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Profile of the Uninsured in Jordan

September 1999

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Mission

The Partnerships for Health Reform (PHR) Project seeks to improve people's health in low- and middle-income countries by supporting health sector reforms that ensure equitable access to efficient, sustainable, quality health care services. In partnership with local stakeholders, PHR promotes an integrated approach to health reform and builds capacity in the following key areas:

- > Better informed and more participatory policy processes in health sector reform;
- > More equitable and sustainable health financing systems;
- > Improved incentives within health systems to encourage agents to use and deliver efficient and quality health services; and
- > Improved organization and management of health care systems and institutions to support specific health sector reforms.

PHR advances knowledge and methodologies to develop, implement, and monitor health reforms and their impact, and promotes the exchange of information on critical health reform issues.

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Abstract

The government of Jordan has established a goal of expanding formal health insurance coverage to uninsured Jordanians. In order to accomplish this task, the government needs detailed information and analysis on who the uninsured are, what barriers to medical access they face without insurance, and what the costs of expanding coverage entail. Since 1997 the Partnerships for Health Reform Project (PHR) has undertaken technical assistance at the request of the Ministry of Health (MOH) to provide information to assist the MOH in reaching this goal. This report, which is one of four ongoing research efforts by PHR on Jordanian insurance issues, describes the analysis of data from the 1996 Jordan Living Conditions Survey, a survey of more than 5,900 households. According to PHR's analysis of the data, 32 percent of Jordanians lack formal health insurance coverage and a majority of these seek treatment at private sector clinics when an illness occurs. The uninsured are primarily non-working Jordanian citizens residing in middle-income households. The analysis finds that special attention in program design needs to be paid to the aged who will benefit from insurance schemes that are not limited to employer-based policies.

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Acronyms

| | |
|--------------|---|
| JD | Jordanian Dinar |
| JHUES | Jordan Health Utilization and Expenditure Survey |
| JLCS | Jordan Living Conditions Survey |
| JUH | Jordan University Hospital |
| JUST | Jordan University of Science and Technology |
| MOH | Ministry of Health |
| PHR | Partnerships for Health Reform |
| QA | Quality Assurance Project |
| RMS | Royal Medical Services |
| UNRWA | United Nations Relief Works Agency |
| USAID | United States Agency for International Development |

Conversion Rate **1.0 Jordanian Dinar = US\$ 1.41**

Acknowledgments

The United States Agency for International Development (USAID) has made this study possible. We express our sincerest gratitude to His Excellency the former Minister of Health, Dr. Na’el Ajlouni for initiating this study of the uninsured in Jordan, and to his successor His Excellency the Minister of Health, Dr. Ishaq Maraqah for supporting and sustaining this effort. We also express our sincerest gratitude to the Ministry of Health’s health insurance committee members, Dr. Fakhry Smirat, Dr. Moutassem Awamleh and Mr. Fahmi Al-Ostah, for their invaluable contributions towards the establishment of a comprehensive system of health insurance for uninsured Jordanians. In addition, we would like to thank the PHR counterparts at the Ministry of Health (Dr. Taher Abu Samen, Dr. Hani Brosk, Dr. Jamal A.A. Abu Saif, Dr. Abdel Razzac S.H. Shafei, Dr. Tassir Hassan Moslem Fardous, and Dr. Ayyoub Sayyid Khalil As-Sayaideh) for their level of dedication and efforts in implementing health care reform in Jordan. Finally, we are thankful for the data support that we received from the Fafo Institute of Applied Social Sciences in Oslo, Norway, particularly the assistance of Mr. Age Tiltnes.

Executive Summary

The Ministry of Health (MOH) of the Hashemite Kingdom of Jordan has expressed keen interest in expanding formal health insurance coverage to uninsured Jordanian residents. In order to design and select from among alternative policy options for the uninsured, it is imperative that policymakers consider empirical data to answer questions like: How many Jordanians do not have formal health insurance? Is lack of insurance a barrier to accessing medical services? Who are the uninsured? Where do they live?

To help answer these questions, the Partnerships for Health Reform (PHR), a United States Agency for International Development-funded project, analyzed data from the Jordan Living Conditions Survey (JLCS) of more than 5,900 households done in 1996. This analysis provides information that can help policymakers design a benefits package, design cost-sharing arrangements (e.g., the setting of co-payments, deductibles, and premium contributions), as well as to estimate utilization rates and expenditures of expanded coverage.

According to PHR's analysis of the JLCS data, the uninsured are primarily non-working Jordanian citizens (mostly women 20 to 34 years of age), residing in middle-income households, in which the youngest child is 14 years of age or less, and the head of household is employed at least part-time in the manufacturing, construction, or trade industries. Below is a summary of the most substantive findings:

Who are the uninsured and where do they live?

- > Thirty-two percent of Jordanians, or approximately 1.5 million people, are without any form of health insurance coverage. Twenty-one percent are insured through the MOH, 24 percent through the Royal Medical Services, 18 percent through the United Nations Relief Works Agency, and 5 percent through the private sector.
- > Eighty-nine percent of the uninsured are Jordanian citizens, and 11 percent are non-citizens.
- > Thirty-two percent of the uninsured reside in the Amman governorate, 19 percent in the Zarqa and Mafraq governorates, 15 percent in the Balqa and Madaba governorates, 13 percent in the Irbid governorate, 10 percent in the Jarash and Ajloun governorates, and 11 percent in the southern governorates of Karak, Tafileh, Ma'an, and Aqaba.
- > The pattern of health insurance coverage by age group is similar for males and females. For example, the highest proportion of both males and females who are uninsured are in the age group of 20 to 34. However, females, on average, exhibit higher rates in the age group of 65 years and older.
- > The level of health insurance coverage varies by household composition. For example, 60 percent of the uninsured resides in married households in which the youngest child is 14 years of age or less. This is in contrast to single households, with or without children. For example, approximately 5 percent of the uninsured reside in single households in which the youngest child is 14 years of age or less.

- > **The pattern of health insurance coverage varies by household income. For example, 32 percent of the uninsured reside in households earning less than 1451 Jordanian dinars (JD) per year; 18 percent in households earning 1451-1801 JD per year; 22 percent in households earning 1801-2900 JD per year, and 22 percent in households earning 2901-5300 JD per year. Hence, the distribution of the uninsured in Jordan transcends social class; however, it is the near poor who are most adversely affected by the present system.**

Are the uninsured employed? Where do they work?

- > **Twenty-nine percent of uninsured adults (age 18 years and older) are full-time workers; 50 percent are classified as not in the labor force, and 11 percent are unemployed. In addition, 67 percent of the uninsured reside in households in which the head of household is an employed person.**
- > **The highest rate of employed uninsured workers can be found in the mining and manufacturing sectors (71 percent), construction/energy and water supply sectors (76 percent), and the trade sector (79 percent).**

When ill, where do the uninsured seek medical treatment and how much do they pay?

- > **When an illness occurs, 53 percent of the uninsured seek treatment at private sector clinics and hospitals, while approximately 37 percent seek treatment from public sector hospitals and clinics.**
- > **When seeking consultation for an acute illness, 30 percent of the uninsured receive free medical care, compared to 76 percent of the insured who receive “free” care, i.e., do not incur an out-of-pocket expense at the point of service. In fact, 47 percent of the uninsured pay 3 JD or more in consultation cost, while only 18 percent of the insured face such out-of-pocket expenditures.**
- > **Approximately 53 percent of the uninsured who receive free medical care for an acute illness receive that care from MOH clinics or hospitals. In contrast, the private sector provides free medical consultation to only 13 percent of the uninsured population.**

Does the cost for medical treatment by uninsured Jordanians vary by income class?

