

ICD-8 had the subtitle "Sudden death, known not to be violent but with cause otherwise unknown."

In Britain, since 1971,² use of the term sudden infant death syndrome or equivalent term, which excludes explained unexpected infant deaths, has reduced the inflated death rates for respiratory disease and enabled research to focus on an identifiable group of deaths. This has led to the successful identification of infant care practices—for example, supine sleeping—which have reduced sudden infant deaths by a remarkable 70% since 1988.²³ It has also facilitated study of infants born after a cot death, which has provided important evidence that even recurrence of sudden infant death syndrome in the same family is not necessarily suspicious.²⁴

Sudden unexplained infant death is still the largest category of death in infants aged over 1 month. However heterogeneous the aetiology of these deaths, a collective term is still needed for identification, for explanation, and as a basis for expert study and sensitive support to bereaved families.

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New global Health for All targets

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In May 1998, the World Health Organisation adopted a resolution in support of the new global Health for All policy.¹ The new policy, Health for All in the 21st Century,² succeeds the Health for All by the Year 2000 strategy launched in 1977.³ The renewal of Health for All, concurrent with the 50th anniversary of the WHO and the appointment of a new director general, offers a unique opportunity for the organisation to re-establish its purpose. In the new policy, the worldwide call for social justice is elaborated in key values, goals, objectives, and targets. The 10 global health targets are the most concrete end points to be pursued. They can be divided into three subgroups (see box)—four health outcome targets, two targets on determinants of health, and four targets on health policies and sustainable health systems. All member states are supposed to set their own targets within this framework, based on their specific needs and priorities.

Presenting the new policy at the World Health Assembly was the first step in the renewal of the Health for All movement. The development of indicators for some of the targets and the promotion of the Health for All policy in all member states formed the next steps in the process.⁴ There are two main aims behind the Health for All in the 21st Century programme. Firstly, the WHO wants to develop a shared vision by listing the 10 most important

Summary points

The renewal of the Health for All strategy represents a further call for social justice

Ten new global health targets reflect most health problems in the world

Although the four targets for health outcome are the most concrete and measurable ones, they will be hard to achieve

The remaining six targets, dealing with the determinants of health and health policies, need further elaboration

Global targets are of questionable use to individual member states

health issues. Secondly, the organisation wants to formulate 10 targets to motivate all member states to take action and to set priorities for resource allocation. To fulfil these aims the WHO sought to include in the new targets components that were inspirational and achievable.

Methods

In our review of the new policy,⁵ we considered how the 10 new targets could be measured and attained, and their relevance. Measurability assumes unambiguous clarity, the use of quantitative elements, and the availability of indicators. We analysed the proposed indicators in relation to clarity and whether they could be measured, and assessed the indicators proposed for a given target, insofar as they had been developed. Attainability was analysed against a background of epidemiological and demographic trends. Relevance was considered in two parts—the global importance of the target and its usefulness for individual member states. The analysis was carried out by the authors separately, and, after consultation, the results were discussed with WHO staff.

Measurability

The table lists the results of our analyses for each target. It seems that most of the health outcome targets had been clearly (univocally) formulated. However, the other targets contain elements that are more difficult to interpret and measure—for example, they include terms such as “substantially,” “major progress,” and “sufficient quantity and quality.” Quantitative outcomes have been given for three targets only; outcomes for other targets are qualitative. All targets have a clear deadline, except for part of target 1, which relates to the promotion of equity in health. We found that the clarity of the indicators was reasonable to good for part of target 1 (childhood stunting), target 2 (survival), target 4 (elimination of diseases), and target 5 (water, sanitation, food, and shelter) only. Of these four targets, only the indicators for target 5 did not include quanti-



Initially, health equity indices will be based on a measure of child growth

Global health targets

Health outcome

1 Health equity: childhood stunting—By 2005, health equity indices will be used within and between countries as a basis for promoting and monitoring equity in health. Initially, equity will be assessed on the basis of a measure of child growth.

2 Survival: maternal mortality rates, child mortality rates, life expectancy—By 2020, the targets agreed at world conferences for maternal mortality rates (< 100/100 000 live births), under 5 years or child mortality rates (< 45/1000 live births), and life expectancy (> 70 years) will be met.

3 Reverse global trends of five major pandemics—By 2020, the worldwide burden of disease will be reduced substantially. This will be achieved by implementing sound disease control programmes aimed at reversing the current trends of increasing incidence and disability caused by tuberculosis, HIV/AIDS, malaria, diseases related to tobacco, and violence or trauma.

