

**Report on documentation and evaluation  
of Urban HEART pilot  
in Sri Lanka**

**2013**

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# **1. Introduction**

## **1.1 Background to health inequities**

Currently, more than half the world's population lives in urban areas, and this proportion is rapidly increasing. Worldwide, the urban sector continues to attract people for several reasons, including aspirations to economic and social advancement and better opportunities in life. The developed, and more so, the developing countries are experiencing a rapid increase in numbers of people living in cities. Thus, urban health is emerging as one of the most important global health issues.

The reasons for rapid and unplanned urbanization are many, and have been documented in some detail. In recent decades, many countries have experienced the migration of rural people to urban areas in search of a higher quality of life, including better jobs, higher salaries and improved housing with more amenities. They also seek better health care and educational opportunities for their families and children. However, as this process of urbanization is unplanned and has caught urban administrations largely unprepared, it has resulted in overstretching of the available resources and amenities, and a large number of internal migrants are not able to realize their expectations and requirements. As a consequence they are forced to live in poor housing conditions, with few or no basic amenities and on meagre salaries.

In addition, there are also population groups who have traditionally lived and continue to live in areas that are State reservations, such as canal banks, railway embankments and water drainage areas. These populations are marginalized and lack many facilities and services provided to others who live in areas that are demarcated for housing, and have access to amenities provided by the local government authorities. This brings about inequity in the availability of basic amenities to different segments of the urban population.

The poor housing settlements are overcrowded and have inadequate sanitary facilities, conditions that are conducive to transmission of communicable diseases. The urban lifestyle among these communities is of much concern, with little time or space for physical activities, unhealthy dietary habits, and high prevalence of alcohol use and smoking, all of which are risk factors for noncommunicable diseases. Research has shown that prevalence of noncommunicable diseases is higher in urban areas than in rural areas. While most health indices are better for urban populations than for rural populations, great disparities exist within urban areas. It is important to target disadvantaged groups so that they receive the benefits, amenities and other support that are available to more privileged groups. Despite the existence of health disparities within cities, few have given close attention to the inter-city and intra-city health differentials that prevail in most countries.

Health services are typically provided to the residents of urban areas through local government, and thus are not always based on the health policies, programmes and systems of the national ministry of health. However, in Sri Lanka all residents in urban areas can access health services provided by the Ministry of Health without any barriers. This coverage of the urban sector with free health care provided by the Ministry Health has been a factor

that has reduced disparities in health service provision between the disadvantaged urban population and the rest of the population in Sri Lanka.

In summary, the effect of unplanned urbanization, and the resultant health and social inequities, are causing much concern to national and municipal authorities.

This is evident from the differentials in health indicators seen in different strata of the population – between urban and rural groups, between and within age groups, and between men and women. These differences may result from physical and genetic factors, for example derived from differences in age or sex, that are not easily modified by population-based approaches. On the other hand, differences in health status and indicators that are systemic and are related to social factors can be regarded as inequities in health, which can be modified by appropriate action.

Infant and child mortality and undernutrition are good examples of indicators that demonstrate variation across different income, social and education groups. If these differences are related to existing policies and the way programmes are implemented, then they need to be changed so that inequitable gaps can be reduced and eliminated.

The World Health Organization (WHO) Constitution asserts that all should have the right to attain their full health potential, without distinction. In this regard WHO has spearheaded many approaches to reduce health inequities, including Health For All by the year 2000, the work of the Commission on Social Determinants of Health, and, more recently, Urban HEART. Three main approaches identified by WHO to reduce health inequities are targeting disadvantaged population groups or social classes; narrowing the health gap; and reducing health inequities throughout the whole population.

The WHO Commission on Social Determinants of Health defines health inequity as follows: “Where systematic differences in health are judged to be avoidable by reasonable action they are, quite simply, unfair. It is this that we label health inequity.” It further states: “Putting right these inequities – the huge and remediable differences in health between and within countries – is a matter of social justice.”

The Commission has also stated the need to go beyond the theoretical perspectives and to undertake active interventions to reduce inequities in situations where people “grow, live, work and age”. The sixty-second World Health Assembly, in May 2009, passed a resolution based on the recommendations of the Commission to reduce health inequities through action on the social determinants of health.

## **1.2 Urban HEART**

The Urban Health Equity Assessment and Response Tool (Urban HEART) was developed by the WHO Centre for Health Development in Kobe, Japan, in collaboration with WHO regional offices and city and national officers from different parts of the world, experts from WHO headquarters in Geneva, and the Urban HEART Ad Hoc Advisory Group. It is a user-friendly guide for policy- and decisions-makers at national and local levels to help them to (a) identify and analyse inequities in health between people living in various parts of cities, or belonging to different socioeconomic groups within and across cities; and (b) develop viable

and effective strategies, interventions and actions to reduce inter- and intra-city health inequities. Urban HEART has four characteristics that make it a powerful tool to equip policy-makers with the evidence and strategies needed to reduce urban health inequities:

- It is easy to use
- It is comprehensive and inclusive
- It is operationally feasible and sustainable
- It links evidence to action.

