



# Establishing Calendar for Health Observatories Studies: Islamic Republic of Iran's Experience

Hossein Mirzaei<sup>1,2</sup> and Behzad Damari <sup>3,\*</sup>

<sup>1</sup>HIV/STI Surveillance Research Center, Institute for Futures Studies in Health, Kerman University of Medical Sciences, Kerman, Iran

<sup>2</sup>WHO Collaborating Center for HIV Surveillance, Institute for Futures Studies in Health, Kerman University of Medical Sciences, Kerman, Iran

<sup>3</sup>Tehran University of Medical Sciences, Tehran, Iran

\*Corresponding author: Tehran University of Medical Sciences, Postal Code: 1417993366, Tehran, Iran. Tel: +98-9122093502, Fax: +98-2188956978, Email: bdamari@gmail.com

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## Abstract

**Background:** Health survey is one of the important and valuable methods in producing health indicators and has become a part of health information system. Health surveys planned and performed properly can be used in assessing population health, policy-making, planning, health monitoring, evaluating, and observatories.

**Objectives:** The present paper is the product of a project to establish a calendar for health observatory studies, which has to compatible with Iran's Sustainable Development Plans.

**Methods:** The main question of this qualitative study was: "what are the reasons and solutions for having up-to-date, sufficient, quality information, and how could we ensure they are being carried out?" Data collection methods included interviews, reviewing documents and records, and interviewing focus groups of Iranian experts and health policy-makers.

**Results:** Thirty-one health observatory studies, concurrent with Iran's five-year Socioeconomic Development Plans, passed the consensus of stakeholders. The span of time to conduct each study was determined based on five-year Development Plans and national and international organizations' requests for certain information.

**Conclusions:** If the policy-makers are constantly pleased with up-to-date, sufficient, and quality information, sustainability of sticking to this calendar can be secured. The effective factors in successful implementation of this calendar is timely financing, defining health observatory survey and study protocols, apportioning duties among valid research centers, training interviewers not affiliated with health system, maintaining of experienced Iranian and international legal observers, assessing performance method of each survey, and implementing the results and findings in the future.

**Keywords:** Calendar, Survey, Health, Iran

## 1. Background

Not only having access to health information enhances the quality of health care and brings more satisfaction for the people but also accelerates and improves policy-makers' the decision-making process (1). Health evaluation and policy-making at national level and its evaluation and management in lower echelons depends on the prompt availability of this information and ensuring this promptness calls for the Ministry of Health and Medical Education's (or its counterpart in any country) exact planning and coordination (2,3).

Health information systems are embroiled in a chaotic and inconsistent path due to the legal, economic, managerial strains, and stakeholders' constraints. The responsibility for health information is on different ministries and organizations and therefore, the coordination may become

difficult due to financial and administrative restrictions. There should be specific endeavor in place to secure proper coordination and appropriate sharing of the information between MHME and other organizations (4,5).

Health survey is one of the important and valuable methods in producing health indicators and has become a part of health information system (5,6). Health surveys, planned and performed properly, can be used in assessing population health, policy-making, planning, and health monitoring, evaluating and observatories (7,8). Planning for the frequency of health surveys to be performed and co-ordination among different surveys is indisputable. This has been the case, in the US, since 1962 (9). The overall goal of national health surveys was to maximize scientific correctness and minimize the necessary resources to produce input/information used in health systems (10).

The Health Metrics Network (HMN) suggests that coun-

tries have a comprehensive and consistent plan for health surveys. The plan needs to be a part of health information system of any country and specify scientific and executive dimensions of health surveys for producing population health input/data, risk factors, and data related to organizations (e.g. service coverage) (11).

One of the existing problems facing health and treatment system in Iran is the lack of a coherent system to implement the results of national health surveys. This has led to undisciplined and erratic conducting of these surveys. Furthermore, there is no coordination among them in terms of prioritization, duration, and intervals. Also, there are some indices in different surveys, which are repeated in a short span of time which is a waste of time and resources and likewise, there are some of the same indices, which might be overlooked for a long span of time which leads to the absence of essential information. There are surveys the questions of which altered consecutively (12).

Since the foundation of National Institute of Health Research (NIHR) in 2009, Health Observatory System has been issued to be conducted (5, 13). This paper tries to investigate one of the important sections of Iran's Health Observatory Systems. In other words, one of the problems facing health system administration is insufficiency, obsolescence, and poor quality of health information and data for decision-making. The present paper is the result of studying establishing a calendar for health observatory studies, which has to be compatible with Iran's Sustainable Development Plans.

