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## **SUPPORT Tools for evidence-informed health Policymaking (STP)**

## 9. Incorporating equity considerations

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### **Abstract**

**Background:** This article is number 9 in a series of 21 articles on tools for evidence-informed health policymaking, addresses consideration of inequities. Inequities, which can be defined as "differences in health which are not only unnecessary and avoidable but, in addition, are considered unfair and unjust", are well documented in relation to social and economic factors. Policies or programmes that are effective can improve the overall health of a population. However, their impact may vary: they may have no impact on inequities, they may reduce inequities or they may exacerbate them, regardless of their overall effects on population health.

**Objectives:** In this article, we suggest four questions that can be considered when assessing the potential impact a policy or programme is likely to have on disadvantaged groups and on equity in a specific setting.

### **Key messages:**

- The following four questions can help to inform judgements about the extent to which
  policies or programmes are likely to reduce inequities and whether alternative health
  system arrangements or implementation strategies may be needed for disadvantaged
  groups or settings in order to do so:
  - 1. Which groups or settings are likely to be disadvantaged in relation to the policies or programmes of interest?
  - 2. Are there plausible reasons for anticipating differences in the relative effectiveness of the policy or programme for disadvantaged groups or settings?
  - 3. Are there likely to be different baseline conditions across groups or settings, so that that the absolute effectiveness would be different and the problem would be more or less important for disadvantaged groups or settings?
  - 4. Are there important considerations that should be given to implementing the policy or programme to ensure that inequities are not increased, and that they are reduced, if possible?
- In general, policymakers should interpret subgroup analyses cautiously, including those analyses that focus on specific disadvantaged groups or settings
- Although many policies or programmes may have similar relative effects in disadvantaged settings and elsewhere, differences in absolute effects (due to differences in baseline risks or needs) and differences in barriers to implementing them, are likely to be common. The evidence for these should be considered and taken into account when making policy decisions

### **Background**

This article is number 9 in a series of 21 articles on tools for evidence-informed health policymaking [1]. It is also the third of six articles in this series about characterising the costs and consequences of potential policy and programme options. In this article we suggest four questions that can be considered when assessing the potential impact a policy or programme is likely to have on disadvantaged populations and on equity in a specific country or setting.

Braveman and Gruskin define equity as "the absence of disparities in health that are systematically associated with social advantage or disadvantage" [2]. Margaret Whitehead emphasises the elements of disadvantage even more clearly by defining equity as: "differences in health which are not only unnecessary and avoidable but, in addition, are considered unfair and unjust" [3].

Inequities in health and healthcare are well documented in relation to a variety of social and economic characteristics. Disadvantaged populations almost always have poorer health [4], poorer access to healthcare [5], and receive poorer quality healthcare [6]. Policies or programmes that are effective can improve the overall health of the population. However, their impact on inequities may vary: they may have no impact on inequities, may reduce inequities, or may exacerbate them regardless of their overall effects on population health. It is therefore not sufficient for policymakers simply to know that a policy or programme is effective. They also need to consider how a policy or programme may impact on inequities and – if it is likely to exacerbate these – how such effects could be ameliorated. Many effective interventions to reduce smoking, for example, are taken up more readily by more advantaged groups, and this can lead to the widening of differences in smoking rates and health inequities, if specific actions are not taken to address this.

### **Questions to consider**

The following questions can guide assessments of the potential impact a policy or programme is likely to have on disadvantaged populations and equity:

- 1. Which groups or settings are likely to be disadvantaged in relation to a policy or programme of interest?
- 2. Are there plausible reasons for anticipating differences in the relative effectiveness of a policy or programme for disadvantaged groups or settings?
- 3. Are there likely to be different baseline conditions across groups or settings, so that that the absolute effectiveness would be different and the problem would be more or less important, for disadvantaged groups or settings?
- 4. Are there important considerations that should be given to implementing a policy or programme to ensure that inequities are not increased, and that they are reduced if possible?

# 1. Which groups or settings are likely to be disadvantaged in relationship to the policy or programme of interest?

Disadvantage may be related to economic status, employment or occupation, education, place of residence, gender, ethnicity, or combinations of these characteristics. Different societies give greater or lesser attention to particular factors due to historical circumstances: for

example, in the United States there is often a greater focus on issues of race, in the United Kingdom on social class, and in other countries, on specific ethnic groups.

