

# Sampling data collection and analysis health and social care essay



Patrick Kolsteren

## **Tutor**

Roos Verstraeten

## **Author**

Paula Veliz

## **Introduction**

Obesity leads to a wide range of health consequences like an increased risk of premature death and adverse effects on quality of life: moreover it is a major risk factor for non-communicable diseases (NCDs) and chronic diseases (World Health Organization, 2000). The prevalence of overweight and obesity during the past several decades is much faster in the developing world (Popkin, 2002) and it is of particular concern among children (WHO, 2012) and with a very fast increase among low middle income countries (LMICs) (Popkin, 2004). According to the World Health Organization (WHO, 2012) since 1980 obesity has almost doubled around the world, more than 1.4 billion adults were overweight in 2008 and more than 40 million children under five were overweight in 2011, it is estimated that 30 million of the are from developing countries (WHO, 2012). Chronic diseases such as cardiovascular disease, cancer, chronic respiratory diseases, and diabetes were estimated to cause more than 60% of all deaths in 2005, about 80% of these deaths took place in low and middle income countries (Abegunde, et al., 2007). The rapid nutrition transition shifts in diet and activity patterns from the period termed the receding famine pattern, to one dominated by nutrition related NCDs seems to be accelerating in LMIC countries (Popkin,

2004). The increase in unhealthy body weights has been associated with rapid economic, political, cultural and societal changes inducing an obesogenic environment (Monteiro, et al., 2004; Swinburn, et al., 1999). Moreover the rapidly growing burden of NCDs in LMICs is accelerated by the negative effects of globalization, rapid unplanned urbanization and increasingly sedentary lives (WHO, 2010) and lower socioeconomic population groups usually prefer poor-quality, energy dense but cheap and affordable foods (FAO, 2004). As elsewhere in Latin America, Ecuadorian diet and lifestyles have changed (World Bank, 2007). During the last decade's health problems have shifted from infectious diseases to chronic diseases, now chronic diseases are the main causes of mortality in Ecuador (MSP, 2011). Undernutrition remains Ecuador's greatest nutrition problem, however child and adult obesity are becoming important threats to its population (World Bank, 2007) and requires a lot more attention. Despite the fact that 28% of Ecuadorian households have difficulties to cover their food budget (INEC, 2006), recent studies reveal that there are high levels of overweight and obesity (19.7%) among adolescents (Ochoa-Aviles, et al., 2012), about 7% of children under 5 years old are overweight and 50% of women of reproductive age are either overweight or obese, and 24% of overweight mothers give birth children low in height (MSP, 2011). In order to redirect these trends, appropriate multi-sectorial public health policies for the local context and a comprehensive policy approach is needed (Sacks & Swinburn, 2008). The Ecuadorian government has started some initial actions to achieve changes towards this rising problem. For example the ministry of health has developed a national plan for prevention and control of NCD (MSP, 2011) and also elaborated a series of guidelines and manuals in order to <https://assignbuster.com/sampling-data-collection-and-analysis-health-and-social-care-essay/>

prevent and manage obesity. The ministry of sports has implemented a project in order to promote physical activity (Ministerio del Deporte, 2012). However these actions do not respond to the structural causes of obesity and are mainly isolated initiatives with very little impact due to the lack of regulation, control and follow up. Furthermore there is lack of available data related to the obesity and NCD problem in Ecuador, most researches and actions concentrate in undernutrition and it becomes a strong limitation. It is necessary to take additional measures not only to prevent the diseases through population wide and individual risk reduction but also to manage illness and prevent complications (WHO, 2005). Identifying the challenges that policy makers confront, to avoid NCDs while preparing for a possible higher burden in the future, is only a first step towards laying out an agenda for addressing NCD (Odeyi , et al., 2007). As obesity is a very complex problem with causal influences at many different levels, concerted action to promote a broader interdisciplinary analysis (Stirling , et al., 2007) to take appropriate measures at a policy level. The participation, support of a wide range of key stakeholders from government, health, food industry, media, and urban planning (Snowdon , et al., 2011) is important since all these sectors have multiple opportunities to contribute to reducing obesity (Sacks & Swinburn, 2008). Therefore, an understanding and mapping of their views about the possible measures and the terrain in which they will be implemented is needed in order to ensure a coordinated and feasible policy-making process for obesity. (Stirling , et al., 2007)Utilizing the Multi-criteria Mapping (MCM) methodology, this research develops a framework to map and analyze in a systematic and comprehensive way the views of

stakeholder on possible measures to be taken in order to tackle the obesity problem in Ecuador and further inform policymakers.

