Palestinian National Authority
Palestinian Central Bureau of Statistics

Health Care Providers and Beneficiaries Survey-2005

Table of Contents

Notes for Data Users

- **Institutions Data:**

- User should take into account two things when he or she would like to manipulate the estimated annual health expenditures and their share of the GDP:

First, only the spectrum of services and providers that are mentioned in the survey were included in the estimation are: generalists and specialists' clinics and centers, dental clinics, primary health care centers, physiotherapists, laboratory and radiology services, and hospital care. This remains a conservative estimation of total health expenditures, (e.g., demand for private pharmacies, some public health activities and traditional medicine were not included).

Second, there are some services where the numbers of observations are few, such as physiotherapy and rehabilitation centers, in particular the number of monthly visit and unitary cost.

- The relative weight available in the data file is for health institutions, regardless if the interview result was completed or partially completed, and what ever the type of health sector that supervised the institutions; we advice user for more precise result to derive other weights based on the original one that available on the data file.

- **Patients Data:**

- The sampled patients distributed on different health sector to guarantee wide representativness for both private and non governmental organizations as they were our main target in this survey, we advice data user to analyze data without any weights and use column bases percentage to build up comparison within each health sector by itself, not row percentage and nor comparison among the different health sectors.

Definitions and Explanations

Admissions:	Admitted patients to hospital for treatment or diagnosis and their stay at hospital for one night or more
Accrual Basis:	The accrual accounting records flows at the time economic value is created, transformed, exchanged, transferred or extinguished. This means that the flows which imply a change of ownership are entered when ownership passes, services are recorded when provided, output at the time products are created and intermediate consumption when materials and supplies are being used
Beds:	Available Beds in room and hospital halls, which are occupied by patients for at least 24 continuous hours for receiving medical care.
Compensation of employees:	Wages, salaries and other allowances and remuneration in cash or in kind.
Chronic disease:	Any disease that affect the person and needs continuous treatment and diagnosed by specialist. Persons who receive any treatment for 6 months and over considered as chronic patients.
Depreciation:	They are the assets value, which reproduced, and depreciated during the year, depreciation is calculated on the current substitutive value.
Enterprise:	An economic entity that is capable to in its own right of owning assets, incurring liabilities and encaging in economic activity and transaction with other entities.
Establishments:	An enterprise or part of an enterprise in which one group of goods and services is produced (with the possibility of having secondary activities).
General Practitioner:	The doctor that has received at least his first university degree in medicine enabling him to practice medicine in general with no specific specialization.
Health Expenditure:	The value of outlays for the final consumption of goods and services defined as health goods and services and for the production of certain activities defined as health activities.
Health Insurance:	A contract between the insured and the insurer to the effect that in the event of specified events (determined in the insurance contract) occurring the insurer will pay compensation either to the insured person or to the health service provider. Health insurance includes: Governmental, private, military, UNRWA and Israeli insurance
Household:	One person or group of persons with or without a family relationship who live in the same dwelling unit, who share meals and make joint provisions for food and other essentials of living.
Human Resources:	All individuals employed at health institutions who receive remuneration in wage, commissions, tips, piece -rate or pay in kind. Whatever how they are work, full time or part time, permanent or temporarily contract.

Intermediate Consumption: The value of goods and services that are transformed or entirely used up in the course of health production during the accounting period (1/1/2004-31/12/2004) for this survey, despite of the nature for institution which offer health services. It classified by:

1. Compensation of employees: The total remuneration, in cash or in kind, payable by an enterprise to an employee in return for work done by the latter during the accounting period (1/1/2004-31/12/2004).
   - Wages and salaries payable in cash or in kind.
   - The value of the social contributions payable by employers: these may be actual social contributions payable by employers to social security schemes or to private funded social insurance schemes to secure social benefits for their employees or imputed social contributions by employers providing an funded social benefits.
2. Goods expenditure: Consists of goods inputs, which are used in all economic activity within the production process for both main and secondary activities, with in the accounting period.
3. Services expenditure: Consists of all necessary services needed for the production process to produce medical services, these services are almost always provided from outside the enterprise with in the accounting period.
4. Fees and Taxes: These are compulsory, unrequited payments, in cash or in kind, made by institutional units to government units. They are described as unrequited because the government provides nothing in return to the individual unit making the payment. It include: value added taxes, customs duties, constructions, licensing fees, official stamps fees, building taxes, other indirect taxes specify

Hospital: An institution that its primary function is to provide services (diagnostic and therapeutic) for variety of medical conditions, both surgical and non-surgical. Most hospitals also provide some outpatient services, particularly emergency care.

