Health system reform and the role of field sites based upon demographic and health surveillance

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Field sites for demographic and health surveillance have made well-recognized contributions to the evaluation of new or untested interventions, largely through efficacy trials involving new technologies or the delivery of selected services, e.g. vaccines, oral rehydration therapy and alternative contraceptive methods. Their role in health system reform, whether national or international, has, however, proved considerably more limited. The present article explores the characteristics and defining features of such field sites in low-income and middle-income countries and argues that many currently active sites have a largely untapped potential for contributing substantially to national and subnational health development. Since the populations covered by these sites often correspond with the boundaries of districts or subdistricts, the strategic use of information generated by demographic surveillance can inform the decentralization efforts of national and provincial health authorities. Among the areas of particular importance are the following: making population-based information available and providing an information resource; evaluating programmes and interventions; and developing applications to policy and practice. The question is posed as to whether their potential contribution to health system reform justifies arguing for adaptations to these field sites and expanded investment in them.

Keywords: demography; developing countries; health care reform; health policy; health services research; pilot projects; population characteristics.

Voir page 132 le résumé en français. En la página 133 figura un resumen en español.

Field sites based upon demographic and health surveillance: current status

Scientific enquiry, experimentation and evaluation are central to modern health practice. Increasingly, attention is devoted to promoting not only evidence-based medicine (*1*, *2*) but also evidence-based health policy (*3*). Although the evidence base for making many health care and health system decisions is inconsistent, various types of data are clearly necessary to guide more appropriate decision-making. The present article focuses on the work of a particular group of field research initiatives and seeks to determine the extent to which they could assist in promoting evidence-based reform of health systems.

Over the past 70 years, many field-based efforts oriented towards population health have been made to profile prevailing health problems, evaluate therapeutic interventions, or model innovative approaches to the provision of health care. Much of this work has built on the acknowledged analytical strengths of field sites covering defined populations and underpinned by demographic and health surveillance (DHS) (*4*).

While the work of the British Medical Research Council in the Gambia (*5*) and the Matlab Project in Bangladesh (*6*) are long-standing and among the best known, work at a number of other field sites, centred on DHS activities, has been developed in recent years (*7*). Some of the more recently established sites focus on the evaluation of particular interventions, such as hepatitis B immunization (*8*) and vitamin A supplementation (*9*). Both the Bandim site in urban Guinea-Bissau (*10*) and the Niakhar site in rural Senegal (*11*) have made critical contributions to understanding the mortality impact of measles and the effects on mortality of measles vaccines of different concentrations. A few field sites, however, have a broader health systems agenda, exploring issues such as household responses to illness (*12*), the use of and access to health and family planning services (*12*, *13*), the changing burden of disease (*14*), improving the quality of primary care services, and considering how best to link such concerns to district and national health development (*14*, *15*).

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This article explores the characteristics and defining features of DHS field sites in low-income and middle-income countries, considers their value, and examines their merits and limitations with respect to shedding light on national and international debates about the processes and consequences of health sector reforms. We argue that many currently active sites, although weak in the application of their findings to national health policy and systems development, have the potential to contribute substantially to national and subnational health development. Lastly, we consider whether their potential contribution constitutes sufficient grounds for adaptations to these field sites and expanded investment in them.

Definition of demographic and health surveillance field sites and key characteristics

Historical perspective

Among the first field sites established for teaching, practice and research in the developing world were those introduced during the 1920s in China by Chen (*16*). This far-sighted initiative, forerunner of the barefoot doctor programmes, attached special importance to taking health care into communities, drawing on local resources, and seeing health action as part of broader social development, and it sought to measure the impact of interventions.

Grant, who appraised initiatives of this sort in a range of settings, made special mention of the work of Sidney Kark and his colleagues (*17*). Work carried out by Kark et al. during the 1940s at the Pholela Health Centre, South Africa, laid the basis for community-oriented primary health care, a form of population-oriented health practice linking small-scale census and epidemiological studies in defined catchment areas with clinical primary care and family medicine (*18*). Examples of community-oriented primary health care in research and operational settings are now widespread in Israel, Spain, the USA, and various countries of Latin America (*19*).

Between the 1950s and 1970s such service-oriented efforts were complemented by several research-oriented endeavours, mainly in the Indian subcontinent (*6*, *20*, *21*) but also in Guatemala, where nutrition and infection interactions were examined (*22*). Without exception these studies took place in situations where, to all intents and purposes, vital registration was absent. With a focus on health, nutrition and/or family planning, and a concern to evaluate the impact of interventions, singly or in combination, each study attempted to define a suitable study site and population, and introduced DHS as the basis for evaluating health impact.