## **Research question**

**Which policy options are the most feasible according to relevant stakeholders' point of view and consensus, in order to respond to the rising obesity problem in Ecuador?**

## **Hypothesis**

A comprehensive set of specific policies are needed to respond to the rising obesity problem among Ecuadorians. The design of those policies should be obtained from consensus of relevant stakeholders' views and integrated into a systematic approach in order to be developed with the support of all interested parties and ensure positive results with more feasible, sustainable actions.

## **Overall objective**

Map and analyze the views of key stakeholders from different sectors (local and national level) towards policy options in order to tackle the raising obesity problem.

## **Specific objectives**

Identify stakeholder's priorities for prevention of obesity among Ecuadorian population and the principal policy options which most of the relevant stakeholders agree on. Raise awareness among policy makers in Ecuador about obesity and inform them about the feasibility of the policy options

## Literature review

Various governments around the world have developed guidelines and strategic plans in order to respond to obesity, NCDs, towards improving physical activity levels and consumption patterns, however the results and the execution of those strategies have been unsatisfactory (Gortmaker , et al., 2011). Public policies are an essential part of possible strategies to tackle the problem of obesity and NCD (Tuiketetei & Snowden , 2010). Its impact could be powerful but it is still not a well understood approach in the obesity issue (Story, 2009). Experimental evidence about the prevention of obesity is very restricted however it is growing due to its rising problem (Gortmaker , et al., 2011). It is well documented that isolated actions will not be enough; obesity needs continuous public health effort including individual behaviors and environmental settings where people live and make choices and decisions (Gortmaker , et al., 2011) . Possible solutions in order to increase the effectiveness and feasibility of strategies should be multidimensional, and involve governments and other sectors including actions from health and non-health sectors like trade, agriculture, transportation, urban planning, etc. (Snowdon , et al., 2011) Obesity is affected by various factors such as access, availability, cost, preference, attitudes, knowledge and values (Gortmaker , et al., 2011), so without influencing the environment, individual behavior adjustment towards healthier options it will be difficult to reach. (Story, 2008) Addressing the obesogenic environment will need more than one policy or action due to its complexity and those policies must be supported by community based initiatives (Tuiketetei & Snowden , 2010)A coordinated methodology for policy development and a collaborative-coordinated approach, involving different areas is necessary to evade <https://assignbuster.com/sampling-data-collection-and-analysis-health-and-social-care-essay/>

fragmented and contradictory measures (Sacks & Swinburn , 2008).

Definition and application of public policies tend to be more consistent and widespread when the processes are done in a systematic way, evidence based and stakeholder informed (WHO, 2012). Working with relevant stakeholders to priorities policy areas is a necessary step in the overall process of policy development and implementation (Sacks & Swinburn , 2008). The identification and participation of all relevant stakeholders can contribute to the success of the actions towards obesity, assuring coordinated and feasible actions between the private and public sector. Moreover involving key stakeholders in the decision making process will increase the relevance, ownership and the likelihood of their recommendations being implemented (WHO, 2012). Guidelines developed by WHO like the " Stepwise framework for preventing chronic disease" (WHO, 2005), " Prioritizing areas for action in the field of population-based prevention of childhood obesity" (WHO, 2012) and other experiences like a project for obesity prevention carried out in Fiji (Tuiketeti & Snowdon , 2010) address the relevance of taking into consideration stakeholders recommendations as an important tool for the decision making process (WHO, 2012) thorough a systematic approach. . Governments are the most significant stakeholders for tackling the obesity epidemic, due to its core responsibility on managing public goods (e. g public health) and because of its influence at local, state, and national levels (Gortmaker , et al., 2011). Important stakeholders also include the food industry, the media (communication and marketing influencing people ´s opinions), and institutions that are somehow responsible of the physical environment (e. g department of urban planning, ministry of sports) have a big influence on <https://assignbuster.com/sampling-data-collection-and-analysis-health-and-social-care-essay/>