Laboratory: Medical units responsible for diagnostic tests to reveal certain normal or abnormal biological and chemical tests

Laboratory Test: Certain chemical, biological and other tests performed on sample from patients to reveal certain illness case.

Monthly income: The total amount of cash and in kind remittances earned by household members during the reference period, regardless of its source. Earning of servants working for the households are excluded. The reference period was the past month preceding the data collection.

Non-Governmental hospitals and primary health care centers: Any hospital or primary health care center that run by Non-governmental organization, which is nonprofit, such as UPMRC, PRCS, PFS. For this survey purposes, East Jerusalem hospitals (Augusta Victoria, St. John, Al-Makassed, and St. Joseph) considered as Non-governmental hospitals.

National Health Account:	A tool to provide a systematic compilation of and display of health expenditure. It can trace how much is being spent, where it is being spent, what is being spent on and for whom. How that has changed over time and how that compare s to spending in countries facing similar conditions. It is essential part of assessing the success of health care system and of identifying opportunities for improvement.
Out of pocket:	The direct outlays of households, including gratuities and payments in-kind, made to health practitioners and suppliers of pharmaceuticals, therapeutic appliances, and other goods and services that its primary intent is to contribute to the restoration or to the enhancement of the health status of individuals of population groups. Includes household's payments to public services, non-profit institutions or nongovernmental organizations. Excluded payments made by enterprises which deliver medical and paramedical benefits, mandated by law or not, to their employees.
Primary Health Care:	First contact and continuing comprehensive health care, including basic or initial diagnosis and treatment, health, supervision, management of chronic conditions and preventive health services. The provision of primary care does not necessarily require highly sophisticated equipment or specialized resources.
Reference Period:	The date referred to is from 1/12/2004 to 31/12/20004, in which the calculation of expenditures, revenues and services delivery was done.
Revenues:	The total value of goods and services sold, or bartered or used for payments in kind that it deserve for enterprise during the accounting period (1/1/2004-31/12/2004). The revenues classify to: compensation for doctors, recording fees, medicine, laboratory and rays, surgery…etc.
Secondary Care Institutions:	An institution that its primary function is to provide services (diagnostic and therapeutic) for variety of medical conditions, both surgical and non-surgical. Most hospitals also provide some outpatient services, particularly emergency care.
Specialized Physician:	The doctor that has acquired a specialized training after completing general medicine focusing on a specific area becoming, for example, a cardiac surgeon or ophthalmic doctor.
Tertiary and Rehabilitation Center:	Medical institution offers vocational, social, educational and curative medical services to any impairment due to any accident or illness.
Third-Party Payers:	Any organization, public or private that pays or insures health or medical expenses on behalf of beneficiaries or recipients. An individual pays a premium for such coverage in all private and in some public programs; the payer organization then bills on the individual's behalf. Such payments are called third-party payments and are distinguished by the separation between the individual receiving the service (the first party), the individual or institution providing it (the second party), and the organization paying for it (third party).

Survey Questionnaire

Two questionnaires are designed and implemented to fulfill the study objectives: an '*Institution Questionnaire*' and a '*Patient Questionnaire*'. Each of the two instruments is intended to address different target groups of stakeholders, and together fulfill the spectrum of specific objectives attached to the study. The two questionnaires are described below.