The Khanna Study, for example, a collaboration between the Harvard School of Public Health and the All-India Medical Research Council, examined fertility and family planning options in rural villages of the Punjab (*20*). This led to insights in several spheres: a description of causes of death among children, an understanding of the epidemiological features of diarrhoea in weanlings, clarification of the impact of prolonged lactation on birth interval, and a deeper understanding of how local culture and customs influenced health and reproductive behaviour.

Characterizing DHS field sites

Field sites based on demographic and health surveillance are characterized by regular and repeated censuses of a geographically defined population, supplemented by the systematic recording of data on vital events (births, deaths[a] and migrations), with database linkage of each individual's records. This DHS system provides a platform for a wide range of health, social, economic and behavioural studies and interventions (*23*).

The earlier initiatives illustrate the analytical strength of this approach in the examination of critical issues of health, population and development. For the most part, however, the focus was on efficacy trials involving either the delivery of selected services or new technologies (vaccine trials, oral rehydration, alternative contraceptive methods). Methodological innovation, for instance in developing relational databases or the verbal autopsy approach, was also important.

However, when the results of research at these sites have been implemented in primary health care systems their impact has been considerably below that predicted by efficacy studies (*24*). In part this has reflected weaknesses in assumptions about mortality risk (i.e. the implications for mortality of minimizing a particular risk factor in a setting where vulnerability to a number of interacting risk factors exists), exaggerating the expected impact of selective interventions. It has also reflected the importance of local sociocultural conditions and their effect on the acceptance of technological innovation, together with the problems of transferring interventions from highly controlled environments to large, often amorphous and less well managed public sector systems. Furthermore, it was apparent that an examination was required not only of the efficacy of interventions but also of their effectiveness when applied in typical field conditions.

A shift occurred during the 1980s and 1990s, when the Maternal and Child Health/Family Planning Extension Project of the International Centre for Diarrhoeal Disease Research, Bangladesh, was introduced (*25*), changes were made to the organizational structure of the Navrongo Project, in Ghana (*13*), and the organizational frameworks for the Nouna Project, in Burkina Faso, the Adult Morbidity and Mortality Project, in United Republic of

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[a] Work on levels and trends in mortality is often complemented by verbal autopsy studies to ascertain the (probable) cause-of-death profile.

Tanzania, and the Agincourt Project, in South Africa, were adopted (*12*, *14*, *15*). In all these cases the emphasis has shifted to the strengthening of health systems and the effectiveness of interventions *within particular socioeconomic contexts*.

Although demographic and health surveillance is central to work in Nouna, Agincourt, and the Adult Morbidity and Mortality Project, these projects seek to introduce interventions through the *existing* public health service. The intervention aspect of the work is thus explicitly influenced by the resource constraints of the public health system. The purposes of this close linkage with available services are as follows:

- to gain a better understanding of what is possible within the capacity of current services;
- to facilitate the transfer of innovation from experimental sites to the system generally;
- to create opportunities for productive interactions with health and social policy-makers, managers and practitioners.

DHS field sites today

An effort is currently being made to document and contrast all existing DHS field sites in Africa, Asia and Latin America (*7*). Some 30 sites have been identified, the majority in Africa and most of the others in Asia. Before 1990 fewer than ten sites were active; since then there has been a rapid increase in the number. This inventory is considered incomplete and strenuous efforts are being made to locate and contact Latin American sites and to extend the Asian group. Preliminary information suggests a mixed picture: a range of work covering infectious disease interventions including vaccine trials, family planning methods and approaches, and health systems initiatives. Efforts are now being made to tackle other issues, including chronic disease, violence, ageing and forced migration. Project financing, along with site leadership, remains a complex mix of national and international elements. A recent meeting at the University of Heidelberg, Germany, involving participants from 18 established or developing DHS field sites, provoked considerable debate on the contributions of projects to policy and practice, their role in capacity development among researchers and local health services, and the nature of working relationships with their host communities (*26*).

Criticisms of pilot projects as an approach to developing health policy and practice

Pilot or demonstration projects, sometimes called policy experiments, take many forms. DHS field sites represent but one type of project. Pilot projects involve a small-scale effort to address rigorously a question of significance to a health programme or a population programme. Examples include evaluating a new intervention, a new approach to delivering health care (such as community mental health or hospice care), or alternative means of financing health services (*27*). The assumption tends to be made that if significant improvement is demonstrated by a pilot project there will be scaling up to the regular health system and associated positive consequences.