shaping our the food and activity atmospheres (Gortmaker , et al., 2011). Policymakers need to be informed well informed about stakeholder's options and the terrain on which the policies will be implemented need to be mapped (Stirling , et al., 2007) prior to their decision making. In order to gather quantitative and qualitative information on the stakeholders' opinions and views towards policy options a very innovative methodology called Multy-criteria mapping (MCM) was developed in 1990 (University of Sussex, 2009). This approach has been applied in a series of research for the evaluation of options in wide variety of fields (e. g energy, food production, environmental policy, radioactive waste, public health, etc). In the obesity policy field MCM methodology was used in the " Policy Options for Responding to the Growing Challenge of Obesity Research Project" (Porgrow) (Stirling , et al., 2007), a research carried out in nine European countries (Cyprus, Greece, Finland, Hungary, Italy, France, Poland, Spain) (Lobstein & Millstone , 2007). The project included a wide range on stakeholders from different sectors that might have an influence on obesity like food industry, media, education, physical activity organizations, public health specialists, consumers among others, in all the European countries that participated. The data gathered from the Porgrow study indicate that a group of actions will be needed to tackle obesity's rising trend and that the design and implementation of those measures need to be coordinated and integrated. Those actions should take part in indifferent fields like an improved education, better accessibility and incentives for physical activity, more information abut foods, changes to the supply of and demand for food products, fiscal measures, among others, in order to build up a comprehensive, coherent and well supported set of policies. (Lobstein & <https://assignbuster.com/sampling-data-collection-and-analysis-health-and-social-care-essay/>



Millstone , 2007)MCM allows an exhaustive analysis of the views of the stakeholders, or interested parties involved in order to generate and consolidate scientific understanding, as well as to assist in formulating possible responses or portfolios of actions to address overweight and obesity (Lobstein & Millstone , 2007). Besides the need to seek the views of various stakeholders on what measures should be taken, there is also a need to assess how interventions could be introduced and sustained, and the territory on which the policies will be implemented need to be mapped (Stirling , et al., 2007). MCM is tool for understanding stakeholders' opinions and for integrating them into the development of public policies (Lobstein & Millstone , 2007). The mapping process method should be consistent, faithful and transparent to outsiders and accessible to the participations stakeholders (Stirling , et al., 2007). Furthermore it gives policymakers a systematic picture of the preferences of stakeholders, in these way policymakers can identify aspects of concern or appeal to stakeholders. (Lobstein & Millstone , 2007). MCM starts with the identification of policy options though a detailed analysis of existing policy options and the selection of relevant stakeholders who somehow take part in the obesity problem. When the policy options and the key stakeholders are identified, a four-stage procedure follows (1. Select policy options; 2. Develop criteria; 3. Scoring; 4. Weighting)in order to obtain a faithful mapping of the stakeholders opinions (Stirling , et al., 2007). In Ecuador there isn't available data to show that such a methodology including stakeholders opinions for coordinated polices has been implementer however the MCM methodology will be applied due to the fact that it has been positively revised as an academic research tool for policy assessment (University of Sussex, 2009) . <https://assignbuster.com/sampling-data-collection-and-analysis-health-and-social-care-essay/>

In this respect further literature review will be done during the research process.

## **Methodology**

This quantitative-qualitative research will be carried out using the MCM method which starts with the policy options and key stakeholder selection, followed by structured face to face interviews characterized by its four stage approach that will be explained in detail later on (Achieving MCM method). This methodology requires specific computer software (MC Mapper) to collect data during the interviews. The policy options and stakeholder selections criteria will be defined by the research team.

## **Multi-criteria mapping**

To explore the appraisal of obesity-related policy options by key stakeholders MCM process will be applied. (Stirling , et al., 2007) is a computer based technique used to apprise, identify and explain preferred options on complex policy problems (Stirling A & Davies G, 2004). This approach provides a tool for understanding key stakeholders' views and for incorporating them into the development of public policies (Lobstein & Millstone , 2007). It can be used to overcome the difficulties in policy formulation on complex public health issues, such as obesity. This stepwise approach generates a rich body of quantitative and qualitative information concerning the reasons for differing views, as well as their practical implications for the overall performance of the selected options. (Stirling , et al., 2007)

## **Selecting policy options and key stakeholders (interviewees)**

This section of the methodology was carried out by the research team, it involved:

### **Characterization of policy options**

The policy options for obesity were selected through a systematic stepwise approach: Identification of existing policy documents on obesity prevention in Ecuador and others suggested by WHO (WHO, 2008), the Porgrow study (Lobstein & Millstone, 2006) and a study in North Africa (Holdsworth , et al., 2012). These options were structured using a systematic approach, called the intervention ladder (Nuffieldbioethics, s. f.). Also a triple comprehensive approach based on socio-ecological, lifestyle and health services aspects was used in order to ensure that all the different factors that influence obesity epidemic are taken into account (Lang & Rayner , 2007). Once the policy options were defined these were divided into " Core options", " Discretionary options", and " Additional options" (Stirling A & Davies G, 2004).