The '*Institution Questionnaire*' is designed to acquire information, directly from health care providers, about their activities and performance. The questionnaire is composed of five sections: Section One collects information about the health care provider her/himself: profession and specialty, activity in terms of number of working hours and places of practice, perspective vis-à-vis administrative and technical obstacles hindering the provision of better quality care, and views with regard to potential avenues for quality improvement. Section Two collects information about the health care institution itself: type and nature of provided care, offered services and existing equipments, and available human resources. Section Three questions about institution's activity in terms of: number of working hours per day and number of working days per year, type and size of provided services, and average unit charge per service. Information from this section is intended to provide an indirect estimation of institution's expenditures/revenues, and hence, the provider's share from total national health expenditures. Section Four covers the spectrum of institutions' expenditures in nominal (monetary) terms; e.g., wages and salaries; running costs including: water, electricity, and mailing services; costs of internal and external missions; and cleaning and maintenance services. It also covers the spectrum of institutions' revenues in nominal (monetary) terms; e.g., registration fees; charges from medications; and charges from hospital stay and emergency services. Section Five is intended to estimate capital outlays. It covers all institution's capital properties and investments, including: lands, buildings and equipments.

The '*Patient Questionnaire*' is divided into four sections. Section One collects information about the responding patient's socioeconomic and demographic characteristics; e.g., age, sex, education, marital status, and household income. Section Two asks about insurance coverage and insurance utilization, patient's degree of satisfaction with the current functioning of own health insurance, and whether of not she/he would prefer an alternative insurance system, and her/his willingness to pay to benefit from an optimal insurance coverage. Section Three collects information about the individual's health problem and her/his behavior in demanding health care, the spectrum of received care, and charges paid to acquire needed services. The section also asks about whether any other third-party had assisted in covering the health care costs. Finally Section Four assesses the availability and quality of needed services (from the patient's perspective), and asks about patients' satisfaction with provided care. This section also includes a group of questions for in-patients to assess their experience with in-patient services and the hospital admission process.

Data Set Linkage

The data set for users consists of two primary files that are related by identification variables (keys). A description of the files is below.

File Name	Content	Identification Variable
Institutions. dat	Institutions Data	IDh00: Institution Number
Patients. dat	Patients Data	IDh00: Institution Number
Asset. dat	Asset Data	IDh00: Institution Number

Filtering and Grouping of Respondents
Units of analysis (Other units are generally derived from these) and filtering instructions are as follows:

Unit	From file	Filtering
Institution	Institutions. dat	Institutions that interview result was completed or partially completed.
Patient	Patients. dat	Patients with interview result were completed.

Target Population

The study population consists in all health care institutions regularly functioning in the Palestinian Territory at the time of study, and the population of patients frequenting these institutions. The study sample, however, was divided into two groups. The first group consists in a sample of health institutions belonging to the Private and NGOs health care providers, and patients demanding care at these institutions. The second group is an extra sample of patients frequenting MoH and UNRWA health institutions. Administrative and financial information about the activity and performance of MoH and UNRWA health care providers are obtained from their respective annual activity reports, which include centralized and reliable data about the activities in these two sectors.

Sample Size and Design Frame

Of the entire population of Private and NGOs health institutions, 1,202 institutions (only 982 institutions with completed interview) are sampled to study the Private and NGOs sectors. Selected institutions are either: generalists' or specialists' medical clinics, medical laboratories, physiotherapy/rehabilitation centers, dental clinics or hospitals, distributed over all the governorates of the West Bank and Gaza Strip. All hospitals belonging to the Private and NGOs sectors were included in the study sample. The total number of interviewed patients amounted to 3,265 patients, sampled from the population of patients of most of the selected health institutions, and present at the institution site at the time of administering the institution questionnaire – this was the case for Private and NGOs health institutions. The patient sample was then enlarged with a sub-sample of patients frequenting nearby health facilities belonging to the MoH and UNRWA health sectors.

Private and NGOs health institutions covered in the present study are selected from a complete list of health institutions obtained from the "Establishment Census" conducted by

PCBS in the year 2004. The total number of health institutions belonging to the Private and NGO sectors amounted to 3,545 institutions of all types. Sampled patients from the Private and NGOs sector were chosen from the entire population of patients frequenting the sampled institutions. On the other hand, patients selected from MoH and UNRWA health institutions were amongst those frequenting health facilities belonging to MoH and UNRWA, and situated geographically close to the sampled Private and NGOs health institutions.