However, the relevance of these characteristics may vary depending on the policy or programme of interest. While there may be good reasons for prioritising particular groups or settings generally, it is important to consider inequities in relation to a range of potentially disadvantaged groups or settings for specific policies or programmes. Subsequent attention should focus on those groups or settings for which there is a reason to anticipate differential effects.

Generally, a high index of suspicion for differential effects is warranted whenever there is an association between the mechanism of action of the policy or programme, and particular characteristics (see Box 1 for example). For example:

- **Economic status**: Low-income populations are more likely to be responsive to changes in the prices of goods and services. Because they have less disposable income, tobacco tax increases, for example, would make such populations more likely to quit. However, they would also be made more vulnerable as a result of having to spend more money on tobacco if they did *not* quit smoking
- **Employment or occupation**: Employer-funded insurance schemes may result in differences in coverage, with less coverage being likely for those who are unemployed, self-employed or employed in small companies
- **Education**: School-based programmes would be expected to differentially affect those who attend versus those who do not attend schools. Information campaigns to improve the utilisation of health services might have differential impacts on illiterate or less educated populations
- **Place of residence**: Access to care is commonly more difficult in rural areas. Therefore, any strategy to improve the delivery of effective clinical interventions that does not take account of this is likely to be less effective in rural areas
- **Gender**: Strategies for involving stakeholders may affect women and men differently and may impact on priorities that differentially affect women and men
- Ethnicity: Ethnic groups (e.g. those groups sharing a common and distinctive culture, religion or language) may have beliefs and attitudes that relate to the acceptability of a particular policy or programme. Delivery strategies that did not take this into account would be less effective amongst ethnic groups where an effective policy or programme might not be readily accepted

# 2. Are there plausible reasons for anticipating differences in the relative effectiveness of the policy or programme for disadvantaged groups or settings?

Evidence of the effects of policies or programmes on inequities is sparse and searches are difficult [7]. Tsikata and colleagues, for example, found that only 10% of controlled trials assessed the efficacy of a policy or programme across socioeconomic subgroups [8]. Similarly, Ogilvie and colleagues found that Cochrane reviews of studies of tobacco control rarely assessed the impact of the policy or programme across socioeconomic factors, both in the actual reviews and the primary studies in those reviews [9]. Systematic reviews tend not to provide evidence on differential effectiveness [9-13]. Searches of electronic databases in many fields, particularly for social policies or programmes and more upstream interventions (i.e. those targeted at social determinants of health), may miss relevant evidence [13-15]. Publication bias may also be a problem given that studies that identify statistically significant

differences in effects are more likely to be published than those that do not [16]. Because there is limited direct evidence of the differential effects of policies or programmes across socioeconomic groups, it is generally necessary to search for, and include, a wider scope of evidence to support or refute plausible hypotheses of differential effects, or the effects of policies or programmes on reducing inequities.

Although there are clear arguments for exploring moderator effects in systematic reviews, subgroup analyses can be misleading both because of inadequate power (resulting in false negative conclusions) and multiple testing (resulting in false positive conclusions) [17-21]. The results observed in subgroups may differ by chance from the overall effect identified by the meta-analysis, and the subgroup findings may not be confirmed by subsequent large trials [19, 22]. Paradoxically, the best estimate of the outcome of a policy or programme in a subgroup may be the overall results (across different subgroups) rather than the specific results for the subgroup of interest [19, 23, 24]. General guidelines for interpreting subgroup analyses (see Box 2) can be applied to subgroup analyses based on socioeconomic factors [25].

Thus, while it is always important to consider the likelihood of differential effects in disadvantaged populations, often there will be limited evidence to determine whether there are important differences. It is important, therefore, to be aware of the risk of drawing inappropriate conclusions based on subgroup analyses.

3. Are there likely to be different baseline conditions across groups or settings, so that that the absolute effectiveness would be different and the problem would be more or less important for disadvantaged groups or settings?

