

Booklet B.2: Economic approaches to equity

Equity is one of the most important criteria for setting priorities and judging the success of policies in the public health sector. But how do economists interpret and measure equity? What does it mean and how can it be applied? What are the potential trade-offs between equity and efficiency?

This booklet addresses these questions, as well as the following:

- What is equity?
- What sort of techniques can be used in an equity analysis?
- What are the impacts on policy of an equity analysis?
- What is the role of resource allocation in improving equity?

B2.1 What is equity in relation to health?

At its most basic, equity implies some subjective notion of 'fairness' or 'justice'. In terms of health, people may find it unfair that poor people and rich people do not have the same access to health care. Others might worry more about people's health in general. While inequality would imply differences in people's health, inequity means that these differences are unjust and avoidable. Policy-makers respond to people's notion of fairness in health and create policies that reflect such preferences.

There are many possible interpretations of equity. Some are based on the human rights approach, others on principles of ensuring some sort of distributional equity. Economists have also explored the idea of equity: how it should influence priority setting and, particularly, how it can be measured.

The basis of the economic approach is that resources are scarce and, therefore, use in one area has a consequence for another. When supporting priority setting economists, therefore, always seek to identify and demonstrate the 'best' use of resources, rather than argue that there is a right to a service. Sometimes 'best' is defined in terms of efficiency, at other times in terms of equity, and sometimes in terms of both. Although there are principled differences in these approaches, in practice they can all be used by SRH managers and advocates to argue for increased investment in SRH.

The aim of much of the economic analysis of equity is to assess costs and benefits of different health policies, systems and interventions and define whether the distribution is equitable. The starting point is to distinguish between the equity principles applied to:

- i. how two people with the same health problem should be treated, and
- ii. how two people with different health problems should be treated.

People with the same health problem

Equal treatment for equal needs is often accepted as the ethical basis for doctors' clinical work. It means that people with the same health problem should be treated the same, which is also called 'horizontal equity'. It is often interpreted as ensuring 'equal access for equal need'. This may mean equal access to health services in terms of distance, or equal access in terms of affordability.

The former would require an equal geographic distribution of health facilities, which may not be efficient in remote areas where only a few people live. The latter would require different fees or some income redistribution to ensure that the real costs of using services is evened out between income groups.

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In a broader context, equal access would also imply the removal of cultural barriers to guarantee equal access for different ethnic or religious groups, and for women and men. The principle of 'equal access for equal need' is also prominent in the declaration of the 1994 International Conference on Population and Development (ICPD): people should be equal in opportunity to attain the same level of health, and governments have the duty to guarantee, as much as possible, universal access to health care, including SRH care.

People with different health problems

'Equal access for equal need' might correspond well with people's notion of fairness, but gives little guidance on how to prioritize between different people with different health problems. For example, what is more important: reducing neonatal mortality, or dealing with mental health problems? Society may have different principles on how people with different health problems should be treated:

- (1) *Equal use of resource.* It could be argued that everyone should receive the same level of services or have the same amount of resources spent on them. This would make little sense though, from an efficiency point of view, as health needs and costs differ widely.
- (2) *Equal health.* Alternatively, does everyone have a right to equal health? That is ambitious and possibly misguided. People have very different characteristics, which may determine their health status, and some may look after themselves less well than others. But is it the responsibility of the state to take care of people who voluntarily take large health risks?
- (3) *Fair innings.* This refers to a target age that people are in some way entitled to reach. Health interventions would then be used to enable people to reach that target. The implication, however, may be the spending of large sums of money on people with poor health (for whatever reason) to enable them to live up to the target, whereas no money would be spent on cost-effective treatments to prolong life for people who have passed the target.
- (4) *Treatment according to capacity to benefit.* This considers to what extent people are likely to benefit from an intervention. It is a technical approach and avoids making difficult decisions between social and disease groups. However, this may not be considered fair for people who have less capacity to benefit because, for example, they have more than one condition.
- (5) *Benefit disadvantaged groups.* Societies may want to give preferential treatment in the private sector to disadvantaged populations because they are deemed morally more deserving or needier of public health resources than others. The disadvantaged may include poor people or those with severe health conditions.
- (6) *Age-weighing.* Because of cultural or socio-economic reasons, societies may attach higher values to people between the ages of 20 and 40 years than to the younger and older. This is the basis of age-weighing of DALYs and results in a preference of interventions targeting people in the middle-age category.

