommendations has no clear or fair rationale. It is unlikely to resonate with the professional medical societies in the developing world which provide clinical staffing of hospitals for NCDs. They can be as territorial in Kenya as they are in Kansas, especially when their entrenched interests are threatened. □

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