

Developing Gender-Sensitive Health Indicators: relevance and practices

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Prepared for the Bureau of Women's Health and Gender Analysis, Health Canada

January 2005

ACKNOWLEDGEMENTS

This paper was commissioned and funded by the Bureau of Women's Health and Gender Analysis (BWHGA), Health Canada. The contribution of Mireille Kantiebo from the BWHGA in setting the context for the work, defining the research questions, and coordinating the review of this paper, is acknowledged.

The contribution of Su Gruszin and Cara Ellickson is also acknowledged as this paper draws substantively from a report on comparative evaluation of indicators for gender equity and health commissioned by the WHO Kobe Centre for which they were key co-authors.

All analyses, interpretations, and viewpoints expressed in this paper are the responsibility of the authors.

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Introduction

Performance indicators have become part of the routine of public policy development and program management since the latter decades of the 20th century. While the use of data (including health indicators) has always been important for public health action, it is in more recent times that health policy discourse has shifted to evidence-based decision-making.

Within this broader context, women's health advocates have argued for improving data collections so that, in the first instance, sex-disaggregated data is available. Such data could then be transformed into appropriate health indicators, which improve decision-makers' understanding of the gendered dimensions of health policy, research, programs, and legislation. The working premise is that indicators are important for raising awareness of issues and improving the evidence base for decision-making. They can help in identifying issues that need to receive priority-attention, at present and for the future. In contributing to better accountability for the health system, indicators also contribute to improving health system performance and responsiveness.

This background paper accepts such premise and seeks to provide an explanation of what gender-sensitive health indicators are and how they might be used. A key issue is that while indicators have been developed to measure 'women's progress' and others have been developed to measure 'health', indicators to measure gender sensitivity in health are limited. Health Canada has stated a commitment to gender equality and gender equity so that all its citizen's 'benefit equally from the same rights and social status'. Part of enabling this is for indicators to be supported by gender-based analyses which would inform the development of policies, programs and legislation (Health Canada 2000).

The paper is organised as follows:

1. What are gender-sensitive indicators?
2. What makes health indicators gender-sensitive?
3. Why use gender-sensitive health indicators?
4. How to use gender-sensitive health indicators to inform research, policy legislation and program development, raise awareness and monitor systems performance.
5. Applications and successes in using gender-sensitive health indicators.
6. Challenges and strategies for the future.

The first three sections serve as a 'primer' for those uninitiated to gender-based health indicators, and the final three sections offer suggestions about how to use gender-sensitive indicators, particularly from a viewpoint of improving health system responsiveness.

1. What are gender-sensitive indicators?

Work on gender-sensitive indicators has been considered globally, by researchers and policy bodies, for over a decade. Beck defines gender sensitive indicators as are those that enable us to identify, examine and monitor ‘gender-related changes in society over time (Beck, 1999b:7). In a discussion on indicators in the biennial report, *Progress of the World’s Women*, the United Nations Development Fund for Women (UNIFEM) define gender-sensitive indicators as those ‘constructed so as to compare the position of women and men at a point in time and over time, and therefore focus on gender gaps’ (ie the gap between men and women, particularly based on their socially constructed roles). Gender sensitive indicators should also facilitate comparison between different groups of women (UNIFEM, 2000). In doing so, such indicators should be able identify whether equity is being achieved and enable us to make judgements about this (Abdool and Vissandjée 2001).

It is worth noting here the difference between equity and equality. Health Canada defines gender equity as the ‘process of being fair to women, men girls and boys’ with the aim of creating ‘equal outcomes’ for all. This includes addressing historic inequities, and realizing that equal treatment can perpetuate rather than reduce inequity. Gender equality, on the other hand, is defined as meaning that ‘women and men, girls and boys enjoy the same status in society...equally realize their full human rights and potential to contribute to national, political, economic, social, personal and cultural development, and to benefit equally from them.’ Consistent with international definitions, fairness - rather than equality of distribution - is the central concept (PAHO/WHO 1999). A related concept is that of ‘vertical equity’ which is the idea that there should be a progressive distribution of resources, such that they are differentially allocated according to different degrees of need (PAHO/WHO 1999:3). Thus, the ‘more needy groups in society should be the ones targeted for preferential treatment’ and ‘greater resources and more services should be made available to these groups’ (Health Systems Trust 2002: 1).

To enable an examination of equality and equity in health, gender sensitive indicators need to include a comparator (or denominator) which is an appropriate norm, reference group, or standard to be used to compare the situation of women, men, girls and boys, or indeed the situation of different groups of women and girls. The presence of such a comparator is one of the defining qualities of a gender-sensitive indicator (Beck 1999b:7). This means that gender-sensitive indicators go beyond ‘gender statistics’ such as ‘ “60% of women in country X are literate, as opposed to 30% five years ago” ’ (Beck 1999b:7) through their inclusion of a pertinent norm, reference group or comparator.

The importance of disaggregating data and comparing the situation of women and men

The importance and the relative absence of disaggregated and precise indicators on the situation of women has been noted by the Committee on the Elimination of Discrimination Against Women. It is highlighted that although data analysis is important in evaluating the status of women’s rights, aggregated data can hide the differences in the realisation of economic and social rights between males and females. For example, in 1985, 60% of the developing world’s adult population was literate; but disaggregating the numbers reveals that 70% of the males were literate while only 49% of the females were literate (Source: Apodaca, 1998).

However, comparing information about women’s status to that of men only may be insufficient. This restricts the focus to areas where comparisons can be made and therefore limits the measurement of women’s progress to areas where men have already achieved ‘success’. This potentially gives an incomplete picture of women’s experiences, goals and

interests (Austen et al 2000). Equally, a full analysis of the situation of women (and men) may also require the use of sex-specific indicators because some conditions (such as maternal mortality) are only experienced by one sex, and because it is important to know about absolute levels of achievement as well as gender gaps (UNIFEM 2000).

Examples of gender-sensitive indicators

UNIFEM (2000:62) shows different ways of comparing the position of men and women:

- Female share of a total (when it is evident that the total comprises the female share and the male share): 50% indicates gender equality (Example: Women's share of seats in legislative bodies.)
- Ratio between a female and a male characteristic: 1 indicates gender equality. Example: The ratio between girls' and boys' school enrolment rates.
- Female characteristic as percentage of male characteristic: 100% indicates gender equality. Example: Average female weekly earnings as percentage of male weekly earnings.
- Difference between the female characteristic and the male characteristic: 0 indicates gender equality. Example: Average number of hours women spend on housework minus average number of hours men spend on housework

Beck (1999b) has been instrumental in developing concepts around the development and use of gender sensitive indicators for use at the national level. These are as applicable to health indicators as they are to other social indicators. The key features of gender sensitive indicators as described by Beck are:

1. That gender sensitive indicators should involve **comparison to a norm**, for example the situation of men in the same country or the situation of women in another country, to focus on questions of gender equality and equity rather than only on the status of women.
2. That **data should be disaggregated** by sex, and wherever possible, national level indicators should also be disaggregated by age, socio-economic grouping, and national and/or regional origin. In addition, the time period, geographical coverage and data sources should be noted. This kind of information will assist in informing a broader analysis of the social forces within a society which have brought about the particular status of women and men in that society. This suggestion is supported for gender sensitive indicators at the national level by Abdool et al. (2001:1) in their inventory titled *Towards Gender-sensitive Health Indicators*. They recommend that important markers for gender sensitive indicators are disaggregation of data by sex and also by age, socioeconomic status, country of origin (including the length of time spent in that country), geographical coverage, ethnic group and racial group.

In addition, there are a range of methodological issues that should also be considered when using gender sensitive indicators. For example, biases (based, for example, on longstanding cultural norms about the roles of men and women) are easily introduced into the design of indicators and associated data collection processes. Consequently, a number of authors, including Beck (1999b) emphasise the importance of ensuring that those involved in these processes participate in appropriate gender sensitivity training. The same argument could be made in relation to any other determinant, such as culture, level of ability, sexuality and so on.

A set of criteria have been developed by Beck (1999) and Beck and Stelcner (1997) to address such methodological issues for indicators at the national level, however, they equally apply to

indicators used at other levels. These criteria appear to be well supported by other authors and address many of the issues identified by others with respect to gender sensitive indicators (for example, Abdool and Vissandjée 2001, Lin et al 2003), and the key criteria are:

1. That data should be easy to use and understand. Indicators should be phrased in easily understandable language, and should be developed at a level relevant to the institutional capabilities of the country concerned.
2. That indicators should be available for the whole country (or locality in which they are to be used).
3. That data should be relatively reliable and that while no data is absolutely reliable, reliability checks should be carried out. For example, findings from censuses should be compared to findings from micro-level studies for accuracy.
4. That indicators should be about something measurable and ideally something where intervention, prevention or improvement lead to change. Concepts such as 'women's empowerment' or 'gender equity' may be difficult to define and measure. In this case proxy indicators, for example relating to greater choice for women in accessing health care or education, may have to stand as proxies for the less precise concepts.
5. Gender-sensitive indicators should be reliable enough to use as a time series. The time span which the indicator covers should be clearly specified.
6. Gender-sensitive indicators should be collected using internationally accepted definitions. While these definitions are sometimes imprecise, they are usually the best terms available and allow for international comparison.
7. The indicator should, where feasible, measure the outcome or impact of a situation rather than the input. For example, women's literacy is often a better measure of women's educational status than female enrolment rates. Similarly, female mortality rates are a better measure of women's health status than access to health facilities.
8. Indicators should be used and developed in as participatory a process as possible so that they provide information about issues that are relevant to women (as well as policy makers), reflect women's understanding of the progress of their lives, and reflect the diversity of experiences of women in the community. This might involve setting up inter-departmental government committees, holding focus group meetings with the public, eliciting public opinion from women and men wherever possible and ensuring participation, particularly of poor and marginalised women.
9. A complementary gender based analysis component is necessary for the indicator interpretation process. Suggested strategies for achieving this include developing a set of questions to encourage a gender based analysis for all indicators (Beck 1999b) or to supplement indicators with an historical and socio-cultural analysis (Weiringa 1999). This criterion is included in recognition that indicators generally 'point to key questions rather than provide answers' (Beck 1999b: 9) and do not provide information on broader social patterns and context, the reasons gender relations have been shaped in particular ways, and how these relations could be altered.