### **1.3 Background information on selected site: Colombo, Sri Lanka**

The Colombo Municipal Council (CMC) administrative area is one of the cities selected by WHO to pilot and validate Urban HEART (as described in the CMC final report on implementation of Urban HEART, 2010). CMC accepted the invitation of WHO to pilot-test Urban HEART; the terms of reference of the assignment are not documented in the report, nor is a copy available with the project director. The responsibility for carrying out the project at all stages was with the Public Health Department of CMC, which is headed by the chief medical officer of health. It is difficult to state when exactly the project commenced.

## **2. Documentation and evaluation of the pilot application**

### **2.1 Contents of Urban HEART as adapted to pilot site**

CMC displayed a high level of comprehension of the scope, core values and objectives of Urban HEART, and approaches to its implementation. The need for an assessment of the differences in health opportunities of people living in different parts of CMC is evident from the final report on the Urban HEART pilot implementation. The assessment, the first component of the project, does not specifically mention the word “inequities”. The term used, “health opportunities”, has a more positive connotation, though it does not have the same potential to focus on inequities.

The same document also identified the second component – response. The response entails the need “to decide on viable and effective strategies and interventions that should be used to reduce health inequalities”. This is slightly different to the approach envisaged by Urban HEART, which is to “facilitate decisions on viable and effective strategies and interventions ...”

The Urban Health Equity Matrix and Monitor, which were incorporated into the project, form two concise and informative approaches to analysis due to their effective visual presentation of data, and they have the potential to assist decision-making and prioritization of critical areas for action for policy-makers and programme managers.

The CMC project identified three objectives:

- to identify health inequities among the Medical Officer of Health areas (MOHAs) or defined geographical divisions within CMC by developing the Matrix;
- to identify performance of health indicators over time within the MOHAs in relation to specific benchmarks by developing the Monitor;
- to determine possible responses to overcome identified health inequities.

The methodology used involved the collation of data that were available from different stakeholders. Only secondary data were used and no surveys were carried out, as recommended by WHO. A core working group decided on the indicators relevant to CMC at a stakeholder meeting held in September 2009. The period for which data were to be compiled was the calendar year of 2008. However, there were some indicators for which data were not available for that particular year, and in those circumstances the latest data available were used. The data were analysed according to the six MOHAs or divisions of CMC, which give a good coverage of the entire CMC area and capture differences related to socioeconomic, sociocultural and political factors, within and between geographically defined population groups.

## 2.2 Assessment

### *Selection of indicators*

This component of Urban HEART is an indicator guide to help identify unfair and unacceptable differences between populations in the six MOHAs of the city. Health indicators used were those recommended by Urban HEART, and included health outcome indicators (infant mortality rate, under-5 mortality rate, maternal mortality ratio) and disease-specific morbidity rates covering noncommunicable and communicable diseases, totalling eight in number.

Indicators of social determinants of health were identified under the four recommended policy domains: physical environment and infrastructure (eight indicators); social and human development (eight indicators); economics (three indicators); and governance (two indicators). The indicators listed are all within the recommended core and optional indicators. The indicators chosen were both health outcome summary indicators and disease-specific indicators.

The indicators were discussed and approved at a stakeholder meeting in September 2009 (as described in the interim report of the CMC Urban HEART pilot testing programme, 2009). At that meeting it was decided not to use some indicators due to incompleteness of data, non-availability of data, or insufficient sensitivity of data to respond to the interventions, for example the maternal mortality ratio.

Table 1 shows the health outcome summary indicators, the sources of data, and their availability and timeliness. Those that were omitted are also shown.

**Table 1. Health outcomes: summary indicators**

<b>Indicator (source) submitted for stakeholder feedback, Sept 2009</b>	<b>Availability and timeliness</b>	<b>Reviewer observations on the usefulness of the indicator</b>
Infant mortality rate (CMC maternal and child health data)	Current (2008, 2009 first quarter)	Available for all six MOHAs. Has been possible to identify differences across the six MOHAs
Under-5 mortality rate (CMC maternal and child health data)	Current (2008, 2009 first quarter)	Available for all six MOHAs. Has been possible to identify differences across the six MOHAs
Maternal mortality ratio (CMC maternal and child health data)		Not used (justifiable)
Life expectancy at birth (Department of Census and Statistics 2001 census data)		Not used (justifiable)
Suicide rate (Department of Demography, University of Colombo)		Not used (justifiable)
Abortion rate (Department of Demography, University of Colombo)		Not used (justifiable)

Disability rate (Department of Demography, University of Colombo)		Not used (justifiable)
Disability-free life expectancy (Department of Demography, University of Colombo)		Not used (justifiable)

Source: Based on interim report of the CMC Urban HEART pilot testing programme, 2009.

The constraints faced by CMC in obtaining relevant and most recent data for some indicators is clear, and the right decision was made not to adopt them. The availability of recent data for maternal and child health is a reflection of the traditional and strong focus on maternal and child health, not only by the Ministry of Health but also by the local government health authorities. These are used as key tools in programme evaluation as well as indicators in the Millennium Development Goals. Although they are very relevant tools able to measure inequalities and are also indicators of a broad spectrum of social and economic issues, how sensitive they are to assess the inequities between six MOHAs in the CMC population of 500 000 could have been explored.