## 2. Methods

This is a qualitative study. The main question of the study was: "what are the reasons and solutions for having up-to-date, sufficient, and quality information and how could we ensure they are being carried out?" Data collection methods included interviews, reviewing documents and records, and interviewing focus groups of Iranian experts and health policy-makers.

The administrative committee was formed in compliance with stakeholders' judgments and guidance: Health Policy-making Secretariat of the Ministry of Health and Medical Education (MHME), Statistics and Information Management Office of the related ministries, Statistical Center of Iran, three of the executives of national surveys from NIHR, and a representative from Management and Planning Organization of Iran. In that committee, the framework for the Calendar of Health Observatory studies was agreed upon to be based on Result Chain. Then the information was collected to fill this framework.

First stage: at first, international documents and studies were analyzed. Among world health surveys, 10 major

international surveys, including demographic and health survey, World Health Organization Survey (14), National Health Accounts (15), and some national surveys conducted in low or middle-income countries besides some carried out in Arab countries were reviewed. In each of the surveys, the following factors were analyzed: the reason behind the survey, the modules used in survey tools, time span, time needed for conducting the survey, and the level of performance (national, regional, and worldwide).

Second stage: all internal surveys conducted over the last two decades have been collected through in-country documentation review. The strengths and weaknesses of these surveys were collected based on experts.

Third stage: in this stage, a list of indices per departments (in different deputies of The Ministry of Health and Medical Education) was developed. In this list, it is assigned which indices are furnished with routine data (current information system) and which ones are served with data from surveys. This study is based on surveys at family level. After this stage, the proportion of overlaps among surveys conducted by MHME, Statistical Center of Iran, and other organizations is brought to light. Another question should be dealt with in this study was about accumulating surveys based on different deputies. We wanted to know whether we have to perform a single general survey, which has its own right different sub-samples of nutrition, mental illnesses, etc. or we must perform a separate health survey on each domain.

Based on the results of these three stages, a draft of the table was prepared and holding several sessions, the administrative committee reviewed, ameliorated, and completed it. The stakeholders' points of view and comment about strengths and weaknesses of observatory studies were thoroughly discussed and enforcements for sticking to the calendar of observatory studies were sorted.

## 3. Results

### 3.1. Section One

**Table 1** shows that thirty surveys and national studies have been carried out in the last 15 years. The interviewed informants believe that those surveys and studies suffer from the following deficiencies:

1. It was not scheduled.
2. Certain surveys, which were conducted several times overtime, used different tools.
3. There have never been headquarters to coordinate and manage the duration, methodology, and expenses of surveys.
4. The years of conducting the national surveys were not well suited to Iran's Development and Health Transformation plans.

5. Planning and conducting the studies were dependent on individuals in a way that having access to the data was difficult and next to impossible for managers and policy-makers.

6. The implementation and application of the results of previous studies and surveys are open to question.

7. In some cases, some of the questions and indices of several surveys overlapped and in other cases, some of the important indices necessary for policymaking and management were not covered.

8. The lapse of time between gathering data and analytic reports was considerable and long.

9. Owing to poor quality control, the collected data did not measure up to satisfactory levels or at least the decision-makers could not trust them enough.

10. In most cases, the volume of data could not provide for analysis at the level of cities or provinces.

### **3.2. Section Two**

According to the collected data, [Table 2](#) was created as the Calendar for Iran's Health Observatory studies. As can be seen in this table, for all studies and surveys, indices were gleaned and the overlapping ones among several surveys were first detected and then crossed out and only one was kept.

For some of the indices, there is a register system in which all different levels of health system regularly collect the necessary data. These indices were therefore removed.

In this stage, the replication period for each study was set. The criteria for setting this period were the nature of the index that changed over time, closeness to the launching time of Development Plans, decision-making organizations' needs, and information requests from international organizations.

The executive and monitoring bodies were determined. Based on the concentrated group discussions and the structure of the MHME, it was stipulated that all national surveys should be called for by National Institute of Health Research. Furthermore, the same institute should perform monitoring and evaluating all the stages of the project, from assignment to reporting. In addition, owing to administrative divisions and inequality among many indices in different provinces, the estimation level was set to be at province level.