There are also warnings about the use of some indicators that apparently suggest progress, but in fact may represent a situation that does not contribute to the improvement of the position of women, or to improving health and may even represent a restriction of women's human

rights. For example: conventional economic indicators may suggest progress in that more and more women may be entering into paid work and there may be increasing efficiency. However, there may also be an increasing transfer of real costs (in women's time and effort) from the public domain to households where the costs are not counted (UNIFEM 2000).

2. What makes health indicators gender-sensitive?

Health indicators can be described as ‘statistics or parameters that provide, over time, information on trends and changes in the condition and status of health’ (Tudiver, Kantiebo et al 2004). This section includes a brief outline of issues associated with the gender sensitivity of existing health indicators followed by a discussion of how indicators for health can be made gender sensitive. Different types of indicators that may be useful for tracking gender equity in health are also described.

2.1. Issues with existing health indicators

The frameworks and theoretical constructs used to understand health will critically influence the indicators developed, as will assumptions about men, women and their roles. Traditionally, the use of a bio-medical approach combined with particular assumptions about women has resulted in a number of limitations to existing indicators for health. These include that many health indicators focus on illness/disease rather than on health and well-being (Eckermann 2000; Nayar 2002; Abdool and Vissandjee 2000) and/or assume gender neutrality (Abdool and Vissandjee 2000; Eckermann 2000). The reporting of these indicators seldom provides information on a sex-disaggregated basis, even when the original data collection makes such a differentiation (Licuanan 1999; Danner et al 1999). The health indicators that are reported in relation to women tend to focus on their reproductive health status, access to reproductive health services and reproductive years (Nayar 2002; Malhotra and Mehra 1999; Eckermann 2000; Pittman and Hartigan, 1996), while few indicators are reported specifically in relation to younger women, older women and men (World Health Organization 1997; United Nations Statistics Division 2000; Baunach and Michelle 2001; Lin et al 2003).

In addition, some authors argue that lack of participation of women and communities in indicator development has resulted in indicators which may not measure aspects of health, equity and progress relevant to women themselves (Austen et al., 2000; Beck, 1999b). Similarly, a focus on patterns of disease and health outcomes has resulted in limited indicators which reflect broader concepts of health, health seeking behaviours and positive strategies for achieving health (AbouZahr and Vaughn 2000; Tudiver, Kantiebo et al 2004).

The Canadian Women’s Health Surveillance Report (Tudiver, Kantiebo et al 2004:3) point to the need for review:

‘Traditional health indicators, based exclusively on sex-disaggregated data, do not adequately reflect the interrelations between biological processes, social roles, socio-economic context, the health care system and health outcomes...the challenge is to develop indicators that reflect the complex interconnections among health determinants and health outcomes including key differences in health and well-being between women and men, boys and girls.’

These critiques point to the need to develop frameworks for health indicators that:

1. Take into account the broad determinants of health;
2. Include gender as a central component for analysis, rather than adding it in when it is of particular interest to an organisation or group (Abdool and Vissandjee 2001);

3. Do not only focus on health outcomes, but also the social and economic processes which influence health and well-being (Coleman 2003; Tudiver, Kantiebo et al, 2004);
4. Are sensitive enough to detect gender differences in health experiences (Tilley 1996); and
5. Enable consideration of equity (and not only equality) in the analysis of health system performance and include measures for issues of importance to women (such as the relational aspects of health care as well as the technical aspects of care).

It should be noted, however, that the critique of existing health indicators does not point to the need to develop new data collection and surveillance systems. Rather the challenge is how to modify current health information systems to ensure that they can adequately reflect gender equity issues, if not other equity concerns.

2.2 Making health indicators gender sensitive

There are three key domains discussed in the literature in relation to making health indicators gender sensitive. These are:

1. Conceptual issues about both the theoretical concepts used to understand health and illness, and to describe gender relations within the household, community, workplace, and the economy. The purpose for which indicators will be used should also be considered.
2. Technical issues associated with indicator and data definition, data collection, basing indicator development on the availability of existing data rather than constructing new structures to build gender sensitive indicators.
3. Processes for developing and using indicators.

Making health indicators gender sensitive will, ideally, involve: (1) identifying an appropriate conceptual framework for understanding health which both links health determinants and health outcomes and includes gender as a central component; and (2) applying the lessons about gender sensitive indicators outlined in Section 1 above to the development and use of indicators to the extent possible (that is, both the technical and process aspects of indicator development).

The key points in the literature can be summarised as in the table below.

Table 1: Comparison of approaches to developing gender-sensitive indicators

Author/s	Beck, 1999; Beck and Stelcner, 1997	Abdool and Vissandjee, 2001	Coleman, 2003
Conceptual issues	Consider the way that traditional understandings of gender can influence indicator development and the collection of relevant data. Develop strategies to reduce this such as gender sensitive training for all involved in the process.	Identify conceptual framework for understanding health (with gender as a central component). Abdool and Vissandjee, 2001. Authors identify 14 different conceptual frameworks used for women's health, many of which assume gender neutrality. Emphasise that while many of the social determinants of health will be the same for women and men, when these determinants are observed through their interaction with gender, differences appear. Must understand the factors constituting gender relations and gender inequalities to inform indicator development.	There are interactions between determinants of health and while the nature of the specific interactions may not yet be known it is important to recognise that there may be synergies between them and undertake analyses that do not view each determinant as a single factor. Social exclusion tends to be associated with a cluster of social and economic disadvantages that 'create a negative feedback loop' which results in a 'psycho-social syndrome that undermines self-esteem and excludes particular groups from society'. Consequently it is important to undertake analyses that 'point to systemic and mutually reinforcing biases that may adversely affect health and produce high social costs.'
Technical issues	Include comparison to an appropriate norm or reference group (for example, men).	Indicators should measure status of women against some normative standard or reference group (for example, men).	
	Disaggregate data by sex Where possible disaggregate data by other determinants such as age, socio-economic grouping, national or regional grouping. Note time period, geographical coverage and data sources	Disaggregate data by sex Disaggregate data by age, socioeconomic status, country of origin, geographical coverage, ethnic group, racial group.	Diversity between women will influence women's health and their interactions with the health system and therefore any analysis should be 'overlaid with a diversity analysis that considers factors such as race, ethnicity, level of ability and sexual orientation.' (Health Canada 2000)
	Data should be easy to use and understand. Indicators should be phrased in easily understandable language. Indicators should be developed at a level relevant to the institutional capabilities of the country concerned.	Supports Beck	
	Indicators should be available for the whole country (or locality in which they are to be used).	Supports Beck	
	Data should be relatively reliable. Reliability checks should be carried out.	All indicators contain a degree of imperfection and theories of validity and reliability are generally used to inform consensus about acceptable degrees of imperfection. However, it is important to apply a gender lens to these discussions to ensure indicators are applicable to women's health.	

Author/s	Beck, 1999; Beck and Stelcner, 1997	Abdool and Vissandjee, 2001	Coleman, 2003
Technical issues cont.	Indicators should be about something measurable. Ideally they should be about something where intervention, prevention or improvement will lead to change. Proxy indicators may need to be used for issues that are difficult to define and measure.	Health status indicators represent measurable pointers to directly unmeasurable phenomenon and any one indicator cannot fully reflect complex phenomena. For example, mortality is only one measure of population health and represents only part of the picture. Indicators should measure something where intervention, prevention or improvement lead to change.	Indicators must be useful for informing policy and action.
	Indicators should be reliable enough to use as a time series. The time span which the indicator covers should be clearly specified	Indicators should be able to measure changes in women's status and roles over time to identify whether equity is being achieved.	
	Indicators should be collected using internationally accepted definitions (where possible).	Supports Beck	
	Indicators should, where feasible, measure the outcome or impact of a situation rather than the input.	Supports Beck	
Processes for developing indicators	Indicators should be used and developed using a participatory process so that they provide information about issues that are relevant to women and reflect the diversity of experiences of women in the community.	Biases of surveyors and indicator developers are often reflected in the development of indicators. Indicators often do not reflect the realities of women's situation (for example, do not measure women's unpaid work). Involve women in identifying priorities to address different types of inequalities (women: men; women: women from different groups; women: healthcare providers). Select indicators that have a significant impact on women's quality of life, functioning and well-being; impact on a large number of women, or women from a particular group.	
	A complementary gender based analysis component is necessary for the indicator interpretation process.	Indicators are not adequate for informing policy development as they do not capture women's experiences well enough. Use qualitative and quantitative methods to measure gender-related changes over time. Supplement indicators with a gender analysis	

It should be noted that the selection of indicators for use may change as the evidence base in medicine and gender studies change. For instance, mortality rate due to cardiovascular disease may have once been thought to be gender-neutral. Research on biological and social determinants now suggest there are sex differences as well as gender differences in relation to

morbidity and mortality. Lin et al (2003) report that, internationally, there are few gender-sensitive health systems performance indicators and this may be due to few large-scale studies that examine health system access, quality, and effectiveness as they affect men and women.