The project had proposed to use district-level data for Colombo district for life expectancy at birth, suicide rates and abortion rates, as they were not available for CMC. Similarly, data for the summary indicator, disability rate and disability-free life expectancy were not available for CMC, and it was proposed to locate these data from the Department of Demography, University of Colombo. The use of district data in place of CMC data is not of much relevance, as the comparison between the six MOHAs within CMC is what is expected in order to assess the disparities within the city. As CMC is only a part of the district of Colombo, obviously these data cannot be used to represent CMC MOHAs.

The final report of Urban HEART implementation in CMC (2010) showed that the indicators where only district-level data were available had been dropped. This was a good decision, and though the reason was not specified, it is assumed that it was based on the feedback given at the stakeholders' meeting in September 2009.

Thus only two summary indicators were selected and used for CMC Urban HEART. These can be confirmed as good indicators, as they are current (2008/09) and are also generated by CMC, and hence are valid and accessible to CMC.

Table 2 shows the disease-specific indicators that were submitted for stakeholder feedback in September 2009. The first column also gives the envisaged source. In the second column the indicator selected and the year or period for which data are available are shown.



**Table 2. Health outcome indicators: disease specific**

<b>Indicator (source)<sup>a</sup></b>	<b>Availability and year/period<sup>b</sup></b>	<b>Reviewer observations of the usefulness of the indicator</b>
All cancers (cancer control programme)	Oral, breast and cervical cancer, incidence per 100 000 (2006)	Not standardized. Resident population of about 650 000 and only two MOHAs have over 100 000 population; may not be sensitive
Diabetes mellitus (Diabetic Clinic at National Hospital Sri Lanka, Curative Department of CMC)	Prevalence per 100 000 (2008)	Not standardized. The age-specific rates and for populations over 18 years would make the prevalence comparable
Tuberculosis (Epidemiology Unit, CMC)	Incidence rate per 100 000 population (2008)	Rates are not standardized. Available by age and sex
HIV (Central Sexually Transmitted Infections Clinic, National STD/AIDS Control Programme)	Programme data (1997–2008)	Not standardized. Sri Lanka is a low-prevalence country with less than 0.1% prevalence and only 1429 cases reported from 2007 to date. Not a sensitive indicator
Communicable diseases: dengue, typhoid, leptospirosis, chickenpox, diarrhoea, dysentery (Epidemiology Unit of CMC)	Institutional data (2008)	Data selected for dysentery and for dengue

a. Interim report of the CMC Urban HEART pilot testing programme, 2009.

b. CMC final report on implementation of Urban HEART, 2010.

Only five indicators were chosen under the category of disease-specific health outcome indicators. They are available for 2008 and current. The source of information is also CMC and is more local, relevant and accessible, and if needed can be improved upon without difficulty.

### ***Indicators of social determinants of health***

All recommended core indicators were included, as well as many others, and these were categorized under the four policy domains. There were far too many indicators, and it is unlikely that all of them could have been used. It was also important to prioritize and use only those indicators that fulfilled certain criteria as to their value, as stated in the Urban HEART guide (2010). The final report of CMC identifies the indicators of social determinants selected by CMC. These are shown in table 3, with a summary of the reviewer's observations in the right-hand column.

**Table 3. Selected indicators of social determinants of health**

No.	Indicator (source, timeliness) <sup>a</sup> and availability <sup>b</sup>	Reviewer observations of the usefulness of the indicator
1.	<b><i>Physical environment and infrastructure</i></b>	
1.1	% of population with sustainable access to improved water source (Department of Census and Statistics, 2001)	Coverage and quality are good but data are 10 years old. Use of indicator for monitoring and evaluation is limited, though available for the six MOHAs.
1.2	% of population with sustainable access to improved sanitation (Department of Census and Statistics, 2001)	Coverage and quality are good but data are 10 years old. Use of indicator for monitoring and evaluation is limited, though available for the six MOHAs.
1.3	Distribution of alcohol outlets per 100 000 population (Department of Excise, 2008)	Good. Current, available for six MOHAs, fulfils all criteria for an indicator. As the Department of Excise stands to benefit from registering all alcohol outlets, the data are likely to be more complete.
1.4	Incidence of work-related injuries per 100 000 population (Department of Labour, 2008)	Subject to underreporting by industries and workplaces, though current and available for all six MOHAs.
1.5	Distribution of population (density) (Department of Census and Statistics, 2001)	Coverage and quality are good but data are 10 years old. Use of indicator for monitoring and evaluation is limited, though available for all six MOHAs.
1.6	Distribution of households with electricity (Department of Census and Statistics, 2001)	Coverage and quality is good but data are 10 years old. Use of indicator for monitoring and evaluation is limited, though available for all six MOHAs.
1.7	Incidence rate of road traffic accidents per 10 000 population (Department of Police, 2008)	Good. Current relevance to CMC and fulfils criteria for an indicator.
1.8	% of households using solid fuels (Department of Census and Statistics, 2001)	Coverage and quality is good but data are 10 years old. Use of indicator for monitoring and evaluation is limited, though available for all six MOHAs.
2.	<b><i>Social and human development</i></b>	
2.1	Distribution of population according to literacy rate (Department of Census and Statistics, 2001)	Coverage and quality is good but data are 10 years old. Use of indicator for monitoring and evaluation is limited, though available for all six MOHAs.
2.2	Distribution of low birth weight (CMC maternal and child health data, 2008)	Current data, accessible, relevant to CMC. Fulfils all five criteria for an indicator. Good.
2.3	% of measles coverage (CMC maternal and child health data, 2008)	Current data, accessible, relevant to CMC. Fulfils all five criteria for an indicator. Good.
2.4	Prevalence rate of underweight below 5 years (CMC maternal and child health data, 2008)	Current data, accessible, relevant to CMC. Fulfils all five criteria for an indicator. Good.