- > **Only 18 percent of poor uninsured Jordanians (i.e., household incomes of 1450 JD or less) receive free medical care for treatment of an acute illness. The vast majority of these persons, approximately 55 percent, pay between 1 to 10 JD for services. In fact, roughly 27 percent of the poor face acute medical treatment cost of 11 JD or more.**
- > **Approximately 12 percent of uninsured Jordanians with household incomes of 1451 to 2900 JD receive free acute care services. The vast majority, roughly 59 percent paid 1 to 10 JD for services. In addition, approximately 29 percent of these individuals pay 11 JD or more for services.**
- > **Approximately 52 percent of uninsured Jordanian with household incomes of 2901 JD or more pay between 1 to 10 JD for acute care services. Roughly 44 percent of these persons paid 11 JD or more for services. In addition, only 5 percent of households from this income class receive free medical services.**

The results of this analysis challenge long-held assumptions about the uninsured and guide policy discussions about whether and how to help the uninsured. For example, contrary to popular belief, the majority of uninsured Jordanians do not utilize MOH facilities—they pay out-of-pocket to go to private facilities. The majority of uninsured using government health facilities do not pay anything, even though 50 percent of the uninsured have a household income of more than 1,800 JD. Policymakers in other countries faced with this situation have instituted means testing to promote fairness and equity. The majority of the uninsured are classified as “not-in-the-labor force” or unemployed, which means they can’t be reached through employer-based policies. While a disproportionate number of the uninsured reside in poor households, the vast majority are middle-income. Hence, a policy aimed at expanding access to health insurance that focuses on the poor only will exclude a significant share of the uninsured. A significant share of the aged is without any form of health insurance. Therefore, in designing policy for the uninsured it is imperative that the MOH consider the special needs of the aged.

It is our hope that the information obtained from this assistance, as well as the level of discourse it facilitates, will assist the Kingdom in selecting the optimal health care policy for its population.

1. Introduction

The Ministry of Health (MOH) of the Hashemite Kingdom of Jordan has expressed keen interest in expanding formal health insurance coverage to uninsured Jordanian residents. In order to design and select from among alternative policy options for the uninsured, it is imperative that policymakers consider empirical data profiling the socioeconomic attributes of the uninsured and their current patterns of health care utilization. This empirical data helps answer questions like: How many Jordanians do not have formal health insurance? Is lack of insurance a barrier to accessing medical services? Who are the uninsured? Where do they live?

To help answer these questions, the Partnerships for Health Reform (PHR), a United States Agency for International Development (USAID)-funded project, analyzed data from the Jordan Living Conditions Survey (JLCS) of more than 5,900 households done in 1996. This analysis provides information that can help policymakers design a benefits package, design cost-sharing arrangements (e.g., the setting of co-payments, deductibles, and premium contributions), as well as to estimate utilization rates and expenditures of expanded coverage.

The next section of this report gives some background on PHR's technical assistance to the MOH regarding health insurance. Section 3 explains why and how a profile of the uninsured is important for planning health insurance policy. Section 4 describes the methodology and data that were used in this study. Section 5 presents the results of the analysis—the profile of the uninsured of Jordan in terms of household characteristics, geographic distribution, and many other variables. The last section presents some of the policy implications of the results.

2. Background

Since 1997, PHR has delivered extensive technical assistance on the issue of expanding health insurance in Jordan. The main thrust of this technical assistance has been to demonstrate to policymakers why and how to use empirical data to shape new policies, and to raise their awareness of the tremendous financial risk of poorly designed policy changes in this area.

In November 1998, PHR sponsored a national workshop entitled *Insuring the Uninsured in Jordan*,¹ in Amman under the patronage of the former Minister of Health, His Excellency Dr. Na'el Al-Ajlouni. Senior level MOH personnel, including a special panel of health insurance advisors to His Excellency, attended the workshop. One outcome of the workshop was the realization that the MOH had a paucity of information concerning the profile of the uninsured in Jordan. During subsequent meetings between PHR and His Excellency, it was determined that PHR would engage in the necessary research aimed at providing the MOH with a detailed profile of the uninsured, as well as the pattern of health insurance coverage in the private sector. This report is one of four research efforts that PHR is conducting with the MOH on the issue of health insurance. The other empirical data that PHR is providing are:

- > Data on employer-based health insurance benefits offered by the companies listed on the Jordanian stock exchange based on a telephone survey (report completed²).
- > Data on whether uninsured Jordanians would enroll in a voluntary health insurance program offered by the MOH and data on their perceptions of MOH health care services, based on a series of focus groups involving 100 participants (report forthcoming, November 1999).
- > Data on the employer-based health insurance benefits offered by small private sector companies based on a survey of 500 companies (report forthcoming, January 2000).
- > While the individual PHR reports, like this one, will explore some of the policy implications of the data, PHR also plans to conduct a workshop with policymakers to bring together the results of all these efforts and demonstrate how this empirical data can be applied to design policy.

¹ Dwayne Banks, Catherine Connor, Alan Fairbank, Gary Gaumer, and Narmine Sindaha Muna. *Workshop on Insuring the Uninsured in Jordan, November 23-24, 1998*. PHR Summary Proceedings. Amman: Partnerships for Health Reform/Jordan.

² Neil Hollander and Margie Rauch. October 1998. *Assessment of Third Party Payers in Jordan*. Technical Report No. 27. Bethesda, Maryland: Partnerships for Health Reform, Abt Associates Inc.

3. The Importance of Profiling the Uninsured

Conducting a detailed profile of the uninsured in Jordan is of importance for policy planning for several reasons. First, a detailed profile of the uninsured will assist policymakers to design a benefits package (i.e., define which medical services and conditions would be covered) that is appropriate for the target population of uninsured persons for whom policy is designed. For example, young people require more preventive and acute care treatments, whereas the aged require more intensive chronic care treatments. In addition, in a country such as Jordan, with its high birth rate and disproportionate number of uninsured women, a benefits package design that covers family planning and comprehensive pre- and post-natal care services seems indicated.

Second, an effective profile of the uninsured will provide policymakers with information about their economic attributes. Such information is essential for designing effective and equitable cost sharing arrangements for voluntary or compulsory health insurance plans. For example, information on the distribution of the uninsured by household income can assist policymakers in designing premium rates, co-payments and deductibles for alternative health plans based upon estimated households' abilities to pay.

Moreover, when designing any voluntary or compulsory health insurance scheme, it is essential that the distribution of the uninsured in the labor force is well understood. As will be seen, in Jordan a significant proportion of the uninsured are unemployed or classified as "not in the labor force." Hence, any employment-based health plan would fail to capture a significant proportion of the uninsured.

4. Data Methodology and Issues

The results of this report were based on data obtained from the Jordan Living Conditions Survey by the Jordanian Department of Statistics and the Fafo Institute of Applied Social Sciences of Oslo, Norway.³ The JLCS, as the name implies, captured data on a variety of social issues, including health insurance coverage and household use and expenditures on health services. The JLCS was a representative sample of 5,919 households (37,241 individuals) throughout Jordan and provides data at three levels: households, families and individuals. All interviews were conducted during the first quarter of 1996, and to this date the JLCS constitutes the most comprehensive household survey ever conducted in Jordan. The section of the survey that details the level and pattern of health insurance coverage, as well as rates of health service utilization and expenditures, remains to be fully explored by researchers and policy analysts.

Realizing the plethora of information contained in the health section of the survey, PHR, with the assistance of the Fafo Institute, analyzed this information to produce a detailed profile of the uninsured in Jordan. PHR calculated simple frequencies for various characteristics of the uninsured portion of the JLCS sample.

This profile serves as a preview of the results to be obtained from the Jordan Health Utilization and Expenditure Survey (JHUES), currently underway by PHR. That survey, of 6,500 households in Jordan, will focus specifically on the health care expenditures and utilization patterns of the population. Unlike the JLCS, the JHUES is designed to answer, in detail, health policy questions such as the extent of double coverage, utilization and expenditures by episode and provider, as well as the effect of the current health care system on access to services for the aged. In addition, the JHUES is structured in such a way that many of the measurement problems inherent in obtaining reliable estimates of the uninsured will be minimized. These potential problems are discussed below.

