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**THE HASHEMITE KINGDOM OF JORDAN  
POVERTY ASSESSMENT**

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## CURRENCY AND EQUIVALENTS

**US\$1 = 0.709JD**

## FISCAL YEAR

## ABBREVIATIONS AND ACRONYMS

BA	Bachelor Of Art
ECE	Early Childhood Education
EUS	Employment And Unemployment Surveys
FHH	Female-Headed Household
FIS	Family Income Supplement Program
GDP	Gross Domestic Product
HDI	Human Development Index
HEIS	Household Expenditure Income Survey
HNP	Health, Nutrition & Population
IFAD	International Fund For Agricultural Development
IFPRI	International Food Policy Research Institute
ILO	International Labor Organization
JD	Jordanian Dinar
MENA	Middle East And North Africa
MHH	Male-Headed Household
NAF	National Aid Fund
PRSPs	Poverty Reduction Strategy Papers
TIMSS	Trends In International Mathematics And Science Study
UN	United Nations
UNDP	United Nations Development Programme

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## PREFACE

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This report reflects the results of close collaborative work between the Government of Jordan (Department of Statistics, Ministry of Planning and International Cooperation, Ministry of Social Development) and the World Bank. The main audience consists of policymakers, researchers, development partners, and civil society. The study is a diagnostic that aims to establish, on a sound methodological basis, a set of new poverty lines for Jordan, drawing mainly on the newly completed Household Expenditure and Income Survey 2002-03. This report estimates the incidence of poverty across administrative units (sub-districts at the lowest level) and calculates the changes in poverty between 1997 and 2002-03. Combined with a new Statistics Law that allows dissemination of detailed survey data, this report will also serve as a knowledge base for future poverty studies and the country's large operational agenda. Recommended follow-up measures include setting up a poverty impact monitoring system; improving poverty alleviation schemes, particularly the social safety net; and better targeting of education, health, and other interventions.

The Jordanian counterpart team was led by Dr. Hmoud Olimat, Secretary General, Ministry of Social Development; and comprised Dr. Hussein Shakatreh, Director General, Department of Statistics; Hala Bsiso, Secretary General, Ministry of Administrative Reforms; Dr. Mohammad Refai, Adnan Badran, and Hind Diab, from the Department of Statistics; Mohammad Khasawneh and Dr. Ibrahim Hejoj, from the Ministry of Planning and International Cooperation; Omar Hamzeh, from the Ministry of Social Development; and AbdAlrahman Khawaldeh and Hassan al-Rousan, from the National Aid Fund. Other Jordanian contributions came from Dr. Mohammed Tarwneh, development anthropologist, Yarmouk University; and Abdel Salam Al-Naimat, Royal Scientific Society.

The World Bank team comprised Srinivasan Thirumalai (team leader) and the following specialists: Ayesha Vawda (education); Firas Raad (health); Jennifer Keller (labor market), Iqbal Kaur (vulnerable and disadvantaged children); G.V. Rao (research assistance, STATA statistical software); and Isabelle Chaal-Dabi (team assistance).

The team benefited from external consultants. Professor Nanak Kakwani, currently the Director and Chief Economist of International Poverty Center of UNDP in Brasilia, prepared, participated in, and guided the process of constructing new poverty lines and poverty estimates. Dr. K. Subbarao, contributed his expert analysis of social safety nets.

While in progress, the work was discussed at several workshops and meetings in the fall of 2003 and winter of 2003-2004. On February 18, 2004, the National Development Committee approved the methodology of the study in a special session, under the guidance of His Excellency Dr. Bassem Awadallah, the Minister of Planning and International Cooperation. At the World Bank, the report was written under the general guidance of Mustapha Kamel Nabli, Chief Economist and Director, Middle East and

North Africa Region; Joseph Saba, Country Director; and Dipak Dasgupta, Sector Manager. Comments on gender issues from Randa Akeel and Waafas Ofosu-Amaah are gratefully acknowledged.

There are many in Jordan whom the team cannot thank enough. Tayseer Al-Smadi, Secretary General, Ministry of Planning and International Cooperation, facilitated and guided the process, despite his many other responsibilities. Mohammad Khasawneh, a poverty researcher at Ministry of Planning and International Cooperation, coordinated the work of the Jordan team. Khadija Yousef at the Department of Statistics tirelessly prepared several data sets that the team requested. Tayseer Anees at the Department of Statistics and Cem Alkan at the World Bank prepared the geographic poverty maps. Khamees Raddad at Department of Statistics clarified key aspects of the sample design.

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## JORDAN POVERTY ASSESSMENT – MAIN FINDINGS

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*“No one knows exactly how many Jordanians are poor today, where they live, or what their demographic characteristics are.... Current estimates indicate that up to one third of the Jordanian population live beneath the poverty line.”*

*Poverty Alleviation for a Stronger Jordan – A Comprehensive National Strategy, May 2002<sup>1</sup>*

1. This report assesses poverty in Jordan in 2002-03, and examines the changes that have occurred since 1997 as a result of economic growth and the income distribution policies of the Government of Jordan. By assessing the social protection policy implemented under the National Strategy for Poverty Alleviation (2002), and drawing implications for poverty alleviation outcomes in the areas of social protection, health, and education, the study aims to aid the efforts of government, civil society, and development partners to address the needs of the poor in a more effective manner, and accelerate the pace of poverty reduction.

2. The main conclusion of the study is that poverty declined in Jordan between 1997 and 2002-03 no matter which poverty line one chooses to use. Using the most appropriate poverty line discussed later in the report, the study estimates that the percentage of poor in Jordan fell by a third from 21.3 percent in 1997 to 14.2 percent in 2002. This remarkable reduction in poverty has been made possible with an equally remarkable growth in per-capita private consumption, in which the poor participated, at about 3.5 percent a year. This growth in consumption outpaced per-capita income growth at about 0.8 percent a year. This fast rise in private consumption appears to be due to a recovery in consumption trends that is mainly policy driven. Private consumption is rising in response to supportive macroeconomic environment (low real interest rates, appreciating real exchange rates, for example) and better confidence in economic prospects from structural reforms. The poor gained in non-income dimensions as well. Illiteracy among the poor has declined by 41% on the strength of government’s literacy campaigns targeting the poor and Education for All strategy. In the health dimension, the infant and child mortality for the poor may have declined nearly by a third<sup>2</sup>.

3. However, there are some important concerns about the sustainability of the current pace of poverty and poverty reduction efforts in Jordan that have some important policy implications. First, the current pace of poverty reduction will require that economic growth (and ensuing income gains) improve significantly in order to provide a more sustained pace of future consumption growth and poverty reduction. Sustainability

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<sup>1</sup> Published by Jordan Poverty Alleviation Program, Ministry of Social Development, Jordan.

<sup>2</sup> Based on Demographic and Health Surveys, 1997 and 2002. Indicators for mothers with no education is assumed to be a proxy for the poor in the absence of cross-tabulation of DHS data by income class.

of the current pace of reduction in poverty would require acceleration in GDP growth to at least 6 percent (and per capita growth to levels of about 3.5 percent per annum) or higher that benefits the poor, substantially larger than the 3.8 percent growth average during 1997-2002. Recent economic growth has picked up despite large economic shocks and needs to be sustained and/or accelerated. Second, the uneven geographic spread of poverty reduction has left three governorates (Balqa, Karak and Aqaba) with no change in poverty and Zarqa governorate with an actual increase, besides leaving one-sixth of the sub-districts desperately poor where three-fourths or more of the population is presently poor. Third, the leakages in government's recently implemented social assistance program (Family Income Supplement) for combating poverty are high with the non-poor collecting two-thirds of the assistance. Fourth, the persistence in unemployment rate for the poor are worrying because a lasting impact on poverty reduction will require jobs for the poor and improvement of their incomes. Puzzlingly, families headed by unemployed persons have reduced poverty even though their employment and incomes have not increased, primarily because of greater share of transfers and more spending<sup>3</sup>. Fifth, the persistent disparity of the poor and non-poor in non-income dimensions of poverty such as education and health will hamper efforts by the poor to improve their earning potential, especially for the next generation or cohorts.

4. Overall, therefore, long-term policy needs to focus more on regional imbalances in development, improve the access of the poor in education, health and jobs for sustained reduction in poverty. In the transition, there is an urgent need to plug the leakage in government's cash transfer program two-thirds of which is collected by the non-poor and institute poverty monitoring systems for timely remedial action instead of waiting for results from surveys at five-yearly intervals as at present.

## **BACKGROUND**

5. Jordan's recent growth performance has been noteworthy. Since 1999, GDP growth has consistently stayed above population growth, despite repeated negative shocks emanating from the region. This resilience is a hard-won achievement of conscious policy choices. Upon ascending the throne in 1999, His Majesty King Abdullah II consciously promoted an accelerated pace of structural reforms, which, among other things, had the net effect of bringing down weighted average import tariffs to 10 percent, and achieving an overall privatization record amounting to 11 percent of GDP. This has enabled Jordan to emerge as a leader in structural reforms among Arab countries.

6. Jordan's achievement in human development, which goes beyond GDP growth, has also been remarkable. Jordan is better in human development than comparators worldwide at similar levels of GDP. In the two non-income dimension of human development – health and education – Jordan has significant leads. In 2003, Jordan was

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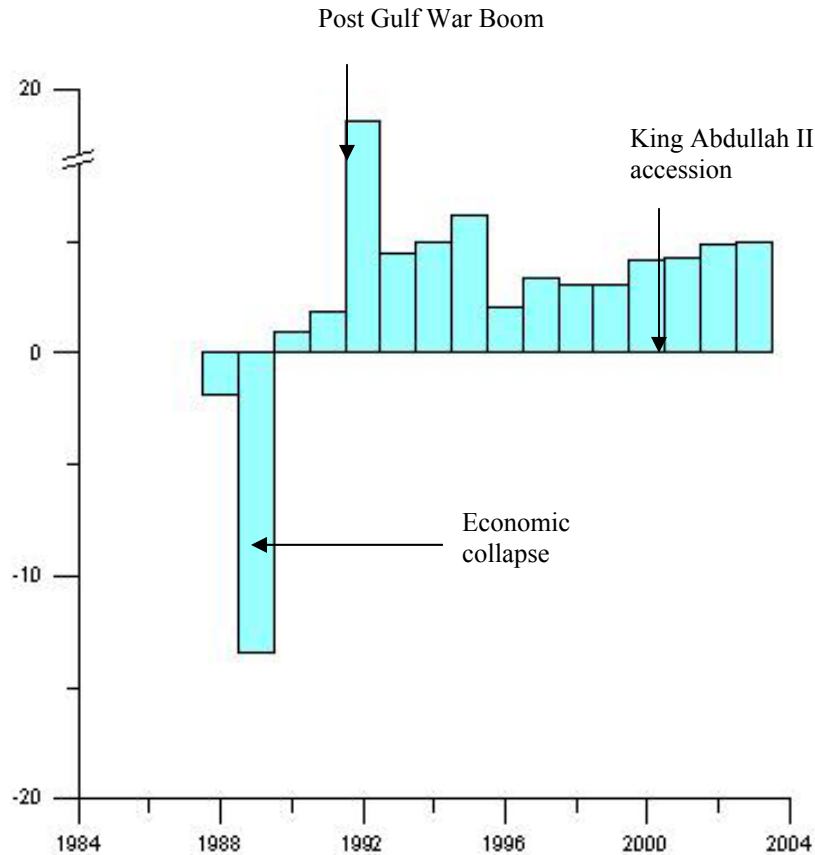
<sup>3</sup> It is difficult to ascertain how far families understate their incomes.

second best in the Human Development Index (HDI)<sup>4</sup> among non-oil Arab countries. Jordan's life expectancy has improved from 67 years in 1990 to 70.6 in 2003. The adult literacy rate has jumped from 75 to 90.3 percent; and nearly 70 percent of the population has basic education or higher. Seven percent are university graduates.