The attributes of DHS field sites, particularly for measuring the health impact of interventions, allow them to support efficacy studies, investigations of effectiveness, and various forms of action research. Where *new* interventions (whether therapeutic or service-based) are introduced into *existing* health systems in order to assess their impact under usual operating conditions, the work can be satisfactorily described as involving pilot projects. However, this term is less appropriate when *strictly controlled* field conditions are established to allow field trials, i.e. efficacy studies, of new therapies.

Tarimo (*28*) as well as others have strongly criticized the approach to health systems development which is based on pilot projects. They argue that:

- such projects tend to stifle other efforts, weaken the confidence of health service leaders to experiment, and delay the resolution of operational problems;
- scarce human and financial resources tend to be excessively absorbed into pilot projects for prolonged periods;
- the search for definitive and widely applicable answers is often disappointing because of great differences in local circumstances and contexts;
- pilot projects are often heavily funded by donors and consequently may advance schemes that are excessively influenced by external priorities, thus failing to serve local interests adequately.

Through de facto devaluation of the ongoing operational experimentation needed at all levels, such field sites may inhibit the strengthening of a much-needed analytical approach within the public health service. Furthermore, clear endpoints may not be stated, and there is often a lack of clarity about how the findings of a project will be communicated to all relevant or interested stakeholders.

Blanket criticisms clearly have many exceptions but they are nevertheless widely held and have influenced health care leadership in many national and international settings. WHO has previously emphasized the learning-by-doing approach, also described as "learning from informal evidence" (*29*). This aims to empower senior health management, encourage experimentation and innovation *within* health services, and contribute to developing the applied research skills, including action research and participatory approaches, of managers and practitioners.

DHS field sites, which share the characteristics of and have a number of objectives in common with more conventional pilot studies for health service interventions, are not untouched by the above criticisms. The relatively resource-intensive nature of their work, the strong inputs from external agencies, the sometimes limited engagement with local communities and health services, and the increasing expectation among politicians and public service leaders that research should contribute to policy and practice, all echo the concerns expressed about pilot studies.

Limited contribution of DHS field sites to national health policy and practice

Despite the contributions of a few much earlier influential projects and recent efforts to locate DHS field sites within a broader health systems framework, their contributions to national health policy and practice have been limited. How can this be explained?

At a number of sites, initially established to tackle internationally defined scientific questions, the needs of local services, communities and nongovernmental organizations were considered as secondary. Ownership, responsibility and accountability are complex in relation to these initiatives, but many appear to favour the interests of the Northern partners. Funding frequently derives from foreign sources and has often been specifically mobilized by Northern institutions that take the lead in identifying linkages with Southern institutions and potential sites. Research staff are typically a mix of nationals and expatriates, although scientific leadership is often located in the North. While the field and administrative workers may be predominantly local, host communities are often relatively uninvolved in the planning and management of research endeavours. Organizational leadership may reflect a partnership between overseas and national research interests, and linkages with the health system may fall anywhere on the spectrum from barely detectable to highly integrated. A project may operate and interact with local decision-makers at the district, provincial and/or national level.

The interplay between these various forces strongly influences the extent to which a project contributes to health development at the national and subnational levels. Success in answering generic questions about mechanisms for promoting health requires a long-term view, rigorous analysis, and relatively centralized research management of the project and its intervention and evaluation activities. The single-minded dedication that is necessary for this may preclude responsiveness to local needs and short-term expectations. Thus, for the most part, the balance of forces tends not to favour local interests.

Only a small amount of literature on health policy and systems development has emerged from currently functioning field sites, despite their impressive publication record in other spheres. Moreover, the work of these sites figures only peripherally in current international policy debates on new approaches to setting health care priorities, the impact of the decentralization of health systems, the development of national systems for setting research priorities, etc. It may well be that project leaders have a limited interest in and grasp of the health reform processes that characterize most middle-income and low-income countries. Project leaders may also have difficulty in recognizing and exploiting opportunities where health sector needs coincide with the capacities of the projects they manage. Their strong technical expertise may not be matched by substantive experience or understanding of matters related to health policy.