If the relative effectiveness of a policy or programme is similar in disadvantaged settings, there may still be important differences in the absolute effect due to differences in baseline conditions (see Box 3 for example). Typically, baseline risks are larger in disadvantaged populations and a larger absolute effect could therefore be expected. For example, if the relative effect of improving the delivery of artemisinin combination therapy (ACT) is the same as the relative effect of reducing mortality from malaria in children, the absolute effect would be greater in disadvantaged populations which have a higher mortality rate. Risks may occasionally be lower in disadvantaged populations and, in these instances, the absolute effect is consequently also less. For example, the baseline risk for coronary artery disease among Filipinos is about 1/5<sup>th</sup> of that in the United States. Therefore the number of people it is necessary to treat (and the corresponding cost) in order to prevent one case of coronary artery disease, is five times greater among Filipinos.

4. Are there important considerations that should be given to implementing a policy or programme to ensure that inequities are not increased, and that they are reduced if possible?

Disadvantaged populations generally have poorer access to care and often receive poorer quality care. Consequently, programmes to improve access and the quality of care will often require implementation strategies tailored to address factors that limit access or quality in disadvantaged settings or groups (see Box 4 for example). Such methods may include different delivery, financial and governance strategies, or the investment of additional

resources and the provision of additional technical support to implement non-tailored strategies.

To monitor the extent to which implementing policies or programmes differentially affect disadvantaged populations, appropriate indicators of social gradients and measures of change are needed. Because the evidence for policies or programmes to reduce inequities is commonly weak, it is important to ensure that the monitoring and evaluations of impacts on equity are as rigorous as possible to ensure that intended effects are achieved and unintended adverse effects avoided.

#### Resources

## Useful documents and further reading

- Improving the use of research evidence in guideline development: 2. Incorporating considerations of equity. Health Res Policy Syst 2006; 4:24. <a href="http://www.health-policy-systems.com/content/4/1/12">http://www.health-policy-systems.com/content/4/1/12</a> This article reviews the literature on incorporating considerations of equity in guidelines and recommendations
- Dans AM, Dans L, Oxman AD, Robinson V, Acuin J, Tugwell P, Dennis R, Kang D.
   Assessing equity in clinical practice guidelines. J Clin Epidemiol. 2007; 60:540-6.
   <a href="http://www.ncbi.nlm.nih.gov/pubmed/17493507">http://www.ncbi.nlm.nih.gov/pubmed/17493507</a> This article discusses criteria for users to evaluate how well clinical practice guidelines address issues of equity
- Braveman PA and Gruskin S. Defining equity in health. J Epidemiol Community Health 2003; 57:254-8. http://jech.bmj.com/cgi/content/full/57/4/254
- Whitehead M. The concepts and principles of equity in health. Int J Health Serv 1992; 22:429-45. http://www.ncbi.nlm.nih.gov/pubmed/1644507
- Tugwell P, de Savigny D, Hawker G, Robinson V. Applying clinical epidemiological methods to health equity: the equity effectiveness loop. BMJ 2006; 332:358-61. http://www.bmj.com/cgi/content/full/332/7537/358

### Links to websites

- Archives of <a href="equidad@listserv.paho.org">equidad@listserv.paho.org</a> This is the archive of the Pan American Health Organization's (PAHO's) EQUIDAD list. Messages sent to the list cover a broad range of material, both in published and grey literature, and address all aspects of equity in health as well as other health systems topics.
- Cochrane Health Equity Field <a href="http://equity.cochrane.org/en/index.html">http://equity.cochrane.org/en/index.html</a> The Cochrane Health Equity Field forms part of the Cochrane Collaboration (<a href="http://www.cochrane.org">www.cochrane.org</a>). It is co-registered with the Campbell Collaboration (<a href="http://www.campbellcollaboration.org">http://www.campbellcollaboration.org</a>) as the Campbell Equity Methods Group. This Field encourages and supports the authors of systematic reviews to include explicit descriptions of the effects of interventions on the disadvantaged and the ability of interventions to reduce inequalities.
- European Portal for Action on Health Equity <a href="http://www.health-inequalities.eu/">http://www.health-inequalities.eu/</a> This portal is a tool to promote health equity amongst different socio-economic groups in the European Union. It provides information on policies and interventions to promote health equity within and between the countries of Europe.
- WHO Commission on Social Determinants of Health <a href="http://www.who.int/social\_determinants/en/">http://www.who.int/social\_determinants/en/</a> The final reports on the WHO Commission on Social Determinants of Health are available here. They are intended to support countries and global health partners to address the social factors leading to ill health and inequities. These reports draw attention to the social determinants of health that are known to be among the worst causes of poor health and inequalities between and within

countries. The determinants include unemployment, unsafe workplaces, urban slums, globalisation and lack of access to health systems.	

