



# Jordan: Atlas of Health Indicators

ORC Macro  
Calverton, Maryland USA  
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Prepared by Melissa Neuman, ORC Macro  
Produced in collaboration with the Ministry of Health, Jordan

This report summarizes the findings of the 2002 Jordan Population and Family Health Survey (JPFHS) carried out by the Department of Statistics (DOS). ORC Macro provided technical assistance and the U.S. Agency for International Development (USAID) provided financial support.

The JPFHS is part of the worldwide Demographic and Health Surveys Program, which is designed to collect data on fertility, family planning, and maternal and child health. Additional information about the Jordan survey may be obtained from the Department of Statistics, P.O. Box 2015, Amman 11181, Jordan (telephone: (962) 6-5-300-700; fax: (962) 6-5-300-710; e-mail: [stat@dos.gov.jo](mailto:stat@dos.gov.jo); internet: [www.dos.gov.jo](http://www.dos.gov.jo)). Additional information about the MEASURE *DHS*+ project may be obtained from ORC Macro, 11785 Beltsville Drive, Suite 300, Calverton, MD 20705 (telephone: 301-572-0200; fax: 301-572-0999; e-mail: [reports@macroint.com](mailto:reports@macroint.com); internet: [www.measuredhs.com](http://www.measuredhs.com)).

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# I. Introduction

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The 2002 Jordan Population and Family Health Survey (JPFHS) in Jordan collected social, behavioral, and health data on Jordanian households and on ever-married Jordanian women aged 15-49. The household questionnaire was administered to approximately 7,800 households, and collected information on housing conditions and socio-economic status. The women's questionnaire collected information from approximately 6,000 women on their employment and educational background, their spouse's background, and data related to fertility and reproduction; pregnancy and associated care; knowledge of HIV/AIDS; and child feeding practices, health, and mortality. Anthropometry and anemia data were also collected from women and children in all households.

This atlas presents maps of a selection of indicators from the 2002 JPFHS survey, including household characteristics (household water source, availability of toilet facilities; household possessions); background characteristics of women (education, employment, and media exposure); pregnancy and delivery care; and indicators of child health, including early childhood mortality and vaccination rates.

## Geographic Information

The JPFHS sampling strategy was designed to produce reliable estimates of key indicators for three governorates – Amman, Irbid, and Zarqa – as well as three regions comprised of four governorates each. In this atlas, estimates for Amman, Irbid, and Zarqa are mapped together with estimates for the combined governorates of Balqa and Madaba in central Jordan; Mafraq, Jarash, and Ajloun in northern Jordan; and Karak, Tafiela, Ma'an, and Aqaba in southern Jordan. (See figure I-1.)

Additional tabulations or figures showing indicators by region for urban and rural populations also included for selected indicators. For reference purposes, figure I-2 shows the distribution of urban population in Jordan. Amman and Zarqa are the most urbanized areas in Jordan, while the northern area (Mafraq/Jarash/Ajloun) and southern area (Karak/Tafiela/Ma'an/Aqaba) are less urban.

## Figures

### ◆ Figure I-1. Governorates, Regions, and Mapped Regions

Figure I-1 maps Jordan's governorates, the regions tabulated in the general JPFHS report, and the subregions mapped in this publication.

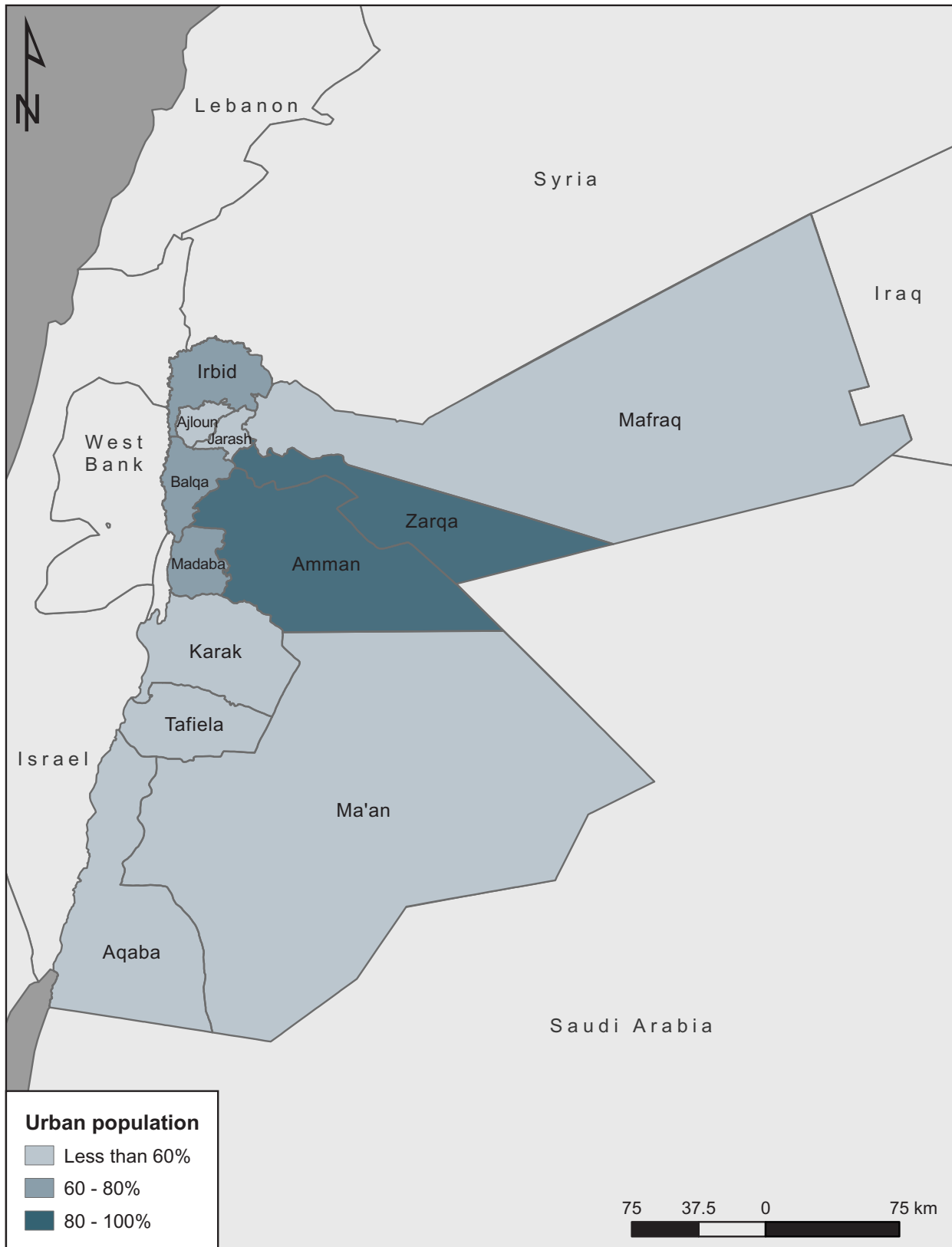
### ◆ Figure I-2. Regional Distribution of Urban Population

Figure I-2 illustrates the regional distribution of urban population in Jordan. (All household members; n=46,755)

**Figure I-1. Governorates, JPFHS Regions, and Mapped Regions, Jordan, 2002**



**Figure I-2. Regional Distribution of Urban Population, Jordan, 2002**







## II. Characteristics of Households

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The JPFHS household questionnaire collected information on housing condition and presence of durable goods in the household. Three background indicators were mapped to illustrate regional and urban-rural differences in housing and household assets. A summary of these differences is below, followed by descriptions of the relevant figures.