In summary, there are many different ways to define equity in health. None of the principles is necessarily better than the others: it depends on societal value judgments.

B2.2 Equity/efficiency trade-offs

For many, the clearest rationale for public spending on SRH is related to equity. Poor people lack the capacity to pay for health services in the private sector and often have a higher risk of disease than rich people. Although in principle many talk of the trade-off between efficiency and equity, in practice the provision of a basic package of SRH care can often be justified from both perspectives.

Governments in many countries are involved in activities that can be hard to justify using efficiency criteria (see Booklet B1). For example, the bulk of public funds may be spent on financing expensive tertiary care public hospitals, which provide curative services that may be used largely by a small group of (well-off) people at relatively high costs. At the same time, many preventive programmes – being public goods or services with high positive externalities beyond the individual accessing them – are under-financed. Also, resources are often concentrated in urban areas, and rural poor people are left with weak, low-quality public services. Thus, the alternative strategy of targeting limited public spending towards cost-effective public goods and goods with large positive externalities, and offering cost-effective services for poor people, can be both efficient and beneficial for poor people.

However, sometimes the equity and efficiency arguments do contradict each other. A common example is provision of SRH services to the poorest of the poor. One perspective on equity is that there should be no discrimination among people as to how much or what kind of care they receive: a principle many people and governments subscribe to. So, if two people have the same nature and severity of a disease or injury, they would get the identical treatment, according to this principle. This would imply that people who live in remote areas, or are otherwise more difficult to reach, have a right to the same access to care as the rest of the population.

However, the provision of care in remote areas can be very costly because of shortage of skilled staff, low utilization of health facilities and high transportation costs, compared to urban areas. For example, the provision of condoms to adolescents in remote areas may cost – per condom distributed – double that in urban areas and, therefore, be less cost-effective (higher costs per person reached). In this situation SRH planners and policy-makers need to consider the importance of equity compared to efficiency. They need to decide whether the priority is to reach the poorest of the poor or to scale up condom distribution rapidly to reach most of the population. This is a difficult choice in real life, upon which many other factors have an influence (politics, overall budget, urgency, social policy, voice of the poor etc).

This dilemma, however, is not necessarily an argument against the use of economic analysis. Very few economists would argue that decisions of this nature should be taken on efficiency grounds alone. However, most would argue that, even in this case, evidence on the burden of disease and cost-effectiveness is useful to help policy-makers assess the extent of the trade-off they are facing.

B2.3 Ways to measure equity

Equity analysis in health is concerned with differences in, for example, access to health or health status between different parts of a population, and it judges the fairness of these differences. The usual distinction is between poor and rich people, but one can also consider differences corresponding to gender or age, or another population characteristic.

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The first step in any equity analysis is the measurement of these population characteristics. Commonly, people are classified according to economic status, which would ideally be based on measures like household income, consumption or expenditure. However, these data are not available in many countries. Instead, a so-called 'asset-index' is often used. This figure represents economic status, and is based on ownership of assets such as a bicycle, radio, or flush toilet.

The second step is to measure the health variable of interest – such as health status or access to health care – for population groups that differ with respect to the characteristic of interest. For example, if the population is categorized according to economic status, it means comparing the health status or access to health care of poor people versus that of rich people. The following measures are most important:

Distributional analysis

This analysis typically categorizes the population into quintiles, with each quintile representing 20 per cent of the whole population. The first quintile consists of the poorest 20 per cent, the second quintile of the second poorest 20 per cent, and so forth with the fifth quintile representing the richest 20 per cent of the population.

For example, distributional analysis has been used in a study on equity of safe motherhood services in Vietnam: it analysed site of delivery by economic status (figure B2.1). Results show that women in the poorer income quintiles are more likely to deliver at home or in private facilities, compared to those in the richer income quintiles.

