

Public Health Classics

This section looks back to some ground-breaking contributions to public health, reproducing them in their original form and adding a commentary on their significance from a modern-day perspective. To complement the theme of this month's *Bulletin*, Anne Mills reviews the debate surrounding the merits of vertical and horizontal approaches to the delivery of health care, taking as a starting point the 1965 publication *Mass campaigns and general health services* by C.L. Gonzalez.

Mass campaigns versus general health services: what have we learnt in 40 years about vertical versus horizontal approaches?

Anne Mills¹

The terms “vertical” and “horizontal” will be familiar to most people working in public health and health systems. What many will not know — unless they have a historical bent or represent the older generation — is how persistent the tensions have been between these different approaches to health improvement. For those like myself who studied the health systems literature in the 1970s, C.L. Gonzalez's *Mass campaigns and general health services*, published by WHO as a Public Health Paper in 1965, provided an authoritative statement on matters concerning the organization of health-care delivery (1).

Gonzalez characterized the resource allocation dilemma facing countries: in the long term, permanent, organized health services are what they need, but specific measures against certain diseases can rapidly improve health in the shorter term. Gonzalez exposes the problem in terms that could equally well have been written in 2005:

“... there are two apparently conflicting approaches to which countries should give careful consideration. ... The first, generally known as the ‘horizontal approach’, seeks to tackle the over-all health problems on a wide front and on a long-term basis through the creation of a system of permanent institutions commonly known as ‘general health services’. The second, or ‘vertical approach’, calls for solution of a given health problem by means of single-purpose machinery. For the latter type of programme the term ‘mass campaign’ has become widely accepted.” (p. 9).

Vertical approaches are so-called because they are directed, supervised and executed, either wholly or to a great extent, by a specialized service using dedicated health workers. Prime examples are smallpox eradication, onchocerciasis control, and the yaws campaigns of the 1950s.

In Gonzalez's historical review, he notes that this problem of prioritization was recognized in the very early days of WHO, quoting from the *Annual Report of the Director-General for 1951*:

“More authorities are becoming aware that many campaigns for the eradication of diseases will have only temporary effects if they are not followed by the establishment of permanent health services in those areas, to deal with day-to-day work in the control and prevention of disease and the promotion of health.” (2).

Frequent WHO pronouncements stressed the importance of progressively assimilating communicable disease control programmes into rural health services. Malaria “eradication” is a case in point. The overall strategy was to reduce malaria transmission rapidly by residual spraying and active case detection using dedicated workers who went from house to house on a regular cycle enquiring about fever cases. Suspected cases were given presumptive treatment and a blood slide was taken; this was read in a local laboratory and, if positive, a health worker returned to the patient to administer a complete (“radical”) course of treatment. The principle was that once the number of cases had been reduced, the task of case detection would be handed over to multipurpose workers, whether based in the community (as village health workers) or in local health centres. In Nepal, for example, the integration of malaria control (and other vertically organized disease control programmes) began with a first phase of six districts in 1974, though it was not until 1988 that integration was applied on a large scale (3).

Gonzalez makes a number of points that remain relevant today.

- The two approaches should not be seen as mutually exclusive: general health services and mass campaigns should be coordinated and combined in various ways, with the long-term goal being a unified scheme of general health services.
- General health services have the advantage of being comprehensive, flexible in adjusting to changing disease patterns, permanent and embedded in community life.
- Mass campaigns can deal effectively with “scourges that are so widespread, and affect so high a proportion of the population as to be a dominant factor in hindering the social and economic development of a country” (4).

¹ Professor of Health Economics and Policy, Health Economics and Financing Programme, London School of Hygiene and Tropical Medicine, Keppel Street, London WC1E 7HT, England (email: anne.mills@lshtm.ac.uk).

- The decision on whether a mass campaign is a suitable method of dealing with a disease depends on issues such as the intrinsic importance of the disease; whether the disease is a major constraint on economic development; population attitudes and preferences; availability of technical tools; and operational and administrative feasibility.

With respect to health workers, Gonzalez stresses the importance of ensuring that front-line workers in general health services feel fully part of the mass campaign, and of ensuring that they are not overburdened by demanding duties. He points to the vital role that supervision plays, suggesting that there is a case, given the shortage of professionals, for considering the use of specialized non-professional supervisors to supplement the normal supervisor mechanism of basic health services, especially during the critical phases of mass campaigns. He also argues for transforming single-purpose staff into multipurpose workers, so they can provide the nucleus for basic health services — as indeed has been done in a number of settings.