### Water and Sanitation

Most housing units have water piped into the dwelling itself, which is the safest and most convenient water system. However, this differs by region, with households in the southern region (Karak/Tafiela/Ma'an/Aqaba) more likely to have indoor piped water systems than households in the central or northern areas. (See figure II-1.)

Urban-rural differences in water source are pronounced in northern and central Jordan, especially in the governorate of Irbid (77.97 percent of urban households with piped water v. 61.23 percent of rural households). (See table II-1.)

Most housing units also have flush toilets located in dwelling. Urban-rural differences are apparent, however, with in-dwelling traditional toilets more common in the southern region than in northern and central Jordan, and more common in rural than in urban areas. Very few households (less than 2 percent in all regions) share facilities with other households or lack access to a toilet facility. (See figure II-2 and table II-2.)

### Household Assets

Nearly all households surveyed in all areas have electrical service and a television set, with little regional or urban-rural difference. Most households also have a refrigerator, though this differs somewhat by region: households in the southern region and in the northern governorates of Mafrq, Jarash, and Ajloun are somewhat less likely to have refrigerators than households in other areas of the country. (See figure II-3.) Radios and telephones are somewhat less common in households, particularly in southern Jordan and the northern governorates of Mafrq, Jarash, and Ajloun.

Private automobiles are relatively uncommon, with only about 2 in 5 households owning a private vehicle in the country as a whole. Households in Amman are most likely to have an automobile, while households in Mafrq, Jarash, and Ajloun are least likely. (See figure II-3)

### Figures and Tables

- ◆ Figure II-1. Percent Households With Water Piped into Dwelling

(All households; n=7,825)

◆ Table II-1. Urban-Rural Differences in Water Piped into Dwelling

(All households; n=7,825)

◆ Figure II-2. Household Toilet Facility Type

Household respondents could specify a flush or traditional toilet or no facility, and whether or not the facility is shared. (All households; n=7,825)

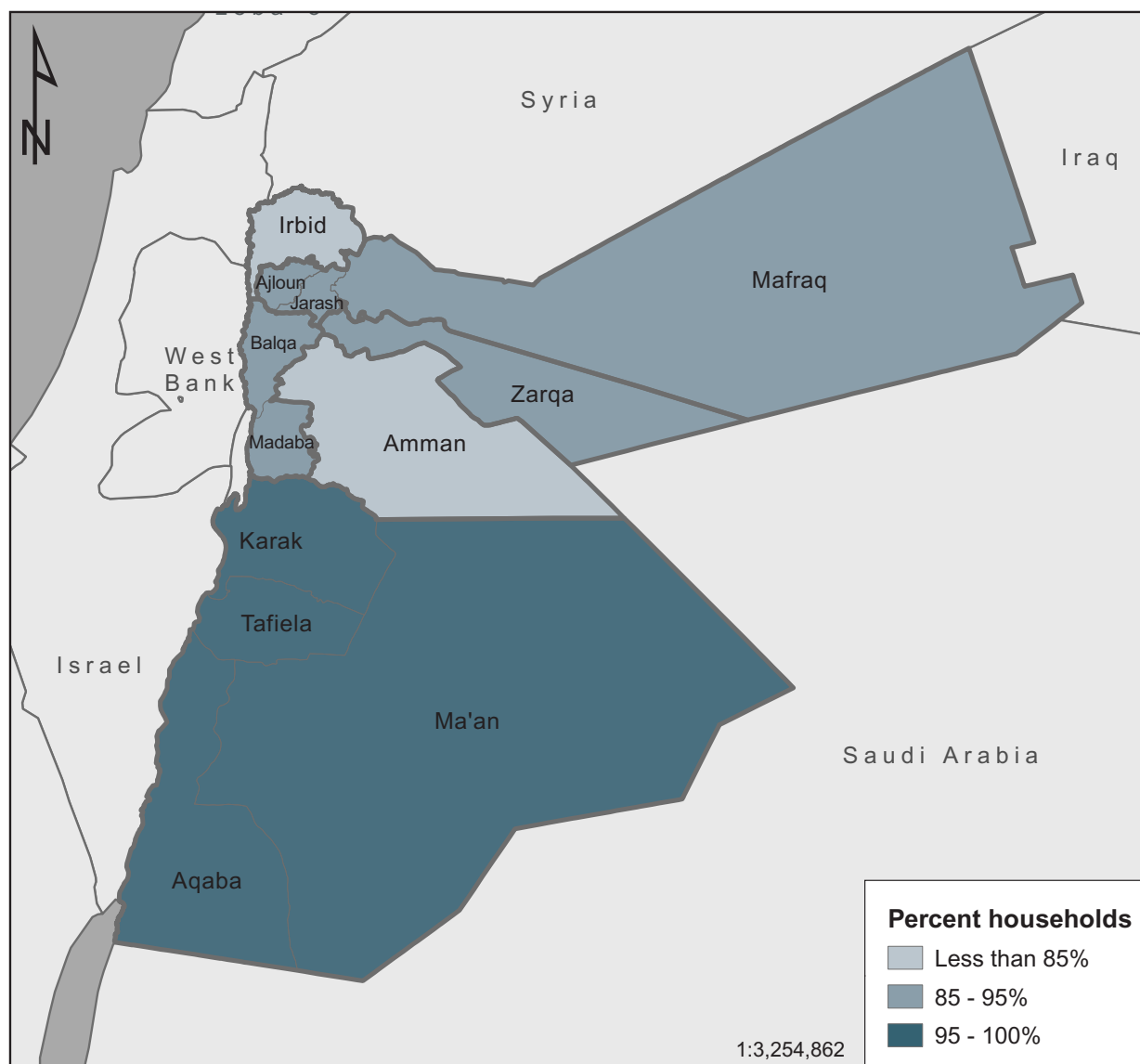
◆ Table II-2. Urban-Rural Differences in Toilet Facilities

(All households; n=7,825)

◆ Figure II-3. Ownership of Selected Household Assets

Households were asked if they possessed the following durable goods: radio, television, telephone, refrigerator, mobile phone, satellite, washing machine, solar heater, computer, internet access, and a private car. Data on first four in the list are mapped in figure II-3. (All households; n=7,825)