Weighing

A weight is defined as the inverse of the probability of selecting a subject from the study population, to be included in the study sample. It is interpreted as the number of subjects in the population that are represented by a particular subject in the sample. In the present study, weights are estimated taking into account institutions' sizes and types as depicted by the "Establishment Census" of the year 2004. Estimated weights are then adjusted to account for non-respondents and uncompleted questionnaires during the fieldwork. Indeed, adjustments of *a priori* estimated weights remain an important step to avoid any potential bias due to non-respondents and to account for changes in the number of institutions in the post census period.

On the other hand, results from the Patient Questionnaire are presented **un-weighted**. This is basically due to the manner whereby the patient sample was recruited, and the absence of a reliable framework that specifies the characteristics of the population of patients in the country. For further analysis one could use one of two alternative methods to create weights for the patients file – each has its own shortcomings. One of the methods consists in relying on the characteristics of the sub-sample of patients from the previous Household Health Expenditure Survey-2004, where patients were recruited at the level of their households and their characteristics and behavior in demanding health care were directly identified. These weights were used to publish the Preliminary Results of the present survey. The second approach would make use of the number of patients frequenting the different types of health institutions, as stated by the providers in the Institution Questionnaire. The problem with the second approach is that adjustment would not take into account the socioeconomic and demographic characteristics of the population of patients, and more importantly the Institution weights that would be needed to estimate the patients' weights were not designed to take into account the number of patients frequenting the population of institutions in the sampling frame.

Variance Calculations

It is usually important to estimate sampling errors and present standard deviations along with estimated statistics. This is important to evaluate the degree of precision in the different estimated indicators. The total error existing in an estimate emerges from two sources: sampling and non-sampling errors. Non-sampling errors arise from the manner whereby data are collected and processed; e.g., a failure to interview the correct unit and mistakes made by the interviewer or the respondent. It is usually difficult to estimate non-sampling errors; however, several measures are taken to minimize such type of errors – see section on data quality. On the other hand, sampling errors are due to the statistical distribution of estimated variables. These could be quantified from the survey results and standard deviations are presented alongside some of the estimated statistics to reflect the extent of these errors.

Data Collection

Training

Training for the pilot study helped finalize the training manual for the general study, taking into account the trainers' and trainees' remarks and evaluations. One hundred and ten fieldworkers were recruited and trained to carry out the fieldwork for the general study. The training activities took place over six days (form 15 to 22/11/2005). Training activities included an in-depth explanation of all questionnaire sections and question items, training exercises, interview demonstration, and a final exam to assess knowledge transfer and the capacity of the fieldworkers to pursue all study activities. All trainees were handled a package of training materials including: interviewers and supervisors' training manuals and the questionnaire instruments. Training of fieldworkers from Gaza Strip took place via videoconferencing.

Fieldwork Organization

The main fieldwork in the West Bank and Gaza Strip started on November 26, 2005 and was completed on December 30, 2005. 17 mobile teams in the West Bank and Gaza Strip performed the entire fieldwork. Each of the teams was composed of 3-5 fieldworkers, one supervisor, one assistant and one field editor. The work team implemented several field editing exercises, which included further spot-checks if needed. The field editor thoroughly checked and corrected any obvious mistakes and slips.

Editing in the Field

The project team developed and implemented a clear editing strategy that was used to train the editors' team to ascertain good quality data. The strategy consists in:

- Collecting all filled in questionnaires from the fieldworkers on daily basis.
- Checking each questionnaire for completeness of all sections and ascertaining that all question items were precisely filled in.
- Returning back all questionnaires with missing responses or doubtful information.
- Checking the accuracy of some of the data by phone interviewing the respondent by the project coordinator or the supervisor.
- Double-checking the calculations necessary to evaluate the spectrum of assets possessed by the different health institutions.