2.3 Types of indicators to consider for tracking gender equity in health

Different types of indicators have been identified as being potentially valuable for tracking gender equity in health. While many of these indicator types are not well developed they may be useful in the future (Lin et al 2003). All of the lessons outlined in Section 2.2 will be relevant to these indicator types.

- Process indicators which measure the implementation of changes in care delivery, or preventive interventions; or indicators that are intermediate between policy decisions to implement programs and consequent results such as health outcomes. Process indicators could also be used to study gendering mechanisms, or the ‘upstream’ determinants of the gendering process (see bullet 4 below).
- Causality, risk and protective factor indicators to link outcomes measured by indicators with the causes of those effects. An example would be indicators that enable understanding of gender differences in lifestyle which expose men and women differently to various risk factors, in addition to the outcome indicators of mortality rates (Drengsted-Nielsen and Luige 2002), or indicators of barriers, such as privatisation of health services resulting in reduced accessibility and affordability of health care (Licuanan 1999).
- Lifecourse indicators which could track the relationships between cumulative effects over time to longer term outcomes such as longevity and life expectancy. Such an approach would also facilitate an understanding of the differences in health and health needs between men and women as they age (Baume et al 2000), the development of indicators relevant to the lives of children (Baunach and Michelle 2000), and the links between childhood experiences and longer term outcomes (Coleman 2003).
- Indicators on gendering mechanisms and processes that capture information on the way that gendering mechanisms work to produce and reproduce gendered roles.
- Indicators on empowerment and transformative achievement which triangulate qualitatively different indicators within a described context to provide a more complex approximation of real situations. For example, Kabeer (1999) identifies the existence of indicators that could indicate ‘*transformative achievement*’ (relating to *empowerment*). Kabeer states that information on three dimensions of empowerment: *resources*, *agency*, and *achievements*, is needed to establish the meaning of an indicator, including the extent to which achievement transforms existing inequalities (for instance, she suggests that women’s ability to access pre-natal health care may be more indicative of transformative agency than child survival or immunisation) (Kabeer 1999:450-451).
- Indicators with a specific use as alerts or early warnings of future trouble. Such indicators could include increased inequality in income, highly gendered poverty, increasing civil strife, which all suggest societies in trouble. The challenge would be to develop the forward reporting and monitoring of such indicators as well as methods to tackle problems early.

- Leading health indicators which could be used to point to underlying issues that are common for a range of health problems (eg upstream determinants of health); suggest current issues that require priority attention; and act as alerts or early warning for future problems and be predictive of other problems.

3. Why use gender-sensitive health indicators?

Gender as a determinant of health is well recognised (including by Health Canada 2003) and many authors have argued for consideration of the social, structural, and power relationships that shape the lives of women and men in relation to health (for example, see Coleman 2003; Standing 1997; Beck 1999b). Similarly, arguments have been made about the importance of reducing health inequities created through ‘*avoidable* disparities in health and its determinants, between groups of people who have different levels of underlying social advantage’” (Braveman 1998, cited in Gomez 2000:2, original *emphasis*).

A simple example of how gender inequities can occur in relation to the provision of health care is provided in the box below.

Gender inequity in the provision of health care

Failing to take gender differences into account can result in inequity in relation to health care provision when:

- Equal treatment is provided for men and women when their gender needs are different;
- Different treatment is provided for men and women when the need is not different; and
- When care is provided in a way that reinforces gender stereotypes which have an impact on health and reinforce gender inequality.

Similar arguments could easily be made in relation to a range of other determinants such as ethnicity, race, level of ability, age and so on.

Source: Hartigan, (2001).

The development of gender sensitive health policy and programs has been identified by Health Canada as being important for three main reasons. These are (1) women have distinct health profiles and needs and that the health system should become responsive to women’s health issues (2) to ensure equality of treatment for women and removal of biases; and (3) to ensure policies and practices are appropriately targeted and represent the most effective use of resources (Health Canada cited by Coleman 2003). Gender sensitive health indicators contribute to gender based analysis of health issues, and therefore to policy and program development.

The key reason then, for using gender sensitive health indicators is to provide a rigorous information base for policy actions that can improve health outcomes (Coleman, 2003) and reduce unjust health inequities that are a result of the social construction of gender (PAHO WHO undated:1). This will require the development of indicators that assist us to understand the pathways between inequity and disease so that effective interventions can be designed to operate at the ‘optimal points in these processes and pathways (where they) can interrupt and reverse the potential for disease onset’, represent good return on investment and do not cause harm to some groups while assisting others (Coleman 2003).

The development and use of appropriate gender sensitive indicators to monitor equity/inequity trends in health status and healthcare access and utilisation can support policy by answering the key questions: ‘Is the gap in health status improving or worsening over time?’ and ‘How are policies and interventions working to narrow the gap?’ (Evans et al. 2001:5).

To foster gender-based analysis of mainstream health system, it is necessary to ensure mainstream health indicators are gender sensitive. Significant work has been done on the development of health information frameworks to enable ordering of a plethora of indicators that relate to health and its determinants. Recent work by Lin et al (2003) builds on, and add a gendered dimension to, the mainstream health information framework (developed by Canada and adapted by Australia, OECD and ISO) to ensure explicit consideration be given to gender equity in health. This framework has four tiers: (1) health status; (2) determinants of health; (3) health system performance; (4) community and health and welfare system characteristics. This framework can be populated with indicators used by various agencies and help clarify which issues need to be monitored.

Such information frameworks do not replace conceptual frameworks for gender equity and health, as causal pathways are not tracked between ‘tiers’ (and often equity is assumed to be included but in fact is not incorporated). There is a need for the construction of sets or inventories of gender sensitive indicators in order to point to the social, structural and power relationships that shape the lives of women and men and track the relationships between these determinants and health outcomes. This may require the use of indicator sets that go beyond those ‘normally included in inventories of population health indicators’ (Coleman 2003:228).

In relation to women’s health, work by Coleman (2003) and the authors of the Women’s Health Surveillance Report (Health Canada, 2003) does illustrate how data from a range of sources can be analysed from a range of perspectives to produce useful information for gender and diversity sensitive policy and program development.

Use of data and indicators to describe the situation of women living in Canada

Women **with low levels of education, income and control over their work environment** are at higher risk of heart disease than other women. These women are also more likely to smoke, be sedentary and obese. Women from ‘visible’ minority groups, such as South-Asian women and Black women are also at higher risk (Heart and Stroke Foundation of Canada, cited in Coleman, 2003:xv)

People living in **Cape Breton** have some of the highest rates of unemployment, long term unemployment, out migration, and dependence on government transfers as well as low average incomes when compared to others living in Canada. People living in Cape Breton also spend more years living with disabilities than others in Canada. ‘From the perspective of social exclusion/inclusion analysis, it may be understandable that Cape Bretoners have depression rates 40% in excess of the national average and frequently feel “excluded” neglected, and alienated from policies emanating from Halifax and Ottawa’. (Shields et al cited in Coleman, 2003:xvi).

Canadian **Aboriginal peoples** tend to have higher rates of poverty, unemployment, poor housing and low educational attainment than non-Aboriginal people, and also have higher rates of certain diseases, including those that are preventable. Aboriginal women: have a lower life expectancy than non-Aboriginal women; experience higher rates of a range of health conditions such as circulatory problems, respiratory problems, diabetes, HIV/AIDs; experience higher mortality due to violence; are often victims of alcohol or other substance related family dysfunction; and have higher suicide rates (Coleman, 2003: 126-127).

In all age groups except between 15-19, men smoke more than women. In this age group the **rates of smoking** have gone down for males (since 1996), but have remained the same for females who now smoke more than their male counterparts. The main reasons these young women give for smoking are stress and weight loss. Understanding this can result the development of interventions appropriate to young women.

Coleman (2003) also offers an analysis of how a range of social, economic and environmental determinants come together to impact on health in Canada and provides information about how understanding some of these factors could point to effective interventions. An example based on his analysis of income as a determinant of health in Canada is summarised below.

(Please refer to the original document for more in-depth information about the indicators used, the actual statistics and relevant references.)