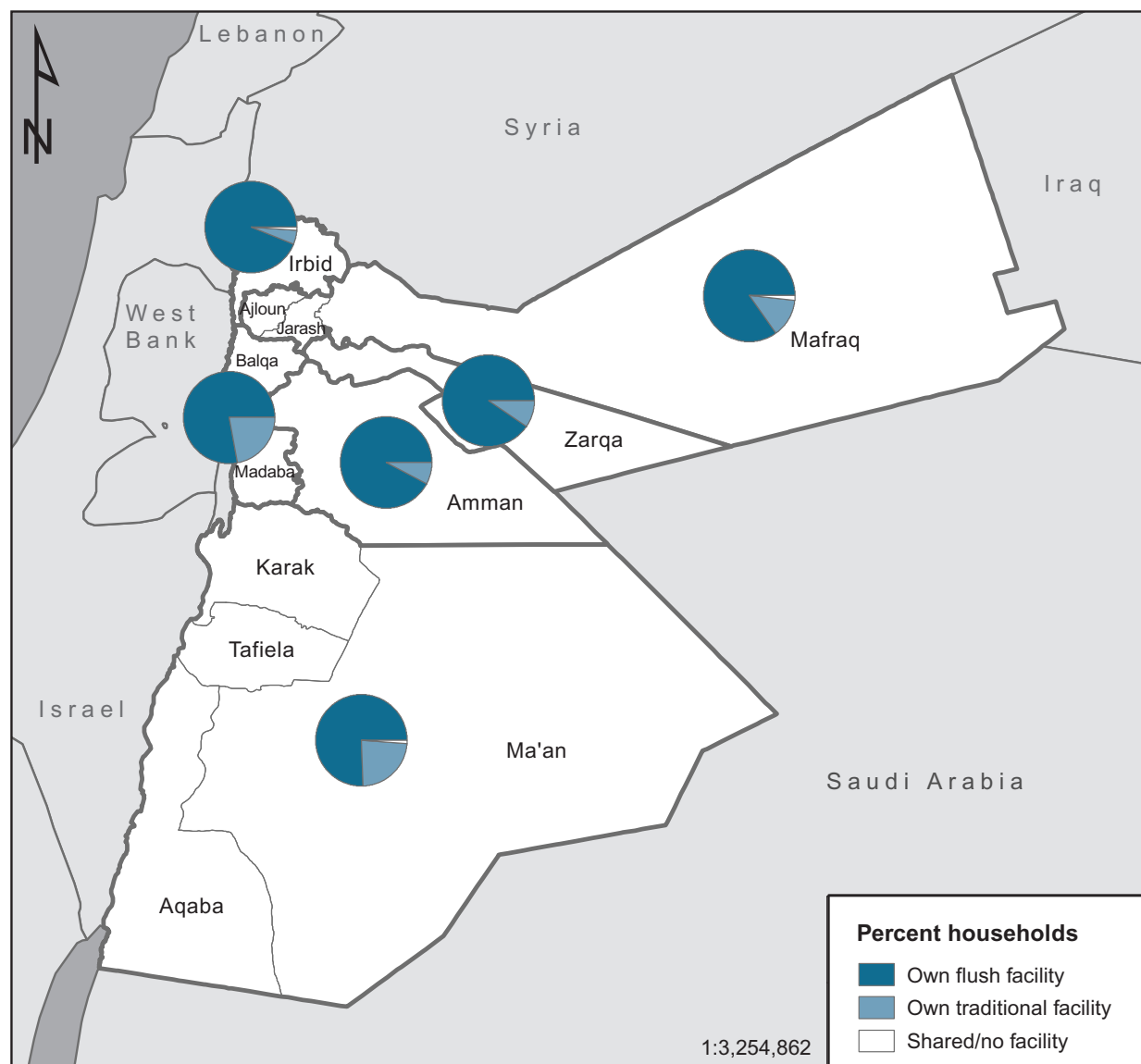
**Figure II-1. Percent Households With Water Piped into Dwelling, Jordan, 2002**



**Table II-1. Urban-Rural Differences in Water Source**

Region	Households with piped water in dwelling (%)	
	Urban	Rural
Amman	84.30	79.93
Irbid	77.97	61.23
Zarqa	91.58	87.90
Balqa/Madaba	94.30	87.33
Ma'raq/Jarash/Ajloun	90.56	84.08
Karak/Tafiela/Ma'an/Aqaba	95.78	95.27
<b>Total</b>	<b>86.28</b>	<b>81.84</b>

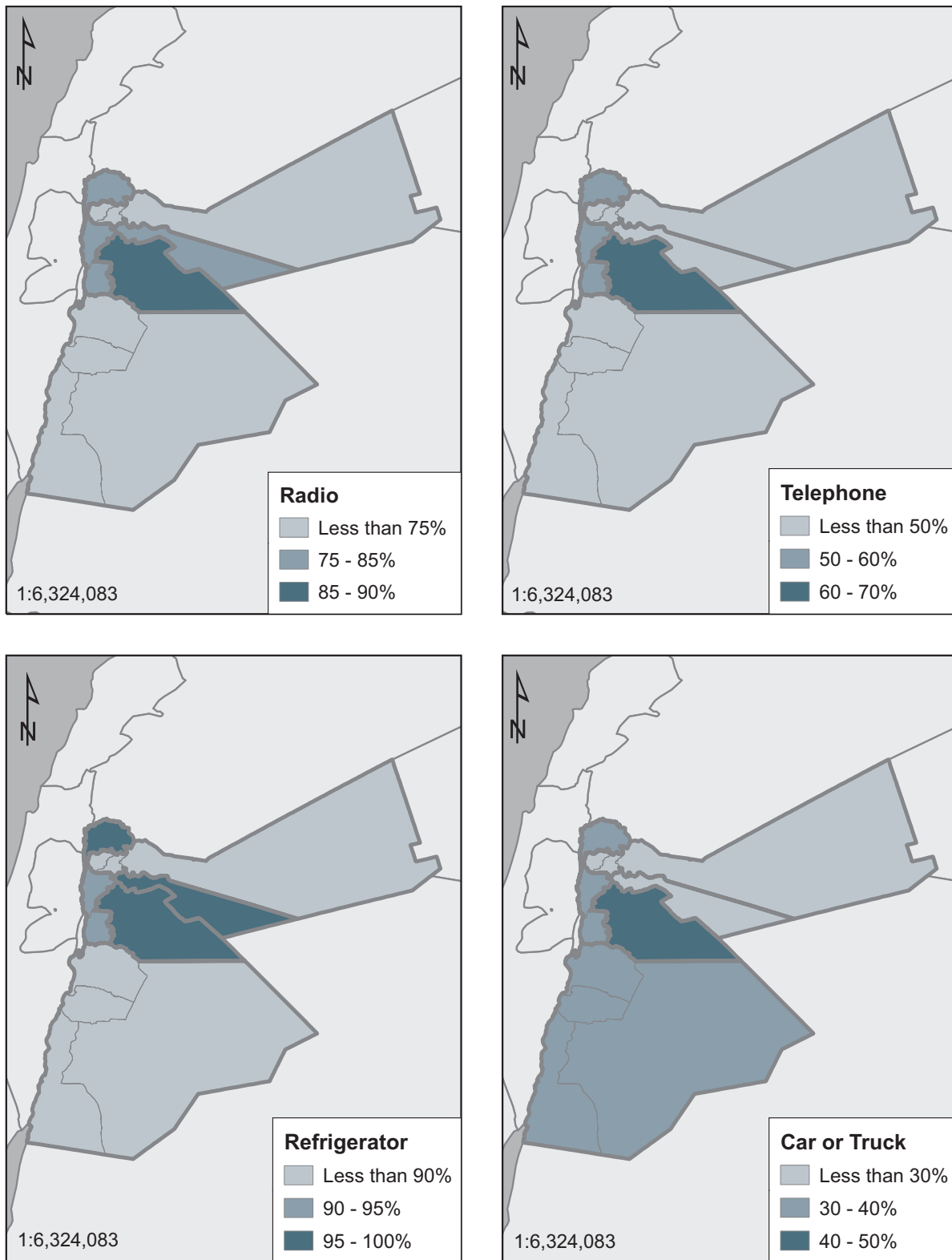
**Figure II-2. Household Toilet Facility Type, Jordan, 2002**