No.	Indicator (source, timeliness) <sup>a</sup> and availability <sup>b</sup>	Reviewer observations of the usefulness of the indicator
2.5	Prevalence of underweight among pregnant mothers (CMC maternal and child health data, 2008)	Current data, accessible, relevant to CMC. Fulfils three criteria for an indicator. Good.
2.6	Prevalence rate of teenage pregnancy (CMC maternal and child health data, 2008)	Current data, accessible, relevant to CMC. Fulfils all five criteria for an indicator. Good.
2.7	Prevalence of anaemia among pregnant mothers (CMC maternal and child health data, 2008)	Current data, accessible, relevant to CMC. Fulfils all five criteria for an indicator. Good.
2.8	Distribution of elderly per 100 000 population (Department of Census and Statistics, 2001)	Coverage and quality is good but data are 10 years old. Use of indicator for monitoring and evaluation is limited, though available for all six MOHAs.
3.	<b>Economics</b>	
3.1	Distribution of population by employment status (Department of Census and Statistics, 2001)	Coverage and quality is good but data are 10 years old. Use of indicator for monitoring and evaluation is limited, though available for all six MOHAs.
3.2	% of women earning an income (Department of Census and Statistics, 2001)	Coverage and quality is good but data are 10 years old. Use of indicator for monitoring and evaluation is limited, though available for all six MOHAs.
3.3	% of CMC spending allocated to health; % spent on health from total budget (CMC budget, 2008)	Current data available, accessible, relevant to CMC. Fulfils all five criteria for an indicator.
4.	<b>Governance</b>	
4.1	Political representation in local authorities per 100 000 population (Department of Election, 2006)	Current data, authentic and reliable. Good.
4.2	Political representation at provincial level (Department of Election, 2009)	Current data, authentic and reliable. Good.

a. Interim report of the CMC Urban HEART pilot testing programme, 2009.

b. CMC final report on implementation of Urban HEART, 2010.

In summary, the indicators of social determinants of health include eight indicators under physical environment and infrastructure; eight indicators under social and human development; three indicators under economics; and two indicators under governance.

Thought there are eight indicators for physical environment and infrastructure, five of them use data from the 2001 census, as data from the 2011 census were not available at the time of the project. For social and human development, six indicators were considered good, while those for distribution of literacy and elderly population were again based on 2001 census data. The indicator on distribution of elderly population is not of relevance unless it is further

qualified. Under the economics domain, only the indicator on health budgetary allocations was considered good, while under the governance domain both indicators are good.

The Urban Health Equity Matrix and Monitor were developed to analyse and visually present the data in an effective manner to aid decision-making and prioritize critical areas for action for policy-makers and programme managers. The Monitor was developed for the disease-specific indicators related to anaemia among pregnant mothers; infant mortality rate; low birth weight rate; underweight among pregnant mothers; and dengue fever and dengue haemorrhagic fever. For these indicators the data were presented for the period 2002–2008, sourced from CMC. For the most advantaged and disadvantaged MOHAs, each of these indicators were shown for 2002, 2004, 2006 and 2008, in comparison to three benchmarks. The benchmarks used were average performance of the city, Millennium Development Goal (MDG) target for 2011 and the Sri Lankan average for 2011. The Sri Lankan average for 2001 is of little relevance and the MDG target was more relevant for 2015 than 2011.

The Urban Health Equity Matrix was used to identify key problem areas in the four policy domains. Further breakdown by smaller health areas, known as Public Health Inspector areas, would help policy-makers to focus on specific pockets of disadvantage within the larger MOHAs.

The Matrix could have been used to further refine and select important and sensitive indicators, for example under physical environment and infrastructure. Certain indicators – number of alcohol outlets per 100 000 population, population density, and incidence rate of road traffic accidents per 10 000 population – were colour-coded red, indicating comparatively poor performance and thus requiring priority attention. Under the social and human development domain, both low birth weight prevalence and underweight in children below 5 years were coded green, which indicates good performance, needing less attention.




### **2.3 Response**

The response component, the second component of the Urban HEART project, include analysis of the policies, strategies, programmes and projects that are in place and their degree of effectiveness from an equity perspective, and identification of the areas that need improvement in order to close the equity gaps that were identified in the assessment component. This involves finding ways and means of identifying suitable interventions that can address inequities in urban health. The Matrix helps guide this process by highlighting the “red” indicators as areas that require priority attention.