Table 2: Income as a determinant of health

Determinant	Relevance	Gender analysis	Diversity analysis	Conclusion
Income	<p>Income is a key determinant of health. Poverty is a reliable predictor of poor health and people on low incomes are more likely to have poor health status and die earlier than others.</p> <p>Health care utilisation is higher for low income groups</p> <p>Children born to low income parents are more likely to have low birth weights, poor health, and a range of other conditions.</p>	<p>Women have higher rates of low income than men</p> <p>Low income women between 25-39 were 62% more likely to be hospitalised, and those between 40-64 were 90% more likely to be hospitalised than those on higher incomes.</p>	<p>Unattached elderly women, employed single mothers and particularly unemployed single mothers are all at particular risk.</p> <p>Single mothers have worse health status than those in two parent families and report more chronic illness, disability days, and activity restrictions.</p>	<p>‘Since socio-economic status is modifiable, the poorer health outcomes and excess use of health care services by low-income women is as avoidable as that incurred through unhealthy lifestyles. Improving the status of lower socioeconomic groups and closing the income gap between rich and poor can therefore lead to improved health outcomes for disadvantaged women, and substantial cost savings to the health care system. For that reason, declines in low-income rates and improvements in equality are key indicators of women’s health.’</p>
Income distribution	<p>May be a more important determinant of population health than the total amount of income earned.</p> <p>Inequalities in health have grown in line with inequalities in income.</p> <p>Equity may be as important for women’s health as absolute levels of income</p>	<p>Women have been subject to a wide range of inequities. For example, while there has been increasing parity in education between women and men, women still earn only 81c per \$1 earned by men, and only half of this gap can be attributed to work related factors.</p>		

Similarly, the recent Canadian Women’s Health Surveillance Report (Health Canada, 2003b) is an excellent illustration of the distinct patterning of women’s health experiences across different geographical locations, for different health issues, across the lifespan, and reflecting differing socioeconomic positions. This report also illustrates how this data can be used to inform policy and programming as well as highlighting additional data collection required to improve policy and program development. Selected examples are presented in the box below.

The patterning of women's health in Canada: How data can be used to shape health policy and programming

Examples of the determinants of women's health in Canada extracted from the Women's Health Surveillance Report (Health Canada 2003b)

Physical activity and obesity.

Physical inactivity is one of the key risk factors for obesity. More women are physically inactive than men with the gap being largest in younger and older age groups. Physical inactivity is higher amongst groups with low incomes and lower levels of education, and also varies with ethnicity. Black women and South Asian women tend to have lower levels of physical activity. The prevalence of obesity amongst women increases with age until 59 after which it decreases, and is highest amongst women in low and lower-middle income groups. Aboriginal women have the highest levels of obesity. These data point to the need to consider not only how health promotion programs might be targeted but also how the socioeconomic circumstances and gender roles might affect the design and delivery of such programs and require different intervention approaches.

Body weight and body image.

Compared to men, women generally have lower BMIs, are less likely to be overweight and more likely to be underweight, however, women are also less likely to be satisfied with their bodies. More women are inactive than men, particularly those with BMIs above 27.

Recommendations include: making weight prejudice unacceptable; encouraging positive body image and valuing diversity of bodies; acknowledgement of body image 'disparagement', chronic dieting and exercise to improve appearance as 'vehicles of oppression for women'; encouraging development of healthy lifestyles; encouragement of physical activities in which mothers can participate; and research on effective ways for women to become physically active without a focus on weight control or appearance.

Multiple roles and women's mental health in Canada.

Surveillance data indicated that single mothers are more likely than partnered mothers to be poor, experience financial stress, food insecurity, and high personal and chronic stress (with those who were unemployed experiencing higher levels of personal and chronic stress). Both single and partnered women with children reported more stress than women without children. There was a relatively high percentage of unemployed mothers living in the Atlantic provinces and Quebec and there is a high percentage of unemployed single mothers in younger age groups.

Policy recommendations were made about: labour force policies and policies to support family life that recognise both women's paid and unpaid work; expansion of child care and economic subsidies to lone mothers; development of employment strategies for lone mothers; and educational programs for health professionals to increase their understandings of the impact on women's mental health of multiple roles.

Additional data was required about the characteristics of women's work, care-giving responsibilities, household composition, the 'quality' of their domestic roles and on other factors such as ethnicity, race, sexuality and so on.

Personal Health Practices.

Women in western Canada are most likely to engage in multiple health-promoting practices with women in Quebec least likely to do so. Women from Ontario are more likely to engage in risky health practices. Women with high incomes and women with high levels of education are more likely to engage in health promotion practices and less likely to engage in risky health practices. Women aged 20-44 are also more likely to report poor health practices and married women are less likely to report multiple risky practices. Immigrant women are less likely to engage in either multiple health promoting or health risk practices. There were discrepancies between women's self rated health and their health practices.

Recommendations for policy and programming included: development of more sensitive indicators about other potential influences on women's health including political participation, economic autonomy, employment, earnings and reproductive rights; tools to obtain more data on factors that affect women's health practices and perceptions of health; and data collection from specific areas of Canada where there is little information about health practices.

In summary, the key reason for using gender sensitive indicators (and associated research on women's health) is to provide a rigorous information base for policy actions that can improve health outcomes.

4. How to use gender-sensitive health indicators to inform research, policy, legislation and program development, raise awareness and monitor systems performance

There are a number of key issues to consider when using indicators to inform research, policy, legislation and program development, raise awareness and monitor systems performance. These include:

1. Consideration of the types of decisions that have to be made and who makes them;
2. That indicators are only one input;
3. That indicators need to lead to or link with gender based analysis;
4. That indicators have to engage the broader community; and
5. That the focus should be on indicators that promote action.

To achieve the intended purposes for gender-sensitive health indicators to inform research, policy, legislation and program development, to raise awareness, and to monitor system performance, there is a need to strengthen capacity at all levels to implement systems for monitoring gender equity in health. This involves having the right data, having quality data, and having a social process to review the data.

The value of good quality and conceptually sound indicators is limited if there is not an appropriate monitoring system for examining gender-sensitive indicators. Such a system requires not only adequate infrastructure for collection and collation of valid and reliable data but also a participatory process through which the meaning/s of indicators are reviewed, implications for action are distilled, and decisions are taken to effect greater equity. Such an ongoing system of monitoring will also contribute to the identification of emerging issues that need to be researched or acted upon. The most cost-effective system would be to build on (ie “genderize”) existing infrastructure for data collection and analysis, as well as link in with mainstream policy and management decision-making.

4.1 Consideration of the types of decisions that have to be made and who makes them

It is common that a suite of indicators are chosen for monitoring purposes, rather than single indicators. The purposes for which indicators are to be used will influence the type of indicators that are most relevant. The conceptual framework used for understanding health and illness will also shape how suites of indicators are chosen. Additionally, different types of indicators can be used for different purposes. In particular, different types of indicators can be used to identify both the circumstances associated with equity/equality, progress towards achieving equity/equality and outcomes.

The choice of indicator may also depend on the level at which the indicator will be used. Some indicators which are appropriate at a local or community level are difficult to aggregate up to national, regional or international levels, raising the issue of how best to organise indicators at differing levels to inter-connect in a meaningful way which can lead to action to make improvements. UNIFEM’s *Progress of the World’s Women* (2000) suggests that ‘[w]omen will want to make assessments at different levels of aggregation and in different contexts’ – at the local level, at the national level, at the regional level and at the global level (2000:63). This might mean that different indicators are required for different levels of

activity and ideally that women – as the ‘affected community’ - should be involved in determining the indicators that will be most meaningful for a particular level.

It is important to recognise, however, that different levels of decision-making (and different decision-makers) are attempting to solve different problems. Thus, the evidence required by, or given to, must be appropriate to the problems with which they are concerned. The following table illustrates the types of evidence that interest decision-makers at different levels.

Table 3: Matching evidence to decision-making

LEVEL	DECISION FOCUS	MAIN CONCERNS	EVIDENCE REQUIRED
National or provincial government	Policy	Most efficient means in accordance with community values	Distributional impact, costs, potential harm, and benefits of current and proposed policies; community values
Region/ community	Regional plan; community development	Efficient and effective means to achieve shared social ends	Health needs, community values, resource use and impact across programs
Service/ organisation	Program development, institutional priorities	Efficient means to meet institutional interests	Institutional client base, expertise needed, program costs and outputs

Source: Adapted from Butcher 1998.

At each level there should be a logical framework to inform indicator selection. A simple framework for thinking about what data collection and indicators might be relevant to policy and program development and implementation could be based on a basic planning and evaluation process, as outlined in the table below.

Table 4: A planning and evaluation framework for selecting indicators

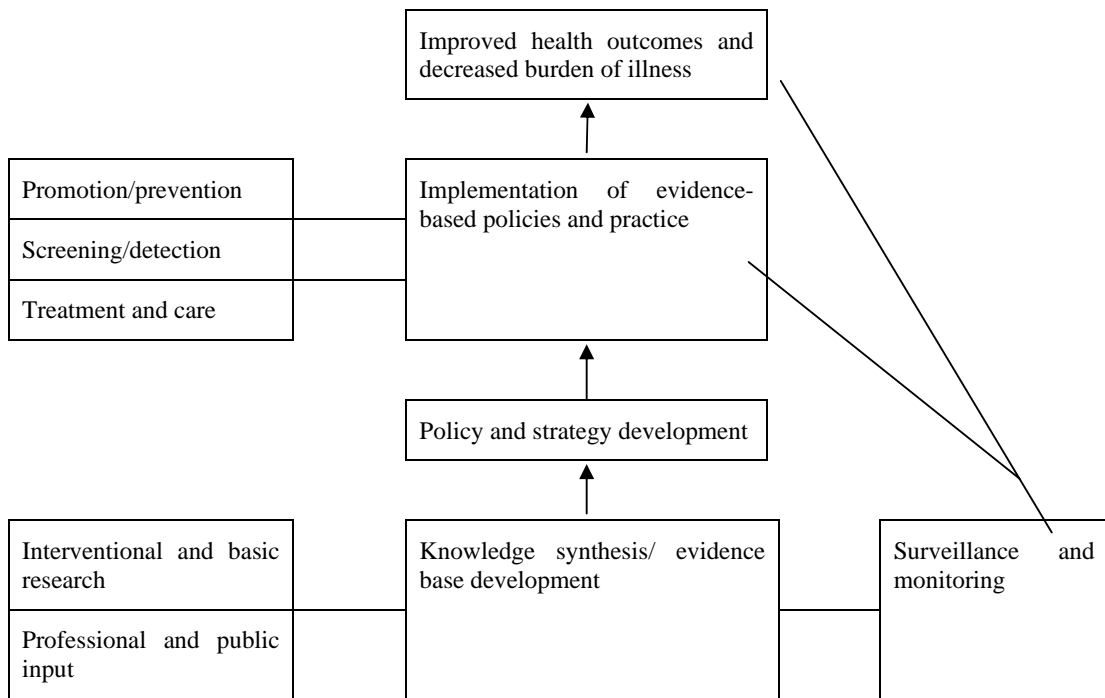
	Need/ issue	Goal/ required outcome	Objective/ required impact	Processes/ activity	Inputs
Key Questions	What is the need or issue to be addressed What are the factors that produce this need/ issue?	What do we want to change in the longer term? How will we know if/ when we have achieved this? At what level (local, state, national) do we need to measure change?	What are the medium term changes (for example in health-related behaviour, environment, or exposure to risk) that we think will result in the longer term changes identified? Are we heading in the right direction?	What activities/ processes (policies, programs, projects) will we need to undertake to achieve the changes we are aiming for?	What resources will we need to do these activities?
Data/ indicators required	Data and indicators for monitoring so that needs/ issues can be accurately identified to the level of specificity required to inform	Data and indicators required to monitor longer term outcomes, such as health	Data and indicators required to monitor intermediate changes.	Data and indicators required to monitor the <u>quality</u> of the process.	Information about inputs should be recorded.