Difficulties in assessing the impact of being uninsured

Is lack of health insurance important? Do the uninsured have poorer health status? Do the uninsured have less access to health services? The overall effect of being uninsured on health status and access to care is often very difficult to assess for two reasons.

First, health status can be determined by both socioeconomic and environmental conditions.⁴ In other words, even if someone has health insurance, he still may have poor health status due to a poor diet, a dangerous job, or poor sanitation. It is very difficult to separate the effect of these factors.

³ For a detailed overview of the sampling techniques and other methodological information used by the JLCS, see The Hashemite Kingdom of Jordan, Department of Statistics and The Institute of Applied Social Sciences (FAFO). October 1997. *Jordan Living Conditions Survey, 1996*.

⁴ U.S. Department of Health and Human Services (DHHS). 1992. *Health United States and Healthy People 2000*.

Second, in countries such as Jordan where virtually everyone has access to a highly subsidized public health sector, the lack of formal health insurance coverage need not imply a lack of access to needed care. The uninsured often receive highly subsidized services from the public sector, irrespective of their ability to pay. In other words, the public health hospitals, clinics and physicians serve as safety-net providers. The best way to determine whether lack of insurance interferes with access to health services is through a household survey. As mentioned previously, PHR is implementing the JHUES to assess this and other problems.

While it is difficult to measure the impact of health insurance on health status and access to care, there exists some evidence that the lack of health insurance does matter.⁵ Research in this area indicates that most access problems emanate primarily from delays in seeking needed non-life-threatening acute care treatment, due to the higher rate of out-of-pocket expenditures incurred by the uninsured, relative to the insured.

Measurement problems when estimating the uninsured

Policymakers and the popular press cite differing estimates of the uninsured in Jordan. The World Bank Health Sector Study estimated that 20 percent of the total population lacked health insurance.⁶ Preliminary results from the JLCS indicated that 47 percent of Jordanians were uninsured. This analysis of the JLCS data puts the estimate at 32 percent. There are two reasons why these estimates of the uninsured have been so different.

First, different sources rely on different data for calculating the number of uninsured persons. The most reliable source for obtaining estimates of the uninsured in Jordan, thus far, is the JLCS. The JLCS provides a more accurate estimate of the uninsured because it is based on primary data collected through a comprehensive survey of households and individuals. The World Bank report is based upon the use of secondary data and personal interviews with MOH and other officials. Its purpose was not to obtain a precise measure of the uninsured, per se, but to obtain a composite view of the health care sector of Jordan in general.

Second, obtaining an accurate measure of the uninsured is determined by the structure of the questions asked by field interviewers. For example, Jordanians registered to receive free medical care from the United Nations Relief Works Agency (UNRWA) clinics did not view this arrangement as health insurance when surveyed by the JLCS. However, the UNRWA clinic system does in fact serve the same function as health insurance. Therefore, preliminary results of the JLCS classified Jordanians covered by UNRWA as uninsured, which inflated the estimate of total uninsured to 47 percent. This PHR analysis classifies the population registered with UNRWA as having health insurance, which lowers the estimate of uninsured to 32 percent. The JHUES is specifically designed to measure this population accurately.

While the JLCS data is currently the most reliable source for obtaining estimates of the uninsured in Jordan, there is a limitation worth citing. The estimate of the uninsured from the JLCS is a “point estimate,” which only captures the health insurance status of the persons at the time of the interview. In reality, individuals may be uninsured for short (less than six months) or long (six months or greater) periods of time. Different surveys ask different

⁵ Jack Hadley, Earl Steinberg, and Judith Feder. January 16, 1991. “Comparison of Uninsured and Privately Insured Hospital Patients: Condition on Admission, Resources Use, and Outcome.” *Journal of the American Medical Association*: 374-79.

⁶ The World Bank. April 1997. *Hashemite Kingdom of Jordan: Health Sector Study*. See Annex 1, page 63.

questions with respect to these periods.⁷ In order to illustrate this fact, consider the following question: what percentage of the population will experience a spell without health insurance during the year? The answer to this question would include both the short- and long-term uninsured, given that the duration of the “spell” has not been defined. One approach is to do a quarterly time-series of survey data which would include those with seasonal spells of being uninsured (due to changes in work patterns), as well as the long-term uninsured. This would obviously yield the largest possible number, with enormous seasonal variation. Alternatively, if the “spell” were defined as the entire year only, the estimate of uninsured Jordanians would be significantly lower and less subject to seasonal variations.

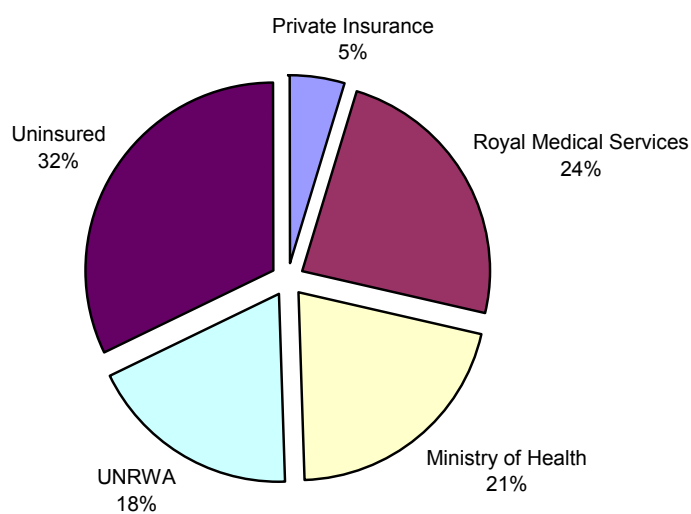
Finally, just as a general comment, the group of individuals included in the analysis will obviously affect the percentage estimate of the uninsured. There exist three popular methods of presenting the percentage of uninsured persons: (1) the percentage of the total population without health insurance; (2) the percentage under a certain age who are without health insurance and (3) the percentage who are between certain adult age brackets who are without health insurance. Both the World Bank and the JLCS used the first method. An estimate that is very informative for policymakers is the percentage of those 18 years of age or older by employment status, given that children are primarily insured under their parent’s health plan.

⁷ For additional information on this issue, see Kathryn Swartz. “Dynamics of People without Health Insurance.” *Journal of the American Medical Association* 271 (1): 64-66; Dwayne Banks, Kimberly Kunz, and Tracy Macdonald. 1994. *Health Care Reform*. Institute of Governmental Press.

5. Profile of the Uninsured

Thirty-two percent of the Jordanian population, or approximately 1.5 million people, are without any form of health insurance coverage. As depicted in Figure 1, 24 percent of the Jordanian population receives health insurance coverage through the Royal Medical Services, 21 percent through the Ministry of Health, 18 percent through UNRWA, and 5 percent through the private sector.

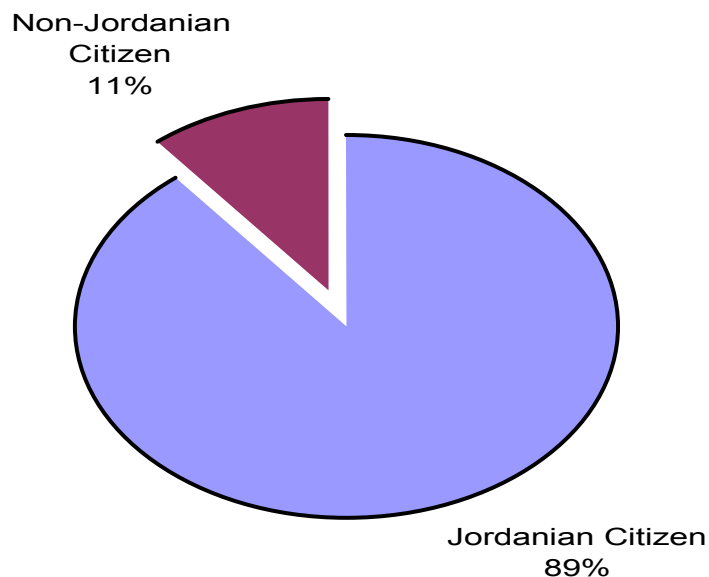
Figure 1. Health Insurance Coverage among Jordanians



Citizenship

As illustrated in Figure 2, roughly 89 percent of the uninsured are Jordanian citizens.