CMC selected five physical environment and infrastructure indicators – inadequate access to improved water source, inadequate access to improved sanitation, high population density, high incidence of road traffic accidents per 10 000 population and high number of alcohol outlets per 100 000 population – for the response phase (see final report, 2010). For the social and human development domain, the indicators selected were low literacy rate, high rate of teenage pregnancies, low measles coverage, high prevalence of anaemia among pregnant women and low proportion of households with secure tenure. The indicators selected under the economics domain (two) and the governance domain (one) were low literacy rate, high unemployment rate and low percentage of government spending allocated to health.

Table 4 shows the equity gaps selected for response by CMC when identifying priorities for action under the four domains of the social determinants of health.

**Table 4. Summary of performance of MOHAs and equity gaps selected for response**

No.	Equity gap	  		
		Number of MOHAs		
1.	<b><i>Physical environment and infrastructure</i></b>			
1.1	Inadequate access to improved water source	3		3
1.2	Inadequate access to improved sanitation	3	2	1
1.3	Population density	6		
1.4	Number of alcohol outlets per 100 000 population	6		
1.5	Incidence rate of road traffic accidents per 10 000 population	6		
2.	<b><i>Social and human development</i></b>			
2.1	Low literacy rate	1	5	
2.2	High rate of teenage pregnancies	2	2	2
2.3	Low measles coverage	5		1
2.4	High prevalence of anaemia among pregnant women	2	1	3
3.	<b><i>Economics</i></b>			
3.1	Low proportion of households with secure tenure	2	4	
3.2	High unemployment rate	6		
4.	<b><i>Governance</i></b>			
4.1	Low % of government spending allocated to health	1		5

Key to colour codes:



Poor performance



Performance below the intended goal but better than the lower benchmark



Good performance below the intended goal but better than the lower benchmark

It is clear that CMC has gone beyond the simple use of colours, colour coding and simple selection of reds to identify the MOHAs for which to develop strategies, actions and interventions. The rationale and underlying reasoning for selection of the indicators was not clarified. Such information would have given further clarification of how Urban HEART could be applied. The thinking behind selection of, for example, low percentage of government spending allocated to health, even though only one MOHA is coded red and five green, may indicate the importance of focusing continued attention to sustain the gains. This

is a good approach. However, the involvement of stakeholders, and community participation in contributing their voice in decision-making for addressing inequities, were not features of the project.

The response strategies identified by CMC to address the equity gaps brought to light using the assessments are to (a) incorporate health in urban planning and development; (b) emphasize and strengthen the role of urban primary health care; (c) strengthen the health equity focus in urban settings; (d) put health equity higher on the agenda of local governments; and (e) pursue a national health equity agenda. These strategies were identified and recommended in the Urban HEART guide and user manual as having strong potential to close equity gaps. There was no attempt to prioritize the activities under the strategies based on some criteria; rather, all activities were presented in the final report. This would hinder the implementation of activities and allocation of scarce resources to those areas identified as highest priority.

A report responding to the findings of Urban HEART has given in detail the programmes implemented, the stages of implementation, and the beneficiary settlements. The source of funding was Treasury funds, thus helping to ensure the sustainability of the activities, provided such funding is built into the routine programme budget of CMC. The plan for monitoring and evaluation needs to be built into the strategic objectives and implemented. It is unlikely that these activities and funds have been allocated as a direct outcome of the project activities. There has not been adequate time, nor has there been a process of prioritization.

## **2.4 Structures and processes**

CMC was chosen by the Kobe Centre for Health Development to pilot Urban HEART in 2008.

### ***Structures***

The Urban HEART project was located in CMC, with the chief city administrator as chair. The project office was set up in the Public Health Department of CMC in the Town Hall in Colombo at the beginning of 2009, and the staffing and other requirements were identified. A planning, evaluation and monitoring unit was set up in the January 2009. A steering committee, comprising the chief city administrator, chief medical officer of health and deputy chief medical officers of health (four), was responsible for spearheading the pilot of Urban HEART.

This committee was supported by two groups – a core group and a working group (interim report of the CMC Urban HEART pilot testing programme, 2009). The core group of eight comprised six medical officers from the MOHA of CMC and two representatives of the University of Colombo (one academic and one postgraduate trainee). The tasks assigned to them were mainly technical: to discuss which indicators were to be included and which left out; and to monitor project progress, and take steps to overcome any difficulties. The roles of the core group were project director (chief medical officer of health), a technical expert, a technical adviser, a project coordinator, a project statistician, and three project supervisors.

The attrition of the core group, with three members leaving between May and July 2009, was an issue. Although a working group is reported to have been established there is no further mention of the tasks or the membership, and hence it has not played any role in implementation. The medical officers who were attached to CMC also met regularly to discuss issues and strengthen the progress of the project.

## ***Processes***

### **Identification of stakeholders and assignment of tasks**

A preliminary situation analysis was carried out in January 2009 and the possible relevant stakeholders were identified during this period. A list of the core indicators was identified using the documents provided by the Kobe Centre. This was carried out under the supervision of the steering committee by the core group. Funding was provided by WHO.

The stakeholders who could best contribute to identification of data for each indicator were discussed and identified by the core group. They were contacted by the project officers and were also informed by letter about the project and their expected contribution and participation.