**Table II-2. Urban-Rural Differences in Toilet Facilities**

Region	Urban			Rural		
	Own flush	Own traditional	Shared/ no facility	Own flush	Own traditional	Shared/ no facility
Amman	93.13	6.26	0.60	74.29	24.29	1.42
Irbid	95.04	3.94	1.02	90.15	8.47	1.37
Zarqa	91.84	7.89	0.27	58.57	40.40	1.03
Balqa/Madaba	82.14	17.73	0.13	69.42	29.05	1.52
Ma'raq/Jarash/Ajloun	90.14	9.05	0.81	80.03	17.61	2.35
Karak/Tafiela/Ma'an/Aqaba	82.50	16.77	0.73	66.94	31.35	1.71
<b>Total</b>	<b>91.64</b>	<b>7.76</b>	<b>0.60</b>	<b>75.88</b>	<b>22.44</b>	<b>1.69</b>

**Figure II-3. Ownership of Selected Household Assets, Jordan, 2002**



\*Note: electricity and television ownership are nearly universal and not sharply differentiated by region (electricity: 98.57-99.83% of households in the six mapped regions; television: 94.91-96.71% of households in the mapped regions)



### III. Characteristics of Women

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The JPFHS women's questionnaire collected basic background information from respondents, and three indicators have been mapped to provide insight into regional differences in women's background characteristics. These are: education, current employment, and exposure to mass media.

#### Education and Employment

Marked differences in women's educational attainment, both by region and between urban and rural areas, are apparent in figure III-1 and table III-1. Overall, urban women are less likely to have no education and more likely to have advanced education than their rural counterparts.

These urban-rural differences are greater in some regions than in others. For example, in the governorate of Amman and the governorates of Mafrq, Jarash, and Ajloun, there is a 10 percent differential between percentages of women with no education. In Irbid and Zarqa, the disparity is much smaller.

Regional differences in current employment also exist, but are less pronounced than differences in employment. Women in the southern region are most likely to work (16.37 percent), while women in Amman are least likely (4.62 percent).

#### Media Exposure

Respondents were also asked about their exposure to Jordanian mass media, specifically the radio, television, and a newspaper. Women in the governorate of Amman are more likely to be exposed to all three of these types of media than women in other areas.

There is no obvious regional pattern in the rates of exposure to individual types of media. While women in Amman have the highest rate of exposure to the radio and newspaper, they are the least likely to watch television. Similarly, women in Irbid are the most likely to watch television at least once per week and the least likely to listen to the radio once per week.

#### Figures and Tables

##### ◆ Figure III-1. Women With at Least Some Formal Education

Highest level of education attended, regardless of whether or not the level was completed. Primary refers to the first six years of education, preparatory to the next three, and secondary to the next four years. In this figure, the distribution of women with no formal education is mapped. (All ever-married women; n=6,006)

##### ◆ Table III-1. Urban-Rural Differences in Women's Education

This tabulates women based on educational attendance at three levels (none, primary/preparatory/secondary, higher), region, and urban or rural residence. (All ever-married women; n=6,006)

◆ Figure III-2. Women Currently Employed

Currently employed women are women who were employed within the seven days preceding the survey. (All ever-married women; n=6,006)

◆ Figure III-3. Exposure to Three Types of Mass Media per Week Among Women

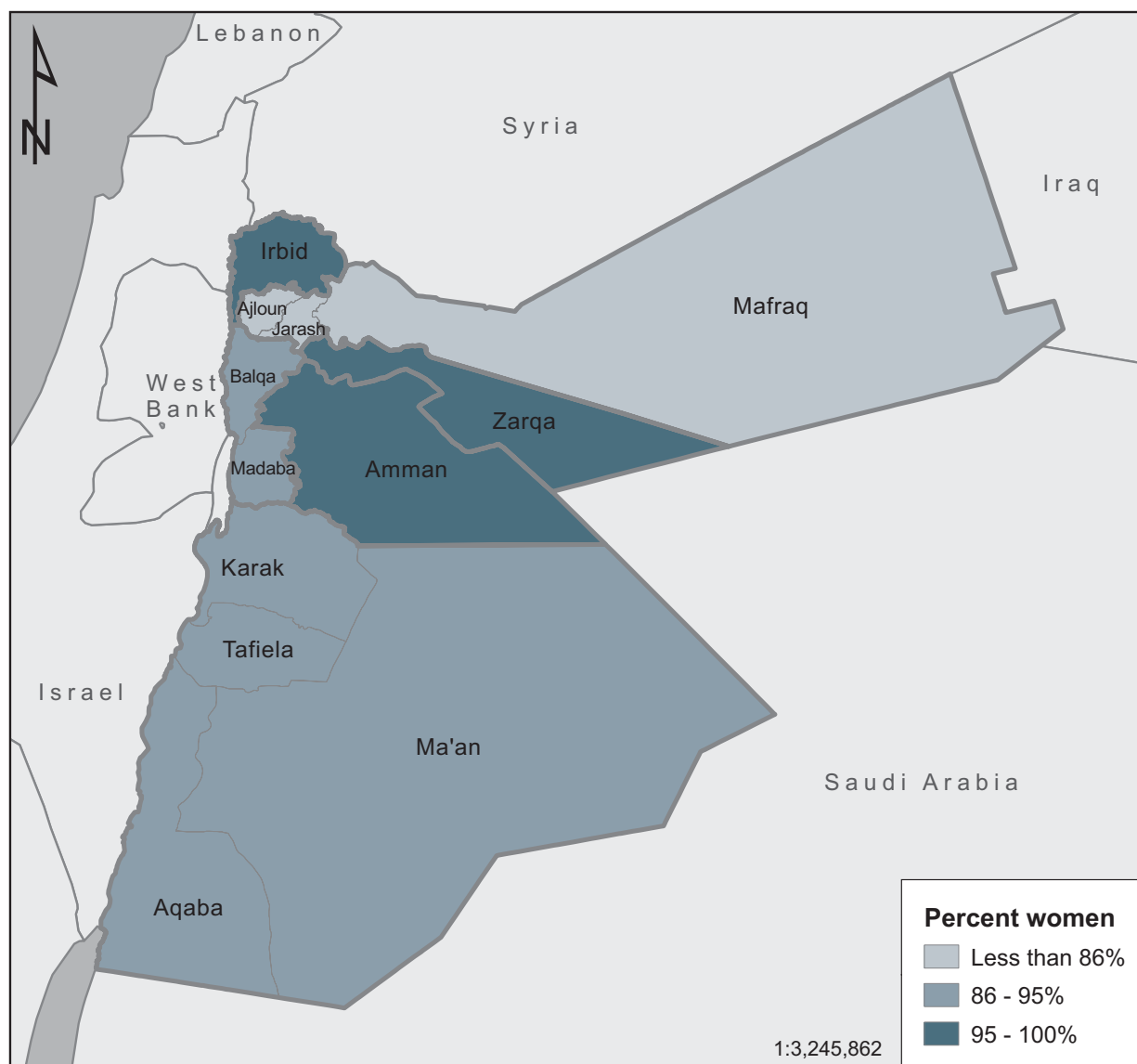
This figure represents women who reported usually watching Jordanian television, reading a Jordanian newspaper, and listening to Jordanian radio at least once per week. (All ever-married women; n=6,006)

