

## Current topics

### Measuring inequities in health in Egypt

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#### Introduction

Health inequities, formally defined, are avoidable inequalities that are unfair and unjust. Equity refers to fairness and justice. It calls for the recognition of differential need. Each person should have the opportunity to be healthy, but this requires more than equal access to health care — it requires health services that take into account the ways in which needs can differ from person to person and from group to group [1].

Health inequalities and inequities within countries are not understood in the same way throughout the world [2]. In many high-income countries, as in western Europe, access to health services is relatively universal and not strongly dependent on socioeconomic circumstances or geography, while in developing countries, inequities in access have been the main preoccupation of those working on health inequities [2]. However, in Egypt, despite the marked increase in access to primary health care (PHC) units. (95% of the population have access to a PHC units within 5 km), the data from the Data for Decision-making Project still show definite evidence of inequity in health between different regions [4]. The forces producing inequalities in health in

Egypt need to be given more attention than they are at present.

#### Difficulties in measuring inequities in health care in Egypt

Health status cannot be simply or directly measured because the concepts of health and disease are complex and multidimensional. In general, there is a considerable debate about the meaning and measurement of health inequities, and social group health differences. The lack of standard definitions, indicators and measurement strategies have limited comparisons between and within countries. A wide variety of indicators have been proposed to measure inequities in health. They include not only indicators of health status, but also indicators of risky health behaviours, of health services activities and health care input. Different indicators require different questions, and the ideal choice may not be feasible. Concerns are increasingly being raised about the information value of composite indicators [4].

Methods of assessment and validation of health indicators are essential if rational selection of such indicators is to be achieved [5]. The selection of health indicators should be based on careful evaluation and

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validation as they can differ between industrialized and developing countries [5].

In this article, we highlight some of the difficulties in measuring health equity in Egypt, which include weakness of the information system, classification of subgroups, validity of indicators and intervention value of the chosen indicators.

#### *Weakness of the information system*

The development of a health information system requires a huge investment of resources, beyond the means of many developing countries, where a long-term commitment to data collection and use is usually lacking. Research on alternative methods of assessment and validation of health indicators is thus essential if rational selection is to be achieved [5].

#### *Classification of subgroups to document inequity in health care*

In general, before measuring equity in health, two basic questions should be addressed: the kind of classification used and the kind of indicators required to document inequity. When social groups health differences are equated with health inequity, the critical choice is that of the variable used to distribute the population into social groups. Social groups defined by location deserve special note in developing countries. When the geographical areas used to categorize the population are small and represent relatively homogenous groups, they provide a more refined categorization of the population, which can come close to revealing the extent of individual variation in the population. This is not applicable in comparisons between urban and rural areas in the majority of developing countries. In Egypt, the population in urban areas is heterogeneous, as about one-third of the inhabitants of urban areas are living in slums suffering the triple burden of diseases [6].

#### *Validity of indicators used to measure inequity in health*

Validity expresses the ability of an indicator to measure what it is supposed to measure [5]. Validity of the same indicator could vary when used in an industrialized or a developing country, e.g. an indicator such as the rate of outpatient visits in different groups is more valid in industrialized countries where the quality of health services offered to attendants is similar in different health units. This is not the case in Egypt, where differences exist in the quality of care given by different health units, e.g. rural versus urban settings. The problem in developing countries, including Egypt, is in the striking variations in effectiveness rather than availability of health facilities.

It is important to remember the statement of Bryant et al. that "The essential components of PHC include: information system to monitor health needs, decision-making mechanisms, and support system for continuous training and supplies. Without attention to these essential components, HFA through PHC remains more of a hope than a reality" [1].

Without adjusting for the availability of essential diagnostic tools and the qualification and experience of the treating staff in different health facilities in different regions, indicators such as rates of utilization of health facilities and health expenditure become less valid. Average number of physicians per 1000 individual is misleading if we do not adjust for specialties and the availability of continuous knowledge updating and practical training for physicians in charge of different health facilities in different regions (rural/urban). The same applies to the average number of hospital beds as striking differences in availability of diagnostic facilities and experts in different specialties exist in most cases. In ad-

dition, indicators derived from the rate of satisfaction with health care are of limited value, as ideas of good and bad differ in various cultural and socioeconomic groups. Poor and/or illiterate individuals are more liable to be satisfied with levels of health care that are scientifically sub-optimal.

#### *Intervention value of the indicator used*

The intervention value of an indicator for equity in health refers to its contribution to the decision to change policy to achieve equity [5]. In the context of policy-making, indicators are needed to reflect aspects of health that are amenable to change. Inequalities in health between groups can be measured using life expectancy and mortality data, but such measures are open to various interpretations and their intervention value is minimal.

In Egypt, with limited resources, it is more logical to focus on indicators with high intervention value, which can point to the needed health policy changes towards equity.

#### **Approach to assess equity in health care in Egypt**

A problem-oriented approach is required to overcome the limitations affecting the development of indicators and information for health policy research. Chronic diseases represent a challenge for both the health system and families. They put to the test the practicability of an equitable balance between rational use of limited resources and the fundamental rights of chronically ill patients to receive the care they deserve.

Periodic assessment of differences in the quality of care given to selected index chronic diseases could be considered a reasonable approach to assess health inequities in Egypt and possibly in other developing countries. However, we should be aware of the difficulties, efforts and budget needed to conduct these periodic assess-

ments, which might make them impractical.

Health sector reform is starting to take place in Egypt. One of its elements is a computerized information system which includes data indicating socioeconomic level and types and quantity of health services used by health providers for each individual. All family members with chronic diseases will be recorded. We could also include information on one or two of the key variables in the management of these diseases. These can be used to monitor equity in health care, and to compare the quality of care given to patients in different socioeconomic groups and by different health providers.

The suggested approach to assess inequity in health care in our community can go through the following steps.

- A community survey to identify the burden of diseases and their public health priorities.
- Definition of local standard guidelines for the management of these diseases and agreement on the key variables in the management of these diseases (considering both international guidelines and available local resources).
- Information about one or two key variables in the diagnosis and management of each of the index diseases should be included in the information system within the health sector reform in Egypt. These will serve to monitor equity in health care (e.g. use of inhalers in the treatment of chronic asthma, measurement of glycated haemoglobin within the last year in diabetics).
- Identification of sociodemographic and health provider factors associated with lower quality of care.
- Discussion of the results with health policy-making authorities.

### Conclusion

In conclusion, standard indicators focusing on rates of health services used are of low validity in Egypt, and complex indicators such as life expectancy and mortality rates are of low intervention value. A suggested approach is to benefit from the developing

health sector reform in Egypt by including information about key variables in the management of the index chronic diseases. This can serve as one among other measurement tools in monitoring equity in health care in the country.

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