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<sup>4</sup> The UNDP's Human Development Index (HDI) is a composite indicator of welfare that combines a weighted sum of three indices related to life expectancy at birth, educational attainment, and per capita income.

**Figure 1. Real GDP growth rates in Jordan, 1988-2003**



Source: Jordan *Live Data Base*, World Bank, 2004.

7. Yet, despite the gains in economic growth and human development for the population in general, Jordanians are unsure whether the fruits of development and reform are reaching the poor. This concern is rooted in Jordan’s history. Jordan had little poverty or unemployment prior to the economic collapse in 1989<sup>5</sup>. The economic collapse pushed 17 percent of the population into poverty, and rendered 20 percent of the labor force unemployed. Successful macroeconomic stabilization in the early 1990s reversed the decline in GDP growth and helped to moderate the twin problems of poverty and unemployment. GDP growth rebounded to nearly 19 percent in 1992, helped in part by the housing boom fed by the savings of Gulf returnees. However, growth proved to be transient, as the housing boom ran its course and the expectation of peace dividends from the 1994 peace accord did not fully materialize. Though per capita consumption declined by 1.5 percent a year between 1992 and 1997, active redistribution policies reduced

<sup>5</sup> The root causes of the collapse were the unsustainable expansion of the public sector and the collapse of oil prices in the mid-1980s. Though Jordan does not produce oil, it is vulnerable to the price of oil indirectly through worker remittance inflows from Jordanian workers in oil-rich countries.

consumption inequality, and reduced the proportion of poor by some 2.6 percentage points. However, with weak economic growth, the unemployment rate persisted at around 15 percent through much of the 1990s.

8. In response to the continuing concerns about the slow pace of poverty reduction, authorities announced the new strategy for poverty alleviation in 2002. Key policy initiatives are to increase and extend the National Aid Fund, support sustainable microfinancing, and increase employment opportunities in rural areas and small towns through Cluster Village Development. In addition, social safety net policy changes under the new strategy have been rapidly implemented. The new program, now rechristened FIS (the Family Income Supplement program; formerly the Recurring Assistance Program), which began in May 2002, is designed to bridge the gap between a family's real income and the poverty line, defined as JD 26 per person per month and JD 156 (compared to JD 82 previously) for a typical six-member household per month. As a result, the number of beneficiaries and the assistance per beneficiary rose sharply in 2002, by 22 and 43 percent, respectively. Jordan's National Social and Economic Plan (2004-06)<sup>6</sup> reflects the continued concern of national planners, and puts "relatively high levels of poverty and unemployment" at the top of the list of current challenges facing Jordan.

9. This report fills the knowledge gaps identified in the new strategy for poverty alleviation<sup>7</sup> by utilizing the newly available results of the Household Expenditure and Income Survey. The following six key areas are studied in-depth to facilitate the implementation of the government's poverty alleviation program:

- *Poverty in Jordan: Incidence and Trends*. Including the construction of new poverty lines to more accurately estimate the incidence of poverty, and examine (i) whether poverty changed since 1997; (ii) whether people are vulnerable to poverty even if not currently defined as poor; and (iii) what are the special problems faced by poor women and children? (Section A);
- *Why has poverty declined in Jordan and will the decline continue* (Section B);
- *The effectiveness of the social protection program* in alleviating poverty (Section C);
- *How well the poor are able to use the labor market* to improve their living conditions (Section D);
- *Gaps in education and health outcomes* between the poor and non-poor (sections E and F, respectively).

#### **A. POVERTY IN JORDAN: INCIDENCE AND TRENDS**

10. Building a consensus on a new poverty line is important to measure and monitor poverty in Jordan. Since the last official poverty line was established in 1987, poverty studies have used a diverse set of methodologies to arrive at poverty lines ranging from

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<sup>6</sup> Draft by Ministry of Planning and International Cooperation, Jordan.

<sup>7</sup> Refer to the quote at the beginning of this volume.

JD 252 to JD 478 per capita per year for 1997 (in 1997 prices). As a consequence, there has been little agreement about the magnitude of poverty, as reflected in the quote at the beginning of this volume. The new Household Expenditure and Income Survey provides an excellent opportunity to construct new poverty lines for Jordan that satisfies well-established criteria<sup>8</sup> set by poverty researchers. Table 1 presents new poverty lines at governorate level for 1997 and 2002-03. The new poverty lines are specific to family composition (age and sex of family members) and where the family lives. The national average poverty line for 2002-03, at JD 392 is about JD 60 higher than what would have been obtained by merely updating the 1987 poverty line to reflect a change in consumer prices. The new line, rather, reflects the new calorie requirements<sup>9</sup> for Jordanians and allows for actual expenditure on non-food items, as observed in the household survey.<sup>10</sup>

11. Based on these new poverty lines, a main finding is that poverty in Jordan has declined significantly between 1997 and 2002. This conclusion about the direction of change in poverty is robust to the choice of poverty lines and alternative poverty measures that use consumption as a measure of welfare. Figure 2 shows that the incidence of poverty (Y axis) is lower for every possible poverty line (X axis). The proportion of poor, for example, declined from 21 percent in 1997 to 14 percent in 2002, using the same poverty line. The depth of poverty – the proportionate deficit of actual consumption of the poor from the poverty line – declined from 5 to 3 percent.

12. A positive feature of poverty in Jordan is that the chronically poor – defined as those whose poverty is expected to persist – comprise only 29 percent of all the poor.<sup>11</sup> The remainder have such shallow income deficits that they move in and out of poverty as their incomes fluctuate<sup>12</sup>.

13. Progress in poverty reduction in Jordan has been geographically (governorates, sub-governorates and rural-urban) uneven. At the governorate level, Figure 3 charts the statistically significant changes in levels of poverty in a geographic map for 1997 and 2002. In three governorates (Balqa, Karak, and Aqaba) there is no strong evidence to suggest that poverty either increased or decreased. In all other governorates, except Zarqa, poverty declined significantly, particularly in Maan and Mafraq, where the 1997 poverty levels exceeded 30 percent. In Zarqa, however, poverty significantly increased from 16 percent to 22 percent. The increase in unemployment registered in Zarqa (from

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<sup>8</sup> Key criteria are that poverty lines should: (i) be specific to household demographic characteristics such as age and sex; (ii) allow for spatial price differences; (iii) allow for economies of scale; and (iv) be based on observed household expenditure patterns.

<sup>9</sup> Based on “Behavioral Risk” module added to Employment, Unemployment Survey, May 2002.

<sup>10</sup> The 1987 official poverty line allowed for 2224 Kcalories for an adult, as opposed to the population average of 2309 Kcals used in this report. Another difference is that the official poverty line has a built in normative basket of non-food items, whereas the current report uses actual non-food expenditure incurred by families at the food poverty line threshold.

<sup>11</sup> In some countries, such as Indonesia, nearly 80 percent of the poor are deemed to be chronically poor.

<sup>12</sup> Some of the non-poor are also vulnerable to fall into poverty. If we count the non-poor who could become poor because of income fluctuations, population vulnerable to poverty is slightly higher at 16 percent in 2002-03. Of the three regions of the country, the central region has a total vulnerable population of 15 percent, while the percentage of vulnerable in the other regions is higher at 19 percent.

11 to 14 percent), and the steep rise in National Aid Fund (NAF) claimants,<sup>13</sup> indicate that living conditions must have worsened in Zarqa, possibly due to some factors such as the relocation of military establishments.

14. Geographic distribution of poverty in Jordan at sub-governorate level exposes select areas of extreme poverty. Jordan has some pockets (13 out of 73 sub-districts) of severe poverty, where more than 34 percent of the population is poor (Figure 4). Most are located in remote desert areas, where the chronic poverty, low literacy rate (20 percent), and nomadic nature of the poor pose special challenges for development.

15. Rural Jordan is lagging behind in poverty reduction. Jordanians residing in rural areas and living off agricultural incomes tend to be poorer. Currently 19 percent of the rural population is poor, compared to 13 percent in urban areas. Poverty in rural areas is declining more slowly than in urban areas, resulting in a widening rural-urban gap between 1997 and 2002.

16. Though poverty declined significantly and per capita consumption grew across all income groups, growth in per-capita consumption during 1997-2002 was not equally shared across all income groups. While half the governorates registered pro-poor growth, the other half did not; and overall, non-poor groups enjoyed a marginally faster rise in their consumption than the poor. Improving the strategy to create pro-poor growth should remain an important imperative for Jordanian authorities.

17. Faster development of the private sector – which employs most of the poor – is essential for poverty alleviation in Jordan. Though working for public sector lowers the risk of poverty for every skill level, increasing jobs in the public sector is incompatible with the need to rein in fiscal expenditures.

18. Yet, public interventions will continue to be relevant for poverty alleviation. Where the private sector is unlikely to reach such as in the remote areas of Jordan, the authorities have options to use social assistance for the poor unable to work and community based development programs for all others. Also, the uneven pace of poverty alleviation across governorates may call for appropriate correction mechanisms in the incentive framework if benefits clearly outweigh costs.

