Economic thinking in global health: A historical overview

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Ekonomiskt tänkande inom global hälsa innebär att utgångspunkter, metaforer och begrepp från ekonomi används för att beskriva befolkningens hälsa och utforma interventioner. I denna artikel ger jag en kortfattad historisk bakgrund till ekonomiskt tänkande inom global hälsa. Därefter presenteras en översikt av diskussioner vid 5:e Världshälsoförsamlingen 1952 avseende hälsans ekonomiska aspekterna; ett material som delvis är baserat på ett diskussion mellan Charles-Edward Amory Winslow och Gunnar Myrdal. Dessa diskussioner ger en inblick i hur ekonomiskt tänkande tog sig uttryck i en tid präglad av förändring inom internationell hälsa. Materialet återspeglar tydligt samtida debatter avseende uppkomsten av nationella hälsosystem, välfärdsstater och utvecklingsbistånd. Diskussionerna förutsåg därutöver kommande utveckling inom global hälsa, inklusive skapandet av måttenheter som det funktionsjusterade levnadsår (DALY).

Economic thinking in global health refers to how framings, metaphors and concepts from economics are used in describing the health of a population and in designing interventions. In this article, I briefly examine the history of economic thinking in global health. I then review discussions over the economic aspects of health at the 5th World Health Assembly in 1952, based in part on an exchange between Charles-Edward Amory Winslow and Gunnar Myrdal. These discussions offer an insight into economic thinking at a time of transformation in international health, reflecting contemporary debates in the emergence of national health systems, welfare states and development aid. The discussions also anticipated later developments in global health, including the creation of metrics such as the disability-adjusted life year (DALY).

Introduction

Economic thinking in global health refers to how framings, metaphors and concepts from economics are used in describing the health of a population, and in designing programmes and interventions. It also relates to how the links between health and the economy, or – in the aid context – economic development and health are conceptualised. Moreover, language associated with industrialisation, capitalism and neoliberalism often feature in economic thinking.

The full history of economic thinking in global health is outside the scope of this article. Instead, I briefly review some main streams of research on the topic. I then discuss a report on "The cost of sickness and the price of health," prepared for the World Health Assembly in 1952.[1] This report offers a snapshot of economic thinking at a time of transformation in international health. This was an era in which national health systems, and, in some cases, welfare states were emerging; it was also an era of rapid decolonialisation and the early years of development aid.

A brief overview of economic thinking

For some, the history of economic thinking in global health is synonymous with history of health, behaviour or development economics as a disciplines (Mushkin 1958; Arrow 1963; Enke 1969: Barton 1971; Moos 2015; Jakovljevic and Ogura 2016). For others, the story starts much earlier with colonial health efforts, which were largely directed towards plantation and industrial workers who contributed to the wealth of the empire (Packard 1997; Adams 2016). The anti-poverty and hygiene movements of the late 19th and early 20th Centuries can also been seen as a precursor to different types of economic thinking in that they were grounded in debates over the responsibilities of the individual and society, influenced later approaches to development aid and foreshadowed more recent framings of the social determinants of health (Riis 1890; Howden-Chapman and Kawachi 2006).

Many researchers have used social theorist Michel Foucault's concept of biopolitics to describe how the population has historically been managed to, amongst other things, increase national productivity (Rose and Wahlberg 2015; Wahlberg 2007; Murphy 2017). For instance, during the industrial revolution in Europe countries wanted healthy, well-nourished workers to contribute to an economically competitive nation (Bildtgård 2002). This perspective was partly used in various eugenic movements: the idea that some individuals were better "human material" than others. These earlier examples of economic thinking are ultimately about population: one concern within early development economics

1. The WHA is the annual meeting of the WHO's member states, typically held in Geneva each May.

was that overpopulation would hinder economic development; this, in turn, was often related to Malthusian-inspired concerns that there would not be enough food to feed the world (Cuthbertson 1956; Barton 1971). In the post-WWII era, there was also interest in the development and health of "underdeveloped" countries to the extent that they were seen as markets for American and European goods (Packard 1997). Investment in "development" further became a geopolitical strategy through which governments, such as the US, sought to contain the spread of communism (Pires-Alves and Maio 2015).