In September 2009 the selected relevant stakeholders were invited to a workshop to discuss how responsibility should be delegated. The stakeholders were assigned the task of providing the data that were available to them. A format was developed to collect data, and two persons were employed for this purpose. Thus, even when data were available they were in paper format and not easily accessible, so they had to be extracted and computerized. Then, two other workshops were held in October and November to present the interim report and, based on the feedback, the final report, with WHO funding the process.

### **Mechanisms of implementation**

The development of the response strategies was carried out by the core group using the guidelines given in the Urban HEART guide and user manual.

A satisfactory process was used in identification of equity gaps. However, the process used for the prioritization of equity gaps to develop response interventions was not clear. Who was responsible and what mechanism was used are not explained.

The planning cycle was only carried out for the assessment and response stages. The policy and programme development stage was not followed through. There was also no evidence of the involvement of communities in the identification of equity gaps and developing inputs to the response strategies. While a response document was available, it did not show clearly the relationship between the assessment and the response described. The involvement of urban planners and the integration into the existing planning cycles would go a long way to ensure sustainability.

Most of the project staff involved were temporary or had left shortly after the implementation. This did not help institutionalization of the processes. The data available were not in an easily accessible format and were extracted through employment of two medical students. The project did not look at ways of improving access to available data.

The planning cycle of the project was not completed. The first two phases – assessment and response – were implemented. The other two components – policy formulation and subsequent programme implementation – were not achieved.



### **3. Analysis of Urban HEART implementation**

#### **3.1 Validity and reliability of data**

The validity and reliability of data are important factors to be considered in the evaluation of the implementation of Urban HEART. The availability of data for some of the indicators was not a major problem. The data from CMC specifically related to maternal and child health, for example, were readily available. The data from the CMC MOHAs were relatively current (2008). The Epidemiology Unit of CMC also proved able to generate current data (2008) for communicable diseases, such as diarrhoeal diseases and tuberculosis. The Budget Division of CMC was an example of a source able to give up-to-date and reliable data on CMC spending allocated to health as a percentage of the total budget.

There were other indicators, such as literacy rate and population density, where the data were from the national census, disaggregated to CMC. As the national census is held every 10 years and the last one was in 2001, it is clear that these data were outdated.<sup>1</sup> Utilization of such data for monitoring and evaluation would also be a problem. National data are also used as benchmarks in the Urban Health Equity Monitor, and the fact that these data are for 2001, and are thus not recent, makes them unlikely to provide a valid comparison. It is, therefore, important that CMC, which has a community-based health workforce, assess the feasibility of obtaining more current data for the specific locations.

Other sectors too were sources of data for the project, including the Departments of Excise, Police, Labour, and Election. Data from these sources were also more recent, which is a desirable characteristic of Urban HEART. The data were obtained specifically for the project although they were not in a format in which they could be used directly. As these data sources are outside the control of CMC, it is very important to set up a sustainable mechanism to obtain the data, preferably in an electronic format. There does not appear to have been any attempt to improve the situation with regard to obtaining data from the other sectors.

The validity of data to measure the indicators was not given much attention in the project. The infant and under-5 mortality death declaration and certification is not accurate. Research has revealed that the degree of inaccuracy in the underlying cause of death is approximately 25%. The coverage of maternal and child health data has to take into account that 98% of all births occur in hospitals and not in the CMC maternity homes. The location of two women's hospitals and the premier children's hospital in the CMC area has led to people preferring to utilize those facilities. There are also a large percentage of people who access health care, including immunization, from the private sector. The Epidemiological Unit of the Ministry of Health estimates approximately 20% of immunizations are carried out in the private sector. Data on diabetes mellitus were from two sources: the Diabetic Clinic at the National Hospital Sri Lanka, and the Curative Department of CMC. There is a high chance that the data overlap, with the same data being reported to some extent from the two sources.

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<sup>1</sup> The most recent census, in 2011, was held too late for the data generated to be used in this project.

The project used existing sources of data. There was no attempt to check the data with regard to their completeness, coverage, validity and reliability. The need to compute the data in an electronic format and in the format required made it necessary to employ personnel to collect the data. The use of data collectors entailed issues related to costs, time and sustainability. An annex to the final report on the quality of data would have been of use in validation of the data. The director and a coordinator of the project, in an interview, stated that there had been no attempt to assess the coverage or quality of data.

The data should be easily available, accessible, timely, valid and reliable, as this information is the basis for the development of the indicators and the equity Matrix and Monitor for Urban HEART to achieve the intended outcomes.

### **3.2 Intersectoral actions generated or strengthened by the process**

A participatory and inclusive approach with intersectoral involvement is no doubt of much importance in identifying the indicators and sources of data, more so for the four domains of social determinants of health. As equity issues related to these have to be addressed by closing the equity gaps, an intersectoral mechanism is important for the successful implementation of interventions to address equity gaps and devise effective outcomes. Achievement of health goals cannot be done by the health sector alone, but requires interventions in such areas as socioeconomic development, education and improved sanitation. For policy-makers and programme managers, therefore, a mechanism for formal, institutionalized intersectoral involvement can bring many benefits in achieving a common goal for health. The Urban HEART guide identifies three core elements of Urban HEART that form the basis of successful implementation: sound evidence, intersectoral action for health and community participation.