	effective action.	outcomes.			
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4.2 Indicators are only one input

Indicators can be used for all aspects of a policy cycle – from identification of problem, to setting policy objectives, to implementing policy and evaluating policy outcomes but it is important to recognise that policy, program, and legislative process do not rely on indicators alone. The following figure shows that the surveillance and monitoring activities are only one input into evidence-based decision-making. Research, professional judgment, and community opinions are all legitimate inputs into forming the knowledge base for decision-making – and these inputs reflect more fundamental values, expectations, and cultures of communities. Indeed, these factors mesh with each other in complex ways, which reflect the politics of decision-making, within which evidence plays one part.

Figure 1: Framework for evidence and action in public health action



While decision-making may be a complex phenomenon, data can contribute towards the development of shared meaning, including how to frame the problems as well as how to arrive at the solutions. Surveillance data can contribute to policy development in a number of ways, according to Tudiver, Kantiebo, et al (2003). These include:

- Identification of ‘sentinel events’ that require immediate policy action (such as disease outbreaks);
- Tracking incidence of disease over time as well as health behaviours (both preventive and risky) to inform where policy and program development would be most effectively targeted;
- Monitoring policy implementation and assessing effectiveness of interventions;

- Monitoring cross cutting issues (such as working conditions) that are relevant to many aspects of health (such as chronic disease, injury, reproductive health, mental health);
- Examination of social trends to identify if they are correlated with other determinants which may be the cause of the trend to inform development of healthy public policy; and
- Alerting governments and the public to policy and program failure and to the lessons that can be learned from these.

This point to the issue that change occurs along a chain of cause and effect, and indicators may be required to elucidate relationships across such a continuum. Most mainstream data collections, unfortunately, focus on inputs and outcomes, and do not readily allow for a better understand relationships between determinants of health and health outcomes.

4.3 Indicators need to lead to/link with gender based analysis

To achieve the intended purposes in using health indicators (ie raise awareness, develop policies and programs, and monitor system performance), there is a need to strengthen capacity at all levels to implement systems for monitoring gender equity in health. This involves having the right data, having quality data, having a social process that reviews the data and reports on it. An iterative process will allow surveillance data to inform policy development and assess program implementation, thus leading to new questions and approaches to surveillance, as well as refinement of policies and programs.

In other words, data alone is insufficient. Indicators need to point to and be accompanied by gender analysis (outlined in the box below) if policy relevant questions such as: ‘why did this trend or pattern occur?’ ‘what are the short and long-term implications for the health of women and men and for particular sub-groups?’ and ‘what specific policies and interventions are likely to be most effective in achieving improved health outcomes and reducing health inequalities?’ (Tudiver, Kantiebo et al 2004). Applying such a gender-lens to historical reviews of trends and policies could also assist in increased understanding of issues and the refining of indicators.

Gender-based analysis is:

1. Is an **analytical tool** which ‘uses sex and gender as an organising principle or a way of conceptualising information’ and which ‘helps to bring forth and clarify the differences between women and men, the nature of their social relationships, and their different social realities’. Such an analysis enables understanding of the way these conditions affect the health status, access to health care, and interaction with the health care system of both women and men.
2. Provides a **framework** for ‘analysing and developing policies, programs and legislation, and for conducting research and data collection’ which does not assume that women and men are the same. In addition to sex and gender, this framework should be ‘overlaid with a diversity analysis’ so that other factors such as race, ethnicity, level of ability and sexual orientation are also considered.
3. Should be a **systematic process** which is integrated throughout activities.
4. Operates as a **‘challenge function’** to the assumption that all people are affected in the same way, either by policies, programs and legislation, or in their experience of health issues and utilisation of health care.
5. Is **evidence based** and informed by data collected through research and consultation with diverse groups of women.

Source: Health Canada (2000)

4.4 Indicators have to engage the broader community

The importance of communicating the data cannot be underestimated. Not only should the data be timely, it also needs to be accessible. Being timely means not only being as up-to-date as possible but also in time for decision-making. Being accessible means effectively communicated or presented, readily comprehensible to the intended audience and leads to analysis and discussion, able to engage a wide range of stakeholders, and can be analysed by interested parties. Data also become more accessible when it is accompanied by the stories that bring the data to life.

Aside from providing appropriate information to the target audience, in a timely fashion, and in an appropriate format (see Canadian Population Health Initiative 2001), there are other organisational features that need to be in place. Data do not speak for themselves, and their uptake into decision-making requires that a range of social and organisational factors require attention, including (Oldenburg et al 1997):

- Organisational elements, including infrastructure, administration, culture, communication, policy, funding;
- Contextual factors of individuals and organisations involved, such as personal disposition, attitudinal stance, situational requirements, program demands, and research orientation;
- Dissemination efforts that include considered strategies, methods, targets; and
- Linkage systems between data producers and users that enable widespread adoption and implementation and are cost effectiveness.

Contextual factors may be the most important determinant of whether indicators will be used to inform policy making. In a study about factors that influence evidence-based decision-making in the Canadian health system (Tranmer et al 1998), it was found that multiple positive and negative factors were at work. Decision makers often find that evidence is difficult to interpret, not specifically relevant to the policy being considered, not timely enough, and contradictory in relation to other expert opinions. The decision makers' values and beliefs, professional or educational backgrounds, and the organisational imperatives were also important influences.

The above suggests that a particular aim, in building an effective system for using indicators for policy development and monitoring is to ensure that the affected community has access to information and are empowered by access to data. Given health policies and programs are not solely the result of the deliberations of decision-makers, but also reflect the input of civil society interest groups, policy development and monitoring process for the purpose of achieving gender equity in health is not only of interest to consumers and community groups, but is also as a mechanism for their empowerment. Regardless of the philosophical basis of public policy-making, the use of indicators has become an important part of consumer empowerment, as illustrated in the following table.

Table 5: Approaches to consumer empowerment

PUBLIC POLICY ORIENTATION	PREMISE ABOUT USE OF DATA AND INFORMATION	STRATEGIES
Scientific	Provide objective measurement and	Surveys, administrative data

	statistics	Standards, guidelines, monitoring reports
Market	Enable more informed choices and more responsive services	Survey, administrative data Report cards, benchmarking
Legal/rights	Drawing lessons from cases	Comparative cases, benchmarking
Democratic participation	Enhance transparency, accountability, and exercise of choice and control	Consultation, focus groups, surveys Hand-held records, monitoring reports

Source: Adapted from Draper and Hill 1995

While the Canadian women's health surveillance work represents significant progress in identifying gaps and the need for gender-sensitive surveillance tools, it is still worth keeping in mind that many indicators (and the data used to create them) should be treated with caution. Danner et al, (1999) advise of the importance of data users becoming 'critical users', that is, developing an understanding of the underpinning assumptions (and the social and political contexts) associated with data collection and issues associated with irregular collection practices.

4.5 Focus on the indicators that promote action

Most countries have a plethora of indicators. The real problem is how to choose an appropriate set. The concept of leading indicators offers a helpful way of thinking about choosing indicators that can inform action. The Institute of Medicine (US) convened a committee to recommend leading health indicators to the *Healthy People 2010* initiative and they proposed criteria which were of both a technical nature as well as those of value for policy advocacy and practice change.

These included:

- Worth measuring - the indicators represent an important and salient aspect of the public's health;
- Can be measured for diverse populations - the indicators are valid and reliable for the general population and diverse population groups;
- Understood by people who need to act - people who need to act on their own behalf or that of others should be able to readily comprehend the indicators and what can be done to improve the status of those indicators;
- Information will galvanize action - the indicators are of such a nature that action can be taken at the national, state, local and community levels by individuals as well as organized groups and public and private agencies;
- Actions that can lead to improvement are anticipated and feasible - there are proven actions (e.g., changes in personal behaviours, implementation of new policies, etc.) that can alter the course of the indicators when widely applied; and
- Measurement over time will reflect results of action and if action is taken, tangible results will be seen indicating improvements in various aspects of the nation's health (Chrvala & Bulger 1999: 6).