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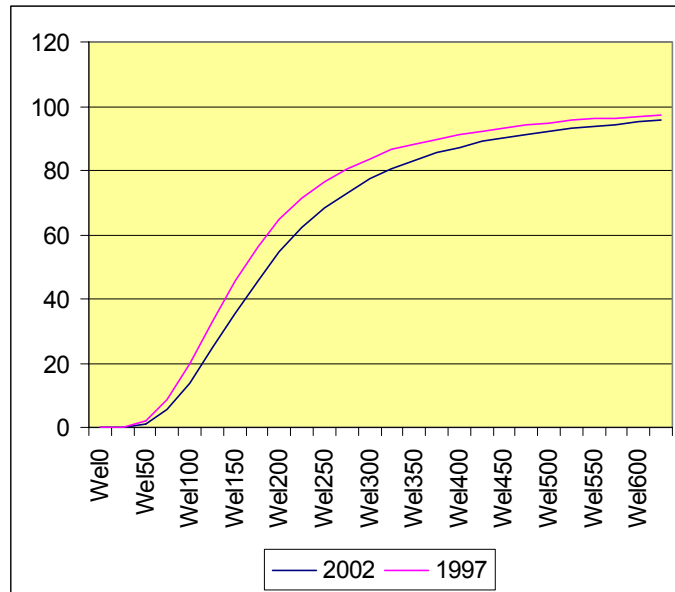
<sup>13</sup> The National Aid Fund was established in 1986 with the main objective of enhancing and institutionalizing the social safety net. NAF originally provided untargeted, generalized subsidies on foodstuffs. Changes in the program since its inception are discussed in Section C.

**Table 1. Average total poverty line, by governorate (JD per capita per year)**

	1997	2002-03
Amman	393	419
Balqa	336	365
Zarqa	363	388
Madaba	347	377
Irbid	348	375
Mafraq	330	360
Jarash	344	373
Ajloun	330	360
Karak	349	364
Tafeela	346	363
Maan	352	364
Aqaba	366	375
Jordan	366	392

Source: Staff estimates, based on Household Expenditure and Income Surveys, 1997 and 2002-03, Department of Statistics, Jordan.

**Figure 2. All poverty measures show unambiguous decline between 1997 and 2002**



Note: Wei100 refers to the welfare index set to 100, at the new poverty line of JD392.  
Source: Staff estimates based on the Household Expenditure and Income Survey (2002-2003).

### ***Coping Strategies of the Poor***

19. The rural and urban poor use different methods to cope with poverty. The poor seek many ways to augment their incomes, save on expenditures, or borrow either overtly or implicitly. An anthropological study<sup>14</sup> of the poor in a deep pocket of poverty – Wadi Rum – finds two characteristics shared by the urban and rural poor in coping with poverty. First, the poor base their decisions on short-term considerations ignoring social disadvantages later. Sending children to work than keeping them in school is an example of the preference of the poor for short-term benefits to the neglect of the earning potential of the children when they grow up. Second, both in rural and urban areas alike, tribal or family customs govern the potential range of coping methods. Exchanging gifts on social occasions provides one such opportunity for the poor to receive valuable gifts even though they may not be able to reciprocate on equal terms. There are also ways in which the coping strategies of the urban and rural poor differ. Urban areas offer more market opportunities for selling labor and buying inexpensive goods, while the poor in rural areas can augment their own account production, and female family members can find employment on farms.

### ***Women in Poverty***

20. Addressing poverty of women headed families calls for a nuanced approach to social assistance. Women head about 10 percent of households in Jordan. Are these households poorer? Results of the new household survey confirm is in conformity with studies<sup>15</sup> in other countries that there is little difference in poverty measures between female-headed households (FHH) and male-headed households (MHH). However, some select sub-groups of FHH have a higher incidence of poverty than corresponding male-headed households. Among other groups of FHH, divorced women have higher incidence of poverty than widowed or married women. Separated women have a poverty ratio of 37 percent, making them the most vulnerable of all FHH and MHH groups. Therefore, social protection programs need to be target households headed by separated or divorced women.

21. Vulnerability of women to poverty is a key issue. Reliance on social protection programs and other types of transfers is sources of vulnerability for FHH. Female-headed households rely less on participation in production activities (wages or own account production) than MHH, as a consequence of lower labor force participation and greater unemployment. The high dependence on transfers has a significant impact on women's empowerment and their ability to influence external factors that could improve their lives. Their low level of participation in economic activity makes them dependent on

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<sup>14</sup> Coping Strategies of the Poor, Mohammed Tarawneh, 2004. Unpublished study commissioned for this report.

<sup>15</sup> IFAD, 1999. "Human Enterprise Ecology: Supporting the Livelihoods of the Rural Poor in East and Southern Africa", Main Report and Working Paper No.2, Rome.

IFPRI, 1995. "Gender and Poverty: New Evidence from 10 Developing Countries", *Food Consumption and Nutrition Division Discussion Paper No.9*, Washington DC.

public transfer and private generosity. Female-headed households are particularly vulnerable to worker remittance inflows. The percentage of poor female-headed households could increase by 50 percent in the absence of remittances.

### ***Children in Poverty***

22. Poverty among children is marginally higher than in the general population. Children (under 18 years of age) constitute half the population in Jordan. Poverty among them is 16 percent, nearly two percentage points higher than the general population, because poorer households have a larger number of children. Two-thirds of poor children live in the three mostly urban governorates of Amman, Irbid, and Zarqa.

23. Poverty pushes children to work while they should be in school, particularly the boys. Based on the new household survey, it is estimated that about 3 percent of children between the ages of 10-18 years were employed. However, the prevalence of child labor is probably underestimated, as households are typically reluctant to acknowledge that they have underage children working. By age and gender, the survey found that male children start working earlier. About 5 percent of male children in the age group 10 to 18 are reported to be working, which suggests that more male than female children drop out of school to work. Even though the annual dropout rate from the basic education level is less than 1 percent, more than 12 percent of children either do not enroll in or do not complete secondary education. The total percentage of those graduating from 12<sup>th</sup> grade is only 76 percent of all children who begin first grade.

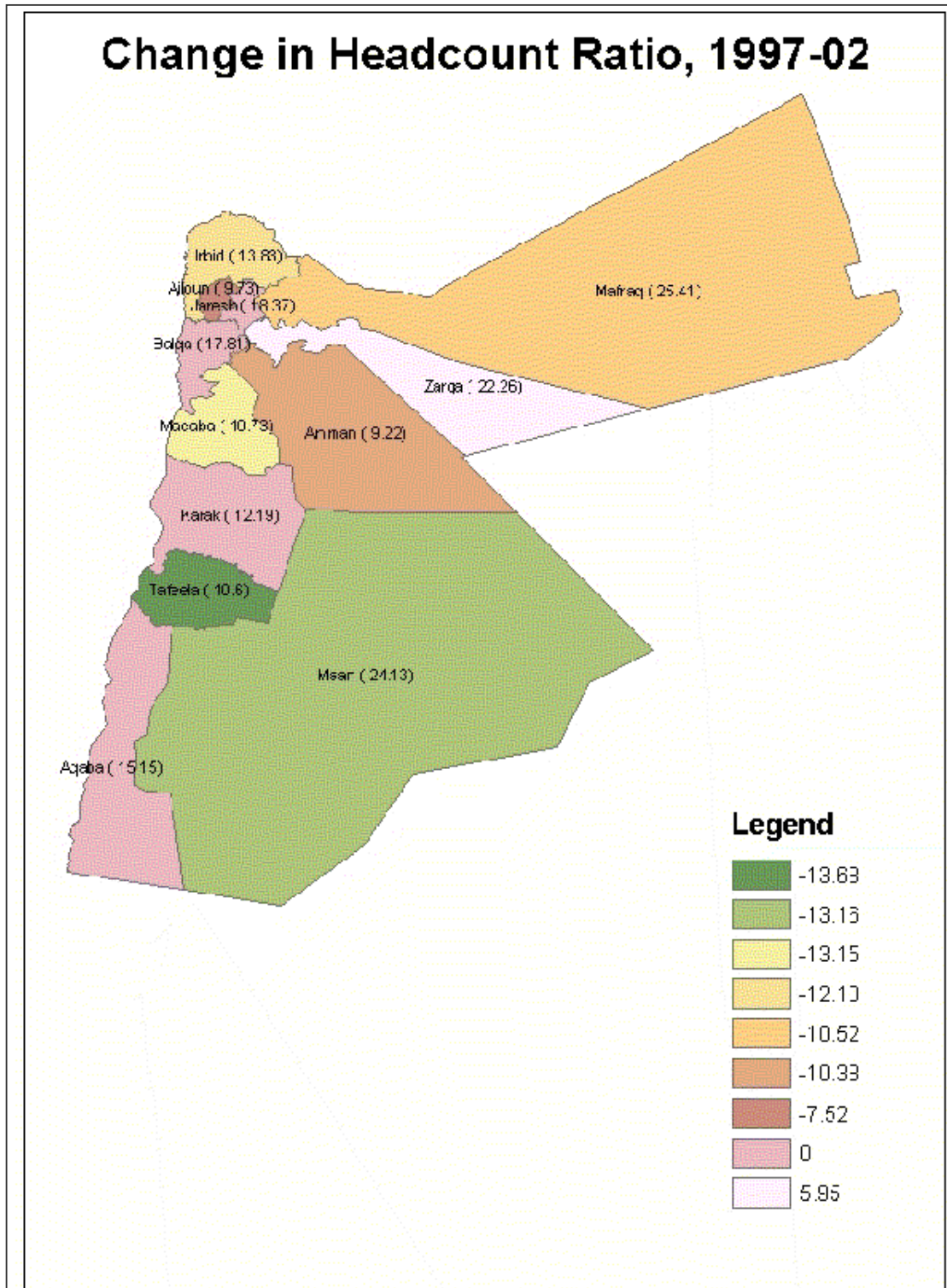
24. Children in school who work part-time under-perform academically. Among the children who stay in school in lower grades, it was observed from analysis of the Trends in International Mathematics and Science Study (TIMSS, 1999)<sup>16</sup> that 10 percent of them also work for pay (the number who work without pay is much more difficult to measure). These children are likely to come from poor families, and their under-performance in the system further limits their chances for social mobility. Controlling for demographic variables and family conditions, working for pay is associated with a decline of 40 and 24 points, on average, in mathematics and science.

25. Current policies to protect children from child labor, and to rehabilitate those who fall behind in education, may need to be improved to minimize the suffering of poor children.