In fairness, however, the ambit of work at many sites is also constrained by the limits and expectations inherent in research agreements with donor bodies. Indeed, there is scope for funding agencies themselves to develop an enhanced appreciation of the policy potential of such sites.

Field sites and national health reform

DHS field sites, whether they were originally efficacy-oriented or effectiveness-oriented, share a number of core features in addition to those highlighted earlier. Measurement of changes over time in patterns of fertility, morbidity and mortality is a major concern. The populations covered, which are frequently rural, may amount to tens of thousands and may correspond with the boundaries of districts or their components such as subdistricts or health centre catchment areas. In addition, liaison with local communities and institutions (district health teams, nongovernmental organizations) is typically ongoing and integral to the maintenance and good progress of sites.

In the present climate of health reform these features are valuable but underappreciated attributes. In many countries, national health reform is characterized by efforts to decentralize the leadership, management and operations of the health system, enhance the efficiency of systems, establish new means of assessing priorities, and promote equity (*30*). Simple, descriptive information on population distribution and health characteristics, demographic composition and change, socio-economic characteristics, and the distribution and challenges facing potentially vulnerable groups such as single-parent households or the elderly, is vital for the effective targeting of district programmes and assessing access to health services. Information on prominent causes of death, often lacking at the national level, can be invaluable when priorities are being set and efforts are being made to improve resource allocation. Concern emanating from field projects about the evaluation of interventions, or about health system changes, e.g. the impact of the introduction of user fees on the poorest members of communities, can be a useful reminder to health service managers about the need for continual monitoring and assessment of programmes. The intelligent use of local information is vital for the effective functioning of district health systems. The collection and interpretation of information in a more sustained, reliable and regular manner may be especially helpful.

There are thus several points where the strategic use of information generated by demographic and health surveillance can contribute to the decentralization efforts of national and provincial health authorities. The ability to gather information that can inform district health practice heightens the potential coincidence of interests between such projects and local health systems development.

What contributions are possible?

DHS field sites can make important contributions to health planning, systems development and reform at the local and national levels. Health services, local governments, university and nongovernmental organization programmes, and community groups all have an interest in the data generated. The following areas of possible contribution stand out:

- making information available and providing an information resource;
- evaluating programmes and interventions;
- developing applications to policy.

Strengthening the information base and acting as a resource

Routine demographic and health surveillance can contribute data on the stability or change in rates of mortality and fertility (and potentially of morbidity). Denominator data can describe the socioeconomic, ethnic and cultural characteristics of the general population, assist in identifying and defining vulnerable groups, and help to define catchment areas. The spatial distribution of vital events may highlight the relationship between health and environmental and social conditions, and may reveal inequalities in mortality within a population. Information on causes of death, usually obtained from verbal autopsies, and on morbidity, can help to determine the burden of disease affecting particular subgroups. Together with locally derived qualitative ethnographic and anthropological data, this can make a particularly valuable contribution to the understanding of locally relevant risk factors and circumstances, and may contribute to district health programming, resource allocation and skill development.

Modest investment is necessary in order to provide information in a form suitable for use by the range of interested parties. There is much scope for local communities to access data and relate them to their concerns about development. It may also prove feasible for communities to specify information needs that the surveillance system can assist in answering. Locally sustainable forms of data collection, such as lay reporting of vital events or drawing on locally available personnel such as nurses, can be compared with the DHS system (*31*). Rapid appraisal techniques and various action research approaches may be supported by demographic surveillance and offer complementary data while building a capacity for research and survey work at the community level.

Evaluating the impact of interventions

The evaluation of interventions typically constitutes a major purpose of DHS systems. For the most part, however, interventions have been directed at particular diseases or disease clusters. Considerable scope exists for assessing the impact of health service change[b] and its development or decline on health status. The most serious consequences of changes taking place in the macroeconomy and in the organization and functioning of health services may be monitored using DHS data from field sites. Such data are useful in decision-making, especially in view of the growing effort to base decisions on sound evidence and analysis.

Applications to planning and policy

Many of the possibilities cited are applications to health planning. A particular contribution to policy development relates to the implications of trends in health status for a decentralizing health system. Decentralization involves the transfer of authority and responsibility to more peripheral levels of a health service. The expectation is that services will thus become more responsive and accountable to local needs, and consequently more effective. This depends, however, on whether local personnel can take on these roles with adequate motivation and flexibility.