◆ Table III-2. Exposure to Different Types of Media

Exposure to each of the three individual media types is tabulated by region and urban or rural residency. (All ever-married women; n=6,006)



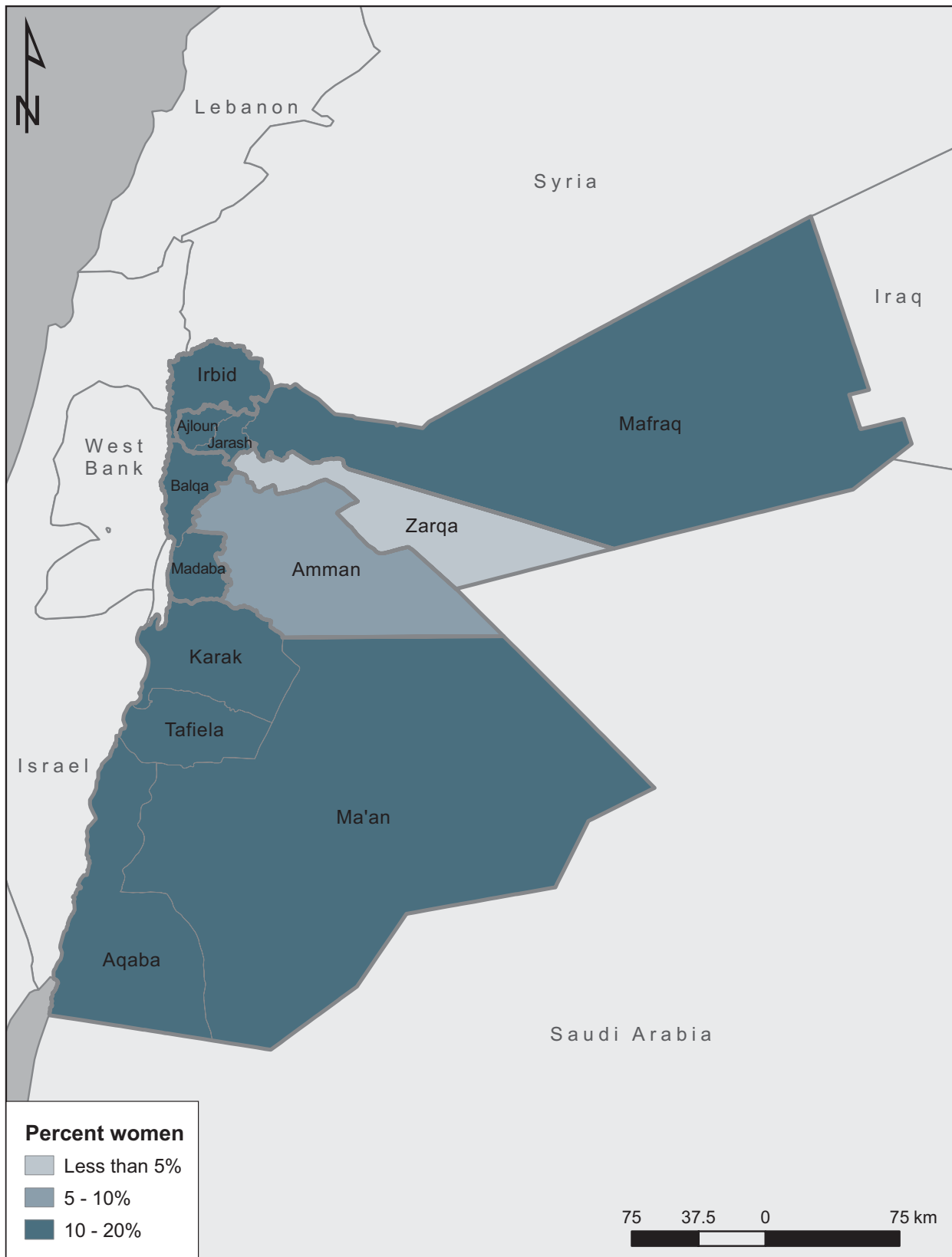
**Figure III-1. Women With at Least Some Formal Education, Jordan, 2002**