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<sup>16</sup> <http://nces.ed.gov/timss/>

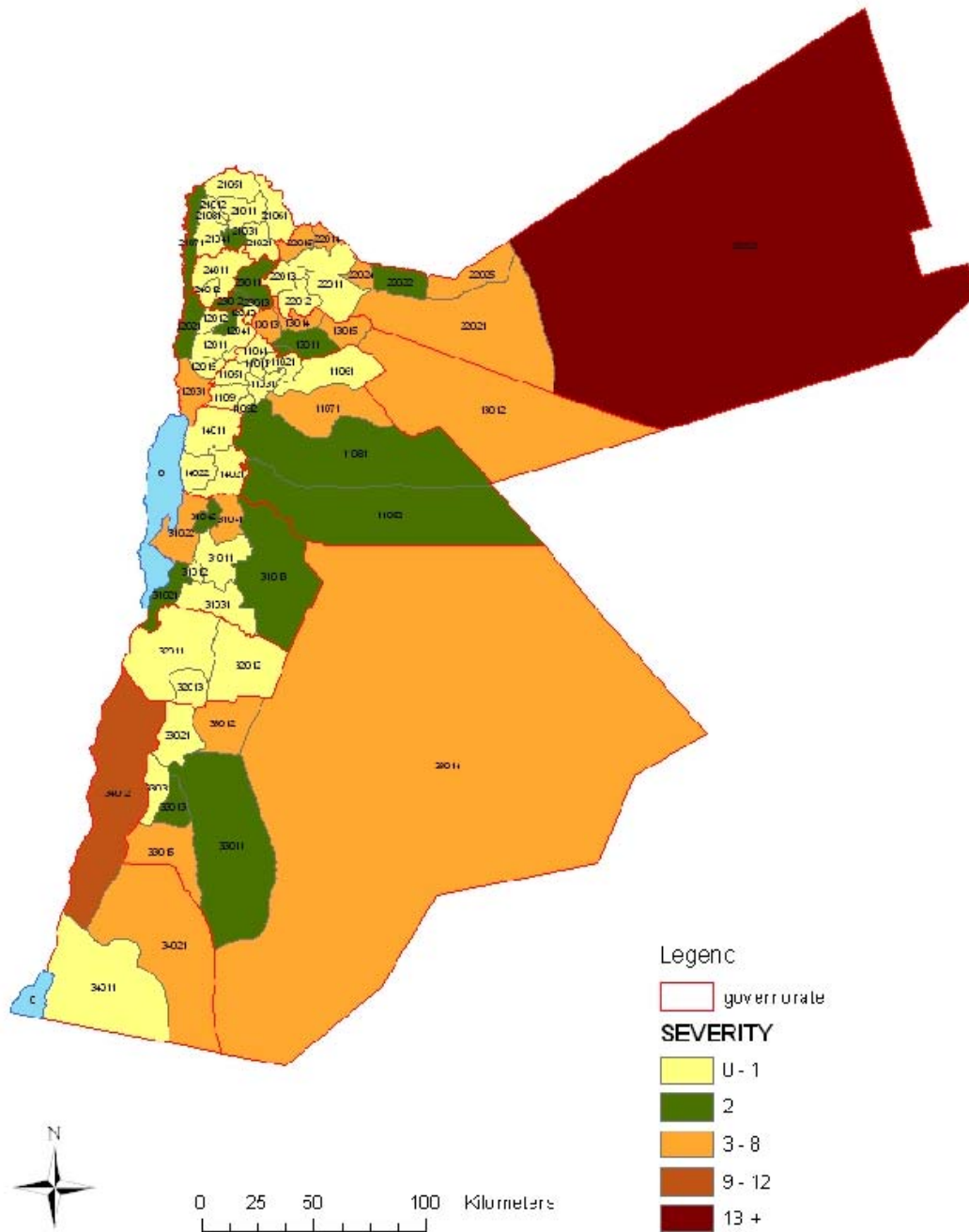
Figure 3.



Source: Staff Estimates based on HEIS, 2002-03. Note: The numbers in parenthesis refer to percentage of poor in 2002-03.

Figure 4.

Poverty Severity 2002-2003

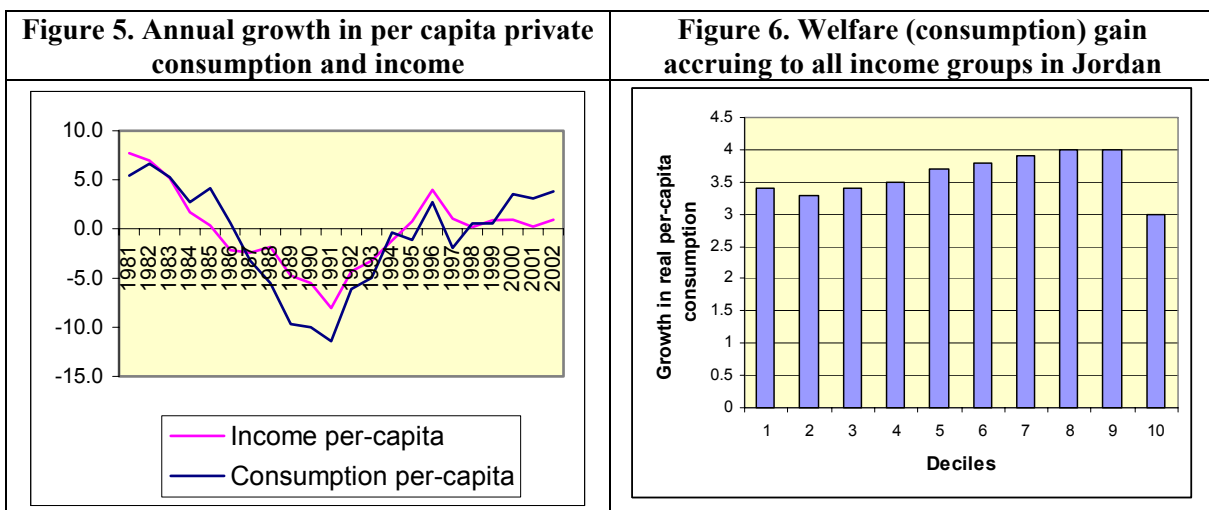


Source: Staff estimates based on Household Expenditure and Income Survey, 2002-03  
Note: The numbers refer to sub-districts listed in Annex -1.

## B. WHY HAS POVERTY DECLINED IN JORDAN, AND WILL THE DECLINE CONTINUE?

26. The decline in poverty in Jordan during 1997-2002 is due largely to the rapid 3.5 percent annual growth in aggregate real private per capita consumption (Figure 5). The aggregate inequality measure (Gini) did not change significantly during this period, showing that the growth in consumption is broad-based and not confined only to the richer classes (Figure 6). This fast rise in consumption is most likely a one-off rise, a return to long-term trend supported by progress on structural reforms and decline in real interest rates even though per-capita income growth has lagged behind per-capita consumption growth. Sustaining private consumption growth at the current rate to reduce poverty will be hard and contingent on Jordan accelerating its GDP growth rate to 6 percent or more. This is also consistent with the finding discussed later that employment gains for the poor have not been robust and must improve so that the gains in consumption for the poor have a sound and sustainable basis. So far, the gains in consumption of the poor have been driven in main by a greater share of spending and transfers, and not from rising incomes or employment.

27. The reasons for the fast rise in per-capita consumption growth are subtler than a rise in annual per capita income (inclusive of foreign transfers), which was only about 0.8 percent in aggregate and similar for the poor<sup>17</sup>.



Source: Household Expenditure and Income Survey 2002-03 and National Accounts.

### *The Rise in Consumption*

28. The fast rise in private consumption estimated from the household survey for all income classes including the poor is consistent with the evidence from Jordan's national

<sup>17</sup> Among the favorable external factors supporting the rise in consumption was the cumulative inflow of UN compensation payments for Gulf war losses to Jordanian expatriates between 1997 and 2002. In 2002, such payments amounted to close to US\$1 billion, or 11 percent of GDP.

accounts. The growth in private consumption reflects the reversion to more long-term equilibrium levels, again consistent with greater confidence in the economic situation.

29. There are several reasons to believe that the shift to higher consumption is probably benign, and that consumers across all income groups are reacting to structural and macroeconomic policy changes. Consumption as a share of income has registered increase across all income groups between 1997 and 2002. However, the rise in consumption of the poor, given the absence of employment and income gains and their limited access to credit markets, is puzzling and needs further research. Though the poor could potentially benefit from decline in interest rates indirectly, the current income of the poor has not risen, the poor do not seek work as much as before and those who seek face slightly higher unemployment rates.

30. It appears that structural policy changes in Jordan, particularly since 1999, have generated optimism about the growth potential of the economy and may have led to the boost in consumption. In fact, the realized GDP growth since 1999 shows remarkable resilience to negative regional shocks such as the *Intifada* in the neighboring West Bank and Gaza, and the global shock of September 11, 2001. The commitment to containing public sector debt in the medium term,<sup>18</sup> and the reduction in publicly guaranteed external debt from 89 to 82 percent of GDP, may also have generated expectations of higher growth in the future. The cumulative effect of these structural policy changes could have made individuals feel wealthier and helped to raise their level of consumption. This is in line with international experience of consumption gains as noted in Box 1.

#### **Box 1. Consumption gains – international experience**

Consumption booms can be caused by the perceived wealth effects of favorable terms of trade changes; optimistic expectations attributed to economic reforms, including a reduction in budget deficits; financial liberalization; and relative price changes arising from exchange rate policies. Montiel (2000) uses evidence of consumption booms from a cross-section of 91 countries over 1960-95, to assess the relative importance of various drivers of booms. His key finding is that favorable movements in terms of trade, structural reforms and anticipated improvements in macroeconomic performance seem to be more important. However, explanations for individual booms can vary, and the possible explanations for Jordan's recent private consumption boom accord with Montiel's framework, as real interest rates fell, the real exchange rate appreciated, and economic reforms were accelerated.

*Source:* Peter J. Montiel (2000). *What drives consumption booms?* The World Bank Economic Review, September, pp 457-480.

