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EDITORIAL

Global health – Is universal health coverage achievable?

Olufunso Adedeji*

Department of General Surgery, University Hospital of North Durham, Durham, United Kingdom

"Global health" is a term that is difficult to define precisely [1–3], but the definition by Koplan et al., 2009, 'an area for study, research, and practice that places priority on improving health and achieving equity for all people world-wide' is apt. Global health focuses on health-related issues that transcend national boundaries, with global cooperation on development and implementation of solutions [1, 3]. Global health deals with the prevention of spreading of a disease in a population, clinical care of individuals (interdisciplinary and multidisciplinary within and beyond sciences), and its major objective is health equity among nations and for all people [3]. From an epidemiological perspective, global health has been defined as dealing with health issues whose causes or redress lie outside the capability of any one nation state [2].

A notable achievement, in terms of a unified vision, was the establishment of the eight Millennium Development Goals (MDG) in 2000 that was signed by all 191 United Nation member states and 22 international organisations. These goals were to be achieved by 2015. Although the MDG was heavily criticised for the measurability of its goals [4], it was praised by the then United Nations Secretary General, Mr Ban Ki-Moon, as producing the most successful anti-poverty movement in history [5].

While none of the MDGs were achieved, there were marked improvements in all the goals, especially the health-related ones. There was reduction in global child mortality rate (MDG 4) from 90 to 43 deaths per 1000 live births between 1990 and 2015, which fell short of the targeted two-thirds reduction. The maternal mortality (MDG 5) ratio fell by 45% worldwide, but by 49% in sub-Saharan Africa compared to 64% in Southern Asia. The worldwide fall was less than the two-thirds reduction aimed for. With regards to MDG 6, new HIV infections fell by about 40% to 2.1 million cases between 2000 and 2013, and by June 2014, 13.6 million HIV patients were receiving antiretroviral therapy globally, which averted 7.6 million deaths from AIDS between 1995 and 2013. For malaria, the global incidence rate fell by an estimated 37% and the mortality rate by 58% [5]. To achieve these goals, development assistance from the developed world increased by 66% to $135.2 billion in 2014 [5].

Humanitarian initiatives, Global Health Initiatives (GHIs), that fund treatment of infectious diseases and immunisations in developing countries have also contributed to global health. Notable examples include Gavi, the Vaccine Alliance, that focuses on immunisations, and now helps vaccinate 49% of children globally [6]; Global Fund to Fight AIDS, Tuberculosis and Malaria, providing 20% of all international financing for HIV programs, 69% of all international financing for tuberculosis, and 65% of all international financing for malaria programs [7]; and the World Bank's Multi-Country AIDS programme (MAP).

While the MDGs and GHIs have contributed immensely to global health, they have been selective, concentrating on maternal and child health, infectious diseases, and vaccinations. The aim of achieving equity of health for all was addressed in the 2030 Agenda for Sustainable Development adopted in 2015 [8]. Of the 17 Sustainable Development Goals (SDG), only SDG 3, '*Ensure healthy lives and promote well-being for all at all ages*' is directly related to health. While the first four of the 13 targets are a continuation of the MDGs, target 3.8 is to achieve universal health coverage (UHC).

UHC indicates that all individuals and communities receive health services they need without suffering financial hardship. It includes the full spectrum of essential, quality health services from health promotion to prevention, treatment, rehabilitation, and palliative care [9]. At least half of the world's population does not have full coverage of essential health services, but all UN Member States have agreed to try and achieve UHC by 2030 [9]. We have been here before with the 1978 Alma-Ata Declaration of 'Health For All by 2000' [10].

While the 1978 Alma Ata declaration was visionary in focussing on primary health care as a means to achieving health for all, there was scant discussion regarding how this would be achieved financially [11], and the limitations on expenditure imposed by the International Monetary Fund (IMF) and the world bank on developing countries in the 1980s led to a shrink in public spending, mostly in social sectors like health [11]. The MDG of 2000 was more focussed, and incorporated development of a global partnership as its MDG 8 [5]. However, in 2014, only Denmark, Luxembourg, Norway, Sweden, and the

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United Kingdom had exceeded the United Nations official development assistance target of 0.7% of its gross national income [5], and this was still the case in 2019 [12].