The participants in Urban HEART were identified by the core group. The final report of Urban HEART does not give a list of the sectors that were involved. The stakeholder list in the interim report identified a few sectors outside CMC: Ministry of Health, Department of Census and Statistics, and the universities. However, they are all from the health sector, and health professionals. On inquiry, the project director and the coordinator of Urban HEART identified the following as having been participants in the planning and implementation of Urban HEART: Ministry of Labour, Water Supply and Drainage Board, Department of Census and Statistics, Department of Police and Department of Urban Development. The intersectoral participation had been limited to attending the workshops organized to finalize and collect data for indicators.

Thus, the mechanism of involvement was through:

- participation in the stakeholder meetings
- provision of data for the indicators.

The acquisition of data required the development of a mechanism and an established methodology to obtain data, not only for the pilot. This has not been explored.

The other intersectoral actions essential for the success of Urban HEART occur during:

- identification of the response strategies, as these of necessity involve many sectors
- implementation of the interventions.

Some of the sectors that have a vital role to play are education, labour, police, excise, waters supply and drainage, transport, highways, land and urban development. The response strategies themselves that have been identified require intersectoral inputs to be effective (final report, 2010).

The report responding to the findings of Urban HEART (undated) does identify several agencies that were involved in the improvement of physical infrastructure in urban underserved settlements in February 2011. The improvements were in provision of basic amenities (Water Supply and Drainage Board), renovation of housing (National Housing Development Agency, with most of the work being undertaken through community participation) and developing paths within the settlement for better access (local government). The Public Health Department of CMC itself has taken over the improvement of lifestyles of people and control of dengue fever and tuberculosis.

As the period of time between the identification of the response strategies and the achievement outcomes stated in the response report (undated) is very short, it is unlikely that those responses to address the equity gaps were the direct outcome of the implementation of Urban HEART. It is more likely that they are ongoing activities conducted by CMC. It is also possible that the implementation of Urban HEART did catalyse or speed up the programme already being implemented. Similarly, it is unlikely that the funds that were used by CMC to improve physical environment and infrastructure were allocated based on the response strategies. The project had not proceeded to the stage of prioritization of strategies and identification of programmes and later to policy formulation. A mechanism had not been established to convey the findings of Urban HEART to the policy-makers and the financial authority or the Budget Division. Also, the objectives of CMC had not identified these components for the pilot, as stated in section 2.1 of this report.

### **3.3 Implementation issues, including hindering and facilitating factors**

The implementation was given leadership at the highest level. A steering committee comprising chief city administrator, chief medical officer of health and four deputy chief medical officers of health was appointed to spearhead the pilot testing of Urban HEART. In addition, a core group and a working group were established to carry out the work related to the project, assisted by a management assistant. Terms of reference for these two groups were not established, and the distinct differences in their functions were not clear. In addition, medical doctors were employed to collect and collate data that were available from different MOHAs and other stakeholders, thus supporting the pilot testing of Urban HEART. The setting up of a project office, the Urban HEART planning, monitoring and evaluation unit in the Public Health Department of CMC in the Town Hall in Colombo at the beginning of the project, no doubt facilitated the smooth implementation of the project.

Regular meetings were held of the different committees to carry out the project activities, although minutes of meetings and decisions made were not recorded. Three workshops were

held with the participation of a large number of stakeholders from many sectors. The indicators were finalized at one of those meetings, thus helping ensure support from the participants in obtaining data. The participants were successful in coming to a consensus on the indicators.

Although participation of stakeholders was good at the workshops, a mechanism for their sustained involvement and commitment to the project was not set up. More regular meetings of steering committee members and stakeholders would have ensured more sustainable support for the project. There is no evidence that a mechanism for sustaining the support of stakeholders in addressing equity gaps was set up.

A factor strengthening the progress of the project was data availability. Data were available for the project that were current, relevant, and appropriate. Disaggregated data were available for the six MOHAs. For some data, such as tuberculosis and dengue fever, further disaggregation by age and sex was available. Identification of stakeholders, and giving them the responsibility for specific data to which they had access, improved stakeholder involvement and ease of access to data. Some data prescribed for use had issues related to their topicality (2001 census), giving rise to further problems related to monitoring of progress. Even when data were available, for example in the six MOHAs, there were some issues related to accessing them, due to their availability in hard copy only, from which they had to be extracted. The lack of easily accessible and ready-to-use data necessitated employment of data collectors, adversely affecting the sustainability of the project.

The underlying concepts were understood and this facilitated the implementation of the project, with the help of the Urban HEART guide. The identification of data related to specific indicators, as recommended, facilitated the successful development of the Urban Health Equity Matrix and Monitor. The identification of the response strategies was also successfully carried out as recommended.

The departure of three of the project staff is likely to have hindered smooth implementation. A few other staff members who were not employed by CMC have also since left the project. It was also clear that the sustainability of implementing activities was hampered by CMC being required to request medical officers from the Ministry of Health. They functioned in their posts for some time, and return to their substantive posts in the Ministry of Health.

## **4. Urban HEART in Colombo: accomplishments and recommendations**

### **4.1 Accomplishments of Urban HEART implementation**

The project correctly interpreted and operationalized most of the important concepts, principles and core values underpinning Urban HEART, including (a) the existence of inequities in health across the different parts of the city and the important contribution made by social, economic and environmental factors; (b) the concept of inequity arising from the systemic differences in the health of people in different MOHAs, which were socially produced and modifiable, and hence deemed unfair ; (c) the potential strength of Urban HEART to identify and address those inequities; and (d) the systematic and inclusive approach to identification of inequities and developing approaches to address them.