## Box 1. An example of a plausible reason for anticipating differences in relative effectiveness

Drug coverage (that is, the coverage of the costs of drugs) is a way of economically securing people's access to important drugs and a way of spreading or diversifying the risk of economic burdens for those needing drugs. Public health and equity motives are often important for establishing drug insurance systems [26].

One downside of drug coverage is the potential danger of so-called 'moral hazard'. That is, the full coverage of drug costs may give patients economic incentives to potentially use more than they would otherwise need. Thus in instances where a third party pays all costs, patients may potentially have higher utilisation rates. By shifting part of the financial burden from insurers to patients, and thus increasing patients' financial responsibilities for prescription drugs, direct cost-share policies are intended to be an incentive deterring: the overall overuse of drugs; the use of drugs of limited efficacy or those used for conditions where other, more cost-effective treatments are available; and the reduction of third party payer expenditures. Patients are expected to respond to direct payments by decreasing drug use (either overall or for drugs of limited value) by shifting to cheaper drugs, or by paying more costs out-of-pocket, and thereby shifting the costs from the insurer to patients. By reducing the financial burden for third party payers and facilitating rational drug use, overall health levels may be improved by saving resources and reallocating them to other healthcare services.

However, a too-restrictive drug insurance policy may have unintended consequences. For example, a shift of cost from insurer to consumer may lead to the discontinuation of necessary drugs by patients and this, in turn, may cause a deterioration of health and increased healthcare utilisation and expenditures for both patients and insurers. This particular unintended effect is likely to be greater amongst low-income or other vulnerable populations for whom these costs may be a more substantial proportion of their total income. Therefore, direct payment by patients for drugs is controversial because increased cost sharing for drugs may present a financial barrier to the poor, or to patients with chronic conditions who are in need of a high volume of pharmaceuticals. Low-income populations may be particularly vulnerable to co-payments because they are also more likely to be sick. Other vulnerable groups can include pregnant women, children and the elderly. Placing a cap on reimbursement for prescriptions, for example, has been found to reduce the use of essential drugs in vulnerable subgroups of both elderly patients and severely disabled patients, and to increase hospitalisations and nursing home admissions [26].

### Box 2. Guidelines for interpreting subgroup analyses

The following questions can help in the process of deciding whether a decision should be based on a subgroup analysis or the overall results.

## Is the magnitude of the difference important?

If the magnitude of a difference between subgroups will not result in different decisions for different subgroups, then the overall results can be used.

### Is the difference between subgroups statistically significant?

To establish whether a policy or programme has a different effect in different situations, the magnitudes of effects in different subgroups should be compared directly with each other. The statistical significance of the results within separate subgroup analyses should *not\_be* compared, as this is likely to be misleading. For example, if a subgroup analysis showed that the effect of a policy or programme was not statistically significant for women but was statistically significant for men, it is likely that this could simply be because few women were included in the studies. It does *not* answer the question of whether the difference between the size of the effect in women and men was greater than would otherwise have been expected if this occurred by chance. If there is an important difference in effects and that difference is statistically significant (i.e. it is unlikely to have occurred by chance), then serious consideration should be given to basing a decision on the subgroup analysis rather than on the overall analysis.

## Is there indirect evidence in support of the findings?

Differences between subgroups should be plausible and supported by other external or indirect evidence, if they are to be convincing. For subgroup analyses for disadvantaged groups, there should be a plausible reason to anticipate differential effects.