### **3.3. Section Three: Analyzing Stakeholders' Opinions About the Calendar's Enforcement**

The informants believe that the instructions for accessing and preserving the data gathered from the collected routine data and MHME's surveys should be issued and ratified so as to share the raw data collected from these surveys and share them with all researchers in fair and just

way while preserving the rights of those who order and those who conduct that survey or study. This will make further analysis of the data possible. To enforce the adherence to the calendar of surveys it is necessary that it should be ratified in a legal entity and then issued to medical universities, research centers, and other institutes involved in conducting national surveys. The authority for conducting surveys, creating data bank (database), establishing protocols, and sharing data gleaned from national surveys should be entirely granted to an office, department or organization, which functions under the MHME. In addition, there should be sustainable human and financial resources considered for these activities. A national dashboard to present national surveys' findings so that anyone, including policymakers and researchers, are able to have access to them immediately should be created. For each survey, when it is completed and the final report is issued, a press conference should be held. National survey protocols should be written to standardize conducting and reporting the results and monitoring of the surveys should observe those protocols. International and national scientific observers and methodology experts, who are not affiliated with MHME, should take advantage.

## **4. Discussion**

Thirty-one health observatory studies, concurrent with Iran's five-year socioeconomic Development Plans, passed the consensus of stakeholders. These studies measured health care services, resource providing, and environmental and behavioral risk factors based on impact and outcome. The span of time to conduct each study was determined based on five-year Development Plans and national and international organizations' requests for certain information. The level of estimation and conducting the study were determined based on the nature of indices obtained from each study.

Nationwide surveys in different countries are not conducted in the same way. For example, Korean community health journal ([16](#)) and Australia national surveys ([17](#)), based on studied factors, are carried out in large dimensions. In these countries, most of the aspects of health, including health status and disease outbreaks, risk factors of diseases, health care coverage, and health status inequity were studied in a single survey. However, in Iran, for each of the aforementioned aspects, a separate survey was conducted to provide for the health sector's need for information. The advantages of this approach to the former one consist of:

1. Since some of the indices change in a longer period, the replication period for these surveys is longer and therefore, is more cost-effective.

**Table 1.** The List of Studies and Surveys Conducted in the Last Two Decades

No.	Title of the Survey	Year	Responsible Office/Department/center
1	The status of health and development in provinces	1997	
2	Children nutrition status in provinces	(First time): 1998, (second time): 2004	Society Nutrition Improvement Office
3	Oral Health Condition Survey (children of 3-6-9-12-year-old in Iran)	(First time): 1998, (second time): 2004	Iran Oral Health Office
4	Population and Health Status	(First time): 1999	Family Health Office and Statistical Center of Iran
5	Population and Health Status	(Second time): 2010	
6	Health and Disease Study	(First time): 1990, (second time): 1999	
7	A study of the condition of micronutrient	(First time): 2002, (second time): 2012	Society Nutrition Improvement Office
8	Health care Utilization in Society	(First time): 2002, (second time): 2008	
9	Non-Communicable Diseases (NCDs) risk factors surveillance system	Annually; since 2004 till 2011	NCDs Management Center
10	Study of risk factors in the occurrence of deliberate and unintentional incidents	12 provinces (2003), 14 provinces (2005)	
11	RAMOS Study	1996	
12	Study of the knowledge and performance of families in family health	1993 - 1997	
13	Modern System of Monitoring and Evaluating for Reproductive Health	2005	Population, Family, and School Health Office
14	Study of Epidemiology of Drug Abuse in Islamic Republic of Iran	2007	Mental Health Office and Iran Drug Control Headquarters
15	Prevalence of preterm deliveries and Low birth weight (LBW)	2004	Society Nutrition Improvement Office in collaboration with relevant departments of Deputy for Health
16	National Health Accounts	2008	
17	Mental Health National Survey	2011	Addiction and Mental and Social Health Office
18	Study of Oral Health Condition (6-12-15 year-old children, 35-44 and 65-74-year-old adults of Iran)	2012	Oral Health Department of MHME
19	Study of Gum Health based on CPI index in 15-19 and 35-44-year-old Iranians	2001	Research Institute for Dental Sciences of Shahid Beheshti University and Oral Health Department of MHME
20	Study of Pregnancy changes in 4 provinces (Azerbaijan Gharbi, Gilan, Yazd, and Sistan and Baluchestan)	2001	Family Health Office
21	Health System and Health System Responsiveness	2001	Network Management Center (NMC)
22	Study of the Prevalence of Primary Infertility in Islamic Republic of Iran	2004 - 2005	
23	Health equity		Policy-making Council (Social Determinants Secretariat), Network Management Center (NMC)
24	Study Elderly Health	2006	Elderly Department
25	Study of Iran's Population Growth Measurement	1973 - 1999	Statistical Center of Iran
26	Estimation of Biostatistics Sampling	1973	

2. The time needed to perform these surveys is considerably shorter and the results will be available in a shorter time.

3. Since each aspect studied separately, it is possible to ask questions that are more detailed.

Another difference in conducting national surveys between Iran and developed countries is that the Routine Health Information System (RHIS) in Iran is fairly less so-

phisticated. Consequently, the indicators, which should be obtained through this system, are missing in Iran and instead the results from other surveys are included or a separate and specific survey is devised to obtain them which leads to an increase in the expenses and decrease in the precision.