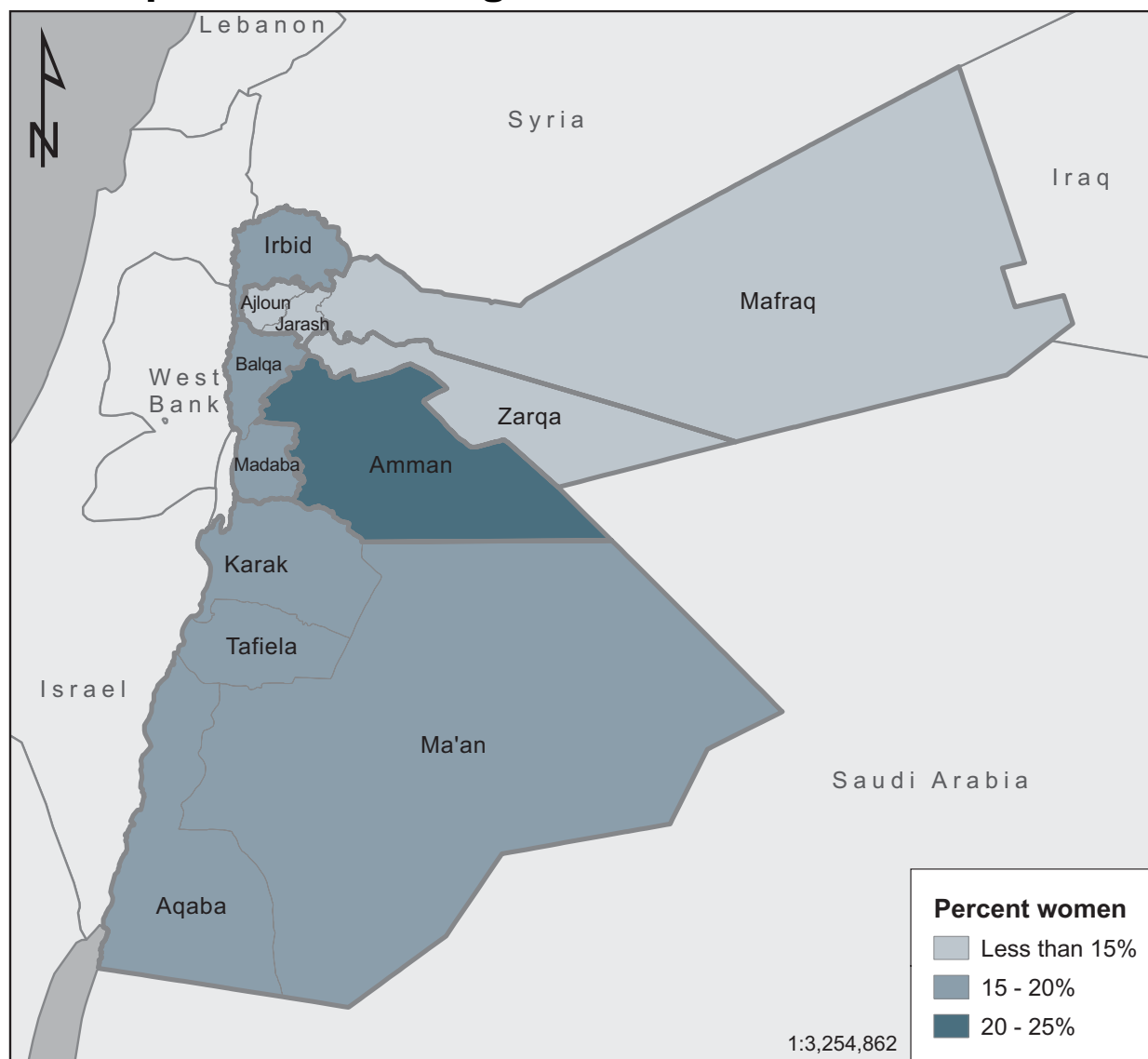
**Table III-1. Urban-Rural Differences in Women's Education**

Region	Urban			Rural		
	No education	Primary, secondary, preparatory education	Higher education	No education	Primary, secondary, preparatory education	Higher education
Amman	2.76	69.12	28.12	12.04	68.19	19.76
Irbid	4.24	68.15	27.62	4.79	72.51	22.70
Zarqa	2.18	79.05	18.78	7.25	83.32	9.44
Balqa/Madaba	7.19	62.58	30.23	16.01	65.84	18.15
Ma'raq/Jarash/Ajloun	8.51	67.53	23.96	19.72	67.57	12.71
Karak/Tafiela/Ma'an/Aqaba	10.14	64.87	24.99	18.44	58.05	23.51
<b>Total</b>	<b>3.98</b>	<b>70.02</b>	<b>26.00</b>	<b>14.20</b>	<b>66.86</b>	<b>18.93</b>

**Figure III-2. Women Currently Employed, Jordan, 2002**



**Figure III-3. Exposure to Three Types of Mass Media per Week Among Women, Jordan, 2002**



**Table III-2. Exposure to Different Types of Media**

Region	Exposure at least once per week		
	Newspaper	TV	Radio
Amman	45.73	74.99	47.65
Irbid	30.27	90.32	36.74
Zarqa	29.30	75.11	41.31
Balqa/Madaba	35.59	84.57	47.60
Mafraq/Jarash/Ajloun	23.94	90.18	40.36
Karak/Tafiela/Ma'an/Aqaba	30.27	88.00	42.05
<b>Total</b>	<b>36.20</b>	<b>81.10</b>	<b>43.60</b>



## IV. Family Planning, Maternal and Child Health, and Child Mortality

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The JPFHS women's questionnaire also collected information on a range of health topics, including family planning and contraception, antenatal and delivery care, and care for childhood diseases and vaccinations. A limited selection of indicators is discussed below: current use of contraception, antenatal care and place of delivery, and childhood vaccinations.

### Contraception

Women's use of contraception overall and of modern methods of contraception varies somewhat by region and urban or rural residency. Rural women in all regions are less likely to use modern methods of contraception than their urban counterparts. Among regions, Amman has the highest percentage of current users and the southern governorates of Karak, Tafiela, Ma'an, and Aqaba have the lowest percentage. (See figure IV-1 and table IV-1.)

### Antenatal Care and Place of Delivery

Regional differences in antenatal care provider and use are also apparent, with women in the southern region being more likely to have received no antenatal care for their most recent birth. There are also strong urban-rural differences, particularly in some regions: in the governorate of Zarqa, less than one percent of urban women received no antenatal care, compared with seven percent of rural women.

Regional differences also exist in place of delivery. In the governorate of Amman, the majority of births were delivered in private sector medical facilities. In all other governorates, the majority were delivered in public sector facilities. The governorate of Irbid had the highest percentage of births in a private residents (4.41 percent; see figure IV-3).

### Infant and Child Mortality

Early childhood mortality rates tend to be higher in the northern region of Jordan than in the central and southern regions: neonatal, postneonatal, infant, childhood, and under-five mortality rates are all highest for this region. Early childhood mortality rates are also consistently higher in rural areas.

### Childhood Vaccinations

Figure IV-4 shows the regional distribution of two selected vaccinations for young children: measles and BCG. While there is a small regional difference in measles vaccination rates, coverage is nearly universal, ranging from 92.66 percent in the governorates of Mafraq, Jarash, and Ajloun to 97.86 percent in Zarqa. Regional disparities are higher in the BCG vaccination, with percentages ranging from 2.87 in the southern region to 45.52 in Zarqa.