31. The rise in consumption has been supported by macroeconomic policy management. First, Jordan's exchange rate policy has maintained the nominal exchange rate of the Jordanian Dinar to US dollar over the entire period, and with it, an appreciation of real exchange rates that have supported real income gains larger than

<sup>18</sup> Law number 26 of 2001 on Public Debt Management stipulates that (by 2006) external debt may not exceed 60 % of GDP (article 22) and total public debt (external and internal) may not exceed 80 % of GDP.

simply the real GDP growth. Second, with its financial openness to international markets and the decline in global interest rates, Jordan has been able to cut interest rates by a large magnitude. Third, with low and steady inflation, the real interest rate dropped in 2002 to one third the level of 1997, which could have encouraged the rise in consumption. Fourth, for poorer households, the reduction in nominal interest rates over the period reduced the opportunity cost of holding money for transactions – another factor that stimulates present consumption. Fifth, the appreciation of the US dollar against the euro, and the consequent real appreciation of the Jordanian dinar from 1997 through 2001 by about 15 percent (which has since been reversed), may also have helped to reduce the relative price of imports from Europe, which is Jordan’s main source of imports.

32. Despite the steady increase in consumption and financial liberalization, the absence of a noticeable boom in private sector credit discounts the possibility of a consumption binge or overshooting. In addition, stabilization of the dollarization trend at 38 percent of all deposits since 2002 points to continued confidence in the Dinar.

33. Nevertheless, sustaining private consumption growth at current record pace will be difficult, as the initial effects of structural reform-induced relative price adjustments are exhausted and real appreciation of the currency reverses; and as UN compensation payments come to an end. The anticipated gains from structural reforms need to be realized in terms of faster job growth and rise in wages for the poor for a lasting impact on poverty. Otherwise, the rise in consumption of the poor observed in the household surveys could reverse.

### ***Future Poverty Reduction Targets***

34. Meeting poverty reduction goals of Jordan’s new national plan will require resolute efforts. Jordan’s National Social and Economic Plan (2004-06) aims to reduce poverty by one third. Given the new poverty line and assuming unchanged income distribution, Table 2 projects standard poverty measures to 2006 under alternative assumptions of growth in per capita real consumption. A growth rate of about 1.1 percent in real per capita consumption is required to cap the number of poor at the 2002 level; while achieving a one-third reduction would require about 4 percent real per capita consumption growth. Reaching the absolute target would require an even larger growth of 5.5 percent showing the challenging task ahead.

**Table 2. Poverty projections to 2006**

	Baseline		Projections of poverty in 2006							
	2002 Elasticities		Assumptions about annual growth of per capita real consumption							
			0.5	1	1.5	2	2.5	3	3.5	4
Headcount ratio	14.2	-1.9	13.7	13.1	12.6	12.1	11.5	11.0	10.4	9.9
Poverty gap	3.3	-2.3	3.1	3.0	2.8	2.7	2.5	2.4	2.2	2.1
Severity	1.1	-2.5	1.1	1.0	1.0	0.9	0.9	0.8	0.7	0.7
<i>Memo Items</i>										
Number of poor ('000)	733.2		778.1	748.5	718.5	688.1	657.2	625.9	594.2	562.0

Source: Staff estimates.

Note: Headcount ratio refers to the percentage of people living below the poverty line. Poverty gap is a measure of the depth of poverty – the average gap expenditure of the poor from the poverty line. Severity is also a measure of depth of poverty but with greater weight on the income gaps of those further below the poverty line.

### C. THE NEW SOCIAL PROTECTION SYSTEM IS LEAKY AND NEEDS IMPROVEMENT

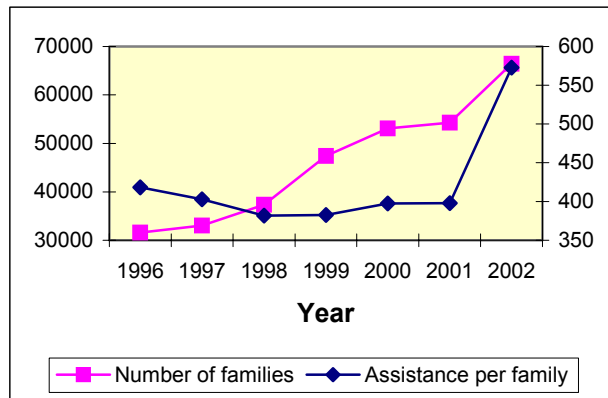
35. Driven by concerns for the poor, the Government of Jordan has been directly intervening to improve the income of poor families through social protection mechanisms. How effective have these programs been? The Household Expenditure and Income Survey 2002-03 provides a good opportunity to evaluate the impact of government transfers on the poor, because it includes a direct question on the receipt of NAF transfers. The general conclusion from the analysis is that though NAF transfers help the poorest of the poor, roughly two-thirds of all transfers leak to the non-poor, implying a significant room for improvement.

36. Since its establishment in 1986, NAF has undergone changes in its outreach, budget, and program composition. The untargeted, generalized subsidies on foodstuffs was eliminated in 1999, and the recurring cash assistance program was strengthened partly to make up for the resulting welfare loss sustained by the poor. The next major policy change came in 2002. Reacting to criticism that the Recurrent Cash Assistance program was helping only about 30 percent of the poor, the Government's new Poverty Alleviation Strategy<sup>19</sup> recommended expanding coverage to all eligible individuals and families, and increasing assistance to all families falling beneath the World Bank poverty line (JD 26 per person and JD 156 – up from JD 82 – for a modal six-member household). Renamed the Family Income Supplement Program, this cash assistance was expanded to reach not only the poor who cannot work (the disabled, widowed women, etc) but also the working poor. In addition, the overall NAF budget was expanded nearly three-fold from 1996 to 2002 (Figure 7). However, relative to government spending on

<sup>19</sup> Poverty Alleviation for a Stronger Jordan, A Comprehensive National Strategy, Jordan Poverty Alleviation Program, Ministry of Social Development, Jordan, May, 2002.

public pensions for civil servants, which amounts to 4 percent of GDP, total NAF expenditures on vulnerable groups is modest.

**Figure 7. Income supplement program (recurring cash assistance): Families assisted and assistance per family, 1996-2002**



Source: National Aid Fund, Jordan, 2003.

37. NAF transfers are by far the most important unearned income for the poorest decile of the population, surpassing private transfers from domestic and foreign sources<sup>20</sup>. In both rural and urban areas, the average transfer per beneficiary decreases almost monotonically with expenditure decile, strongly suggesting that NAF transfers are pro-poor. The average transfer to the poorest decile is about twice as large as for the richest in urban areas, and three times as large in rural areas – showing a decline in leakage since 1997, when the poorest decile received only 70 percent more than the richest. There is also a significant positive correlation between NAF transfers and the incidence of poverty across governorates.

38. However, the impact of NAF transfers on poverty is modest because a large proportion of the benefits accrue to the non-poor. Except in a few governorates such as Ajloun and Karak, its poverty-alleviating role – whether considered in terms of changes in the head count ratio or the poverty gap ratio – appears to be marginal in comparison with the level of spending. Without NAF transfers, the percentage of poor would be higher by 0.8 percent and the poverty gap by 0.7 percent, but with improved targeting, the benefits could be much higher.<sup>21</sup> As it stands, two-thirds of NAF benefits leak to the non-poor; and the absolute amount of transfer remains about the same for decile groups four to ten in urban, and four to nine in rural areas (Figure 8). By comparison, the PROGRESA program in Mexico – which uses a two-tier targeting system to first select

<sup>20</sup> Private worker remittance inflows produce little benefit for the poorest groups, which is not surprising given the human capital and fixed costs of migration. Nevertheless, the poverty gap could double and the percentage of the poor could increase by two points if remittances were to dry up completely.

<sup>21</sup> An evaluation of 1997 NAF cash transfers by World Bank in 1999 attributed a far higher (3 percent) reduction in the percentage of poor. One obvious reason for the reduced impact of NAF now is that the new poverty threshold has moved higher by nearly JD 53 (for 1997) over the 1997 threshold).

communities and then select eligible beneficiaries within communities – delivers 58 percent of benefits to the bottom two deciles (Box 2).

39. Moreover, inequalities in NAF expenditures persist at the governorate level *even within the three poor decile groups*. For example, the poorest deciles in rural Jerash and Tafeela are at opposite extremes in receiving NAF transfers as a share of the poverty line. While the poorest in rural Jerash get nearly 60 percent of their poverty line, the poorest in Tafeela get very little. There appears to be scope for NAF transfers to contribute to a much larger reduction in the poverty gap, not only between rich and poor, but also across regions.

### **Box 2. Social safety nets in Jordan and Mexico**

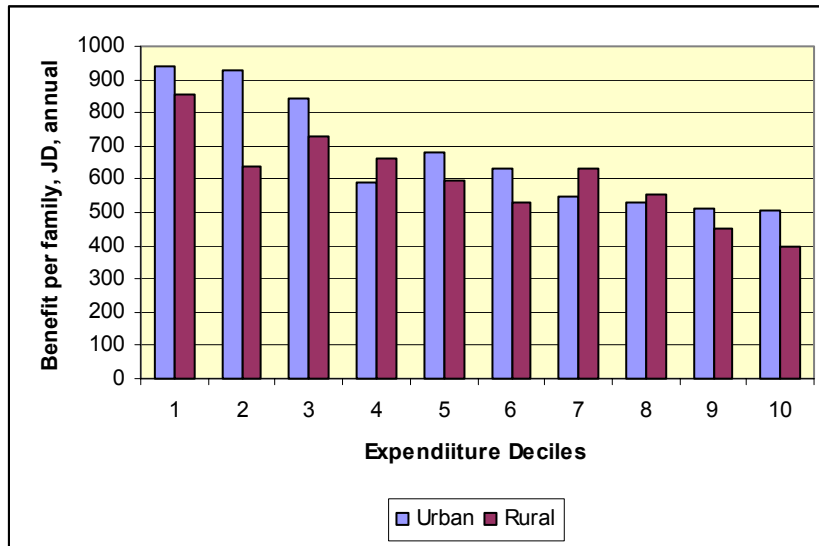
According to NAF guidelines, the FIS program is available to several categories of beneficiaries: orphans under 18 years of age and their [extended] families; widows; divorced and abandoned women; unsupported girls under 18 years of age; the physically handicapped and their families; families of detained convicts; foster families for every minor child in their custody; Jordanian women married to non-Jordanians; the elderly handicapped; the elderly and their families and “any other category approved by the NAF Board of Directors.” Poor families with able-bodied but unemployed or unmarried adult children, and families with working unmarried adult children, are eligible for a reduced amount of assistance. The amount of a family’s steady income from any source is deducted from the assistance allocated to the family. There is some tapering of per-member monthly assistance: JD 35 for a one-member family, JD 60 for a two-member family, and JD 26 for every member of a family of three or above.