Field sites with DHS and a verbal autopsy capability can provide current and projected profiles of mortality, and sometimes of morbidity, such as are necessary for appraising emerging forms of decentralized health care. The nature of present and anticipated major health problems, e.g. human immunodeficiency virus (HIV) infection, chronic disease and old age, mental illness, injuries and violence, suggests that health systems are facing new challenges for which routine responses will prove inadequate. Knowledge of the "health transition" and its local expression may prove vital to the design of health systems, the achievement of an appropriate skills and personnel mix, and the development of linkages to other sectors (*32*, *33*).

For the most part, and influenced by their largely rural location, research leadership has yet to seriously engage this agenda. In view of the importance of cultural, behavioural and lifestyle factors in the etiology of the problems encountered, the anticipated shift in research focus can be expected to challenge the methodologies, analytical tools and interventions introduced by workers in DHS sites. While the strength of DHS fieldsites to address this agenda can be strongly motivated, there is, at present,

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[b] Such as a cluster of changes designed to impact on several health system characteristics, e.g. access, health worker skills, referral patterns, managerial decision-making.

little evidence to support this position.[c] Nevertheless, by engaging these issues, such sites may well extend the scope of their work, and their contributions to policy and practice may be enhanced.

Mechanisms for improving linkages between field sites, health services and communities

Several mechanisms that can be adopted in order to promote linkages between field sites, communities and health system planners and service providers are indicated in Table 1.

The identification of these potential barriers, and the means to overcome them, would need to occur locally to take account of contextual factors and the relative strengths of the different institutions and personnel involved. Innovative and creative ways of dealing with such barriers could be found; those listed in Table 1 could be further developed and adapted to local contexts.

It should be acknowledged that, in order to overcome these obstacles, additional resources are necessary, including the time of project staff. These resources have to be accommodated as part of research budgets. Funding agencies can play a constructive role in facilitating linkages and encouraging dialogue among local and national players. The costs involved are likely to be marginal relative to the total operating costs of these research efforts. The investment may, however, prove critical for the long-term research interests of DHS field sites.

Particular challenges remain in engaging with communities and their representatives so as to ensure that they can influence what research is done and derive useful information, wherever possible, from studies in which they have participated. Where communities are not well served by representative structures there is a fundamental obstacle in the way of strengthening local accountability of field-based research.

Conclusions

We have argued in this article that field sites using a DHS system have not contributed substantially to health reform in many low-income and middle-income countries. In part this reflects a limited understanding of national health reforms by project leaderships, as well as being a consequence of certain critical features of projects. Nevertheless, there are considerable opportunities for contributions to be made that could greatly enhance the value of the sites, particularly in their local and national settings. Furthermore, the transitions occurring in the nature of health problems provide an opportunity to extend the scope of research undertaken on these sites.

Realizing the opportunities will require learning among both research teams and health service leaderships, and support from external agencies. In principle, field site contributions may be piecemeal or comprehensive. An opportunistic relationship between research site and health department may carry benefits. A sustained relationship, however, can provide the framework for an interconnected series of contributions as reform of the health sector proceeds and the understanding of projects deepens. This should create an environment in which the public health service can play an expanding role in highlighting key issues that require attention. Research teams should prepare themselves to make public, in accessible format, much of the internal project knowledge that, up to now, has been regarded as intermediate output.

Is there justification for fostering further field sites based on demographic and health surveillance, with contributions to health reform as a central purpose? It may be that a response depends on the particular situation in specific countries. It may prove possible to highlight the circumstances where projects can be most effective and at what cost. The longer a particular field site is in operation, the less typical the setting may be when compared with adjacent districts; thus efforts to derive information of use to health systems should be instituted early on in the establishment of such sites. Indeed, it could be argued that field sites should have a flexible life expectancy and that this should be continually reviewed by weighing the scientific and social benefits of building on established structures and mechanisms of data collection against diminishing returns if the site becomes markedly less representative.

A prerequisite for judging this issue is a body of experience on which to base evaluation of the potential and actual contributions of the growing number of field sites underpinned by DHS to contemporary health development efforts at the national and subnational levels. Also desirable are analyses of the costs of generating such data locally and of the opportunity costs of these versus alternative information-generating systems.

Some recommendations arising from this appraisal are presented below.

- Examples of current good practice, where field site policy and field site practice linkages have emerged, should be documented.
- Barriers to linkages between field sites and health systems should be explicitly identified at the local and national levels.
- Potential mechanisms for bringing field site leaders and policy-makers/service providers together should be identified.
- Mechanisms for training/building up field site leaderships to be sensitive/responsive to policy and health sector reform issues should be developed.