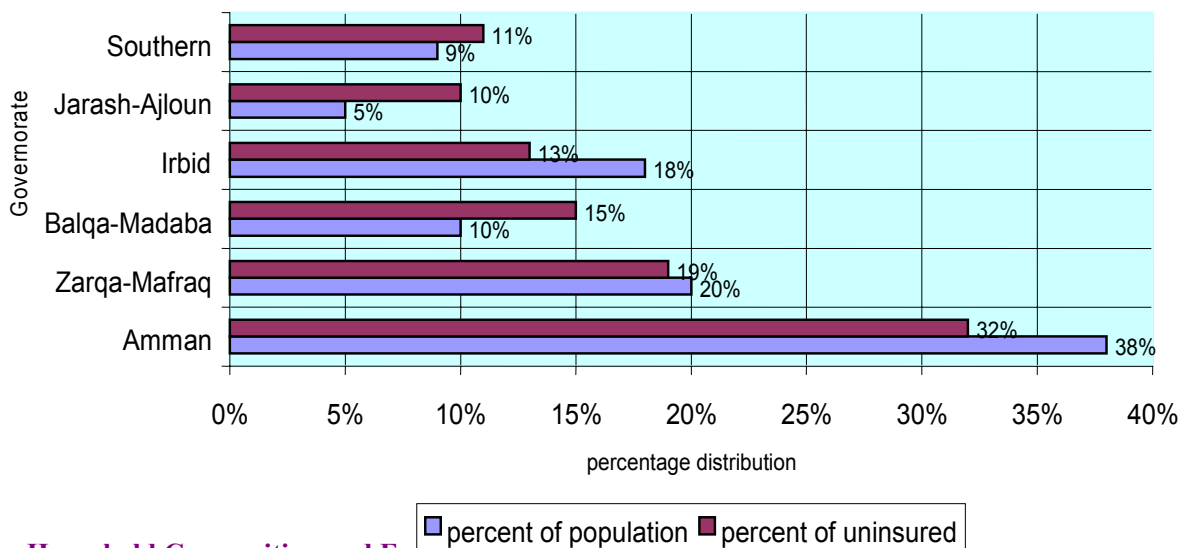
Figure 2. Percentage Distribution of the Uninsured in Jordan by Citizenship Status



Geographic Distribution of the Uninsured

The geographic distribution of the uninsured in Jordan exhibits a pattern quite similar to the geographic distribution of the population as a whole. As depicted in Figure 3, approximately 32 percent, 19 percent, 15 percent and 13 percent of the uninsured are found in the Amman, Zarqa-Mafraq, Balqa-Madaba and Irbid governorates, respectively. Together these governorates are home to approximately 86 percent of the total population.⁸ The Jarash and Ajloun governorates and the southern governorates of Karak, Tafila, Ma'an, and Aqaba comprise roughly 21 percent of the uninsured in Jordan.

Figure 3. Percentage Distribution of the Population and Uninsured in Jordan

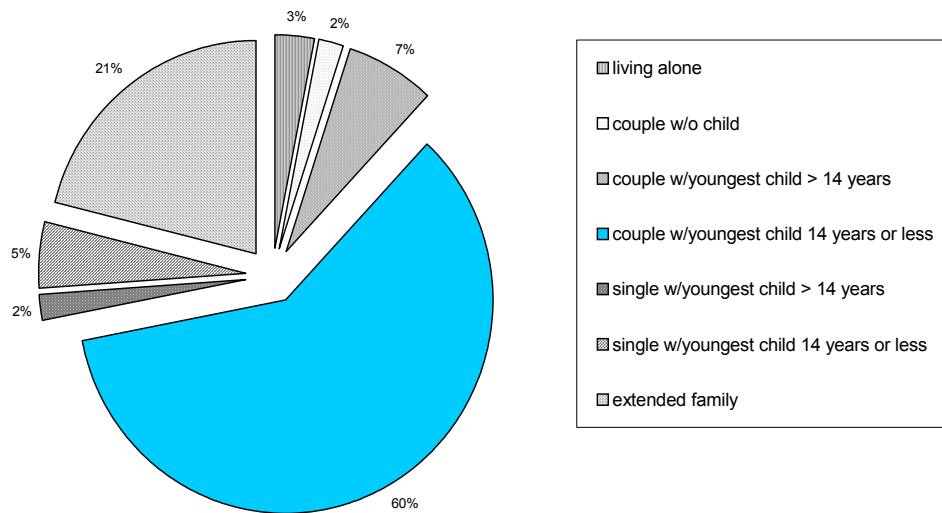


Household Composition and Employment Status

As depicted in Figure 4, variation in household composition is closely related to the level of health insurance coverage among Jordanians. For example, 73 percent of persons living alone are without any form of health insurance. This contrasts with roughly 47 percent of married households in which the eldest child is 14 years of age or younger. In fact, being a member of a “single household,” with or without children, appears to increase the likelihood that an individual is uninsured in Jordan.

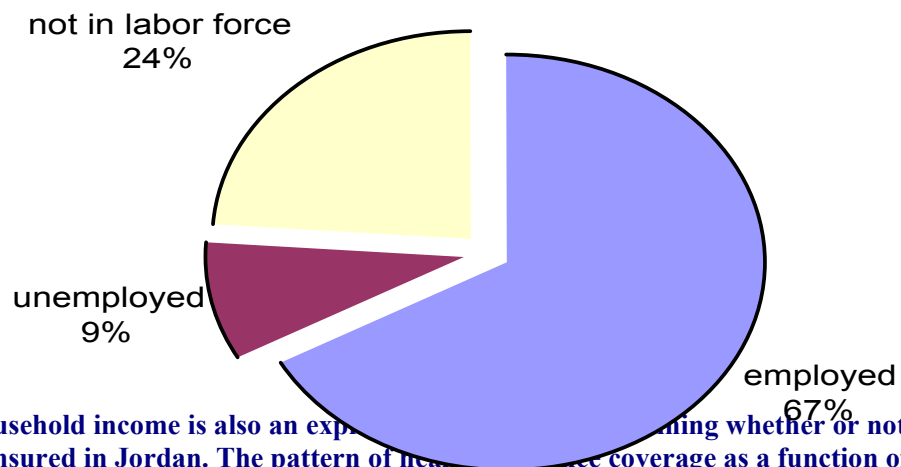
⁸ The Hashemite Kingdom of Jordan, Department of Statistics. September 1998. *Statistical Yearbook of the Hashemite Kingdom of Jordan: 1997*. No. 48.