For many researchers, economic thinking in global health is associated with neoliberalism and the increasing influence of actors such as the World Bank and International Monetary Fund, starting in the 1970s. These developments were connected to the post-Alma Ata debates over selective versus comprehensive primary care,[2] and later gave rise to philanthrocapitalism and to public-private partnerships as a normal way of organising global health activities (Kenney 2015; Kenney 2017; Brown et al 2005). Under neoliberal ideologies, rather than seeing health as a human right, it became an "input to growth" such that investments in health often focus on interventions which impact upon productivity, while neglecting others (Taylor 2018; Kenny 2017). In the development aid context, this was associated with macroeconomic policies which pushed for increased privatisation of health services (promoted as more cost-effective than public services), often with devastating consequences (Turshen 1999; Kenney 2017). At a microeconomic level, neoliberal thinking shifts focus to the individual (Taylor 2018). That is, instead of seeing ill health as embedded in wider socioeconomic structures, interventions target individual behaviours such as smoking or condom use.

As part of the focus on neoliberalism, many researchers have examined the history of statistics and the more recent emergence of various metrics which make economic thinking possible and reinforce it: metrics allow populations to be seen, defined and measured (Wahlberg 2007; Erikson 2012; Rose and Wahlberg 2015; Maldonado and Moreira 2019). A key example is the World Bank's 1993 World Development Report: Investing in health, seen as a watershed moment in economic thinking (Kenny 2017). The report launched the DALY or disability- adjusted life year, which is a combined measure of the burden of mortality and morbidity. For instance, back pain may not directly lead to premature morbidity, but it may decrease one's ability to work and live independently.

2. The Alma-Ata Declaration (1978) was adopted at the International Conference on Primary Health Care in what was then Alma Ata, Kazakhstan. It set out an agenda of "health for all" through a comprehensive approach to primary health care. However, this goal was seen by some actors, notably the Rockefeller Foundation, as unrealistic and too ambitious. In response, the concept of Selective Primary Health Care was developed, which focussed on specific, cost-effective technical interventions that were simple to monitor and evaluate (Walsh and Warren 1979; Magnussen et al 2004; Kenny 2017; Cueto 2004).

Today, the DALY is the standard global metric used in cost-effectiveness analyses which are used to make decisions such as whether to provide a new cancer drug or to fund a public health intervention. Metrics, such as the DALY, have been criticised for their biases and value judgements. For example, the DALY originally included "age weighting" which meant that some age groups were "deemed more valuable than others" so that a disability during working years was considered a higher burden than disability in retirement (Chen et al. 2015).

In the early 1990s, the DALY shed light on the burden of mental health and non-communicable diseases, both of which were previously assumed to be mainly problems in high-income countries (Rose and Wahlberg 2015; Kenny 2017). However, it was largely the economic impact of these conditions – both in terms of costs to society and the health system and the loss of productivity – which meant they became prioritized, thus further reinforcing the idea that health conditions which negatively impact on productivity are worthy of intervention.

Metrics have also been criticised for the way in which they strip out context to give the appearance of making health conditions and populations comparable (Adams 2016). In some cases, metrics and data have become an end goal in themselves, rather than health outcomes, leading to a focus on health interventions which can demonstrate measurable outcomes while neglecting others (Adams, 2016). Further emerging from these perspectives are complicated financial instruments through which global health becomes a profit-making enterprise (Erikson 2016).

The complexity of 'economic thinking' is intertwined with the messy and incongruous ways in which public health in high-income countries and colonial health morphed into international or world health in the 1940s and 1950s, and later into global health in the 1990s and 2000s (Brown et al 2005; Kenny 2015; Kenny 2017). Many have suggested that it was, at least in part, "economic thinking" that pushed the latter transition, particularly as new actors, such as the World Bank, took central roles in global health. Overall, as a conceptual lens "economic thinking" encompasses many ways of approaching global health, oriented around how we construct populations, problems and solutions. It can be distilled into a few basic questions, although the answers have changed over time, depending on the social and historical context:

1. How is life valued?
2. How is the relationship between health and the economy, health and wealth, or – in low-income setting – health and economic development understood?
3. How are health expenditures justified?
4. How are different health conditions and interventions prioritised?