4 Eradicate and eliminate certain diseases—Measles will be eradicated by 2020. Lymphatic filariasis will be eliminated by the year 2020. The transmission of Chagas' disease will be interrupted by 2010. Leprosy will be eliminated by 2010, and trachoma will be eliminated by 2020. In addition, vitamin A and iodine deficiencies will be eliminated before 2020.

Determinants of health

5 Improve access to water, sanitation, food, and shelter—By 2020, all countries, through intersectoral action, will have made major progress in making available safe drinking water; adequate sanitation, and food and shelter in sufficient quantity and quality, and in managing risks to health from major environmental determinants, including chemical, biological, and physical agents.

6 Measures to promote health—By 2020, all countries will have introduced, and be actively managing and monitoring, strategies that strengthen health enhancing lifestyles and weaken health damaging ones through a combination of regulatory, economic, educational, organisational, and community based programmes.

Health policies and sustainable health systems

7 Develop, implement, and monitor national Health for All policies—By 2005, all member states will have operational mechanisms for developing, implementing, and monitoring policies that are consistent with this Health for All policy.

8 Improve access to comprehensive essential health care—By 2010, all people will have access throughout their lives to comprehensive, essential, quality health care, supported by essential public health functions.

9 Implement global and national health information and surveillance systems—By 2010, appropriate global and national health information, surveillance, and alert systems will be established.

10 Support research for health—By 2010, research policies and institutional mechanisms will be operational at global, regional, and country levels.

tative elements. For the remaining six targets, indicators were not given or were described poorly.

Attainability

The table also shows the results of demographic and epidemiological analysis showing how attainable the targets are.^{6–13} Information about available interventions, the use of equity indices, and alerting, surveillance, and health information systems was found in health policy documents.^{13–18} Whether some targets are achievable is uncertain because there is no clear, quantitative statement of what will be considered as success in the given end year. These targets must be made more specific.

Judging the global attainability of the targets is difficult because of large differences in epidemiological and demographic trends between member states. This can be illustrated by the differences in maternal and child mortality and life expectancy. Another example is

Analysis of target characteristics, appropriateness of indicators, attainability, and relevance for the 10 global Health for All targets

Target	Target characteristics			Indicator characteristics				Relevance		
	Clear	Quantitative	Time limits (years)	Clear	Quantitative	Total set	Better ones needed?	Attainability	Global	Member state
1	Equity in health	Yes	No	—		Not given		Unclear	Yes	Yes
	Equity indices	Yes	No	5		Not given		Yes	Yes	Yes
	Childhood stunting	Yes	Yes	20	Yes	Yes	?	Yes	?	?
2	Maternal and child mortality, life expectancy	Yes	Yes	20	Yes	Yes	Yes	No	?	Yes
3	Five major pandemics	?	No	20		Not well described		Unclear	Yes	?
4	Elimination of diseases	Yes	Yes	10; 20	Yes	Yes	?	Yes	?	Yes
5	Water, sanitation, food, and shelter	?	No	20	?	No	?	Yes	Unclear	Yes
6	Health promotion	?	No	20		Not well described		Unclear	Yes	?
7	Health for All policies	?	No	5		Not well described		Unclear	?	?
8	Essential health care	No	No	10		Not given		Unclear	Yes	?
9	Alert systems	Yes	No	10		Not given		Yes	Yes	Yes
	Surveillance systems	?	No	10		Not given		?	Yes	Yes
	Health information systems	?	No	10		Not given		Unclear	Yes	Yes
10	Research	No	No	10		Not given		Unclear	Yes	?

?=questionable.

childhood stunting, a target more relevant for the developing world than for developed countries.^{19 20} Cigarette smoking is yet another example—it is the major cause of preventable mortality in developed countries, but is also becoming important for developing countries, where tobacco consumption is increasing steadily.²¹ With regard to communicable diseases, more people will be at risk because of “globalisation” and increasing mobility.

Cost is another determinant of attainability. Take, for example, target 3. The cost of smoking prevention—financial measures to discourage tobacco consumption, the banning of tobacco advertising, health warnings on tobacco product packaging, and programmes of health promotion and education—could be relatively low.²¹ But reversing the current trends in tuberculosis would cost much more. The use of directly observed treatment short course regimens to avert further contamination and prevent multidrug resistant tuberculosis is acknowledged in tuberculosis control programmes. In urban areas, directly observed treatment short course regimens can be provided on a daily or alternate day outpatient basis, but in rural areas patients would probably have to be admitted to hospital or clinic for treatment. Including all patients with tuberculosis in directly observed treatment short course regimens would more than double the number of patients being treated, which would lead to logistical and financial problems, especially in sub-Saharan Africa.²²

For most targets, global epidemiological and financial constraints demand enormous additional amounts of political will, financial resources, and organisational effort. The creation of political will and impetus is a formidable challenge for the WHO and its new director general.