The recently established INDEPTH[d] network provides a means of focusing on these and related

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[c] A notable exception is the CHAD programme (Community syndrome of Hypertension, Atherosclerosis and Diabetes) carried out by the Kiryat Yovel Health Centre, Jerusalem, over the past 25 years (*34*).

[d] International Network of field sites for the continuous Demographic Evaluation of Populations and Their Health in developing countries.

Table 1. **Overcoming potential barriers between field site researchers and health service providers, decision-makers and local communities**[a]

Sources of barriers	Mechanisms for overcoming barriers
Collective identification of key research questions and priorities	• Include service providers, decision-makers and community representatives (e.g. members of local government) on field site research steering committees • Develop explicit criteria for identifying priorities using quantitative and qualitative methods; facilitate consultation with community members or their representatives
Clarification at outset of intended products of research	• Provide clear specification of projects and indicate nature of intended outputs; agree on products of particular interest to key groups • Give prior definition of key decisions that may be influenced by research results, e.g. allocation of resources, provision of materials, training of staff, agreement to raise profile of issues in health promotion and community settings • Encourage researchers to consider relevance of findings to local contexts, given resource and other constraints
Speed of obtaining results	• Provide joint planning from outset and agreement on timetable for research activities and release of interim findings • Identify products from each phase of research; these should be carefully attuned to local needs and audiences
Widening of scope for access to results and debate on their implications	• Organize seminars, involving range of stakeholders, to explore research results and determine whether, at what stage and how best to respond to them • Produce different products, e.g. policy briefings, guidelines, algorithms, training packages, local pamphlets, newspaper and radio reports, and exhibitions of data in schools, in addition to peer review and professional publications • Appoint "translator" of research findings to clarify nature and results of research for different audiences; work with local journalists to make material more widely accessible • Use clear figures, graphs, analogies, and stories • Identify issue champions who are committed to implementation of research findings and have local respect and authority
Integration of different findings about the same problem	• Organize workshops and other measures to identify relevance of new research to what was previously known on same site and elsewhere in similar contexts • Clarify value and limitations of particular pieces of research
Appreciation of the range of factors influencing policy-making	• Provide opportunities for service providers and policy-makers to clarify the range of resource constraints and political influences affecting decision-making • Explicitly identify objectives of policy-makers and researchers
Recognition of variety of forms of "payback" derived from research	• Agree on mechanisms for maximizing value from engagement with research: may include both knowledge and non-knowledge gains (staff development, critical thinking, ability to utilize research evidence, enhanced capacity to absorb research evidence from elsewhere, linkages with other partners, e.g. academic institutions • Identify ways to jointly establish and agree on future research priorities and processes

[a] See: Zwi (*35*), adapted and developed from Frenk (quoted in ref. *36*, p. 89), WHO (*36*), Walt (*37*), and Buxton (*38*).

issues. Since INDEPTH membership comprises virtually all DHS field sites located in middle-income and low-income countries, this body could itself facilitate a concerted effort to advance the application of DHS findings at the national and subnational levels. Possible approaches include the following:

– convening workshops that can enhance member sites' capacity for analysis that is appropriate to policy and the communication of findings;
– assisting with the design of studies that address or incorporate questions of relevance to national policy;
– creating a meeting ground for policy-makers from both member and non-member countries where case studies that highlight the integration of study findings into policy and practice are clearly demonstrated.

The present climate of health reform and decentralization, accompanied by a changing pattern of disease burden, calls for continuing assessment of the extent to which national health systems benefit from prior investment in field sites based on demographic and health surveillance. ■

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Résumé

Réforme des systèmes de santé et rôle des sites d'études sur le terrain reposant sur une surveillance démographique et sanitaire

Il est bien connu que les sites d'études sur le terrain qui reposent sur des données issues d'une surveillance démographique et sanitaire ont contribué à l'évaluation d'interventions nouvelles ou non encore testées, en grande partie par le biais d'épreuves d'efficacité de techniques nouvelles ou de prestations particulières, qu'il s'agisse de vaccins, de thérapie par réhydratation orale ou de méthodes contraceptives. Ces sites sont caractérisés par des recensements réguliers d'une population géographiquement bien délimitée complétés par l'enregistrement systématique de données démographiques (naissances, décès et migrations), avec interconnexions entre chaque dossier individuel.