C.E.A. Winslow, Gunnar Myrdal and the Economic Aspects of Health

Professor Charles-Edward Amory Winslow, from Yale University, was integral to the development of international health during the League of Nations era and the early days of the World Health Organization (WHO). He was awarded the Léon Bernard Foundation medal by the 5th World Health Assembly (WHA) for his "outstanding contribution to the progress of social medicine," indicating how well-respected he was in the field (Lancet 1957; BMJ 1957; Terris 1998).

His report "The cost of sickness and the price of health" outlined "concrete and specific evidence as to the economic burden imposed by preventable disease" and discussed the state of research at the time (Winslow 1951). The report was originally intended to serve as the basis for Technical Discussions at the 5th WHA in May of 1952.[3] However, there was confusion over how the technical discussions were organised, which meant that, according to the delegate of Ceylon "the excellent lecture by Professor Winslow had lost some of its value because it had not been properly discussed afterwards (WHO 1952a)."

The report was introduced by two speeches, one by Winslow himself. Since it is difficult to address economics and health without bringing in questions of population, it comes as little surprise to the Swedish reader that the second speech that evening was given by a Myrdal, in this case Gunnar. The research and policy work of Gunnar (1898-1987) and Alva (1902-1986) was fundamental to the development of welfare policies in Sweden (Ekerwald 2001; Barber 2008). Much of their writing in the 1930s and 1940s addressed issues of population, the economy and living conditions, which clearly influenced the content of G. Myrdal's speech.

At the time, G. Myrdal was the Executive Secretary of the Economic Commission for Europe and, in the context of the event, was representing the Secretary-General of the UN (WHO 1952b).[4]

Winslow: The cost of sickness and the price of health.

Winslow's main thesis was that "poverty causes disease and disease creates more poverty, in a vicious circle.[5]" On one hand he took a holistic approach,

3. Also with the intention of contributing to the debate at the WHA, three Brazilian doctors published a paper on "The economic value of health" which was made available to delegates at the WHA (Hochman 2015; WHO 1952d; Ribeiro et al 1952). Their report discussed methods for calculating the relationship between disease, productivity and consumption. It anticipated the DALY in how it discussed not only the costs of early death but also morbidity.

4. The evening was closed with remarks by Professor James Mackintosh of the London School of Hygiene and Tropical Medicine (WHO 1952e).

5. In introducing his "vicious circle" thesis, Winslow drew upon Sir Edwin Chadwick's 1842 report, "the Sanitary condition of the laboring population of Great Britain," which established a link between disease and poor living standards, and also suggested that poor living conditions negatively impacted upon productivity. While controversial at the time, it was highly influence in improving hygiene and sanitation in Victorian Britain.

writing that it is "abundantly clear that the public-health programme cannot be planned in a vacuum but only as a vital part of a broader programme of social improvement." However, much of the report and speech is focused on how specific health interventions can benefit the economy and decrease poverty. While his starting point is a moral one, he recognized that economic arguments can help garner support:

> *"The promotion of the health of the peoples of the world is basically a moral - not an economic issue. The means of approaching that objective are, however, practical ones, which involved financial consideration."*

He argued that prevention is not only (morally) better than curative services, but also cheaper.

To achieve these aims he called for better data, in the form of: "an analysis by each country of its most vital health problems which may be attacked with maximum results at minimum cost."

He also addressed the financing and organization of cost of health services, recognizing that that low-resource settings needed to "attain maximum results at minimum expense." Winslow wrote quite optimistically about international cooperation, seeing investment in health as part of the roadmap to achieving world peace. Here he argued that "investment in health promised large dividends in life capital" but only "prosperous countries" had the financial capital to implement health and sanitation reforms, thus clearly demonstrating the need for technical assistance to "poorer" countries.