In over four decades since Alma, external aids have constituted a substantial part of the domestic spending on health in low to low-middle income countries (LLMIC), and this contribution has increased over time [13]. In 2000, 19% of the Health Expenditure of low-income countries was from external sources, and it rose to 29% in 2018. This compared to the world average of 5 and 8% respectively. In 2018, 67% of external sources of funding was spent on infectious and parasitic diseases, 14% on reproductive health, 7% on immunisation, and 4% on non-communicable diseases (NCD) in low-income countries [13]. Overall, in 2018, low-income countries spent 47% of their Domestic General Government Expenditure on Health on infectious and parasitic diseases, 10% on reproductive health, 3% on immunisations, and 21% on NCD. This compared to 18%, 20%, 3%, and 50%, respectively in high-income countries.

The dependence of LIC on external funds for healthcare, and the health inequalities across borders have been acutely emphasised by the current severe acute respiratory syndrome coronavirus 2 (SARS-Cov-2) pandemic. Around 67 low-income countries have made no purchase of Covid-19 vaccines on their own, and 90% of their population is unlikely to be vaccinated in 2021 [14]. These countries, and many low middle-income countries depend on COVAX, launched by the Coalition for Epidemic Preparedness Innovations (CEPI), Gavi, the Vaccine Alliance, and the World Health Organisation (WHO). COVAX is working with 80 potentially self-financing countries and 92 low- and middle-income economies eligible to be supported by the COVAX, to deliver 2 billion doses of safe, and effective COVID-19 vaccines by the end of 2021 to all participating countries [15]. The question arises, what if this becomes an annual event?

The difficulty that LIC and LMIC are facing during the current pandemic mirrors the obstacles that they need to overcome to achieve UHC by 2030. In a systematic analysis of the Global Burden of Diseases, Injuries and Risk Factors Study (GBD) 2019, a UHC effective coverage index (outcome based measure on scale of 0–100) was designed based on 23 effective coverage indicators across 204 countries from 1990 to 2019 [16]. Across most countries, and in all continents, the UHC index improved from 1990 to 2019. The authors defined an effective UHC index as 85 and above, and a middle efficacy range as 45–70.

In 2019, 34 (17%) countries fell below the UHC index of 45, and all were LIC (56%) and LMIC (44%). In order to translate healthcare spending into effective health coverage and achieve a UHC index of 80, countries will need $1,398 per capita of pooled health spending [16]. In 2018, the unweighted Current Health Expenditure per Capita of LIC was US$43, and for LMIC was US$138, but as a percentage of Gross Domestic Product, they were similar to the world average for both regions [13]. The improvements seen in UHC index over two decades were mainly related to vaccinations and in control of infectious and communicable diseases, areas that have been the focus of MDGs and GHIs.

However, LLMIC countries' UHC indices in many NCD, especially for resource hungry cancer care, were rarely effective. In 2019, the UHC indices for cancers ranged from 1, 1, 1, and 0 for breast, cervical, uterine, and colorectal cancers respectively in Central African Republic (CAR) with an overall UHC index of 22, to 62, 55, 73, and 44 respectively in Turkmenistan with an overall UHC index of 44 [16]. The top three individual indices in CAR were 49 (one dose of measles containing vaccine coverage), 48 (three doses of diphtheria, tetanus, and pertussis vaccine coverage), and 42 (appendicitis treatment) [16]. In LMIC, catastrophic health spending and impoverishment is highest among households with NCD [17]. In 2018, the unweighted total cost of cancer care in Europe per Capita was €378 [18].

Across the world, cardiovascular diseases are now the leading cause of death. The trend towards NCD outpacing infection and infectious disease as leading cause of death is seen in the low-middle Socio-Demographic Index (SDI) countries with a mortality rate of 192.8/100,000 deaths in 2019 from cardiovascular diseases out-ranking the combined rate of 157.5/100,000 deaths from respiratory infections & TB, maternal & neonatal, enteric infections, and other infections [19].

UHC is unachievable without urgent attention to (NCD) in the developing world whose economies are unlikely to be able to bear the whole burden, without sky-blue thinking. NCDs cause 60% of disability-adjusted life-years (DALYS) and 70% of global deaths; however, they received less than 2% of global funds. In contrast, HIV/AIDS accounts for 3% of global DALYS, and receives 30% of global funds [20].

There is urgency in addressing these issues, at national, regional, sub-regional and international forums. LIC and MICs suffered an estimated 78% of global NCD-related deaths, and 82% of the global NCD-related morbidity in 2016, and the current focus of published research does not fully reflect population needs and the analysis of differential impact within populations is rare [21]. International funding is finite and subject to domestic priorities and politics, and with almost a third of health spending in many low-income countries dependent on international aids, ways of funding NCDs in these countries need urgent attention.

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***Olufunso Adedeji**
Department of General Surgery
University Hospital of North Durham
Durham, United Kingdom
Email: oadedeji@globalmedicine.co.uk