In the calendar that is established following the present study, there are certain studies embedded the in-

**Table 2.** Health Observatory Studies Calendar

M&E Frame	Title of Study	Year	Period	Level of Estimation (Country/Province/University)
Impact	Annual Death Report	2015	Annual	Country
	Burden of Disease	2015	Every three years	Province/university
			Every three years	Country
	Oral and Dental Health	2016	Every four years	Province/university
		2018	Biannual	Country
	Satisfaction from Health Care	2015	Annual	Country
	Fairness in Financial Contribution in Iranian Health System	2017	Every three years	Province/university
	Health System Responsiveness	2017	Every three years	Province/university
	Social Capital and Social Health	2016	Every three years	Country
	Spiritual Health	2017	Every three years	Country
	Happiness	2017	Every three years	Country
Financial functions and resource production	National health Accounts	2015	Every three years	Province/university
		2016	Annual	Country
	Human Resources Studies of Medical Science (satisfaction, quantity)	2015	Annual	Country
	Evaluating Stewardship of Health System	2017	Every three years	Country
	Evaluating the policies and macro-plans of Health System	2016	Every three years	Country
	Evaluating the Efficiency of Health System	2016	Every three years	Country
	Analysis of the costs of major Problems in Health System			
Service/health care	Health Care Utilization	2014	Biannual	Country
	Multiple indices of Health and Population	2015	Every four years	Province/university
	Quality and quantity of Inpatient/outpatient services	2016	Annual	Country
	Study the Major Functions of Public Health	2016	Every three years	Province/university
		2017	Annual	Country
	Effective/ineffective Health Care Coverage	2017	Every three years	Province/university
	Patient safety/ Safe Services	2016	Every three years	Country
Metabolic and behavioral studies/health literacy/SDH	Health in disasters and Structural Preparedness	2016	Every three years	Country
	NCDs risk Factors Surveillance (STEPS)	2015	Every three years	Province/university
		2016	Annual	Country
	Indicators of Equity in Health, Social Determinants of Health (SDH)	2017	Biannual	Province/university
		2016	Annual	Country
	Health Literacy	2017	Biannual	Province/university
	NCDs Prevention and Surveillance System in Schools (CASPIAN)	2016	Annual	Regional
	Mental Health	2017	Every three years	Province/university
	Micro-nutrients Condition Study	2016	Every three years	Regional
	Food Consumption Patterns in Families	2016	Every three years	Regional
	Anthropometric and Nutrient Indices Survey (ANIS)	2017	Every three years	Province
	Food Safety		Every three years	Regional
	Medical Research Impact Analysis (RIA)	2016	Annual	Country
	Evaluating the Impact Health system Graduates in Society		Every three years	

formation of which is collectable via NHIS. The reason behind this is considerable delay in publishing such reports. For example, death status reports are issued with three years delay. Therefore, to manage and regulate issuing these types of reports, they were included in the calendar.

There are certain features for the results of this study: if the calendar adhered to, the shortcomings of these surveys, of which we named 10 items in the result section, will be eliminated over time. The other feature is that it paves the way for timely responding to requests for infor-

mation from international organizations to serve the goal of worldwide sustainable development and plans for preventing non-communicable diseases (NCDs).

Population surveys should observe international standards in criteria like sampling, questionnaire designing, field monitoring, satisfaction and confidentiality, data processing, data collecting procedures and methods, analyzing, and reporting. To this end, the country should have proper human resources and infrastructure. Therefore, we suggest hereby, to ensure the high quality of national surveys, the standard protocols for conducting them be established and observing them during the whole process should be supervised. Moreover, it is suggested that the calendar should be revised ever five years.

#### 4.1. Conclusions

If the policy-makers are constantly pleased with up-to-date, sufficient, and quality information, sustainability of sticking to this calendar can be secured. The effective factors in successful implementation of this calendar is timely financing, definition health observatory survey and study protocols, apportion duties among valid research centers, training interviewers not affiliated with health system, maintaining of experienced Iranian and international legal observers, assessing performance method of each survey and implementing the results and findings in the future.

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#### Footnotes

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