The report also anticipated future metrics, such as the DALY. He included a section on the economic burden of physical and mental disability, stating in his speech that "morbidity takes an even greater toll of our economic reuses than does premature mortality." In a foreshadowing of age-weighting, he also referred to the 1947 book "The money value of man" to describe death at different ages is either a net economic loss or gain, depending on the age of the deceased.[6]

He used examples from both high and low-income settings to demonstrate the economic impact of reducing disease through various interventions such as sanitation, nutrition and vector control. Many of his examples from "poor" settings are within a colonial context, as he describes studies on the "loss of man-power due to malaria" in South Rhodesia and pre-independence India, as well as research from tea plantations in pre-independence India, sugar-cane production in South Africa, mine workers in Northern Rhodesia (1935) and a

6. In looking at the different levels of productivity across the lifespan, Winslow drew upon the 1947 book The Money Value of Man, written by Louis Israel Dublin, Alfred Kames Lotka and Mortimer Spieglman. The book, originally published by the first two authors in 1930, influenced many mid-century researchers working on what was to become health economics (Moos 2015).

rubber plantation in Federate Malay States. This is not to criticize him for using colonial data, but only to note that was what was available to him and highlight these studies as examples of early economic thinking.

Winslow also argued against Malthusian-inspired concerns that improved health could lead to increased poverty though overpopulation and an inadequate food supply. In additional to moral arguments, he suggested that investments in health would lead to increased productivity. This increased productivity, along with technical assistance from richer countries, would in turn, drive innovation in agriculture. For countries without arable land, he also argued that increased productivity will lead to further wealth from natural resource exploitation which then could then be used to buy food. He also noted the lower birth rates in "prosperous" settings as an argument against population concerns.

Myrdal: The Economic Aspects of health

Myrdal began his speech by expressing disappointment that until recently there had been "comparatively little effort … given to ascertaining by scientific analysis the productivity of various public expenditures." He provides several reasons for this, one of which is the difficulty: "There is no easily determinable money value of a health human being as there is of a house or a machine." Moreover, there is a comparability challenge: the "economic rewards of health reform" will "figure differently in the short and the long run, as well as in different environments."

He then built upon Winslow's "vicious circle," with his idea of "cumulative social causation." Drawing upon his research amongst African Americans in the US, Myrdal described how discrimination and low standards of living mutually cause each other, and that the whole social system: employment, nutrition, housing health, discrimination needed to be addressed. That is, while an improvement in one factor, such as health, will positively affect the system, it must be integrated into wider social and economic change:

> *"An effort to reach permanent improvement of health standards aimed to have a maximum beneficial effect on the well-being of the people will have to be integrated in a broad economic and social reform policy."*

Moreover, he argued that the extent to which improved health standards will raise productivity and living conditions is also dependent on "general economic development," itself the result of "planned and concerted action to spread the application of improved production techniques and to make the natural resources productive."

Myrdal raised concerns over population, noting that "the rates of net population increase in extraordinarily high in some of the poorest regions of the world." He called for international solidarity, in the form of technical exchange and the equitable distribution of capital to ensure that the "result of higher health standards is not be a spur to continued and perhaps aggravated poverty." He also suggested that military expenditure in high-income countries could be redirected to social and economic development in "poorer" countries.

Responses to the Winslow and Myrdal

Based on the official records of the WHA, the response to the report and the speeches appeared positive, although it would be rare for a delegate to openly criticize a report in the official record. The President of the Assembly, in his closing speech noted that "the penetrating analysis of these two great men, setting an inspirational keynote for the various group sessions were to a great extent responsible for the keen interest shown in the Technical Discussions (WHO 1952b)." Similarly, the Chairman of the Technical Discussions stated:

> *"Professor Myrdal confronted us with some disturbing features of the present-day world which may of us in the past have tended to ignore, and Professor Winslow gave us the courage and the philosophy with which to face those facts."*

The topic was of such interest that Brazil, India, Ireland and Norway proposed a resolution to continue discussions on economics, health and development at the following WHA, and called for the UN's Economic and Social Council to consider coordinating amongst the UN family to carry further studies on the subject (WHO 1954f). Two years later, at the 7th WHA, the delegate of Yugoslavia (the extremely influential Andrija Štampar) noted that the report has "won great popularity and has been commented on throughout the world (WHO 1954; Dugac et al 2008)."