Relevance

At the global level, most targets are relevant in achieving Health for All (table). However, in target 1, for example, the relevance of childhood stunting is questionable for the developed world. Target 7 is only

relevant globally when it is perceived as a stimulus for member states to develop health policies systematically. In our view, the new policy lacks targets related to the social environment and mental health issues. These major issues in global health have been omitted without argument.

The relevance of the targets for the member states varies in relation to epidemiological patterns and resources. For some member states, for instance, target 2 is set too high and is therefore potentially demotivating. For more developed countries, the relevance of this target is also questionable since it has already been wholly or partly met. The same applies to other epidemiological targets, and rates that are specific to region and to country are therefore needed. The elaboration of the targets also affects their relevance. For example, targets 5 and 6 are open to interpretation. Furthermore, the formulation of target 7 allows any country to state that it has a policy consistent with Health for All. The same applies to targets 8 and 10.

Thus, the 10 targets are reasonably relevant globally, but represent an uneasy mixture of unequal entities. Some, for instance, are more specific than others. Some targets (such as target 10) focus on just one issue, while others (such as target 4) consider several different ones. Given these differences, it is impossible to compare the importance of the targets. It is therefore wise to measure progress in achieving the targets individually for the targets or their components.

Health for all in the 21st century?

The WHO has two aims with the new global Health for All policy. Firstly, the policy is a worldwide call for social justice. The WHO seems to succeed in the difficult task of drawing attention to the most important health issues. Just like the Health for All by the Year 2000 strategy,^{23 24} the new global health targets could give a new impetus to the development of health policies in member states in the decades to come. It will again put public health on the policy agenda. Secondly, the new policy aims to motivate member states to take action and to set priorities for resource allocation.

Much work still needs to be done to achieve this. To be useful in health policy at this level, all the targets need to be elaborated further and clear, practical statements must be made on their operation—especially the four targets on health policy and sustainable health systems. The WHO should stimulate the discussion of these important targets, but it should also be careful about being too prescriptive about health systems since this could be counterproductive.

In addition, more attention should be given to the usefulness of the targets in member states. One way of doing this is to rank the countries by target and to divide them into three groups. A specific level could be set for each group. For example, for target 2, three such groups could be distinguished as follows:

- Countries that have already achieved this target
- Countries for which the global target is achievable and challenging
- Countries that find the global target hard to achieve and therefore “demotivating.”

The first group needs stricter target levels, and the third group less stringent ones. If a breakdown of this kind is made for each target, some countries may be classified in different groups for different targets. In this way, the targets will provide an insight into the health status of the population and could be useful for policy makers in member states in encouraging action and allocating their resources.

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Statistics notes

How to randomise

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We have explained why random allocation of treatments is a required feature of controlled trials.¹ Here we consider how to generate a random allocation sequence.

Almost always patients enter a trial in sequence over a prolonged period. In the simplest procedure, simple randomisation, we determine each patient's treatment at random independently with no constraints. With equal allocation to two treatment groups this is equivalent to tossing a coin, although in practice coins are rarely used. Instead we use computer generated random numbers. Suitable tables can be found in most statistics textbooks. The table shows an example²: the numbers can be considered as either random digits from 0 to 9 or random integers from 0 to 99.

For equal allocation to two treatments we could take odd and even numbers to indicate treatments A and B respectively. We must then choose an arbitrary

place to start and also the direction in which to read the table. The first 10 two digit numbers from a starting place in column 2 are 85 80 62 36 96 56 17 17 23 87, which translate into the sequence A B B B B A A A A for the first 10 patients. We could instead have taken each digit on its own, or numbers 00 to 49 for A and 50 to 99 for B. There are countless possible strategies; it makes no difference which is used.

We can easily generalise the approach. With three groups we could use 01 to 33 for A, 34 to 66 for B, and 67 to 99 for C (00 is ignored). We could allocate treatments A and B in proportions 2 to 1 by using 01 to 66 for A and 67 to 99 for B.

At any point in the sequence the numbers of patients allocated to each treatment will probably differ, as in the above example. But sometimes we want to keep the numbers in each group very close at all times. Block randomisation (also called restricted

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