It is interesting to note that most of the US leading health indicators (physical activity, overweight and obesity, tobacco use, substance abuse, mental health, responsible sexual

behaviour, injury and violence prevention, access to care, immunizations, environmental quality) reflected highly gendered patterns. They also reflect disparities across immigrant groups (Kandula, Kersey and Lurie 2004), and may be a useful starting point for considering both health issues amenable to action as well as for understanding the social determinants of health.

5. Applications and successes in using gender sensitive health indicators

There are some useful examples internationally of using gender-sensitive indicators as part of policy and program development and implementation. National governments, international agencies and research and advocacy bodies have undertaken various efforts to develop and use gender sensitive health indicators for tracking progress towards equity, including gender equity. Five concrete applications are included as appendices in this report. They are:

1. Promotion of the equitable use of eye services and reduction of eye disease and blindness in Tanzania, India, Egypt, and Nepal. This is a targeted service improvement effort for which gender was identified as an issue through indicators which enabled
 - Assessment of the association between gender and blindness
 - Identification of potential reasons for differences
 - Identification of local factors associated with use of services.Appropriate strategies were then developed and implemented.
2. Multi-sectoral, gender-sensitive public health response to HIV/AIDS epidemic with prevention, testing and treatment aspects –This illustrates the use in Botswana of a public health strategy in a social context.
3. Preventing Domestic Violence in Australia. This describes how gender sensitive indicators were used and refined over three decades on a complex social and health issue
4. Making the Grade on Women’s Health: USA National and State by State Report Card – indicators for advocacy and accountability The *Report Card* is an advocacy tool that uses a broad definition of health and consistent indicators to measure the status of and investment in women’s health on a state-by-state and national level. It is designed to promote the health and well-being of women in the United States of America by providing a comprehensive assessment of women's health.
5. Profiling Domestic Violence: A Multi-Country Study. This uses comparative research as a starting point .It examines the prevalence of domestic violence and its effects on the health of women and their children in nine countries—Cambodia , Colombia , the Dominican Republic , Egypt , Haiti , India , Nicaragua , Peru , and Zambia . The statistics are analysed within a comparative framework to provide a multifaceted analysis.

Often these case studies of the successful use of gender sensitive indicators have aspects in common. Drawing on the points made earlier in this paper:

- The case studies often started out using basic available sex disaggregated data and then continuously improved and refined the indicators to be more gender sensitive
- The case studies used and developed indicators using a social process which was highly participatory. Members of civil society worked with government agencies and were often critical to the success of in the project
- The case studies measured the outcome or impact of a situation rather than the input.

- The case studies raised awareness of issues and provided or improved the evidence base for decision-making including informing gender based analysis
- The case studies identified emerging issues needing priority attention. Thus they were often leading health indicators pointing to underlying issues that are common for a range of health problems. The case studies suggested current issues that require priority attention; and served as alerts or early warning for future problems and were predictive of other problems.
- The information the programs provided galvanized action which was taken at national, state, local and community levels by individuals as well as organized groups and public and private agencies;
- The programs affected a large number of women
- The programs had a significant impact on women's quality of life, functioning and well-being; and acknowledged the importance of health determinants
- The case studies were influential in contributing to health system development and health sector reform processes, making health systems more accountable and improving health system performance and responsiveness.
- The measurement of the effectiveness of the programs over time reflected results of action and tangible results indicated improvement.

There are other case studies from the literature that have not been included here. For example, The Rockefeller Foundation (2002) promotes the use of *Health Equity Gauges*, an approach to promoting equity which includes monitoring of key indicators, coupled with advocacy and community participation to ensure that information is acted upon. A *Health Equity Gauge* is a way of tracking gaps in health status at national or sub-national levels. A gauge is centered around a component which is about measuring and monitoring a set of agreed upon indicators. However for such a tool to be effective in promoting equity, a number of other components are required to ensure that the information is used. The Rockefeller Foundation has identified the five core elements of an equity gauge as being:

'Fair distribution as a fundamental organizing principle of the work

Key health systems' stakeholders be involved in the development and implementation of the project

Community ownership is integral to the gauge

The technical component, with regard to both the scope of the gauge and its measures, is valid, reliable and sustainable

The work informs decision-making in a way that is timely, user friendly, and accessible, and takes cognisance of current levels of awareness and demand within countries' (The Rockefeller Foundation 2002: 1).

The Gender and Health Equity Network, supported by the Rockefeller and Ford Foundations has been established to further promote gender equity in health and is currently funding implementation of work such as that described above in India, China, Mozambique and Sweden. Case studies of the work done to date in each of these countries are available from: <http://www.ids.ac.uk/gHEN/about/index.html>.

There is seldom, however, the opportunity at the community level, or even at the national level, of introducing new systems for measurement and monitoring. The key successes seem to lie with effective use of existing data collections, partnership between researchers and advocates (within and outside government), and focused use of indicators to drive strategies in relation to particular policy concerns.

Key factors that contribute to successful advocacy include: the need to understand the relevant social and political context; the importance of exploring different models for involving key stakeholders and engaging them early key in all stages of gauge development; sustaining partnerships; identification of policy levers and important elements for action; providing the community with feedback about findings; making sure that not only those who are the most well off benefit (Health Systems Trust, 2000).

6. Challenges and strategies for the future

In this final section, principles and strategies are recommended for moving forward with developing and using gender-sensitive health indicators (based on WHO Kobe Centre 2003). These principles and strategies focus on four main areas: the conceptual basis for gender sensitive health indicators; the development of a monitoring system (including relevant indicators and good collection processes); having good reporting processes; and development of appropriate infrastructure and capacity. The concluding section suggests a starting point and foreshadows some additional issues that should be anticipated.

6.1 The conceptual basis for gender sensitive health indicators

In relation to the conceptual basis for gender sensitive health indicators, it is recommended that reported indicators include an expanded concept of health and the full continuum of care; incorporate a life-cycle approach and extend beyond reproductive health issues; and ensure conceptual clarity and soundness, particularly in relation to 'gender' and 'sex'.

6.2 Monitoring system

For gender-sensitive health indicators to be influential, there is a need to build systems for monitoring and information uptake. The structure and process of an optimal monitoring system could include the following features (based on WHO Kobe Centre 2003).

6.2.1 *Relevance*

Key considerations in relation to ensuring the relevance of indicators include having:

- Linkages with governance processes, including with other reporting and monitoring systems (e.g. at the international level – Convention on the Elimination of All Forms of Discrimination Against Women, Beijing Platform for Action);
- Linkages with and contribution to health system development and health sector reform processes, including monitoring of health system performance; and
- Analysis and interpretation which addresses key policy concerns and potential for action.

6.2.2 *Data collection*

Effective and efficient data collection can be facilitated by:

- Building on existing systems for data collection (including surveys and administrative data);
- Working on both improving specificity of national reporting and harmonizing of provincial data systems (through common data definitions and standards);
- Building on indicators proposed through key international consensus and reporting frameworks, including World Health Report, Human Development Report, State of the World's Children, Millennium Development Goals, Beijing Platform for Action, International Conference on Population and Development (ICPD), The Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW);
- Using proxy indicators when collecting additional data is not feasible; and
- Having designated jurisdictional focal points, located within appropriate settings, with accountability for data collection and dissemination.

6.3 Reporting

The development and use of gender-sensitive health indicators is a relatively new phenomenon. Canadian developments are well ahead of the rest of the world, as summarised in a report for the OECD World Forum on Key Indicators (Canadian contributors 2004) and as evidenced through the women's health surveillance report. Yet challenges remain in how to achieve an optimal reporting system that:

- Has a regular reporting time frame, e.g. not less than two years;
- Offers sufficient specificity (including, where possible, sex, ethnicity, age, socioeconomic status);
- Monitors and understands risk and protective indicators, including highlighting action potential, in a way to increase monitoring and understanding;
- Provides quantitative and qualitative indicators and analyses which ensure that local contexts are explicitly taken into account in the reporting system;
- Enables analysis and reporting of trend data on core set of indicators;
- Enables analysis and reporting by appropriate peer groupings for comparative performance assessment (WHO Kobe Centre 2003);
- Has a manageable set of core indicators nationally but also develop optional modules that allow for harmonization and comparison across peer communities or regions;
- Ensures data collection and dissemination processes are ethical;
- Sets benchmarks for performance monitoring where possible; and
- Has accessible, appealing, user-friendly reporting style that engages stakeholders.

6.4 Infrastructure and capacity building

It is also important to have an appropriate infrastructure to support the development of indicators, collection of data, monitoring and reporting processes as well as the social processes associated with ongoing linking between use of indicators for policy development and related social processes. Strengthening existing data collection and surveillance systems is the most cost-effective approach. In a federalist system as Canada, particular attention will need to be given to institutional links between national, provincial, and community levels.