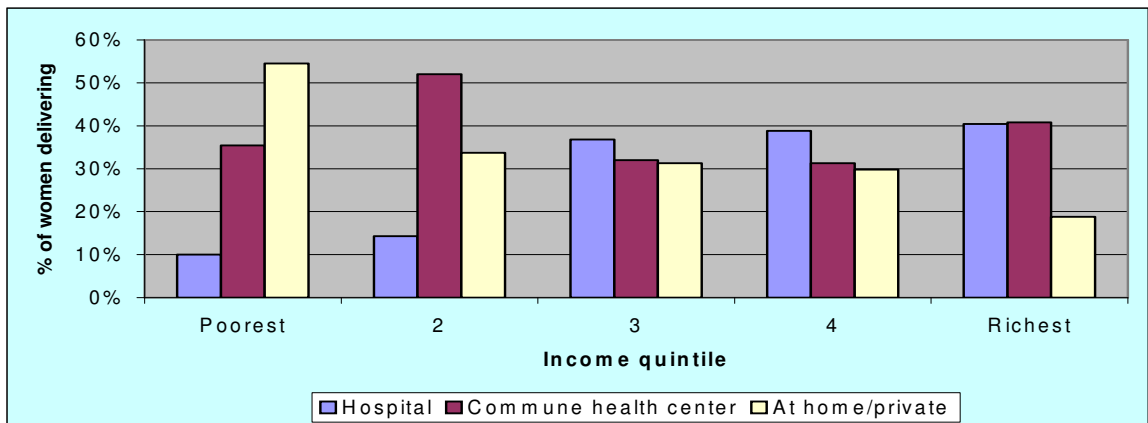


Figure B2.1 Distributional analysis of site of delivery in Vietnam

Source: based on Knowles and Behrman (2000)

Benefit incidence analysis

This analysis describes who benefits most from public health care spending in monetary (financial) terms. For every individual, the monetary benefit of an intervention is determined as its total cost minus the price the individual pays or that the government subsidizes.

By relating an individual's monetary benefit to his or her economic status, we can see in which income group public subsidy is concentrated. This is illustrated in figure B2.2 where the monetary benefit per delivery is given by income quintile. Results show that this distribution is clearly in favour of rich people: the richer quintiles receive more public subsidies than the poorest, mainly because the poorest women deliver at home or in private facilities which do not receive public subsidies.

Figure B2.2 Benefit-incidence analysis of Safe Motherhood services in Vietnam

Source: based on Knowles and Behrman (2000)



Poor/rich ratio analysis

This analysis determines the ratio of, for example, utilization of health care, by the poorest group compared to the richest group. Such a ratio is basically a summary score of the distributional analysis: if the ratio is lower than one, the variable under study is less prevalent among poor people.

For example, the poor/rich ratio for hospital deliveries in Vietnam in 1993 equals 0.25 (0.1 divided by 0.4), which indicates that the poorest women deliver four times less frequently in hospitals than the richest. The poor/rich ratio analysis typically only takes into account the two extreme quintiles and may omit important distributional information from the other quintiles. A **concentration index** has been developed to take into account the whole distribution.

Catastrophic payments analysis

The central hypothesis in this analysis is that payments for health care must not exceed a specified proportion of pre-payment income, or the households would be driven into poverty.¹ The occurrence and size of such catastrophic payments can be determined, as well as the extent to which they are concentrated amongst the poorest segments of the population.

B2.4 Resource allocation to improve equity

The equitable allocation of public and total health care resources to individuals can be improved in many different ways. One way is to remove financial barriers to access of care. Financial barriers can be removed, for example, by pro-poor financing through fee-exemptions. Another way is to give preferential treatment to disadvantaged groups by implementing those interventions that disproportionately benefit unhealthy or poor people.

However, if this option is taken, it is important to first identify the source of inequity. Take the example of an equity analysis that shows that prevalence of STIs is higher among poor people than among rich people. Possible explanations are that poor people take fewer preventive measures than rich people, or that they have less access to treatment once they suffer from an STI, which may be due to geographical, cultural, ethnic or financial barriers. Adequate policy measures can

¹ Murray (2003). HS Performance Assessment, WHO

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only be taken when the source of inequity is identified. If, for example, the price of treatment restricts access for poor people, then price subsidies could be introduced for them. If preventive interventions such as mass media campaigns do not reach poor people because they do not watch television, one may need to think of other ways to reach them, such as by performing informative plays.

Finally, a common finding in equity analyses is that some health districts have larger health care needs than others, because they are more populous or have a less healthy or poorer population. This may constitute a reason for central or provincial governments to allocate more resources to those areas. So-called resource allocation formulae can then be used to determine what resources should be allocated to districts on the basis of characteristics such as population size, health status, poverty, or geography.

Summary

This booklet has described the different ways to define equity in health and, based on these definitions, how economists may measure changes in equity. There are many different forms of equity and correspondingly many different forms of analysis. Finally, this booklet has briefly provided an illustration of some of the ways managers can improve the equitable allocation of resources.