Figure 4. Distribution of the Uninsured, by Household Composition



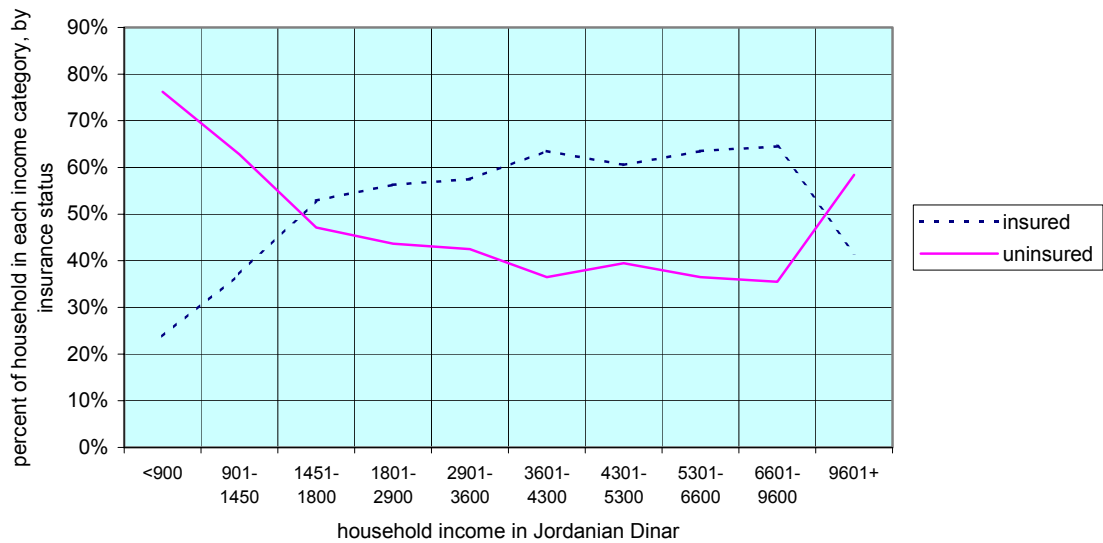
In addition to household composition, being uninsured in Jordan is dependent upon the employment status of the “head of household.” As illustrated in Figure 5, 67 percent of the uninsured reside in households in which the head of household is employed, at least on a part-time basis. Only 33 percent of the uninsured reside in households where the head of household is unemployed or classified as “not in the labor force.” This latter category of households constitutes an ever-increasing proportion of the uninsured. Household heads classified as “not in the labor force” are those individuals who are unemployed and are not actively seeking employment.

Figure 5. The Uninsured by the Employment Status of their Heads of Household



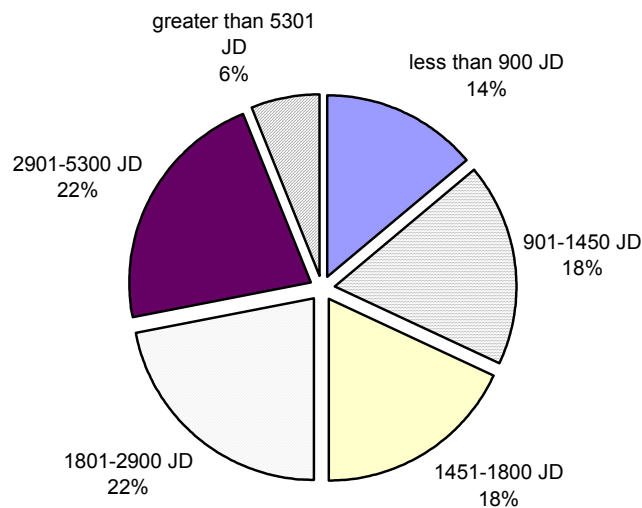
The level of household income is also an important factor in determining whether or not an individual is uninsured in Jordan. The pattern of health insurance coverage as a function of household income is illustrated in Figure 6. Much like other countries with similar health care sectors, the level of health insurance coverage increases in proportion to the level of household income, levels off among middle income groups, and then declines at the highest income levels.

Figure 6. Health Insurance Coverage, by Household Income



However, the distribution of the uninsured by household income categories, as depicted in Figure 7, illustrates that the majority of the uninsured are primarily middle income Jordanians with annual household incomes in the range of 1451 JD to 5300 JD. This is a pattern frequently observed among households in countries where the private health insurance sector is not fully developed,⁹ and where there does not exist a history of employer-sponsored health insurance. Individuals in these households, not covered by a compulsory national health insurance system, will choose to purchase services out-of-pocket instead of incurring the monthly fees associated with individually purchased private health plans.

Figure 7. Percentage Distribution of the Uninsured in Jordan, by Household Income

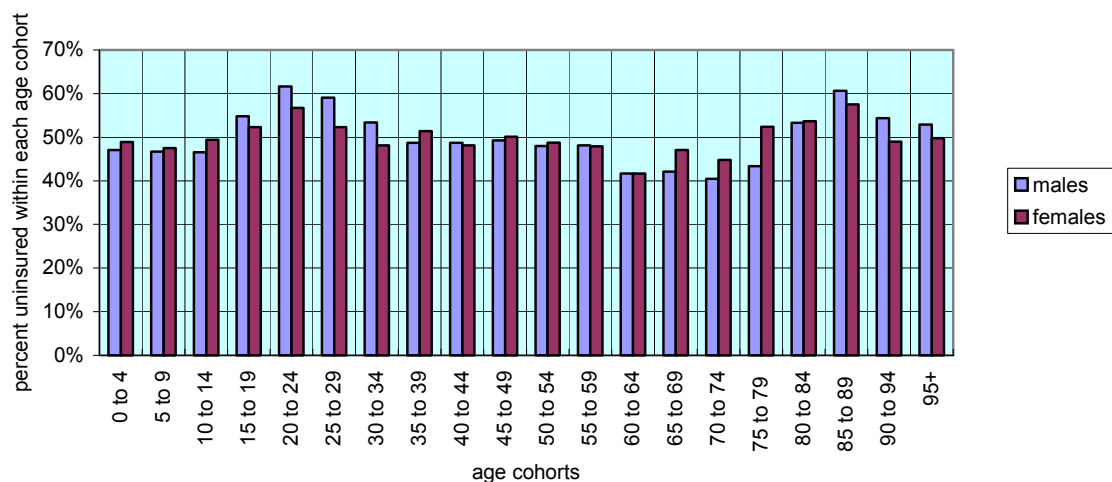


⁹ For an overview of the private health insurance sector in Jordan, see Hollander and Rauch, p. 3.

Age Distribution

Jordan has experienced significant changes in the age structure of its population over the past 20 years.¹⁰ While declining, Jordan's fertility rate remains much higher than similar middle income countries. As a result, the age structure in Jordan exhibits a relatively young population (over 40 percent of the population is 15 years of age or younger). This has significant implications for the present and future pattern of health insurance coverage in the Kingdom. As depicted in Figure 8, the pattern of health insurance coverage among Jordanians exhibits a near bimodal distribution. The rate of uninsured rises through the teenage and young-adult years, only to peak for individuals aged 20 to 24 years. This elevated rate can be attributed to the transition period that many young working age adults experience (i.e., out of school and looking for work or not yet receiving benefits through their employers). While 20 to 24 year olds tend to be relatively healthy, they can incur substantial medical costs that are subsequently paid for out-of-pocket or through cross-subsidization (cost-shifting) from public and private payers.¹¹ A more startling result, however, is the lack of health insurance coverage among the aged in Jordan (i.e., those 65 years of age and older). These individuals, on average, have poorer health status and are thereby more likely to demand expensive hospital-based medical technologies.¹² Hence, the current structure of health insurance coverage in Jordan may present an enormous cost burden on this segment of the population.

Figure 8. Uninsured Jordanians, by Age Cohorts



¹⁰ The Hashemite Kingdom of Jordan, Department of Statistics. December 1998. *Trends in Demographic, Family Planning, and Health Indicators in Jordan, 1976-1997*.