### **Selection criteria of the participants**

Key stakeholders were defined according to the MCM methodology to select key stakeholder (Stirling , et al., 2007). The first step in the MCM process involved the recruitment of interviewees from the relevant stakeholder (those perceived to be part of the problem and " part of the solution) groups such as government officials, school teacher or education representatives, managers of school canteens, members of food industries, transport and planning officials, people involved in sports and physical activity promotion, public health professional bodies, health journalist etc. Each option of the

selected stakeholder should include at least one extra possible stakeholder from each group defined (in case they refuse to participate). We assumed that policy-making on obesity takes place within both the private and public sector.

## **Stakeholders interview process**

Selection of interviewees will be performed by the research team through the criteria explained above (Selecting policy options and stakeholders). When key stakeholders are defined, each interviewee will be recruited, informed about the methodology and aim of the project and finally the interview. The interview process will take place in Quito and Cuenca Ecuador. The interview will be performed by a trained professional in the nutrition field and will last from 2 to 3 hours. A laptop with MC mapper software package will be used and all the data collected will be immediately entered to the software during the process.

## **Before the interview**

The following procedures should be executed before the interview takes place in order to ensure the participation of the interviewees and a well performed interview process: Training: An expert who has experience in the MCM process will give training to the professionals who will perform the interviews in order to ensure all the practicalities of the methodology. The training will mainly focus on how to carry out the interviews, data collection and analysis. Collect contact information: Once the research team has defined the stakeholders that will be interviewed, contact information should be collected such as: complete names, email address, phone number, work address, background, and other relevant information. Preliminary contact: <https://assignbuster.com/sampling-data-collection-and-analysis-health-and-social-care-essay/>

Each interviewed will be contacted through email and/or by phone and will be given general information about the research. The information will focus on the aim and context of the project. In case the stakeholder refuses to participate there will be another option of a similar possible interviewed. For example: if a representative from the food industry refuses to participate, the team will have an alternative name of a representative from another company that belongs to the same kind of group. If there isn't any option predefined the stakeholder could be asked to recommend a possible participant who will go under the analysis of the research team.

Confirmation: it could be done either by phone or email. In this step the interviewed gives his consent to participate in the project and proceed with the scoping interview and interview. Scoping interview: It will mostly be done by phone. The main objective of the scoping interview is to make sure that the participants are well informed (Stirling, A, 2005) by giving an outline about the MCM method. The outline should include the following information about the project: Explain the context, aims, definitions about policy options (core and discretionary), duration of the interview (2-3 hours), etc. Ask for interviewee's ideas on key options for consideration. Request any questions or observations about the information given and the project. Address issues related to confidentiality. Define the interviewee's preferred location to carry out the interview. Request a written consent for the interview. Afterwards each participant will receive information package with all the information discussed and further details about the methodology. Test interview: A test interview will be done with a stakeholder who won't be part of the analysis. If possible this test interview will include the participation of an observer in order to give further recommendations on how to improve the performance

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of the interviewer. The observer will preferably be person who is part of the research team and who has experience and knowledge about the MCM technique. These interviews will follow all the required protocols for the interviews with the key stakeholders selected.

## **During the interview**

All the data will be entered during the interview into the MC mapper software. And it will be performed as follows: Introduction: should start introducing the interviewer. Remind the aim of the project and ask for any final query before starting (Stirling, A, 2005). Inform that the interview will be recorded (this is something that should be previously informed). If the interviewee doesn't want it to be recorded, detailed notes should be taken). The interviewee will also be asked to conduct their appraisal in a personal capacity and from a particular key specialist or stakeholder perspective, so the appraisal results cannot be considered to reflect some formal position or collective policy (Stirling, A, 2005). Achieving the MCM method: Start summarizing the order of each MCM step (select options, define criteria, assess scores, assign weights, review ranks): Step 1. Select policy options: Provide core and discretionary policy options, and explaining the possibility of including additional options (Stirling, A, 2005). The set of " core options" allow comparisons between different views of the interviewees (Stirling A & Davies G, 2004). Stakeholders can also develop their personal appraisal criteria, this enables participants to address any issues which they feel have been neglected or unduly emphasized (Stirling A & Davies G, 2004; Stirling , et al., 2007). Step 2. Define criteria: Criteria are the factors that the interviewee has in mind when they pick between positive and negative