## Figures and Tables

- ◆ Figure IV-1. Currently Married Women Using Modern Methods of Contraception

(Currently married women; n=5,727)

- ◆ Table IV-1. Urban-Rural Differences in Contraception Used

(Currently married women; n=5,727)

- ◆ Figure IV-2. Women Who Received no Antenatal Care For Most Recent Birth

(Women who gave birth in the five years preceding the survey; n=3,834)

- ◆ Table IV-2. Urban-Rural Differences in Antenatal Care Provider

(Women who gave birth in the five years preceding the survey; n=3,834)

- ◆ Figure IV-3. Place of Delivery for Births in Five Years Preceding Survey

(Births in five years preceding survey; n=6,074)

- ◆ Figure IV-4. Infant and Child Mortality in Ten Years Preceding Survey

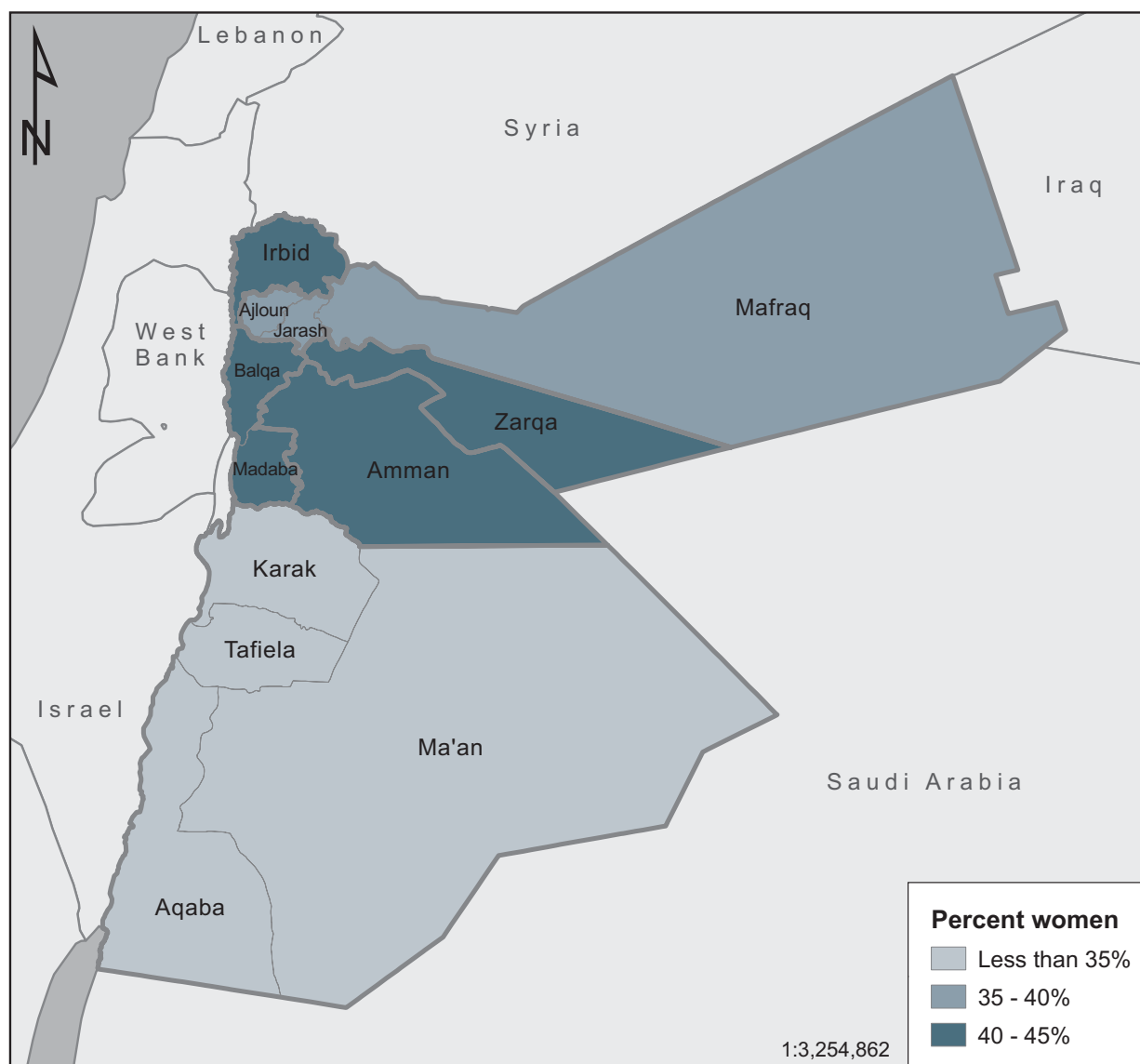
- ◆ Table IV-3. Early Childhood Mortality by Geographic Area and Urban Residency

Infant and Childhood mortality rates are mapped for the three major JPFHS regions in Figure IV-3, and table IV-3 provides additional mortality estimates for three governorates and urban and rural residents.

- ◆ Figure IV-5. Children Aged 12-23 Months Who Have Received Selected Vaccines

Vaccines presented include measles and BCG (anti-tuberculosis). (Children aged 12-23 months; n=1,198)