Si l'action du British Medical Research Council en Gambie et l'étude Matlab au Bangladesh sont parmi les plus anciennes et les mieux connues, le nombre des sites d'études sur le terrain qui s'appuient sur des données issues d'une surveillance démographique et sanitaire a nettement augmenté depuis 1990, en particulier en Afrique. Malgré les contributions de quelques projets beaucoup plus anciens (par exemple Pholela en Afrique du Sud et Narangwal au Pendjab) et les efforts récemment fournis pour inventorier des sites d'études dans le contexte plus vaste des systèmes de santé, la contribution de ces sites à la réforme du secteur de la santé, à l'échelle nationale ou internationale, est restée limitée. Rares sont les documents sur les politiques et le développement des systèmes de santé qui ont été produits par les sites actuellement opérationnels qui pourtant, consacrent à d'autres sujets un volume impressionnant de publications. Peut-être cela tient-il en partie à des questions complexes de contrôle et de responsabilités dans la gestion des recherches des sites ainsi qu'à leurs directions techniques qui peuvent ne pas être toujours attentives à la problématique des politiques de santé. Les sites d'études sur le terrain, qui ont des caractéristiques communes avec les études pilotes classiques, ne peuvent échapper aux critiques dont ces études ont fait l'objet.

Après avoir exploré et défini les caractéristiques de ces sites dans des pays à revenu faible et moyen, les auteurs du présent article font valoir que beaucoup des sites actuellement actifs disposent des moyens nécessaires, encore que largement inexploités, pour contribuer sensiblement au développement sanitaire aux niveaux national et sous-national. La population couverte par ces sites étant souvent celle de districts ou de sous-districts, l'utilisation stratégique des données de la surveillance sanitaire et démographique pourrait être précieuse pour les activités de décentralisation des autorités sanitaires nationales et provinciales. L'apport de ces données pourrait être particulièrement utile dans les domaines suivants :

- communication de données sur la population et constitution de sources d'information ;
- évaluation de programmes et d'interventions ; et
- applications politiques et pratiques.

Les auteurs présentent les mécanismes qui pourraient être mis en œuvre pour améliorer les liens entre les sites d'études sur le terrain, les communautés et les responsables de la planification et du fonctionnement des systèmes de santé. L'exploitation des possibilités ainsi offertes exigera un effort d'apprentissage de la part des équipes de recherche comme de la direction des services de santé. Des ressources additionnelles seront nécessaires mais le coût à prévoir sera sans doute marginal par rapport au coût total de telles activités de recherche. Par ailleurs, en favorisant un resserrement des liens avec les communautés locales, différentes institutions (équipes sanitaires de district, organisations non gouvernementales) et d'autres instances concernées, de tels investissements seront sans doute décisifs pour les objectifs à long terme des recherches des sites d'études sur le terrain.

La contribution que pourraient apporter à la réforme des systèmes de santé les études faites sur le terrain à partir de données issues d'une surveillance démographique et sanitaire justifie-t-elle que l'on préconise des adaptions et des investissements supplémentaires ? La réponse dépend sans doute des situations particulières selon les pays ; par ailleurs, il sera peut-être possible de définir les conditions dans lesquelles ces projets peuvent se révéler les plus efficaces, et à quel coût. Il faudrait pouvoir s'appuyer sur une vaste somme d'expériences pour évaluer les contributions potentielles et effectives du nombre croissant de sites d'études qui reposent sur une surveillance démographique et sanitaire aux efforts actuels de développement des systèmes de santé aux niveaux national et sous-national. Le réseau international des sites d'études chargés de l'évaluation démographique continue des populations et de leur santé dans les pays en développement (INDEPTH) constitue un dispositif propice à un examen approfondi de ces questions. Le climat actuel, qui est à la réforme du secteur de la santé et à la décentralisation, justifie certainement que l'on continue à évaluer dans quelle mesure les systèmes nationaux de santé bénéficient des investissements préalablement consentis dans les sites d'études sur le terrain qui s'appuient sur une surveillance démographique et sanitaire.

Resumen

Reforma del sistema sanitario y papel de los puestos sobre el terreno basados en la vigilancia demográfica y sanitaria

Los puestos sobre el terreno basados en la vigilancia demográfica y sanitaria (VDS) han contribuido de forma fehaciente a la evaluación de intervenciones nuevas o no probadas, en gran parte mediante ensayos de la eficacia de nuevas tecnologías o la prestación de determinados servicios, como por ejemplo vacunas, tratamientos de rehidratación oral y métodos anticonceptivos alternativos. Estos puestos sobre el terreno se caracterizan mediante censos regulares y repetidos de una población geográficamente definida, a lo que se añade el registro sistemático de los hechos vitales (nacimientos, defunciones y migraciones), con vínculos a las historias clínicas de cada individuo a través de bases de datos.