Data Processing

Collected data was entered using ACCESS package for Windows. The data entry was organized in a number of files to correspond to the main parts of the questionnaire. A data entry template was designed to reflect the exact image of the questionnaire, and to include various electronic checks: logical check, consistency checks and cross-validation. Continuously thorough checks were held on the overall consistency of the data files, and some questionnaires were sent back to the field for corrections, when needed. Data entry started in December 3, 2005 and finished in January 10, 2006. Data cleaning and checking processes were initiated simultaneously with data entry. Thorough data quality checks and consistency checks were carried out.

Final tabulation of survey results was performed using the statistical package SPSS for Windows (version 12.0).

Reference Date

Institution information was collected for the year 2004 [1/1/2004 to 31/12/2004]. Most of this information consists in financial data that is usually organized by the institution on annual basis. However, the time of the visit was also used as reference time for some of the indicators; e.g., respondents' characteristics. This was also the case for the Patient Questionnaire where the time of the visit was used as the reference time for collecting patients' characteristics and other information about their disease and behavior in demanding health care.

Response Rates

Sample and Response Rates	Region		
	Palestinian Territory	**West Bank**	**Gaza Strip**
Number of Institutions in the Sample	1,202	845	357
Number of Interviewed Institutions	982	702	280
Response Rate	**81.6**	**83.0**	**74.6**

With regard to the patient instrument, no questionnaires are reserved for non-respondents, and in case of refusal, a different patient is requested to fill in the questionnaire items. Therefore, it is not possible to estimate the response rate for the Patient Questionnaire.

Patients were recruited from 81.0% of the sampled institutions; for the remainder 19%, it was the case that either not enough patients were present at the institution at the time of questionnaire administration or that the institution itself does not directly serve patients (e.g., dental laboratories or optics centers). In addition, patients frequenting emergency centers were excluded form the study sample.

Data Quality

Since the data reported here are based on a sample survey, and not on complete enumeration, they are subjected to two main types of errors: sampling errors and non-sampling errors. Sampling errors are random outcomes emerging from the sample design, and are, therefore, measurable. However, non-sampling errors can occur at the various stages of the survey implementation, data collection and data processing, and are generally difficult to be evaluated statistically. They cover a wide range of errors, including errors resulting from non-response, sample frame coverage, data processing and response bias (both respondent- and interviewer-related). The use of effective training and supervisions and the careful design of questions have direct bearing on the magnitude of non-sampling errors, and hence the quality of the resulting data.

Fieldwork procedures were designed and organized to ensure effective supervision and high quality data. To this end, several quality control measures were implemented. These included: periodic sudden visits by project technical team to the fieldworkers; organization of a full-day meeting to re-call study objectives and discuss in-field problem solving; continuous communication between the central office staff and the field in the form of daily and weekly

reporting; re-interviewing by phone of about 10% of the institutions included in the sample by supervisors; observation of interviewers by supervisors; distribution of written memos to the field when confusion arises; precise documentation of the flow of the questionnaires through a control sheet; and limiting call backs to three visits per institution.

Quality Assessment of Financial Data Provided by Health Institutions
Revenues Assessment Using the Indirect Approach
The institution questionnaire was designed to collect financial information from health institutions using an indirect, and a direct, approaches - results from the two approaches were compared at different places in the present report. This section describes what is intended by the indirect approach, and illustrates its estimation technique. Estimations based on the indirect approach relied on information collected on the following set of activity indicators:

1. Average Number of Monthly Services Provided:
The average number of monthly services was used to estimate the productive capacity of the different health institutions. This was used to indirectly reflect the number of beneficiaries, the size of provided services, expenditures on, and revenues from, provided care. In this case, even in the absence of financial records at the level of health institution, and the sole availability of administrative records, the fieldworker helped the respondent to estimate the average number of monthly visits taking place at the institution; an approximate number was sought from the respondent in case of the unavailability of even administrative records. The fieldworker was also asked to courteously intervene in case the respondent states incoherent information. The institution questionnaire provided a detailed classification of the different types of services provided by ambulatory health institutions in the Private and the NGO health sectors.