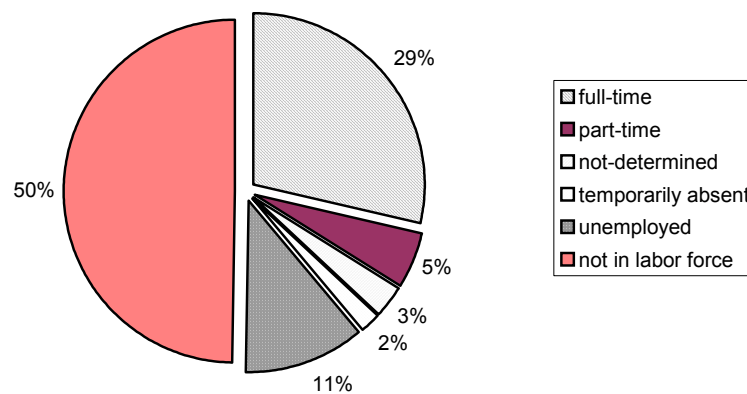
¹¹ For an overview of the issues involved in cross-subsidization, see Dwayne Banks, Stephen Foremen, and Theodore Keeler. Winter 1999. "Cross-Subsidization in Hospital Care: Some Lessons from the Law and Economics of Regulation." *Health Matrix: Journal of Law-Medicine* (Case Western Reserve School of Law) 9 (1): 1-35.

¹² Joy Grossman and Dwayne Banks. October 1998. "Unrestricted Entry and Nonprice Competition: The Case of Technological Adoption in Hospitals." *International Journal of the Economics of Business*. 5 (4): 223-245.

Employment Status

For the past seven years the Jordanian economy has experienced significant declines in the annual growth rate of its gross domestic product,¹³ as well as raising rates of unemployment. Official and independent estimates place the unemployment rate between 10 and 28 percent.¹⁴ This is of import, given that a significant share of the population receives employer-sponsored health insurance coverage.¹⁵ In fact, as depicted in Figure 9, approximately 34 percent of uninsured adults (age 18 years of age or older) are employed at least part-time, while only 11 percent are from the ranks of the unemployed. What is most startling, however, is that roughly 50 percent of uninsured adults are classified as “not in the labor force.” These are adults who for various reasons are unemployed and are not actively seeking employment.¹⁶ Hence, any policy aimed at expanding access to health insurance through an employer-sponsored program must consider this fact.

Figure 9. Percent Uninsured Persons 18 Years and Older, by Employment Status



In addition, the probability of an employee being covered by employer-sponsored health insurance varies by sector. As illustrated in Figure 10, the highest percentage of uninsured workers is found in the mining-manufacturing (71 percent), construction (76 percent), and trade (79 percent) sectors. This is a result of the lower level of employee benefits compensation

¹³Real annual rates of growth fell from a high of 16.0 percent during the 1991-1992 period, to a low of approximately 1.5 percent during the 1998-1999 period. See Faris Sharaf and Lina Abu-Rub. March 1999. *The Jordanian Economy: Oasis...or Mirage?*. Investment Banking Unit, Export Finance Bank.

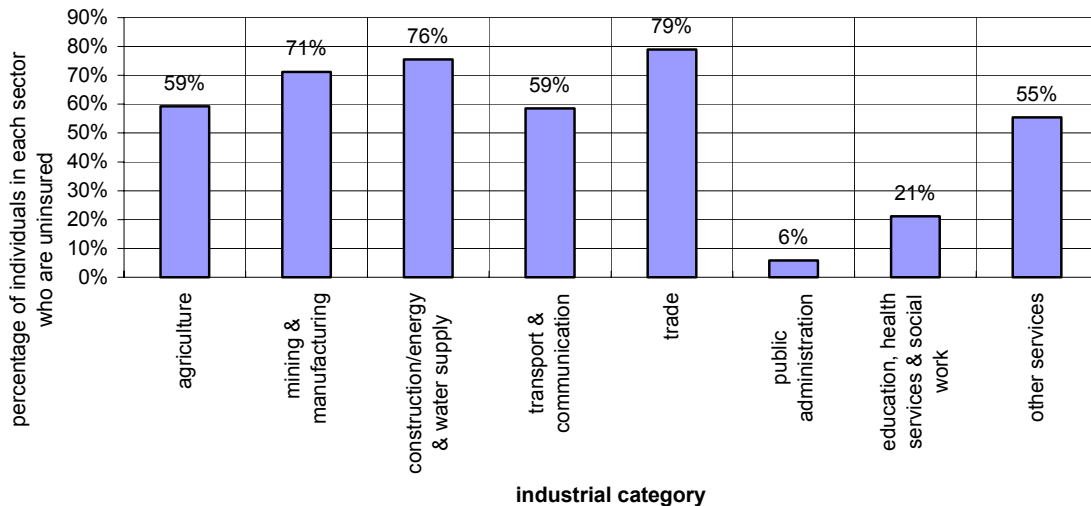
¹⁴The 10 percent figure is the latest government-released figure. It remains quite controversial (see Mohammad Ben Hussein, “Unemployment rate drops to 10 percent,” *Jordan Times*, July 5, 1999). One reason for the differing estimates of the unemployed in Jordan is differences in the populations excluded or included in the analysis. For example, the ratio of the unemployed to the total population will always yield the lower estimate. In addition, a more reliable estimate of unemployment in Jordan should exclude both students and the disabled. For an overview of the measurement issues involved in estimating the rate of unemployment in Jordan, see Center for Strategic Studies, University of Jordan, p. 15.

¹⁵ Hollander and Rauch, p. 3.

¹⁶ In Jordan, 43 percent of working age persons are classified as “not in the labor force.” This is due primarily to the low labor force participation rate of working age women. These women represent 49 percent of the work age population; however, they represent only 13 percent of the workforce. The predominate reason given by women for not actively seeking employment is “to run household affairs.” (Center for Strategic Studies, University of Jordan. *Unemployment in Jordan-1996*.)

provided to these workers, and the seasonal variation in their employment opportunities vis-a-vis workers in the finance and banking sectors.¹⁷ For example, workers in the finance and banking sectors have wages that are on average 80 percent higher than other private sector employees, and their ratio of fringe-benefits-to-total-compensation paid is 86 percent greater.¹⁸

Figure 10: Percent Uninsured Jordanians within Various Industrial Sectors



Consultation Cost

The primary purpose of health insurance is to provide financial access to health care services during the onset of an acute or chronic illness. Recognizing this fact, as well as the ethical dilemmas faced by governments in utilizing the price system for rationing health care services,¹⁹ several governments have established national systems of compulsory health insurance for their citizens.²⁰ This has served to significantly reduce the out-of-pocket expenditures faced by the average citizen of these countries. Jordan, however, does not have a system of national health insurance and hence, several members of its population must face significant out-of-pocket expenditures when consuming health care services. As illustrated in Figure 11, the uninsured in Jordan face higher out-of-pocket expenditures for initial consultations for treatment of acute illnesses. In fact, only 30 percent of the uninsured receive such consultation free of charge, compared to approximately 76 percent of the insured. In addition, 47 percent of the uninsured experience out-of-pocket cost of 3 JD or more compared to only 18 percent of the insured.