In Mexico, by contrast, the PROGRESA safety net fund combines geographic targeting and means testing. The poorest and most marginalized communities are selected using information on community characteristics (demography, housing, infrastructure, education characteristics, etc.) from the national census, which locates them on a “marginality index.” Then socioeconomic data are collected on each household in the selected communities, and the households identified (using a proxy means score) as poor and vulnerable are selected for the program. By 2000, 2.6 million households, equivalent to 40 percent of rural households and 10 percent of all households in Mexico, were enrolled in the program. The annual program budget is about 0.2 percent of GDP.

Unlike programs elsewhere in the world, PROGRESA has been the subject of rigorous evaluation (Skoufias and MaClafferty 2001). Analysis of targeting efficiency has shown that 58 percent of program benefits go to households in the bottom 20 percent of the income distribution. Administrative costs account for less than 10 percent of total program costs. Evaluation results have shown a substantial decrease in the incidence of sickness among young children, significant improvements in child height and weight, a dramatic reduction in anemia among children, and significant improvement in the health status of adults. In addition, the program was directly responsible for a 7 to 9 percent increase in secondary school enrollments for girls, and a 4 to 6 percent increase for boys.

*Sources: Subbarao, 1997. Social Safety Net Programs and Poverty Reduction: Lessons from cross-country experience and K. Subbarao (2004): "Protecting the Poor against shocks: Recent Safety Net Program Experience and Lessons for the Future" Unpublished paper (being processed for publication).*

**Figure 8. The leaky social safety net**



Source: Staff estimates based on Household Expenditure and Income Survey 2002-03.

40. Given all of these findings, it seems clear that adopting poverty as the overarching criterion for receiving NAF benefits, rather than using the myriad of categories as at present could improve targeting.

**D. HOW WELL ARE THE POOR ABLE TO USE THE LABOR MARKET?**

41. The poor seek to improve their living conditions by using the one asset they have in abundance – labor. Whether they are able to use this asset to escape poverty ultimately depends on how successful they are in finding work, and how much they are able to earn.

42. Finding work in Jordan remains a major challenge for the poor, as unemployment has persisted in the 14 to 15 percent range since the mid 1990s, and is showing a slightly worsening trend. Based on projections of labor force growth, significant reductions in unemployment over the next decade will require economic growth averaging 6 to 7 percent a year, which is substantially higher than the 3.8 growth that occurred over the 1997-2002 period. A few sectors of the economy (hotels and restaurants, real estate, personal services) have shown dynamic job growth, with the rate of growth of employment substantially exceeding that of the national labor force. However, employment growth has been weak or negative in many high-employment sectors (public administration, defense, education), and actual job shedding has occurred in the two sectors (agriculture and mining) that together account for almost a third of all employment in Jordan.

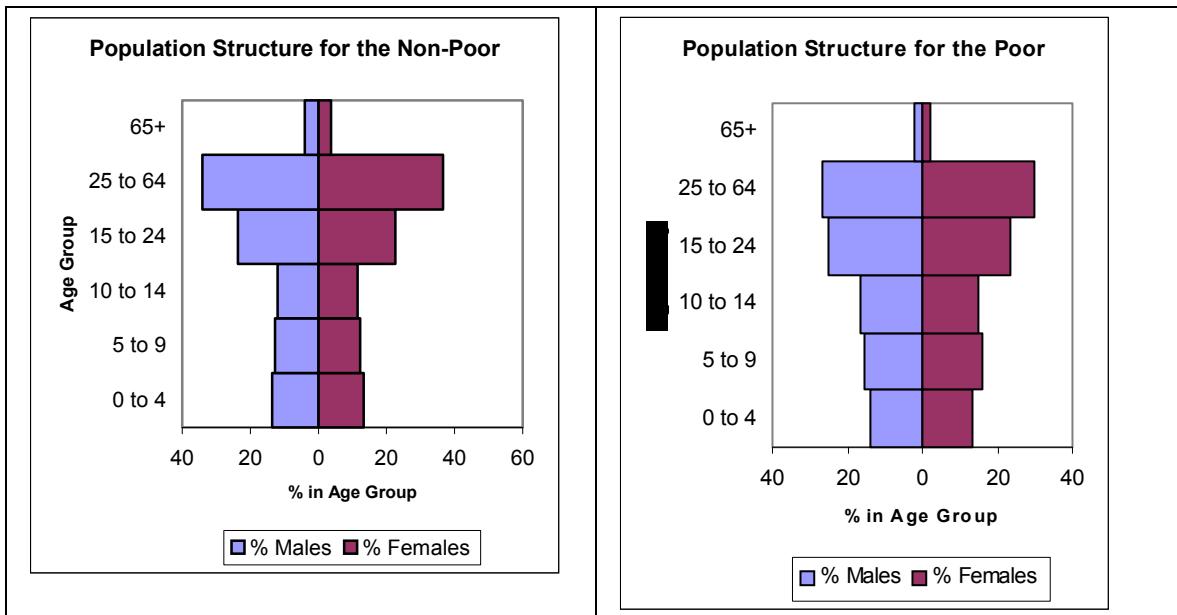
43. Based on participation rates recorded in the Employment and Unemployment Surveys (EUS),<sup>22</sup> the average annual growth of the Jordanian labor force over the last

<sup>22</sup> Quarterly reports published by Department of Statistics, Jordan.

three years was 1.7 percent.<sup>23</sup> This figure is well below forecasts of labor force growth from other sources, such as the International Labour Organization,<sup>24</sup> and stands in sharp contrast to the growth of Jordan's working-age population, which averaged 3.4 percent per year over the same period. This significant decline in labor force participation affected both genders, but particularly males. According to the EUS 2000, 66 percent of Jordanian males over age 15 participated in the labor force. By 2003, that figure had dropped to 63.2 percent. For females, the decline was smaller, from 12.3 percent in 2000 to 11.2 percent in 2003.

44. The recent slowdown in labor force growth could also be a forewarning of worker discouragement. The poor are not looking for jobs as much as the non-poor. Labor force participation rates for the poor, at 37 percent, are lower than for the non-poor, at 40 percent. This is mainly because of the lower educational attainment of poor women, and the need to look after a larger population of children below age 15 in poor households (Figure 9). Participation rates for the poor are consistently lower than for the non-poor at every age, particularly for females. With education, however, female participation rates rise steadily and remain higher than that of males.

**Figure 9. The poor have more young dependents to support**



*Source: Staff estimates, based on Household Expenditure and Income Survey, 2002-03.*

45. Unemployment increases the risk of poverty in Jordan. Families of the unemployed are significantly more likely to be poor – 21.5 percent of the population with an unemployed household head lives below the poverty line, compared with only 12.8

<sup>23</sup> See Volume 2 of this report for a description of how growth rates of labor force/employment were constructed.

<sup>24</sup> According to the ILO Labor Statistics Database, the estimated average annual growth of the labor force in Jordan over the 2000-2010 period is 3.9 percent.

percent of the population where the household head is employed, and 15.9 percent of the population where the household head is not economically active.

46. Poverty rates for households headed by unemployed, puzzlingly, have realized the greatest relative declines since 1997 (Table 3). All groups experienced significant declines in poverty between 1997 and 2002; but while the poverty rate for those with an employed or economically inactive household head – as measured by increased consumption – declined over the period by 34 and 30 percent, respectively, the poverty rate for those with an unemployed head of household declined by almost 39 percent. Increased transfers may have played an important role in this decline, since the proportion of household income from transfers increased from about 25 percent in 1997 to more than 40 percent in 2002. But this cannot be a sustainable basis for continued poverty reduction.

**Table 3. Poverty rates of the population, by economic activity status, 1997 and 2002**

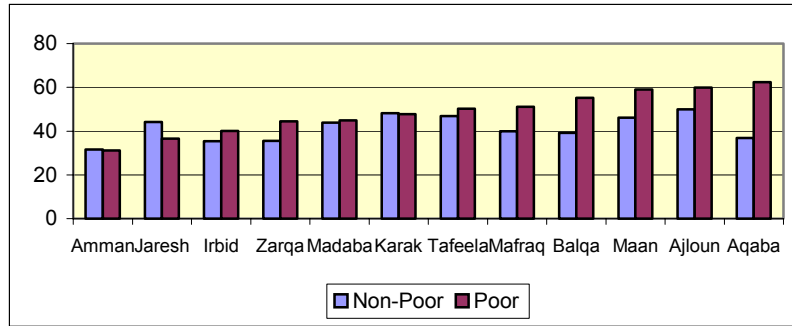
<b>Economic activity status</b>	<b>Poverty rate, 1997</b>	<b>Poverty rate, 2002</b>	<b>Change in poverty (Percent)</b>
Total population	21.1	14.2	32.8
Unemployed	35.0	21.5	38.6
Employed	19.3	12.8	33.6
Not economically active	22.7	15.9	29.8

*Source: Household Expenditure and Income Survey, 1997 and 2002.*

47. Though poverty has declined for the unemployed, at least in this period, certain segments of the unemployed have also increased their absolute and relative risk for poverty. Poverty rates for the least educated unemployed have increased over the 1997-2002 period, contrary to the trend for the better educated. Seen in the context of declining returns to education for those with low education, this group may become increasingly vulnerable in the future.

48. The unemployment rate is high among youth, women, and particularly educated women. Youth from poor families have a higher unemployment rate than the non-poor (42 as opposed to 36 percent). In 6 of the 12 governorates, the youth unemployment rate exceeds 50 percent (Figure 10).

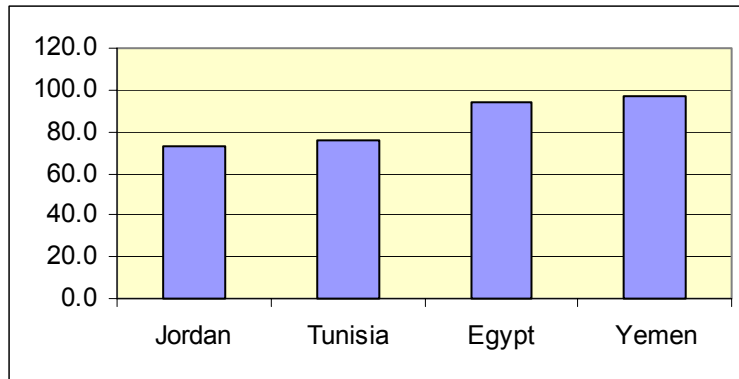
**Figure 10. Youth unemployment among the poor and non-poor by governorate, 2002**



Source: Staff estimates, based on Household Expenditure and Income Survey, 2002-03.