Si bien la labor del Consejo Británico de Investigaciones Médicas en Gambia y el Estudio Matlab llevado a cabo en Bangladesh figuran entre las iniciativas más antiguas y mejor conocidas, a partir de 1990 se ha observado un marcado aumento del número de puestos de VDS sobre el terreno, sobre todo en África. Pese a las aportaciones de unos pocos proyectos emprendidos mucho antes (como Pholela, en Sudáfrica y Narangwal, en el Punjab), y a algunos esfuerzos recientes tendentes a inscribir los puestos de VDS sobre el terreno en una estructura más amplia de sistemas de salud, la contribución de esos puestos a la reforma del sistema de salud, a nivel ya sea nacional o internacional, ha sido limitada. Es escasa la literatura sobre desarrollo de políticas y sistemas de salud emanada de los puestos sobre el terreno actualmente operativos, a pesar de que la lista de publicaciones en otras esferas es impresionante. Esto puede deberse en parte a los complejos problemas que en materia de propiedad, responsabilidad y rendimiento de cuentas plantea la gestión de las investigaciones de los puestos sobre el terreno, así como a un liderazgo técnico entre cuyos puntos fuertes probablemente no figura un conocimiento cabal de los problemas de política sanitaria. Los puestos sobre el terreno, que comparten varias características con estudios piloto más convencionales sobre intervenciones sanitarias, no pueden ignorar las críticas que han suscitado estos estudios.

Analizando las características y los rasgos distintivos de los puestos de VDS sobre el terreno en países de ingresos bajos y medianos, el presente artículo señala que muchos puestos actualmente operativos ofrecen posibilidades en gran medida desaprovechadas para contribuir de manera sustancial al desarrollo sanitario nacional y subnacional. Como las poblaciones cubiertas por esos puestos se corresponden a menudo con los distritos o subdistritos, el uso estratégico de la información generada por la VDS puede informar los esfuerzos de descentralización de las autoridades sanitarias nacionales y provinciales. Entre los sectores en que se han producido contribuciones especialmente pertinentes cabe citar los siguientes:

- ofrecimiento de datos basados en la población y aportación de un recurso de información;
- evaluación de programas e intervenciones; y
- desarrollo de aplicaciones para la política y la acción.

En el artículo se proponen varios mecanismos posibles para fomentar el establecimiento de vínculos entre los puestos sobre el terreno, las comunidades, los planificadores del sistema de salud y los dispensadores de atención. La explotación de estas oportunidades requiere un esfuerzo de aprendizaje tanto de los equipos de investigación como de quienes dirigen los servicios de salud. Se necesitan recursos adicionales para esta labor, pero el costo general será probablemente mínimo en comparación con los gastos totales de ejecución de esas actividades de investigación. Además, al fortalecer las relaciones con las comunidades locales, las instituciones (equipos de salud de distrito, organizaciones no gubernamentales) y otros interesados directos, esas inversiones pueden resultar cruciales para los intereses de investigación a largo plazo de los puestos de VDS sobre el terreno.

La contribución potencial de esos puestos sobre el terreno a la reforma del sistema de salud, ¿justifica que se proponga adaptarlos e invertir en ellos mayores sumas? La respuesta depende quizá de la situación particular de cada país; otra opción es tal vez destacar las circunstancias en que los proyectos pueden ser más eficaces, y el costo correspondiente. Se necesita un bagaje de experiencias para evaluar la contribución potencial y real del creciente número de puestos de VDS sobre el terreno a los actuales esfuerzos de desarrollo sanitario a nivel nacional y subnacional. La red INDEPTH (red internacional de puestos sobre el terreno para la evaluación demográfica continua de las poblaciones y su salud en países en desarrollo) proporciona un mecanismo para poner de relieve esas cuestiones. El actual clima de reforma y descentralización de la salud, unido a los importantes cambios experimentados por el perfil de la carga de morbilidad, constituye una razón de peso para promover una evaluación permanente de la magnitud de los beneficios que para los sistemas nacionales de salud se derivan de las inversiones previas en puestos de VDS sobre el terreno.

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