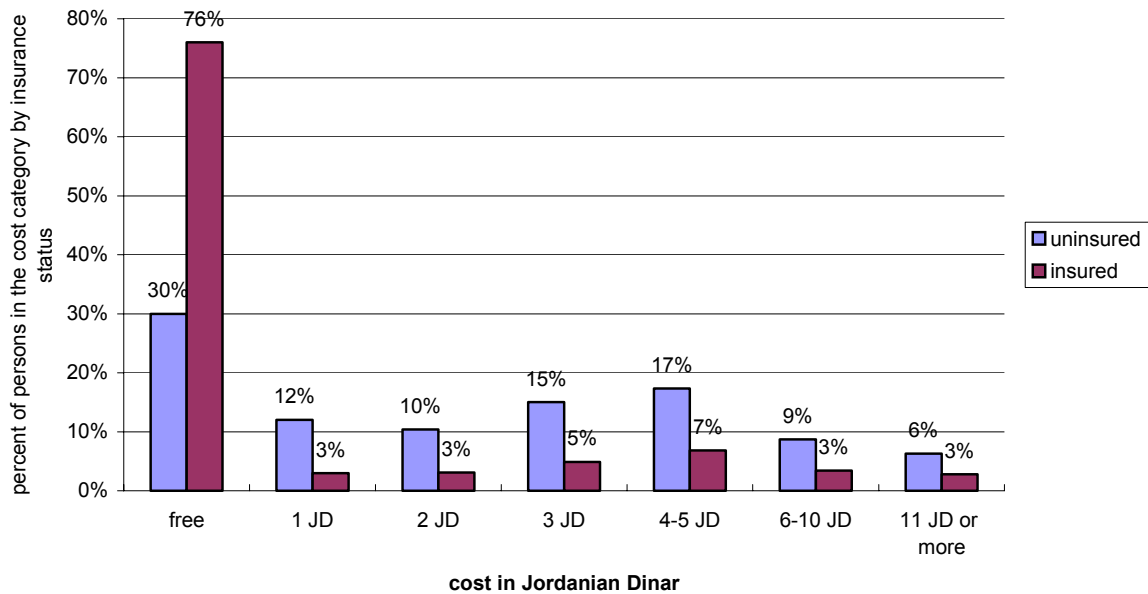
¹⁷ For an overview of the pattern of health insurance coverage among Jordanian banks and financial institutions, see Dwayne Banks, Hanann Raid Sabri, and Hala Darwazeh. April 30, 1999. *Health Insurance Coverage among Jordanian Shareholding Companies*. Amman: Partnerships for Health Reform/Jordan.

¹⁸ The Hashemite Kingdom of Jordan, Department of Statistics. 1996. *Employment Survey: For Establishments Engaging (5) Persons or More*. Tables 71 through 73: 132-134.

¹⁹ Dwayne Banks. October 1996. "The Economic Attributes of Medical Care: Implications for Rationing Choices in the United States and the United Kingdom." *Cambridge Quarterly of Health Care Ethics* 5: 546-558.

²⁰ Julian Le Grand. May-June 1999. "Competition, Cooperation, or Control? Tales from the British National Health Services." *Health Affairs*: 27-39.

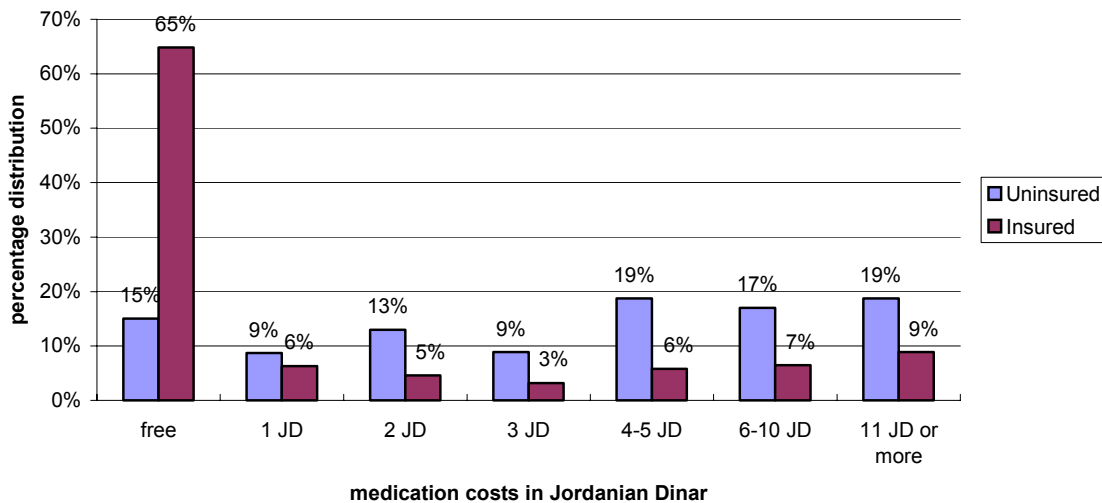
Figure 11: Consultation Costs of Jordanians with Acute Illness, by Insurance Status



Medication Cost

According to Figure 12, approximately 55 percent of the uninsured spent 4 JD or more on medication, for initial treatment of an acute illness. This is in contrast to only 22 percent of the insured. In fact, as illustrated in Figure 12, 19 percent of the uninsured spent 11 JD or more on medication necessary for treatment of an acute illness. Hence, in addition to higher out-of-pocket consultation costs, the uninsured also experiences higher out-of-pocket expenditures for medication.

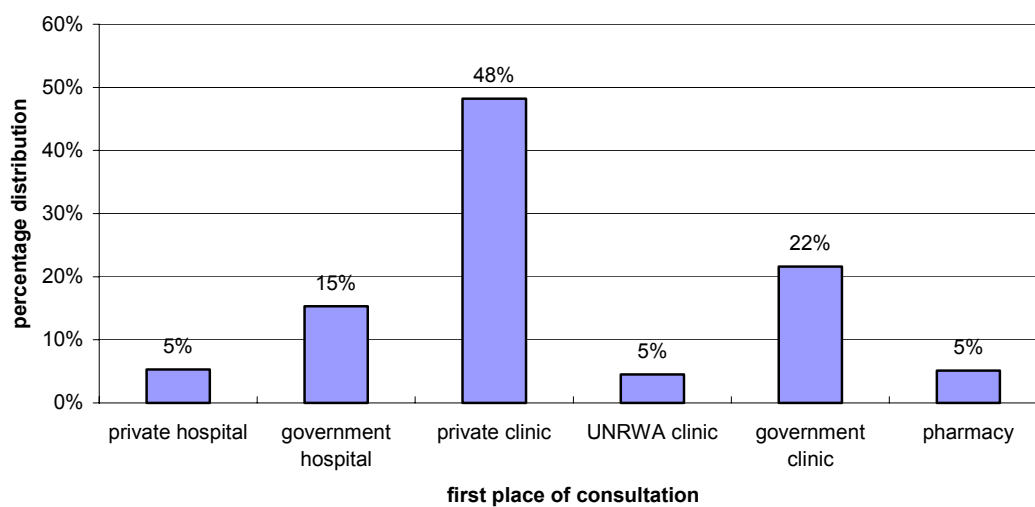
Figure 12. Medication Costs for an Acute Illness Among Insured and Uninsured Jordanians



Place of Consultation for an Acute Illness

Contrary to popular belief, a majority of the uninsured seeks initial treatment from the private sector. In fact, as illustrated in Figure 13, 53 percent of the uninsured receive their initial treatment from private sector hospitals and clinics, while roughly 37 percent receive similar treatment from public sector hospitals and clinics. In addition, a small percentage of the uninsured, 10 percent, receives initial treatment for an acute malady from UNRWA clinics and private pharmacies. The uninsured using UNRWA facilities are primarily Palestinian refugees and others who are not registered with UNRWA, but live near UNRWA-sponsored health care clinics.²¹ As discussed earlier, Jordanians who are registered with the UNRWA health system are considered insured.