The report received largely positive reviews in most of the major journals (JAMA 1952; Bourdreau 1952; Goldman 1952; Ginzberg 1952; Public Health 1952). The American Journal of Tropical Medicine and Hygiene noted how the report provided an excellent summary of past and present thinking on economics and development (Grant, 1952). Even the reviews that were mixed ultimately recommended it (Benjamin 1952; Tubercle 1952). For example, despite some criticism, a review in Tubercule did "not hesitate to commend this publication to all who are interested in preventative medicine."

At the WHA, the delegate of the Netherlands referred to the agenda item – The Economic value of Preventative Medicine – as a "most important and at the same time a rather dangerous item." In a response to Winslow at the WHA,

Dutch expert Dr G.C.E Burger, writing in his personal capacity, expressed concern that undue attention to the "economic side of health promotion" may be at odds with medical aims (WHO 1952c). Specifically, he referred to the use of economic arguments as a "double-edged sword," in that while it may lead to more funding in some cases, the economic argument could also be used against health interventions which did not lead to increased productivity. That is, "it remains the task of medicine to promote health wherever this is possible even in cases where the economic outlook is doubtful or unprofitable."

Drawing upon concerns over population at the time, Dr Burger also noted that for some "it is not morally allowable to promote the increase of a population, without having assured socially and economically fair or at least minimum allow about living conditions." He also refers to a review of Winslow's report in the Lancet which is largely positive but – also drawing upon the opposing view – asks "is there a more dreadful reckoning to be paid?" The Lancet notes that, in light of poverty and food scarcity, some researchers "ask whether the reduction of deaths does more harm than good as long as birth-rates maintain or exceed their present level." It concludes that:

> *"most of us will agree with Winslow that the fear of over-population is not a sufficient reason for failing to prevent preventable disease …. but that there are grave risks to any … population which is allowed or encourage to increase faster than its economic resources (The Lancet, 1952)."*

Taking a longer view, Selma Mushkin, one of the founders of the discipline of health economics, described the Winslow-Myrdal exchange as "major contributor" to the increased use of cost-benefit analysis in the post WWII-era, and a starting point for exploring health economics (Mushkin 1958). Similarly, writing in 2006 Economist Martine Audibert had noted that how report put forth many ideas that have been discussed in health and development economics in the intervening years (Audibert 2006). She also considered the report to be "the starting point of a more holistic approach to … health," and noted that it highlighted the relationship between poverty and health, something that is a key part of both the Millennium Development Goals and the current Sustainable Development Goals.

Historian Randall Packard has suggested that Winslow's report was "highly influential in shaping official opinion about the need to control tropical disease (Packard 1997)." Roberto Passos Nogueira juxtaposes Winslow and Myrdal's perspectives, arguing that Winslow's focus on health as the target of intervention took precedence over Myrdal's call for wider structural interventions and lead the WHO into narrow approach to health programming (Nogueira 2018).

Thus, the exchange reflected one of the key questions of the time: Does development lead to better health or does health and sanitation lead to increased economic development? (Hochman 2015).

Conclusions

This short examination of C.E.A. Winslow's 1951 report and its context demonstrates that there were differing opinions with regard to economic thinking at the time, not least that the spectre of Malthusian debates regarding overpopulation loomed large. It also reflected earlier periods of colonialism and nation-building and anticipated some of the future developments in economic thinking, such as the DALY and debates over rationing health care (Maldonado and Moreira 2019: Audibert 2006). This analysis also shows how there is not a linear progression of thinking, economic or otherwise, in the history of global health. The same ideas and framings resurface, often repackaged or slightly adapted. For instance, metrics like the DALY are embedded in a wider history of economic thinking (Adams 2016; Rose and Wahlberg 2015; Maldonado and Moreira 2019).

Economic thinking, as a set of framings, discourse and metaphors, steers global health practice. It can shift funding to diseases that were once neglected, for instance non-communicable diseases and mental health (Kenny 2015; Wahlberg and Rose 2015). Yet, it can also negatively affect health in myriad ways (Adams 2015). Overall, the complex and contradictory forms of economic thinking provide an excellent lens through which to study the history of global health.

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