### Was the analysis pre-specified or post hoc?

Authors should state whether subgroup analyses were pre-specified or undertaken after the results of the studies had been compiled (post hoc). More reliance may be placed on a subgroup analysis if it was one of a small number of pre-specified analyses. Performing numerous post hoc subgroup analyses could be seen as data dredging, a process that is inherently unreliable given that it is usually possible to find an apparent, but false, explanation for differences in effects when considering many different characteristics.

### Are analyses looking at within-study or between-study relationships?

Differences in subgroups that are observed within studies are more reliable than analyses of subsets of studies. If such within-study relationships are replicated across studies then this will add confidence to the findings.

## Box 3. An example of a difference in baseline conditions leading to a difference in absolute effectiveness

Facility-based births can help to reduce maternal mortality when facilities are appropriately equipped and staffed by skilled health workers who can deliver effective interventions to reduce deaths from the common causes of maternal deaths, such as haemorrhage and eclampsia. Typically, proportions of facility-based births are lower in rural areas than in urban areas due to variations in accessibility. Paying transportation costs to improve access to facilities might reduce inequities. This is due to the fact that such payments are more effective in rural areas where transportation costs would otherwise be more of a barrier, and due to a lower proportion of facility-based births in rural areas (which thus increases the absolute effect).

### Box 4. An example of important considerations regarding implementation

There is a greater likelihood that disadvantaged children rather than more advantaged children will be exposed to health risks, have less resistance to disease and, therefore, have higher mortality rates. These inequities are compounded by reduced access to health services. Even public subsidies for health frequently benefit rich people more than poor people. Implementing interventions to reduce child mortality will not necessarily reduce these inequities and may, in some cases, even increase them. Consideration should thus be given to strategies designed to reduce inequities, such as the improvement of access to water and sanitation for poor people, and making health services more affordable and accessible [27]. These strategies may target poor people or they may target universally. Situations in which targeting or universal coverage might be more appropriate include [27]:

Targeting more likely to be appropriate	Universal coverage more likely to be appropriate
<ul><li>High risk groups easy to identify</li><li>Intervention only needed by children at risk</li></ul>	<ul><li>High risk groups hard to identify</li><li>Intervention needed by everyone</li></ul>
• Intervention only protects those who receive it	• Intervention has a spill-over effect
<ul> <li>Intervention is widely provided through the public sector</li> </ul>	<ul> <li>Intervention is widely provided through the private sector</li> </ul>
• Spontaneous demand for the intervention is low	<ul> <li>Spontaneous demand for the intervention is high</li> </ul>
Health services are unable to cover the whole population	<ul> <li>Health services are able to cover the whole population</li> </ul>

Universal coverage may, for example, be a more appropriate strategy for vaccines, which are needed by everyone and which have spill-over effects (of decreasing the risk of infection for both those who are vaccinated and others). However, in order to also reduce inequities in coverage, additional targeted strategies may be needed such as those that address problems with regard to differences in health service accessibility or to a lack of demand for vaccination in disadvantaged populations.