Key elements of an effective infrastructure include:

- Adequate and sustainable infrastructure for collection, analysis and reporting;
- Capacity-building mechanisms and processes in place to train and support enhanced understanding of meaning and action potential of the set of leading health indicators that integrate gender perspectives;
- Capacity building at provincial, regional and community levels;
- Creation of a continuing social process for accountability by developing mechanisms to bring together key stakeholders at both national and global levels to review and discuss action requirements arising from leading health indicators; and
- An accountability process for regular review and evaluation of the whole leading health indicators system, including data elements and definitions, collection methods, analysis and reporting, data access and dissemination, and accountability processes

6.5 A starting point

A health information framework that is used to monitor health system performance is a good starting point to ascertain whether current monitoring systems are able to generate gender-sensitive indicators. Such a framework can be populated with possible gender-sensitive

indicators, against which extent to which currently available information can be mapped. Lin et al (2003) has modified the Canadian/Australian/OECD/ISO health information framework with a gender lens, and undertaken a mapping and audit exercise in relation to indicators commonly used by international organisations.

By undertaking such an exercise, it would be possible to ascertain the extent to which current health information systems are adequate, and whether there are substantial gaps or not in the existing information system. Having defined the information gaps, the next steps would be to determine the extent to which more gender-sensitive indicators can be generated through: better sex-disaggregation; better reporting; modifying current variables and indicators; adding additional variables and indicators; or defining new indices.

These steps could lead readily to more sophisticated forms of indicators, as well as lead to a range of possible research questions. For the policy-maker and the health services managers, however, it is important to focus on the decision contexts, and ensure there is a small, manageable group of indicators that can be the basis for meaningful dialogue between key stakeholders.

Appendix: Case studies of applications and successes in using gender-sensitive examples of practical applications of gender-sensitive health indicators

Case 1: Targeted service improvement

Promotion of the equitable use of eye services and reduction of eye disease and blindness in Tanzania, India, Egypt, and Nepal

Women account for 65% of blind people in the world. Of the 30 million blind people in developed countries, China, India and Africa 20 million are women.

The lead agency for this program is the Kilimanjaro Christian Medical College (KCMC) Tumaini University, Moshi, Tanzania with 7 participating institutions in Egypt, India, Canada, Tanzania, Nepal, and USA.

Relevant gender-sensitive health indicators and their findings:

Gender identified as an issue in blindness through indicators which enabled

- assessment of the association between gender and blindness
- identification of potential reasons for differences
- identification of local factors associated with use of services

Key findings are

- Women consistently have lower rates of utilization of cataract surgical services compared to men
- Women bear about 75% of trachoma related blindness
- The barriers that restrict the use of eye care services by men and women are different due to differences in gender roles and behaviours
- Young girls who become blind due to congenital cataract are much less likely to be brought to hospital for surgery.

Strategies

These findings were used to develop gender sensitive strategies to improve utilization and to achieve equity of eye care services and reduce blindness.

The Kilimanjaro Regional Eye Care Strategy is a partnership between Tanzanian Ministry of Health, KCMC Hospital, and a number of donors (facilitated by Kilimanjaro Centre for Community Ophthalmology). Its strategies include

- Creating a bridge between communities and the hospital (reduce problems associated with travel access need for transport etc)
- Negotiating with hospital to reduce price of surgery to make it affordable for most families
- Improving awareness, access, and acceptance of eye care services in a gender-sensitive fashion in the community
- Servicing implemented systematically at 20 different referral sites in reach of every village. These sites are visited every 3-6 months.
- Reduction of hospital based barriers to utilisation of services (e.g., “Karibuni

Macho” programme at KCMC Hospital in Moshi, Tanzania; Aravind Eye Hospital programmes in Madurai, India, Al Noor Foundation Eye Hospital, Cairo, Egypt)

- Counselling of eye disease patients to improve decision making and acceptance by family members—particularly for elderly females. (Lumbini Eye Care Programme in Nepal, Aravind Eye Hospital in India, and Kilimanjaro Regional Eye Care Strategy in Tanzania)

Impact and Evaluation

- The Kilimanjaro data shows that by the third site visit, more females than males are attending the clinics for treatment. An impact assessment for the Kilimanjaro region is to be carried out at the end of 2004
- The program has encouraged the United Republic of Tanzania to be the first African country to build a gender focus into its national 5 year Vision 2020 Plan. This is being operationalised in 3 regions (Tanga, Singida and Mara)
- Gender issues in blindness have now been included in focus of WHO Prevention of Blindness programme
- Recent publication in the Emerging Infectious Diseases journal (www.cdc.gov/eid) documents gender roles related to trachoma

Source and further information: Dr Paul Courtright Co-Director Kilimanjaro Centre for Community Ophthalmology, Assistant Professor University of British Columbia Vancouver pcourtright@kcmc.ac.tz

Case 2: Public health strategy in social context

Multi-sectoral, gender-sensitive public health response to HIV/AIDS epidemic with prevention, testing and treatment aspects

Location: Botswana has the second highest rate of HIV prevalence in world, with estimates of between 30% - 40%, and is used for illustration of how gender-based analysis is applied.

Relevant gender-sensitive health indicators globally and their findings:

1. Women are increasingly vulnerable to HIV/AIDS.

- Nearly 50% of the 38 million people living with HIV/AIDS are female, up from 41% in 1997.
- Of the estimated 21.8 million people who have died of AIDS, 9 million are women and 4.3 million are children.
- In sub-Saharan Africa, 57% of those infected with the virus are female, or approximately 17 million women and girls.
- In the U.S., HIV/AIDS is the leading cause of death among African American women ages 25-34. It is the seventh leading cause of death for white American women that age.

2. Young people, especially young women, are disproportionately at risk.

- Young women account for 62% of infected youth between 15 and 24.
- The peak age for HIV prevalence among women is around 25—10 to 15 years younger than the peak age for men. • HIV prevalence among girls under 18 is four to seven times higher than among boys in many countries of eastern and southern Africa.
- Among teens aged 13-19 in the United States, girls account for 57% of new HIV infections.¹

3. Women and girls do not have access to comprehensive information and services.

- One in four young South Africans believe that sex with a virgin can cure HIV/AIDS.¹

4. The biggest HIV/AIDS risk for many women and girls is marriage. More than four-fifths of new infections in women result from sex with their husband or primary partners.

5. Sexual coercion and violence lead to a greater chance of infection.

- One in three women around the world will be raped, beaten, coerced into sex, or otherwise abused in her lifetime.
- Fearing violence or rejection, 58% of African girls avoid discussing condom use with their partners.¹² Yet in couples where only one partner is infected with HIV, consistent and correct condom use provides the HIV negative person with a near zero risk of infection.
- Women in South Africa who are in relationships with violent or domineering men are 50% more likely to contract HIV than women not involved in abusive relationships.¹⁷
- In South Africa, 30% of girls say their first intercourse was forced, and 71% have experienced sex against their will.

Multi Sectoral strategies used or planned in Botswana

AIDS is seen, not as a medical problem, but as the key development issue facing the country. There is national commitment to “Re Mmogo“ (working together) with the

President saying: “I think the reason the eyes of the world are on Botswana has to do with hope, not despair”.

Civil society is involved not just as actors but as researchers, decision makers, planners, and designers of programmes on HIV/AIDS prevention and reduction of its impact. Most government programmes fail because they lack community-based experience and expertise, for example: programmes on prevention of mother to child transmission of HIV in Botswana initially had serious problems because they failed to recognise the important role of the community in women’s decisions to go for HIV testing, to take antiretroviral drugs, and to exclusively breastfeed or use infant formula (Tlou, S.D., 2000).

Mobilisation occurs across private, public, and academic spheres to foster the transformation of Botswana into a society that has programmes for the life-long empowerment of women and girl children against HIV/AIDS. Botswana serves as an example of good governance, political will, and commitment to a human rights approach to HIV/AIDS.

Some of the national programmes in place include:

- Free education up to and including tertiary level (university, vocational training institutes, etc), with meals provided
- Social welfare programme for the destitute
- Community home based care programme which includes: food basket for nutrition supplementation, supplies and equipment such as gloves, adult diapers, detergent, bedpans, wheel chairs, etc., and a transportation allowance of P100-00 for volunteer caregivers
- Programs targeting different groups of youth – e.g. segmentation of behaviour change communication strategy among university students. One strategy is to encourage abstinence and postponement of sex. Others are to normalise condom carrying, integrating voluntary counselling and testing into other health services, and an annual “Miss HIV Stigma-Free”.
- A programme to prevent mother-to-child transmission of HIV (AZT and infant formula) for HIV positive pregnant women.
- Free antiretroviral treatment for all urban and rural Botswana living with AIDS. (The AIDS treatment program is a collaboration between Botswana Government, drug companies and the Bill and Melinda Gates Foundation. Anti-retroviral treatment started at four sites, two urban and two rural, but has now been rolled out to all health facilities in the country. There is an 85% adherence amongst those on program, and less than 7% of patients have died after initiation of treatment, usually due to late start of the treatment rather than toxic effects.)

Sources and for further information:

International Women’s Health Coalition jkidwell@iwhc.org.

ACHAP African Comprehensive HIV/AIDS partnerships
<http://www.achap.org/press/botswana>

Dr Sheila Dinotshe Tlou University of Botswana TLOUSD.@mopipi.ub.bw

Case 3: Complex social and health issue

Preventing Domestic Violence in Australia

Over the past 30 years Australia has acknowledged that violence against women is a major social issue and significant health determinant for women and their children

National and state governments have developed strong partnerships with civil society (especially women's and social service organisations). This has led to major policy changes; program development; (eg DV court assistance, women's refuges, Family Court contact Services), law reform (eg in apprehended violence orders); modification of existing systems (eg social security and child support); and major attitudinal change programs (eg wife bashing is a crime—you don't have to put up with it break the silence) shifting Australians from a general attitude of condoning violence against women to condemning it.

