Material resources are not enough: good management is the key to effectiveness
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The effectiveness of a health intervention (i.e. the degree to which predetermined objectives are attained) can be viewed as its efficacy or capacity to produce results as modified by the quality of management. If management is poor the provision of additional materials, buildings and staff is unlikely to have a significant impact on effectiveness even though the efficacy may be increased.

The concept of efficacy, or the capacity to produce effects, is useful in connection with public health interventions such as disease control programmes and even in relation to health services in general. An intervention’s effectiveness – the degree to which predetermined objectives are achieved (1) – may, at best, equal its efficacy. In general, however,

\[ \text{effectiveness} = M \times \text{efficacy} \]

where \( M \), which can range from 0 to 1, reflects the successfulness of implementation.

Effectiveness is, of course, vital, and it is therefore desirable to maximize both of the values on the right-hand side of the equation. Before a strategy can be devised for doing this it is necessary to understand what determines each of these two factors.

It is useful to consider an intervention in the health sector as a system functioning in, and interacting with, an environment. A statement on the efficacy of a particular system should therefore refer to its capacity to produce certain effects in a particular environment.

The nature of a system can be defined by its personnel, materials, structure, communications and decision-making process (2). These factors, together with the character of the environment in which the system operates, determine the efficacy of an intervention.

The extent to which the full capacity for producing an effect can be realized depends on the way a system is made to function in a given environment; in other words, on its management. In the above formula, \( M \) thus clearly stands for the quality of management. If management is of a high order, \( M \) may be equal to 1, in which event effectiveness equals

\[ \text{efficacy} \]

if, on the other hand, management is poor and \( M \) is close to zero, even a system of high efficacy cannot be effective.

Throughout the developing world there are health services with inadequate buildings,
vehicles, equipment and other resources. Even more seriously, the management of these services is commonly of poor quality (3).

Efforts to develop health services, however, are often directed exclusively towards the provision of additional resources while management, which determines the conversion of efficacy into effectiveness, is neglected. This is illogical since, in a given situation, more or better resources cannot cause a significant increase in effectiveness, even if efficacy is raised. Where poor management is the critical element, only its improvement is likely to achieve a raised level of effectiveness.

A proper analysis usually makes it possible to identify whether poor management or inadequate resources is the more critical factor in a given situation. Various tools that have been developed to assess management situations (4, 5) can be employed before measures are taken with a view to improving health services.

Some examples follow which demonstrate the relationship between effectiveness on the one hand and efficacy and management quality on the other.

- A 250-bed hospital requested a new microscope on the ground that the existing one was out of order; however, its only defect consisted of corrosion between the bulb and its socket. Clearly, management was at fault; indeed, there was no workshop and nobody was responsible for maintenance. Equally clearly, the problem was not caused by a shortage of resources, as only a piece of sandpaper was needed for the removal of the corrosion. The most sophisticated workshop would not have increased the effectiveness of the maintenance system, although it would undoubtedly have raised its efficacy. Only improved management would have remedied the situation.

- In a small district hospital the autoclave was said to be out of order. An investigation by a new manager revealed that it was being used to store bandages, that the auxiliary staff did not know how to operate it, and that it was actually in good condition; the staff were therefore trained to use it. Thus the manager’s actions raised the effectiveness of the equipment, which till then had been nil, to the level of its efficacy.

- A health worker at a health centre had persuaded many people in nearby villages to construct simple pit-latrines, and the doctor in charge had supported him in every possible way. When the health worker decided to take his message to more remote villages his programme was initially hindered because he lacked a means of transport; he was therefore provided with a bicycle. The programme was well managed, and increased efficacy thus automatically led to increased effectiveness.

Before plans are formulated for the development of health services through the provision of extra resources, which can only increase efficacy, an attempt should be made to assess the quality of management. In this way it becomes possible to gain some insight into the increased effectiveness that might occur as a consequence of improved efficacy. If management is poor the main effort should go into raising its quality rather than the level of efficacy.
References


Involving people

The best hope for improving the process of global governance lies with people. Just as national policymaking cannot be considered in isolation from public pressure, so international policymaking increasingly must consider an organized and influential international citizenry.

The most familiar role for nongovernmental organizations and grassroots groups is within national borders. Around the world, there is an encouraging growth in such activities. In addition to this critical work, citizens’ groups are also beginning to make their influence felt in international forums. ... Some of the organizations ... are themselves international, meaning they represent global constituencies rather than parochial national interests. Taken together, all this activity adds up to the creation of a bona fide global environmental movement.