aspects about the different options (Stirling, A, 2005). The interviewer will ask the participants to give their a personal appraisal criteria about issues of importance when evaluating the relative advantages or disadvantages of the options (Stirling A & Davies G, 2004). The interviewees should be free to express their own criteria. Step 3. Assess scores: Interviewees are asked to assign numerical scores to each policy option and represent its performance under each chosen appraisal criteria (Stirling A & Davies G, 2004; Stirling, A, 2005). The interviewee will be asked to give two score values for each option under each criterion, it allows the interviewee to register two different scenarios: optimistic (minimum score) and pessimistic (maximum score). They can use any scale that makes the feel more comfortable when scoring, however it is recommended to uses a scale of 1-100 (Stirling, A, 2005) . In is way, participants are able to express any uncertainty they feel in assigning scores (Stirling A & Davies G, 2004). Step 4. Assign weights: The interviewee will be asked to assign quantitative weighing to each criterion in order to reflect its relative importance under each appraisal criteria (Stirling , et al., 2007; Stirling, A, 2005). This process shows subjective judgments concerning the relative importance or values of the different criteria rather than technical judgments (Stirling, A, 2005). The " weighting" multiplied by the normalized performance " scores" will create an overall numerical ranking for each option (the rankings are expressed as ranges of values) (Stirling A & Davies G, 2004). At the end of the interview, it is important to review the outcome or ranks. The stakeholders should be confident that their positions had been faithfully mapped. It is important that they are able to revisit the different stages of the appraisal and explain any changes that they may wish

to make as they must feel free to express their opinion and elections (Stirling, A, 2005; Stirling A & Davies G, 2004).

### **After the interview**

Ensure that all the MC-Mapper files have been saved and finally transcribe the audio-recorded interviews in order to provide detailed textual records of the reasons interviewees gave for their judgments (Stirling , et al., 2007). For further details on the methodology and a better performance for the interview the MCM protocol (Stirling, A, 2005) will be used.

### **Ethical approval**

Approval of both the Ecuadorian and Belgian ethical commissions will be contacted ensuring ethical principles that the stakeholder analysis must include. The interviewees' names will remain anonymous and a written consent will be arranged the interview.

### **Sampling, data collection and analysis**

According to the Porgrow (Lobstein & Millstone, 2006) study there should be about 21 key stakeholders involved. However the final sample size is still under definition of the research team. Data collection will be carried out through the interviews and performed as already explained. After entering the data into the MC mapper, it will yield the quantitative scores, uncertainties, criteria weights and final ranks (Stirling , et al., 2007). This process will allow a faithful mapping and analysis of the stakeholder's opinions and a clear set of feasible policy options to tackle obesity built up from the consensus and priorities of the stakeholder's point of views (Lobstein & Millstone , 2007). For analytical purpose, policy options will be



further classified into "clusters" or groups. (e. g those targeting physical activity, supply or demand of food, promoting education and training, involving institutional reforms) (Stirling , et al., 2007). In order to facilitate analysis and compare with other countries, different categories of participants will be also grouped (Lobstein & Millstone , 2007):

### **Table 1: stakeholders grouped into perspectives for analysis**

Government: e. g Ministry of Public Health, Ministry of SportsAgri-food

industry: e. g Food industry representatives. Health professionals: e. g

Research experts in public healthEducation sector: e. g School teachers.

Media: e. g health journalism, advertisers. Public interest NGOs: e. g public

health voluntary organisations, consumer organizations. Multilateral

partners: WHO, UNICEF, FAO

### **Expected outputs**

Interviews to the key stakeholders performed. Stakeholder´s opinions

faithfully mapped and analysed. Set of ppolicy options to tackle obesity from

the consensus and priorities of the stakeholder´s point of views identified

### **Expected outcomes:**

A numerical ranking for each obesity policy option under all the criteria taken

for a particular stakeholder. Systematic picture of stakeholders' views and its

perspectives on obesity policy options. Guideline about feasible obesity

policy options. Awareness about obesity policy options among key

stakeholder and policymakers.

## **Time frame of activities (planning)**

The activities needed to reach the objectives will be carried out partly in Belgium and in Ecuador, it includes: 1. Policy options and stakeholders selection, this work which will be performed by the research team (preparatory work); 2. Training for the interviews (done by experts on the topic); 3. Recruitment process; 4. Test interview, it is an interview done to a stakeholder who is not part of the analysis in order to improve the interviewer performance; 5. Execution of the interviews (data collection, analysis); 6. Transcription of the audio recordings obtained from the interviews; 7. Further analysis of all the material collected; 8. Review and comments of the preliminary report; 9. More data collection, this step will be carried out only if the research team decides that it is needed; 10. Preparation of the dissertation document, this includes meetings with the tutor and promoter and any other activity required for the documents that will be needed for the dissertation; 11. Dissertation. The time frame of activities will be carried out as follows in the table 2.

## **Table 2 – Time frame of activities – activity planning**