### References

- 1. Oxman A, Lavis JN, Fretheim A, Lewin S. **SUPPORT Tools for evidence-informed health policymaking (STP). 1. What is evidence-informed policymaking**. Health Res Policy Syst, In Press
- 2. Braveman P, Gruskin S: **Defining equity in health.** *J Epidemiol Community Health* 2003, **57:** 254-258.
- 3. Whitehead M: The concepts and principles of equity and health. Int J Health Serv 1992, 22: 429-445.
- 4. Marmot M: Social determinants of health inequalities. Lancet 2005, 365: 1099-1104.
- 5. Wilkinson R, Marmot M. Social determinants of health. The solid facts. 1998. Copenhagen, World Health Organization.
- 6. Kahn KL, Pearson M, Harrison ER, Rogers WH, Brook RH, Desmond K *et al.*. Analysis of Quality of Care for Patients Who Are Black or Poor in Rural and Urban Settings. 1993. Santa Monica, RAND.
- 7. Howes F, Doyle J, Jackson N, Waters E: Evidence-based public health: The importance of finding 'difficult to locate' public health and health promotion intervention studies for systematic reviews. *J Public Health (Oxf)* 2004, **26:** 101-104.
- 8. Tsikata S, Robinson V, Petticrew M, Kristjansson E, Moher D, McGowan J *et al.*. Is health equity considered in systematic reviews of the Cochrane Collaboration? 2003. Barcelona, 11th Cochrane Colloquium.
- 9. Ogilvie D, Petticrew M: Reducing social inequalities in smoking: can evidence inform policy? A pilot study. *Tob Control* 2004, **13**: 129-131.
- 10. Mackenbach JP: **Tackling inequalities in health: the need for building a systematic evidence base.** *J Epidemiol Community Health* 2003, **57:** 162.
- 11. Gruen R, Bailie R, McDonald E, Weeramanthri T, Knight S. The potential of systematic reviews to identify diversity and inequity in health care interventions. 2003. Barcelona, 11th Cochrane Colloquium.
- 12. Tsikata S, Robinson V, Petticrew M, Kristjansson E, Moher D, McGowan J *et al.*. Do Cochrane systematic reviews contain useful information about health equity? 2003. Barcelona, 11th Cochrane Colloquium.
- 13. Thomson H, Petticrew M, Douglas M: **Health impact assessment of housing improvements:** incorporating research evidence. *J Epidemiol Community Health* 2003, **57:** 11-16.
- 14. Ogilvie D, Hamilton V, Egan M, Petticrew M: Systematic reviews of health effects of social interventions: 1. Finding the evidence: how far should you go? *J Epidemiol Community Health* 2005, **59:** 804-808.
- 15. Thomson H, Petticrew M, Morrison D: **Health effects of housing improvement: systematic review of intervention studies.** *BMJ* 2001, **323:** 187-190.
- 16. Howes F, Doyle J, Jackson N, Waters E: **Evidence-based public health: The importance of finding 'difficult to locate' public health and health promotion intervention studies for systematic reviews.** *J Public Health (Oxf)* 2004, **26:** 101-104.
- Cooper H, Hedges L: The handbook of research synthesis. New York: Russel Sage Foundation; 1994.

- 18. Shadish W: Meta-analysis and the exploration of causal mediating processes: A primer of examples, methods, and issues. *Psychological Methods* 1996, **1:** 47-65.
- 19. Davey SG, Egger M, Phillips AN: **Meta-analysis. Beyond the grand mean?** *BMJ* 1997, **315:** 1610-1614.
- 20. Thompson S: **Why and how sources of heterogeneity should be investigated.** In *Systematic Reviews in Health Care: Meta-analysis in context.* Edited by Egger M, Davey SG, Altman DG. London: BMJ Books; 2001:157-75.
- 21. Alderson P, Green S, Higgins JPT: **Investigating heterogeneity.** In *Cochrane Reviewers' Handbook 4.2.3 [updated November 2004]; Section 4.* Chichester, UK: John Wiley & Sons, Ltd; 2004
- 22. Oxman A, Guyatt G: A consumers guide to subgroup analyses. *Ann Intern Med* 1992, **116:** 78-84.
- 23. Guyatt G, Wyer P, Ioannidis J: **When to believe a subgroup analysis.** In *Users' Guide to the Medical Literature. A Manual for Evidence-Based Clinical Practice*. Edited by Guyatt G, Rennie D, Meade MO, Cook DJ. New York: McGraw Hill; 2008:571-93.
- 24. Efron B, Morris C: Stein's paradox in statistics. Scientific American 1977, 119-27.
- 25. Brookes ST, Whitley E, Peters TJ, Mulheran PA, Egger M, Davey SG: **Subgroup analyses in randomised controlled trials: quantifying the risks of false-positives and false-negatives.** *Health Technol Assess* 2001, **5:** 1-56.
- 26. Austvoll-Dahlgren A, Aaserud M, Vist G, Ramsay C, Oxman AD, Sturm H *et al.*: Pharmaceutical policies: effects of cap and co-payment on rational drug use. *Cochrane Database Syst Rev* 2008, CD007017.
- 27. Victora CG, Wagstaff A, Schellenberg JA, Gwatkin D, Claeson M, Habicht JP: **Applying an equity lens to child health and mortality: more of the same is not enough.** *Lancet* 2003, **362:** 233-241.