The processes and structures used in the piloting of Urban HEART were successful for the assessment component and the identification of the response. These include the successful enlistment and participation of administration at the top level, such as the chief city administrator, the chief and deputy chief medical officers of health, and other staff, including health care workers at the grass-roots level, and technical experts from universities, the Ministry of Health, and the Department of Census and Statistics. The organization of the implementation was supported through committees (steering, core, working) comprising different stakeholders. Stakeholder workshops were used to obtain consensus on identification and finalization of the indicators, and for getting the support of stakeholders in providing the data for the selected indicators. Sensitization of the participants was achieved, though political and community participation was not evident. Perhaps an opportunity for their empowerment was not utilized by the project.

The indicators were used appropriately in developing the assessment and response across six different MOHAs of CMC. The Urban Health Equity Matrix was developed to present information in a visual form of the existence of inequities and the extent of the equity gaps between the best and the worst MOHAs, and in comparison to the urban average of CMC and the national average. Similarly, the Urban Health Equity Monitor was developed to show the level of performance over time of the MOHAs in relation to the selected indicators assessing health and social and economic status. The Matrix has also been developed for further subdivisions, namely the Public Health Inspector ranges of the MOHAs. Thus, the Matrix and Monitor were successful in demonstrating the existence of the inequities across the divisions, the level of inequity, and the specific health, social and economic performance of the areas. However, they have not been adequately recorded as being utilized to prioritize the issues. The further utilization of these important tools to inform policy-makers and to develop programmes also does not appear to have taken place.

The availability of data pertaining to health and social determinants of health, and the sources where such data can be found, have emerged from the project. It has also highlighted the limitations and shortcomings of the data; the difficulties of access and retrieval; and the

unavailability of current data with much potential to inform on the identification of very important inequities, such as suicide, maternal mortality and gender-based violence.

The project also successfully developed the intervention under the five recommended response strategies. This was carried out by the project core group members.

## **4.2 Recommendations for improving and scaling up implementation of Urban HEART**

The project activities, from its initial stages to implementing the prioritized actions, should be institutionalized. Mechanisms have to be identified and put in place whereby (a) the permanent staff, whose job function is directly in the areas of activities of the project, participate in the planning and implementation; (b) committees and their meetings are regularized, with decisions recorded; and (c) decisions made are linked to actions. Terms of reference for committees need to be developed.

A system has to be established whereby the findings, decisions, activities and progress related to health equity are discussed at the meetings of the policy-making, programme implementation and financial bodies and statutory committees of the institution, as a regular agenda item on a regular basis. Progress should be monitored by the political and administrative authorities. Such a system is essential to sensitize and inform the authorities on health equity issues; provide an avenue whereby equity-related processes are sustained as long-term, regular activities of the institution; enable evidence to be made available and used in policy-making; and help ensure funding for the interventions and activities planned to reduce equity gaps.

At the outset, CMC identified only three objectives for the pilot project, which are stated in section 2.1 of this report. These do not cover the policy development and programme implementation components of Urban HEART. This is thus a shortcoming. It is recommended that in future, in order to realize the full potential of Urban HEART, all aspects and components of the tool be explored and implemented.

The participation of all stakeholders is important. These should include state sectors (education, health, labour, census and statistics, water supply and drainage, road development and urban development authorities, excise and police departments). The participation of nongovernmental organizations, civic groups and members of communities should be regularized and institutionalized. The participation should occur at all levels of the implementation of the project. The participation of appropriate members of these organizations at different levels will support programme implementation and finance allocation, not only from CMC but all the other sectors.

The institutional authorities of the city should make appropriate changes to the relevant acts and by-laws to ensure the sustainability of activities that address equity gaps.

More attention should be paid by the institutions to data generation, storage and retrieval in order to ensure their quality and timeliness. They should also plan to develop and establish electronic databases to ease the implementation of Urban HEART, ensure its sustainability,

and enable a more focused and targeted approach to identification and implementation of the most needed interventions.

### **4.3 Recommendations**

This project had the limitation of implementing only two components of Urban HEART, namely the assessment and response strategies. The policy development and programme implementation components of Urban HEART are not covered. To address this shortcoming, it is recommended that Urban HEART be funded to include all aspects and components.

The lack of good-quality data that are timely and accessible at central and subdivision levels will lead to incorrect assessment and response strategies being identified. Funds are recommended to develop a method to validate routinely collected health data, correct the existing deficiencies and set up a system to collect data that are accurate, comprehensive, timely and in a format that make them accessible. This could include an electronic database.

The establishment of structures and processes within the administration of the city to support sustainable implementation of Urban HEART is important, and this is recommended for funding.

It is also recommended to identify how the participation of all sectors for sustainable implementation can be ensured. Funds should be allocated to institutionalize the formal involvement of the other sectors in the implementation of Urban HEART.

All stakeholders should be trained on the concepts, principles and core values of Urban HEART, and the approaches to implementation.