49. Poverty has also declined for employed workers since 1997, with the proportion of households headed by the working poor falling from almost 10 percent in 1997 to only 6 percent in 2002-03. Yet, there were about 100,000 working adults living in poor families in 2002-03, in part because labor-intensive segments of the economy – land transport; agriculture; commercial gardening; horticulture; construction; manufacture and repair of motor vehicles; manufacture of wearing apparel; and retail sale of food, beverages, and tobacco – hire more workers from poor families. In relative terms, Jordan has the lowest proportion (three-quarters) of the poor participating in the labor force among select MENA comparators (Figure 11).

**Figure 11. Working poor ratio is low in Jordan**



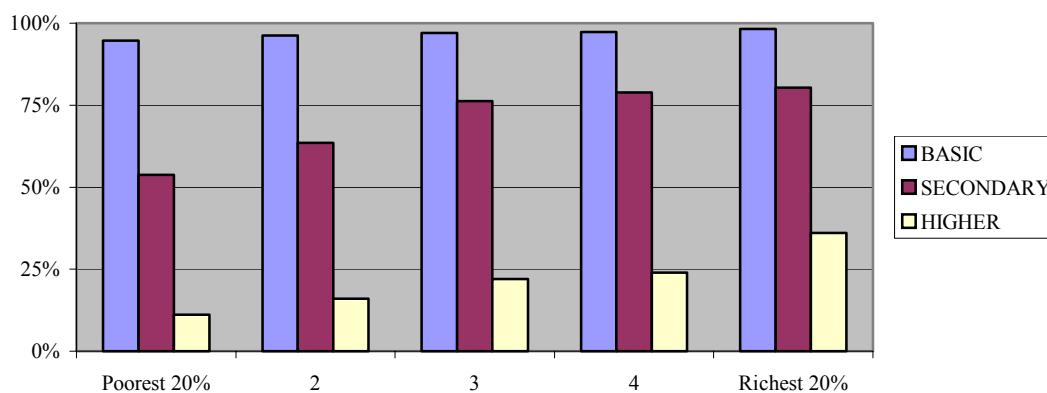
Note: The working poor ratio is the ratio of the employed to labor force among the poor.  
Source: Staff estimates, based on Household Expenditure and Income Survey, 2002-03.

50. The unemployment rate for the poor, at 27 percent, was significantly higher in 2002 than that of the non-poor, at 17 percent – an eight point increase in the gap between poor and non-poor since 1992. Though youth generally face higher unemployment rates, Jordan’s poor youth suffer from 42 percent unemployment, as compared to 36 percent for non-poor youth.

## E. THE POOR ARE LAGGING BEHIND IN EDUCATION

51. Despite significant gains in education, the poor, especially in rural areas, lag behind the rest of the population in terms of educational achievements. In 2002, while the proportion of illiterates was between 8 percent and 9 percent in the upper four wealth quintiles, 12 percent of the poorest quintile are reported to be illiterate – a statistically significant difference. Overall, illiteracy was much higher in rural areas (14.1 percent) as compared to urban areas (7.9 percent), and was more than twice as high for the rural poor as for the urban poor (20.4 versus 9.6 percent). While all children have equal physical access to education facilities secondary and higher education enrollments are skewed toward the wealthier segments of society. The difference in enrollments is most pronounced for higher education, with the poorest quintile representing less than one-third the proportion of the richest 20 percent in public and private higher education institutes (Figure 12).

**Figure 12. The poor lag behind in every stage of education**



*Source: Household Expenditure and Income Survey, 2002-03.*

52. Overall in Jordan, poverty is inversely related to educational attainment, and the differences in educational attainment between urban and rural areas are significant. Illiteracy is a strong driver of poverty for people in both rural and urban areas, but the incidence of poverty is much lower for people who attain higher than secondary education, regardless of whether they are from urban or rural areas. Moreover, the acquisition of education is significantly related to a reduced incidence of poverty. For example, a head of household who is illiterate is 19 times more likely to be poor as one who has attained more than two years of college education. Between 1997 and 2002, the strength of the negative effect of higher education on the likelihood of being poor increased 50 percent. While this is a troubling statistic, given the proportionally lower representation of lower income groups in higher education, it is likely to have a positive impact on encouraging higher educational attainments among Jordanian youth.

53. Even though education of the poor is valued in the labor market, the returns to higher levels of education are much higher for the non-poor than for the poor. Attaining a minimum level of literacy (reading and writing ability) increases the lifetime earnings of the poor by 20 percent, as compared to being illiterate; and completing six years of schooling adds 10 percent more to their earnings. However, the large gains observed for higher levels of education for the non-poor were not seen for the poor. For example, a BA graduate from a non-poor family can expect to earn 86 percent over one who is illiterate, but a BA graduate from a poor family can expect to earn only slightly more than 50 percent over one who is illiterate, possibly because the poor have fewer opportunities to take advantage of their higher education than the non-poor. Nevertheless, the value of higher education remains high for both the poor and the non-poor.

54. Why do inequalities remain in the education system? Evidence from other studies and analysis of the 1997 and 2002 Household Expenditure and Income Surveys shed light on possible factors. For example, it is common to find, in countries at similar levels of development as Jordan, that rural residents have relatively limited opportunities for generating income, resulting in the higher incidence of poverty in rural areas. It is also suggested that the relative mobility of the non-poor versus the poor may be a factor limiting the income earning potential of the poor. Also, the lack of information on educational opportunities, as well as the lack of access to credit markets and other means of student financial aid, may be constraining factors sustaining inequalities in the education system.

55. The relative costs and returns of acquiring education may provide a stronger incentive to the non-poor to stay in school and attain higher education. It may be quite plausible that the higher proportion of family income devoted to direct (school related) and indirect costs (in terms of lost earnings), together with the lower relevance and quality of education, and the lower relative value generated by education among the poor, lead to a vicious cycle of perpetuating poverty among the lowest income group. Family poverty and parental education are also significant factors in school dropout and school performance. Once children have dropped out, there is a high likelihood that boys will work in the labor market to augment family income. The analysis in this report has shown that these individuals are disadvantaged throughout their lifetimes by low earnings. While education is a very important factor in earning income and has a significant effect on reducing the likelihood of poverty, there are many factors that are limiting the acquisition of higher levels of education for a student from a poor family background; and the relatively lower returns imply that poor families have less incentive to keep their children in school. Lower education leads to lower returns, which leads to lower educational attainments. Thus, the cycle continues.

56. Private and household finances play an important role in the financing of education, especially at the higher education level. The average Jordanian household spends 4 percent of total household expenditures on education. Educational expenditures are equitably distributed across wealth quintiles: the poorest wealth quintile spends 2 percent while the richest quintile spends 6.5 percent of total household expenditures on education.

57. The Government of Jordan spends a considerable sum on education, and per-pupil spending has increased in the 1990s. In basic and secondary education, per-pupil spending has increased by almost 30 percent (from JD 141 in 1990 to JD180 in 2000), and the proportion of recurrent expenditures going to personnel costs has increased from 83 to 90 percent. The high share of personnel expenditures in basic and secondary education may also reflect low internal efficiency, as measured by low student-teacher ratios in remote and rented schools, and by high teacher salaries.

58. Public spending is more equitably distributed at the lower levels of education, but there needs to be greater equity in higher education. In general, children from poorer families form a high proportion of the enrollments at public basic and secondary schools, while the reverse is true for higher education. Analysis of the per-student subsidy at the different levels of education reveals that basic education subsidies are pro-poor, while higher education subsidies are pro-rich. Thus, there is a strong case for enhancing the targeting of higher education financing toward lower-income groups, through, for example, targeted scholarships and subsidized loans.

59. The fact that some inequalities remain in the system indicates that there is a rationale for public intervention in the education sector. As a next step, it would be important to focus on improving the quality of education, which would lead to higher outcomes and thus provide incentives for the poor to get more education. Interventions could include:

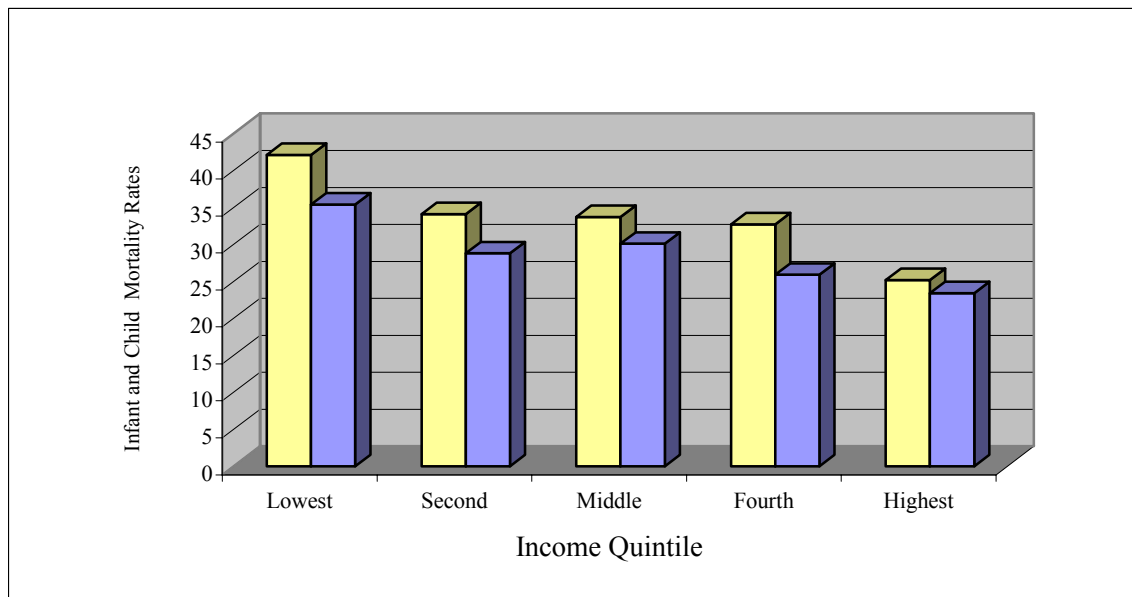
- Extending basic education coverage to the remaining 4 to 5 percent of the population that is still out of school;
- Focusing on improving the quality of basic education, so as to enhance promotion to the secondary level;
- Improving the quality and relevance of education at the secondary level, so as to enhance outcomes, especially for the poor;
- Targeting incentives specifically to address the low enrollment of the poor in higher education (perhaps through scholarships and/or subsidized access to credit markets);
- Lifelong learning opportunities, to increase the skills and knowledge of the labor force as a complement to their formal education, in order to meet the changing needs of the labor market. Lifelong learning would also create awareness of employment opportunities for the poor, so they could generate returns comparable with their education level;
- Since early childhood education (ECE) has been proven by international experience to be the strongest factor countering the disadvantages of childhood,

the government could facilitate access to ECE for poor and disadvantaged students.