So has anything changed since Gonzalez wrote of the ideal means of combining vertical and horizontal approaches? Although he noted a number of examples where general health services were unable to maintain disease control following the attack phase, Gonzalez would no doubt be thoroughly dismayed that there has been so little progress in 40 years in strengthening health services in low-income countries to maintain the achievements of vertical programmes, or to introduce new disease control programmes on their own. Since the optimism of the 1960s and 1970s, when many countries expanded their networks of basic health services, the story has frequently been one of resource shortages, dilapidated infrastructure, and poorly paid, poorly supported and demotivated health workers. In many low-income countries we are no nearer the strong general health services network that Gonzalez viewed as the ideal. He was correct, however, in anticipating the pressures to action created by the advent of powerful new tools for disease control.

Perhaps the one clear area where the nature of the debate has changed is the argument that general health services should focus on a limited set or package of cost-effective interventions (5). This can be seen as a middle way — avoiding the selectivity of the vertical approach, but seeking to ensure that general health service resources are devoted to interventions that are prioritized on the basis of their cost-effectiveness. This new idea has not, however, resolved the tension, being seen as lacking evidence of success by vertical programme proponents, and as technocratic by advocates of the horizontal philosophy.

Gonzalez would no doubt also be dismayed at the number of disease control initiatives all competing for the same scarce

resources, especially human resources, within countries. His paper reflects the public administration approach of the time, providing a rational and considered assessment of the arrangements. We now have much greater awareness of the political dynamics of decision-making; we question more the motivations of those engaged in the health system, and have greater understanding of the often limited role played by evidence and reasoned arguments in decision-making. Rather than focusing only on formal administrative arrangements, we now seek to understand the underlying patterns of accountability and incentives that govern the behaviour and interactions of global and national policy-makers, health workers and communities (6).

Disease control efforts are currently being played out on a world stage. Actors include not just WHO but also major private foundations, numerous bilateral and multilateral agencies, private industry, and influential individuals including presidents, prime ministers, finance ministers and pop stars. Unlike in Gonzalez's era, there is a much less sanguine view of the motivations of governments and international agencies, and a greater awareness of how damaging uncoordinated action at the country level can be. The development of policy analysis as a topic of enquiry is helping us to understand the new international environment and how it affects countries (7).

It is worth mentioning the modesty with which Gonzalez makes his case. In his conclusions reproduced here, he refers to the “superficial” nature of the review and the “preliminary nature” of his observations. In the current era of sound bites and global advocacy, it is refreshing to note these cautions. It is depressing, however, that this field of knowledge has developed so little and that the points made by Gonzalez are still being rehearsed.

Gonzalez concludes by noting the lack of information on service delivery approaches, and argues that there are challenging opportunities for WHO to stimulate useful research. In 1983, I reviewed the literature from an economics perspective, drawing attention to the lack of evidence on costs, and called for much better information on the costs and cost-effectiveness of alternative delivery approaches (8). In 2001, a comprehensive review on the relative merits of vertical and horizontal approaches, carried out for the Commission on Macroeconomics and Health, found very few studies providing empirical evidence and an overall poor quality of studies (9): problems included the very limited number of countries researched, the predominance of opinion pieces rather than empirical studies, and poor study design. Surely it is high time for adequate resources to be invested in these vital questions of service delivery, so that in 10 years' time, at the 50th anniversary of Gonzalez's paper, we can provide a more optimistic account of what we know. ■

References

1. Gonzalez CL. *Mass campaigns and general health services*. Geneva: World Health Organization; 1965. Public Health Papers, No. 29.
2. *Annual report of the Director-General for 1951*. Geneva: World Health Organization, 1951. Official Records of the World Health Organization, No. 38:2.
3. Mills A. *The application of cost-effectiveness analysis to disease control programmes, with special reference to malaria control in Nepal*. PhD thesis, University of London, 1989.
4. *Preliminary report on the world social situation*. New York: United Nations; 1952.
5. *World development report 1993 – Investing in health*. Washington, DC: Oxford University Press for The World Bank; 1993.
6. *World development report 2004 – Making services work for poor people*. Washington, DC: The World Bank; 2004.
7. Walt G. Global cooperation in international public health. In: Merson M, Black RE, Mills AJ, editors. *International public health: diseases, programmes, systems and policies*. New York: Aspen Publishers; 2001.
8. Mills A. Vertical vs horizontal health programmes in Africa: idealism, pragmatism, resources and efficiency. *Social Science and Medicine* 1983;17:1971-81.
9. Oliveira-Cruz V, Kurowski C, Mills A. Delivery of health interventions: searching for synergies within the vertical versus horizontal debate. *Journal of International Development* 2003;15:67-86.