Figure 13. First Place of Consultation for an Acute Illness, by Uninsured Jordanians

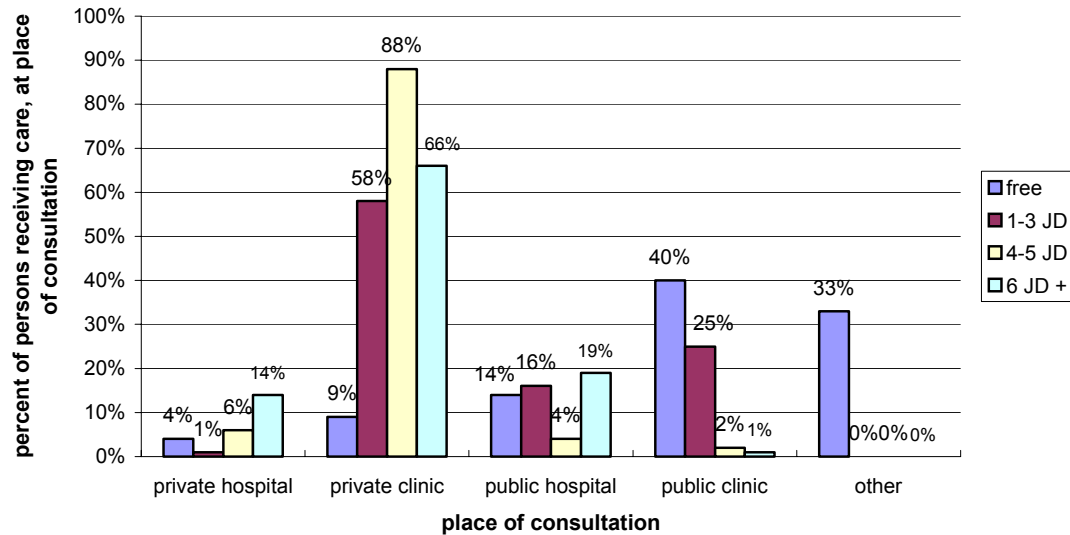


Place of Consultation and Cost of Treatment

The amount of money spent by the uninsured on acute medical treatment is dependent upon the sector from which their care is received. As illustrated in Figure 14, approximately 54 percent of the uninsured who received free medical care (i.e., zero cost-sharing) obtained that care from public sector hospitals and clinics, primarily MOH-affiliated institutions. In addition, it appears that UNRWA clinics are the second largest providers of free medical care to the uninsured. Of the uninsured who paid 1 to 3 JD for services, 58 percent of them received their services from private sector clinics. In fact, it should be noted that zero cost-sharing arrangements, at the point of services, are rarely observed among private sector providers. As Figure 14 illustrates, only 13 percent of those who received free medical care received that care through private sector hospitals or clinics.

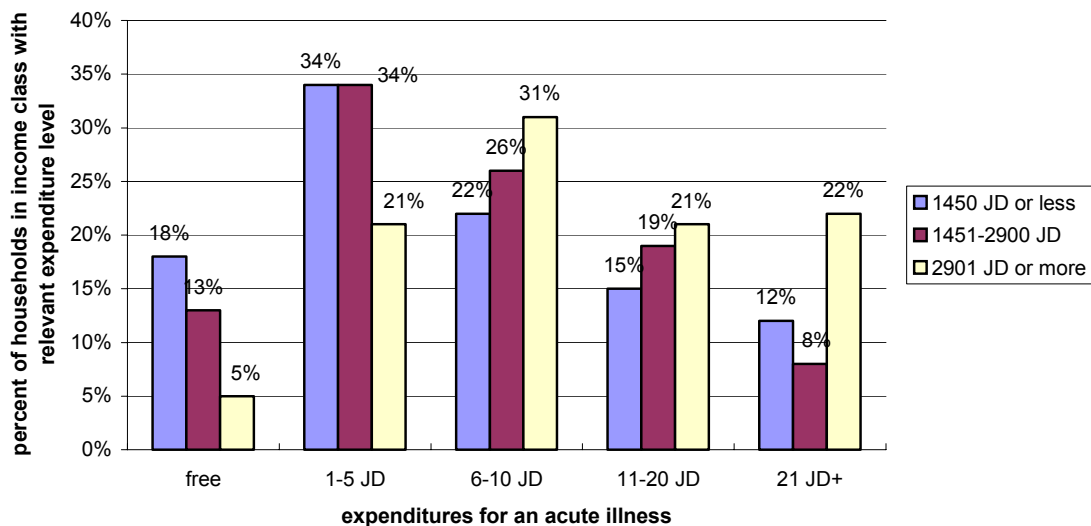
²¹ For an overview of the issues involved in qualifying for UNRWA services based upon registration requirements, see Marie Arneberg. 1997. *Living Conditions Among Palestinian Refugees and Displaced in Jordan*. Fafo Report 237. The Institute of Applied Social Sciences (FAFO).

Figure 14. Cost and First Place of Consultation, for Uninsured Jordanians 5 Years and Older



As illustrated in Figure 15, approximately 50 percent of the uninsured poor (i.e., household income of 1450 or less) paid 6 JD or more for initial treatment of an acute illness. Only 18 percent of this same category of persons received free acute care services. It appears that the poor experience cost-sharing arrangements that are quite similar to those found among uninsured middle income families (i.e., household income of 1451 to 2900 JD).

Figure 15. Uninsured Jordanians' Expenditures on Health Care Services for an Acute Illness, by Income Class



6. Conclusions

PHR, with the assistance of the MOH, has moved one step closer to defining the actual number and characteristics of uninsured, as well as providing greater insight into the utilization and expenditure patterns of the uninsured. Many of the results of this analysis challenge long-held assumptions about the uninsured and guide policy discussions about whether and how to help the uninsured.

Contrary to popular belief, the majority of uninsured Jordanians do not utilize MOH facilities. The majority of the uninsured (53 percent) utilize private sector hospitals and clinics as their first place of consultation during the onset of an acute illness. Moreover, the majority of the uninsured who utilize private sector services pay at least 1 to 3 JD for those services. While this might constitute a relatively small out-of-pocket expenditure, its actual economic impact on the wellbeing of households cannot be determined by this study. What is illuminating, however, is that the poor uninsured pay as much out-of-pocket expenditures as middle income Jordanians for initial treatment of an acute illness. However, among the 37 percent of uninsured who do utilize government facilities, the majority receive those services free of charge.

There are many policy implications from the results of this profile. For example:

The majority of uninsured using government health facilities do not pay anything, yet 50 percent of the uninsured have a household income of more than 1,800 JD. There is no system to determine the ability to pay of people using free government health services. Faced with this same situation, policymakers in many other countries have chosen to implement universal, compulsory, publicly financed health care systems in their attempt to promote equity and fairness within the system.²² As a means of promoting fairness and equity within the system, governments establish a system of “means-testing,” and compulsory or voluntary contributions.

Only 34 percent of the uninsured are employed workers and their families. Instead, the vast majority of the uninsured are individuals classified as “not-in-the-labor force” (50 percent) or unemployed (11 percent). Therefore, as the MOH seeks to expand access to voluntary health insurance for the uninsured population, the distribution of that population throughout the work force must be considered. While an employer mandate, with a benefits package targeted at the dependents of working person, might capture a significant share of the uninsured population, the adverse effects of the mandate, such as job losses, and wage and work hour reductions, may outweigh the benefits of such a policy.

The uninsured span all income groups in Jordan. While a disproportionate number of the uninsured reside in poor households (32 percent), the vast majority (63 percent) reside in middle-income households. Hence, a policy aimed at expanding access to health insurance that focuses on the subsidization of services for the poor or near-poor only will exclude a significant share of the uninsured.

²² Frank Dobson. 1999. “Modernizing Britain’s National Health Service.” *Health Affairs* 18 (3).

A significant share of the aged is without any form of health insurance. The proportions varies by age groups. For example, 43 percent of those age 60 to 64 years are uninsured, compared to 60 percent of those age 85 to 89 years. Therefore, in designing policy for the uninsured it is imperative that the MOH consider the special needs of the aged.

In summary, the information contained within this document provides baseline information on the profile of the uninsured in Jordan. As PHR expands its technical assistance to include the JHUES of 6,500 households, the Health Insurance in the Private Sector survey of 500 companies, and its series of health insurance focus groups, a more complete and accurate profile of health insurance coverage and utilization patterns will emerge. It is our hope that the information obtained from this assistance, as well as the level of discourse it facilitates, will assist the Kingdom in selecting the optimal health care policy for its population.