The initial focus of this cross-sectoral approach was on spousal violence and homicide. This rapidly expanded to encompass physical and sexual violence against women and children.

This case study tracks progress towards preventing domestic violence, providing support for victims, helping perpetrators who seek to change their behaviour, and the usefulness of indicators and their measurement to this progress.

Relevant gender-sensitive health indicators: their findings and the strategies implemented

Indicators and their measurement have been crucial to the progress made.

Qualitative data was used in the 1970s and early 80s by women's advocacy groups to bring the issue to the attention of policy makers and decision makers. This led to the establishment of the first services and some policy changes.

As reforms and programs were implemented, indicators and their measurement were built in:

- The NSW Bureau of Crime Statistics and Research (BOSCAR) and the Women's Coordination Unit worked with the police to design forms so that useful data was collected and sent to BOSCAR as part of the apprehended violence order process. As a result BOSCAR has published a stream of valuable reports over the years. In 1989 BOSCAR reported that 99% of individuals seeking these protection orders against a spouse or de facto spouse were women
- The Commonwealth/State Supported Assistance Program (SAAP) funds the 150 women's refuges (including Muslim and Aboriginal) in Australia. In 1989, twice yearly census data was collected. The 1993 SAAP National Evaluation called for improved data collection. Since 1996 the SAAP National Data Collection has provided a valuable information source for service development.

When the statistical data and its analysis began to flow, it was used by advocates, both within government and outside it, to achieve greater reform more services improved practices and attitudinal change.

It was also used to formulate policies such as the 1992 National Strategy on Violence Against Women which was developed with community representatives and endorsed by the Council of Australian Governments (COAG) comprising the Prime Minister and State/Territory Premiers. Significantly, in 1990, the Australian Bureau of Statistics conducted a survey of victims of crime.

In 1996, the ABS conducted a major Violence Against Women Survey modelled on the Canadian Survey. In 1997 COAG initiated Partnerships Against Domestic Violence, a whole of government approach that reduces and prevents domestic violence in Australia with 12 strategies and 13 indicators.

As recently as June 2004, the Victorian State Government released a research report "The Health Costs of Violence: Measuring the Burden of Disease Caused by Intimate Partner Violence". It reported that 9% of all medical problems that beset women under 45 are caused by domestic violence. The Victorian State Government accompanied the release of the Report with a set of strategies.

The progress in Australia has been assisted by international developments such as CEDAW reporting requirements, the 1993 UN Declaration on the Elimination of Violence Against Women and the new International Violence Against Women Survey now underway.

Sources and for further information:

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Women's and Statistical Units in Australian national and state governments

Case 4: Indicators for advocacy and accountability

Making the Grade on Women's Health: USA National and State by State Report Card

The 2004 *Report Card* is the third in a series assessing the overall health of women at the national and state levels. The *Report Card* is distributed to policy makers and women's health advocates nationwide. The first two *Report Cards*, issued in 2000 and 2001, prompted activities around the country including legislative hearings, town meetings, forums, and new materials on women's health.

The *Report Card* is an advocacy tool that uses a broad definition of health and consistent indicators to measure the status of and investment in women's health on a state-by-state and national level. It is designed to promote the health and well-being of women in the United States by providing a comprehensive assessment of women's health.

Relevant gender-sensitive health indicators and their findings:

The Report evaluates 34 health status indicators and 67 health policy indicators, and assesses the nation's progress, or lack thereof, state-by-state, in reaching key benchmarks related to the status of women's health. The *Report Card* also provides an important overview of key disparities in the health of women based on race, ethnicity, sexual orientation, disability status, and other facts.

Health status indicators are selected based primarily on whether they had a significant impact on quality of life, functioning and well being and whether they affected a large number of women generally or a large number of women in a specific population and/or age group.

State policy indicators are selected based on whether they addressed and could have a significant positive impact on the critical women's health issues reflected in the status indicators and whether they were measurable and comparable across states.

The 2004 Report's in-depth analysis of state policies and women's health status found states and the nation failed to meet national goals.

The Center's May 2004 press release stated, inter alia, "*While states are making some progress in improving health care for women, they are taking a two-steps-forward-one-step-back approach that fails to meet the health care needs of women.*"

Making the Grade is the third report by NWLC and OHSU to grade and rank each state based on 27 health status benchmarks developed largely using goals set by the U.S. Department of Health and Human Services Healthy People initiative. The report gives the nation a grade of "Unsatisfactory" for meeting only two benchmarks.

In addition to grading and ranking each state, Making the Grade evaluates whether states have adopted 67 key women's health policies.

"The outlook for women's health is grim and no where near approaching the nation's goals for 2010 set by the U.S. Department of Health and Human Services Health People initiative," said Dr. Michelle Berlin, Associate Professor at the Oregon Health & Science University. "There is a great distance to go with the nation meeting only two

out of 27 benchmarks graded in this report. Failing to meet these goals undermines not only the health and well-being of women, but the well-being of our country as well.”

The report also measures women’s health by looking at their economic security in the states. Unfortunately, little progress has been made in this area:

Alaska is the only state with a minimum wage that allows a family of three to reach the federal poverty threshold.

- *California is the only state to enact a paid family leave policy that allows workers to take paid leave to care for a new child or ill family member.*
- *Four states weakened policies that ensure children on welfare receive the child support collected on their behalf. “*

This multi factorial assessment is prepared by the National Women’s Law Center (NWLC) and Oregon Health and Science University (OHSU). The National Women's Law Center is a non-profit organization that has been working since 1972 to advance and protect women's legal rights. NWLC focuses on major policy areas of importance to women and their families including health, education, employment, and economic security, with special attention given to the concerns of low-income women.

The Report was prepared collaboratively with contributions from other experts from academia, health organisations and federal and state governments including the US Dept of Health and human services Office of Women’s Health. Ten Funds and Foundations provided the funding for the Report.

Source and for further information: <http://www.nwlc.org>

Case 5: Comparative research as starting point

Profiling Domestic Violence: A Multi-Country Study

This study uses household and individual-level data from the Demographic and Health Surveys (DHS) program to examine the prevalence and correlates of domestic violence and the health consequences of domestic violence for women and their children. Nationally representative data from nine countries—Cambodia (2000), Colombia (2000), the Dominican Republic (2002), Egypt (1995), Haiti (2000), India (1998-1999), Nicaragua (1998), Peru (2000), and Zambia (2001-2002)—are analyzed within a comparative framework to provide a multifaceted analysis of the phenomenon of domestic violence.

The DHS survey is considered by its authors to be an ideal vehicle for studying not only the linkages between domestic violence and health and demographic outcomes but also the context in which violence takes place.

The report seeks to both raise awareness and inform the work of policy makers and program planners. Its findings are already being picked up by humanitarian information websites. In several countries there has been substantial media coverage of the Report. In some countries, such as Colombia, there has been ongoing interest in the Report partly because it covers programs that the Colombians want to evaluate (Colombia has collected violence data in DHS for three rounds). In high HIV prevalence countries, such as Zambia, there is some interest in the Report from programs dealing with women's empowerment and HIV issues. The study's findings have also been reported on humanitarian information websites.

Relevant gender-sensitive health indicators and their findings:

Eighteen indicators are measured by the Study. These include:

Prevalence of Different Types of Domestic Violence -different forms of spousal violence; health consequences of violence; initiation and frequency of spousal violence

Risk Factors for the Experience of Domestic Violence - household characteristics; intergenerational effects

Domestic Violence and Women's Empowerment- domestic violence and women's participation in decision making; violence and norms that reinforce inequality in marital relationships; controlling behaviors by husbands and domestic violence

Domestic Violence and Demographic and Health Outcomes - measures of women's nutritional status indicators of women's reproductive health and spousal violence ; access to antenatal and delivery care and spousal violence ;children's mortality and health and mother's experience of spousal violence

The reports findings include that:

- domestic violence has an impact on the health and well being of the women being abused, but a new report also highlights important intergenerational effects of such violence: the children of abused women are also more likely to suffer health problems.
- high rates of domestic violence in all countries studied, with over 40% of

- women in several countries reporting spousal or intimate partner abuse.
- The number of ever-married women reporting spousal physical or sexual abuse was highest in Zambia (48%), Colombia (44%), and Peru (42%) and lowest in Cambodia (18%), India (19%), and the Dominican Republic (22%). About one in three women in Egypt (34%), Nicaragua (30%) and Haiti (29%) reported such abuse. In most countries, the highest rates of violence occur in moderately wealthy households, and not, as often assumed, among poorest households.
 - infant and child mortality rates are also higher among women who have ever experienced violence when compared with women who have not. In Cambodia, Egypt, India, Nicaragua, and Zambia, all five of the infant and child mortality rates (based on the age of the child at death) were higher for abused women.

Strategies

MEASURE DHS assists institutions in developing countries to obtain and analyze data needed to plan, monitor, and evaluate population, health, and nutrition.

They integrate objective information with the advisory and implementation tasks needed to improve real world performance.

This multi country study helps advocates by providing comparative information on key issues which can readily translate to action plans.

Source and for further information:

The U.S. Agency for International Development supports MEASURE DHS, which is led by Calverton, MD-based Opinion Research Corporation company, (ORC Macro) in partnership with Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs, PATH, Jorge Scientific Corporation, and Casals and Associates.

Available online as PDF file [141p.] at:
<http://www.measuredhs.com/pubs/pdf/OD31/DV.pdf>

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