2. Average User Charges Per Type of Service:
The Institution Questionnaire also asks about the average unitary price charged by the institution for performing the different types of health care activities – regardless of who is paying the bill. This indicator is intended to help estimate expected revenues by multiplying the total number of services provided - by type of service - by the average charge per type of service, to conclude total expected revenues from the different types of provided services. The charges per provided service were obtained from:

a. Official price lists implemented by the specific health institution.
b. An estimation of the average price charged for the different types of provided services; e.g., the case of the category of maternal and child health, family planning and delivery services. It was advised that the same category of services be divided into more that one category in case the spectrum of included services are associated with huge discrepancies in the prices charges per type of service. In case, the health institution deals with a different currency than the NIS, reported charges were all converted into NIS using the 2004 money conversion rates:
c. Exchange Rates
1 US$ = 4.4789 NIS.
1 Jordanian Dinnar = 6.3155 NIS.
The sum of the different revenues pertaining to the Private and NGO sectors was used to indirectly estimate the total revenues of the two sectors from ambulatory health activities. These are used to provide an indirect estimate of the market share of the different health care providers using the indirect approach.

Expenditures and Revenues Using the Direct Approach:

The accrual basis was used to **directly** estimate total institution's expenditures and revenues. An accrual approach deals with all expenditures and revenues attached to a certain period of time, regardless whether these were effectively spent or collected during the period of time of interest or not. In order to avoid potential mistakes in reporting any of the aggregate data of expenditures and revenues, the lump sums of expenditures and revenues were divided into several categories where each category composed of a set of detailed items, in a way that the sum for the detailed amounts of money spent on, or collected from, the category's items corresponds to what was reported for the general category. For instance, the category of wages and salaries included the following items: Salaries (for regular/irregular employees, and temporary employees on contracts), wages for workers, and employees' compensations. The respondent was asked about the possibility of filling all detailed financial information or to simply respond to the general categories, depending on the availability of records and information at the level of each health institution. All financial data were entered in NIS using currency conversion rates for the 2004 when needed. Finally, in order to assess the quality of stated financial data, the fieldworker registered the source from which financial information was reported; e.g., financial records, estimations or both.

Capital Outlays:
Capital investments are characterized by their durability and high costs. They usually last for more than one year in the institution. Capital investments are of two major types: tangible and intangible capital investments. Tangible capital commodities include: lands, buildings and all types of equipments (e.g., medical machines, computers, photocopiers, etc.), furniture and vehicles. Intangible capital commodities include: computer programs, intellectual property rights, etc. Capital outlays were accounted for using specific annuitization techniques that allow depreciating the entire capital investment cost on the life span of the commodity.

Patients' Reported Financial Information:
The Patient Questionnaire was administered on a random sample of patients, selected from all patients present at the different types of health institutions (generalists' and specialists' clinics, dental clinics, medical laboratories, physiotherapy and rehabilitation centers, primary health care centers, out-patient clinics, in-patients). In case the respondent was younger than 16 years old; the accompanying individual was requested to respond to the questionnaire items on her/his behalf. It is worth to note that the value-added of asking patients in situ about their health expenditures consists in avoiding recall bias present in household surveys; however, the serious disadvantage with such sampling strategy is represented with the sample selection bias of individuals managing to have access to health care services at the time of the interview and the absence of a reliable frame that would help selecting the patients in a systematic manner.

Some of the most important indicators that were collected from the patients concern their financial activities. The Patient Questionnaire indeed included a complete coverage of all health care services received by the patient and the amounts of money that she/he paid to receive each of the services. The patient was also asked about other extra expenditures that she/he spent in demanding health care; this basically included transportation costs. On the other hand, patients were requested if any other third-party has assisted in covering the cost of received medical care services; e.g., insurance mechanisms or any other sort of financial coverage.

Derived Variables

Variable name	Description	Values
Region	Region	1. West Bank 2. Gaza Strip
loctype	Type of locality	1. Urban 2. Rural 3. Camps
rw	Relative weight	
Provider	Type of Health sector	1. Private 2. NGOs
Sector	Type of Health sector	1. Government 2. Private 3. NGOs 4. UNRWA 5. Others