#### **F. THE POOR HAVE WEAKER HEALTH OUTCOMES BUT BEAR A HIGHER BURDEN OF EXPENDITURE**

60. Recent household surveys<sup>25</sup> reveal important inequalities in the health indicators of the poorest 20 percent of Jordanian society. The poor are exposed to greater health risks and have significantly lower access to health services than the rich – leading to higher infant and child mortality rates, greater childhood malnutrition, a higher incidence of disability, and higher fertility rates. Infant and child mortality rates for the poor are 1.5 to 1.7 times higher than for the richest quintile (Figure 13). For poor children who do survive, the effects of malnutrition are severe. Stunting (height for age) and wasting (weight for age) are nearly 7 times greater than for children of the richest quintile. Moreover, the process indicators show lower numbers of physician-assisted deliveries, fewer deliveries at home, and a lower rate of contraceptive use. Some underlying risk factors for these lower health outcomes include lower school completion rates (particularly for women), higher rates of smoking, and poorer methods of waste disposal. Other factors, such as health financing methods, suggest a substantial degree of regressivity, with the poor paying proportionately more out of pocket for outpatient care (9 percent of household income), as opposed to the richest (7 percent).

**Figure 13. Infant and child mortality rates by income quintile**



*Source: Demographic and Health Survey, 1997, Department of Statistics, Jordan.*

<sup>25</sup> Demographic and Health Survey, 1997, Department of Statistics, Jordan.

61. There are a wide number of possible reasons for the higher infant and child mortality rates among the poor in Jordan. While the demographic and health survey data reveal no significant difference in overall vaccination rates or prevalence of childhood disease across income quintiles, they do show substantial differences in the prevalence of childhood malnutrition, as evidenced by stunting and wasting. The higher levels of malnutrition among the poor work to lower the immune defenses of children and make them more susceptible to childhood illnesses. Other direct and indirect factors could include the effects of high fertility and less access to prenatal care and medically supervised deliveries – which together could contribute to higher infant and child mortality rates among the poor. Understanding the causes, both distal and proximal, of child mortality in Jordan, especially among the poor, deserves much deeper analysis and attention. One important intervention could be the immediate improvement of mortality coding and death registration data in hospitals and health centers around the country.

62. Preliminary analysis of public sector spending on health suggests that it is pro-poor, as the poor tend to make more use of both the outpatient and inpatient services offered by hospitals under Ministry of Health. The services provided by the Royal Medical Services (another publicly funded organization), on the other hand, are utilized more by higher income groups for both types of care.

63. Other health-related inequalities, such as the prevalence of disability, also deserve greater study and investigation. The incidence of disability is nearly twice as high among the poor as in the richest quintile. Are these inequalities due to greater degrees of co-sanguinity among the poor, or to poorer access to effective health care services? Why should congenital hearing loss or poor vision be more prevalent among the poorer segments of Jordanian society? Why do the poorest 20 percent of Jordanian society not use modern methods of contraception? How could greater utilization of these methods be encouraged? Why do the poor smoke more? Is there any way to promote greater risk pooling across different income groups to minimize the impact of out-of-pocket expenditure on unexpected health care services required by the poor?

64. There are many layers of interventions that could improve the health outcomes of the poor in Jordan. In a recently elaborated “Pathways” framework<sup>26</sup> developed by the World Bank, three distinct layers of interventions are identified and developed. The first layer concerns household and communal practices (hand washing, not smoking, use of iodized salt, exclusive breastfeeding, safe sanitation, consumption of clean water) that are essential to good health outcomes. The second layer involves the programs and services of the health sector and other concerned sectors, which could include preventive and curative care at all levels, health insurance schemes, female education policies, water and sanitation infrastructure, housing, and food safety. The third layer could concern general

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<sup>26</sup> Soucat, Agnes L.B., Yazbeck, Abdo S. "HNP and the Poor: Inputs into PRSPs and World Bank Operations," Distance Education Courses on Poverty and Health, World Bank, Washington DC. Available at: <http://www.worldbank.org/poverty/health/learning/index.htm>

government policies to redress social and economic inequities (e.g., promoting public education or establishing a more progressive taxation system).<sup>27</sup>

65. Following from our analysis, we have identified several interventions that could help to promote greater health outcomes among the poor. These interventions could be integrated horizontally into the current public health programs in the country, or be initiated via a direct vertical approach.

- Improve data collection systems to generate reliable data, at regular intervals, on mortality, fertility, chronic morbidity, nutrition, and disability; and improve the mortality coding and death registration systems;
- Promote childhood nutrition interventions among pre-schoolers and school age children, to address malnutrition among poor children; and establish effective programs for the integrated management of childhood diseases;
- Strengthen current reproductive health services to increase the utilization of modern contraception and prenatal services among the poor; and enhance the capacity of the health care system to effectively handle high-risk pregnancies in poorer rural areas.
- Undertake national screening programs (e.g., early detection of hearing loss among newborns) and injury prevention campaigns (e.g., road safety) to reduce the incidence of disability among the poorer income groups;
- Continue to narrow the gender gap in female education via effective outreach services to support higher school enrollment and attendance by girls from poorer backgrounds. Closing this gap in education can have significant crossover effects on health;
- Initiate significant health finance reforms to better mitigate the effects of high out-of-pocket expenditures on health care by poorer income groups. Greater risk pooling arrangements, through general taxation or special social insurance schemes, could help protect households from the financial risks associated with unexpected illnesses and accidents.

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<sup>27</sup> There is a growing and important literature on the “social determinants” of health inequalities. See Marmot (1999), *Social Causes of Social Inequalities in Health*, Harvard Center for Population and Development Studies, Working Paper Series 99.01 (January).

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## ANNEX 1: POVERTY INDICATORS BY SUB-DISTRICT

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Code	Name	Headcount	Gap	Severity
11011	Amman	9.848674	1.941445	0.593762
11021	Marka	7.589943	1.503224	0.458055
11031	Qwaismeh	15.03713	3.581711	1.187911
11041	Jami'ah	2.548568	0.41796	0.10658
11051	Wadi Essier	3.64311	0.704693	0.218004
11061	Sahab	9.973665	1.591759	0.384573
11071	Mowaqqar	24.9617	7.02783	2.74428
11081	Jizeh	32.00961	7.385699	2.529184
11082	Um Rsas	26.57101	6.77575	2.496816
11091	Na'oor	10.39261	2.077409	0.657556
11092	Um El-Basateen	5.736701	0.642363	0.101187
12011	Salt	4.425448	0.605341	0.138387
12012	Ardhah	11.29431	2.761779	0.853801
12013	Zayy	10.10945	3.29279	1.584479
12014	Mahes & Fohais	3.661971	0.558023	0.206895
12015	Ira & Yarqa	4.221557	1.037696	0.31645
12021	Dair Alla	27.57996	6.161618	2.013376
12031	Shooneh Janoobiyeh	27.12072	8.055319	3.296283
12041	Ain El-Basha	23.9749	4.974059	1.578136
13011	Zarqa	18.07677	4.34885	1.626427
13012	Azraq	40.29726	9.057645	2.850946
13013	Bierain	42.25848	8.846846	2.715512
13014	Hashemiyeh	29.03899	7.679083	2.846879
13015	Dhlail	52.18637	12.73075	4.763057
13021	Ruseifa	22.58134	5.444397	1.944376
14011	Madaba	10.82008	2.374303	0.788729
14021	Dieban	9.254498	2.374187	0.841708
14022	Ariedh	17.75282	3.011338	0.776523
21011	Irbid	10.58426	2.280818	0.720171
21012	Wastiyeh	10.31389	1.941495	0.554057
21021	Bani Obeid	11.87321	2.55178	0.856889
21031	Mazar Shamali	25.37095	7.041301	2.585134
21041	Koora	18.55918	4.288643	1.391946
21051	Bani Kinanah	9.598923	1.861451	0.59287
21061	Ramtha	14.78802	3.169789	1.11731
21071	Shooneh Shamaliyeh	23.94367	5.720672	2.044888
21081	Tayybeh	12.64614	2.156784	0.633197
22011	Mafraq	18.74759	4.475606	1.5309
22012	Bal'ama	25.007	4.937179	1.564465
22013	Erhab	22.73089	5.066479	1.576127

Code	Name	Headcount	Gap	Severity
22014	Sama Serhan	28.09882	8.36537	3.454961
22015	Hoasha	31.6129	8.561953	3.211631
22021	Salhiyeh	48.22717	15.85496	6.867447
22022	Sabha	18.9862	5.017563	1.792899
22023	Rwaished	73.34158	29.11105	14.32846
22024	Um Ejjimal	34.60888	9.239153	3.7927
22025	Dair El-Kahf	35.19899	10.72565	4.337225
23011	Jarash	19.41407	5.008557	1.919532
23012	Borma	13.22029	3.838587	1.570371
23013	Mastabah	10.23189	2.281955	0.633132
24011	Ajlun	9.948308	2.06514	0.655122
24012	Kofranjah	8.900071	1.31654	0.273898
31011	Karak	5.169596	1.346367	0.510925
31012	Ayy	9.142333	2.658769	0.973943
31013	Qatraneh	22.33921	5.444687	1.791825
31021	Ghor Safi	34.26739	6.806135	1.975384
31022	Mazra'ah	26.3734	7.171039	2.94186
31031	Mazar	4.937318	1.305449	0.494827
31041	Qasr	17.62978	5.671611	2.670668
31042	Faqoo'	12.44699	3.859892	1.611081
32011	Tafiela	9.37706	1.799605	0.57327
32012	Hesa	10.82033	2.044107	0.479141
32013	Bsaira	14.1444	2.176402	0.577521
33011	Ma'an	19.51546	4.676199	1.831926
33012	Huseiniyeh	46.86503	14.53418	5.809
33013	Iel	16.7959	4.951336	2.158692
33014	Jafer	46.01683	11.60771	3.376235
33015	Mraighah	41.34554	11.67998	4.444798
33021	Shoabak	7.930922	0.87511	0.192474
33031	Wadi Moosa	9.687165	2.380088	0.941604
34011	Aqaba	7.688832	1.721789	0.589448
34012	Wadi Arabah	53.46989	18.69824	8.695721
34021	Qwairah	36.04762	10.36566	4.231825