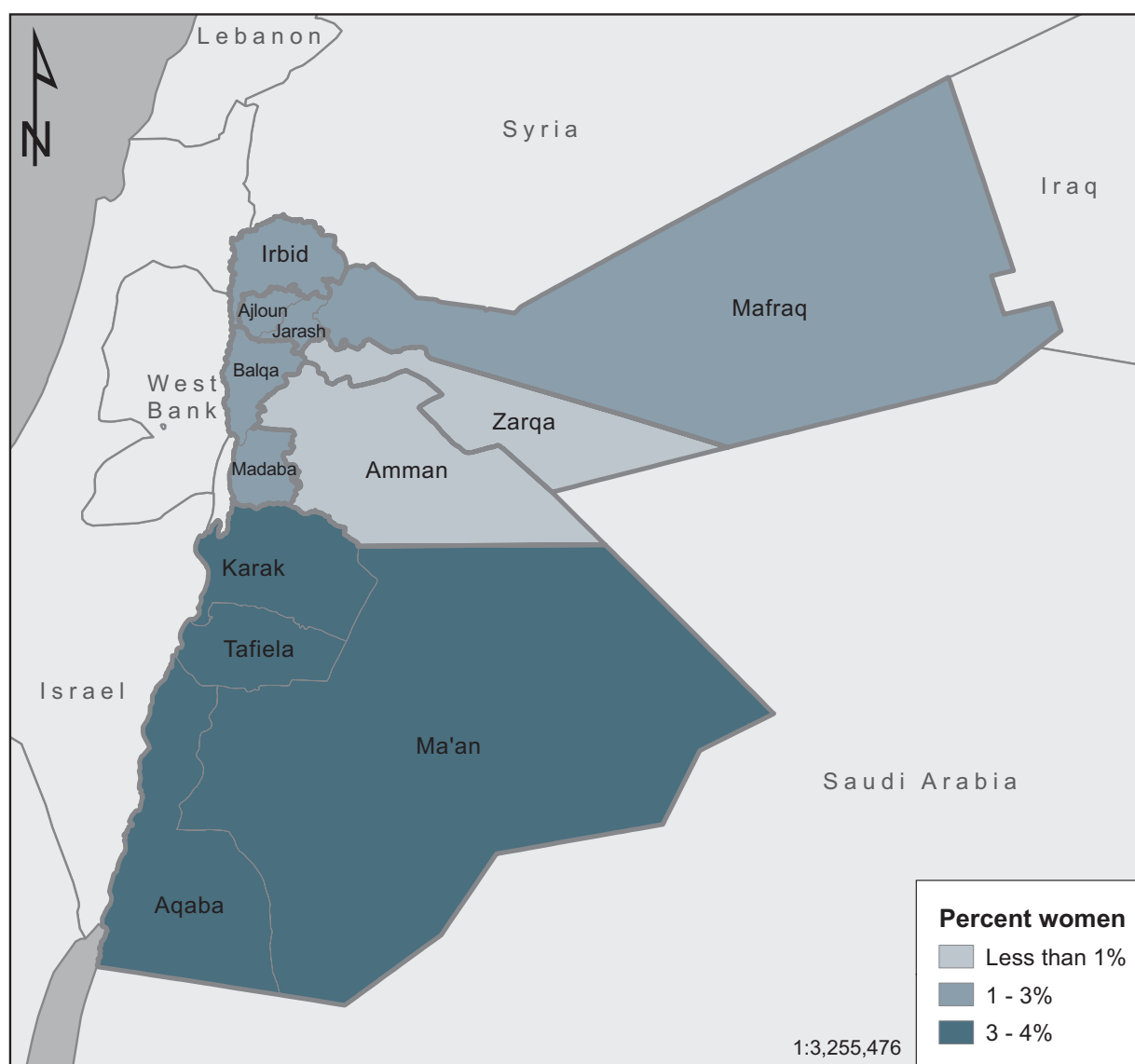
**Figure IV-1. Currently Married Women Using Modern Methods of Contraception, Jordan, 2002**



**Table IV-1. Urban-Rural Differences in Method of Contraception Used**

Region	Urban		Rural	
	Traditional/ Folkloric	Modern	Traditional/ Folkloric	Modern
Amman	13.72	45.11	11.51	37.21
Irbid	15.53	41.08	18.19	38.99
Zarqa	16.12	42.5	13.78	37.31
Balqa/Madaba	13.08	40.1	15.07	40.45
Ma'raq/Jarash/Ajloun	15.35	39.25	12.78	32.32
Karak/Tafila/Ma'an/Aqaba	14.03	34.91	15.49	31.34
<b>Total</b>	<b>14.54</b>	<b>42.59</b>	<b>14.62</b>	<b>35.83</b>

**Figure IV-2. Women Who Received No Antenatal Care For Most Recent Birth, Jordan, 2002**

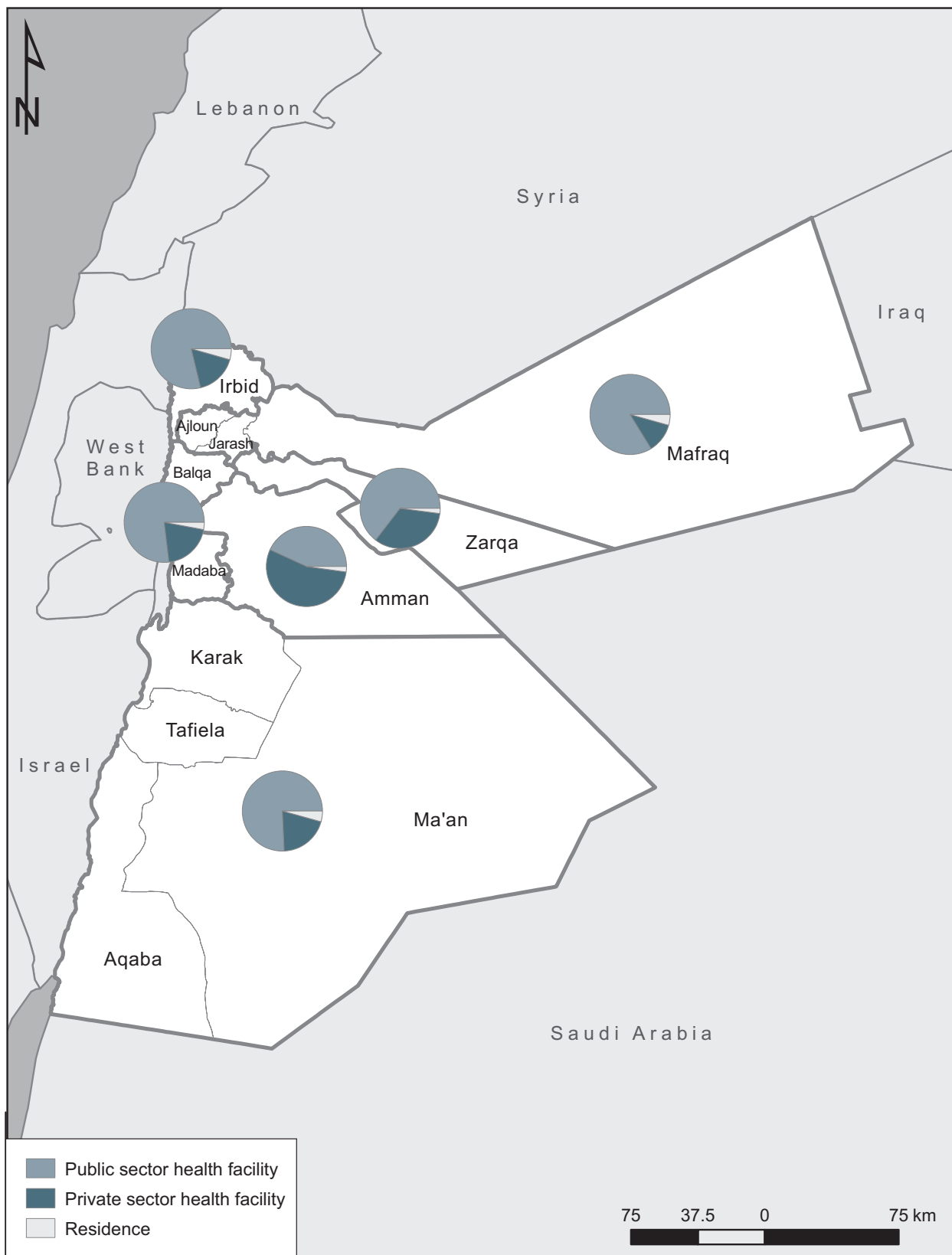


**Table IV-2. Urban-Rural Differences in Antenatal Care Provider**

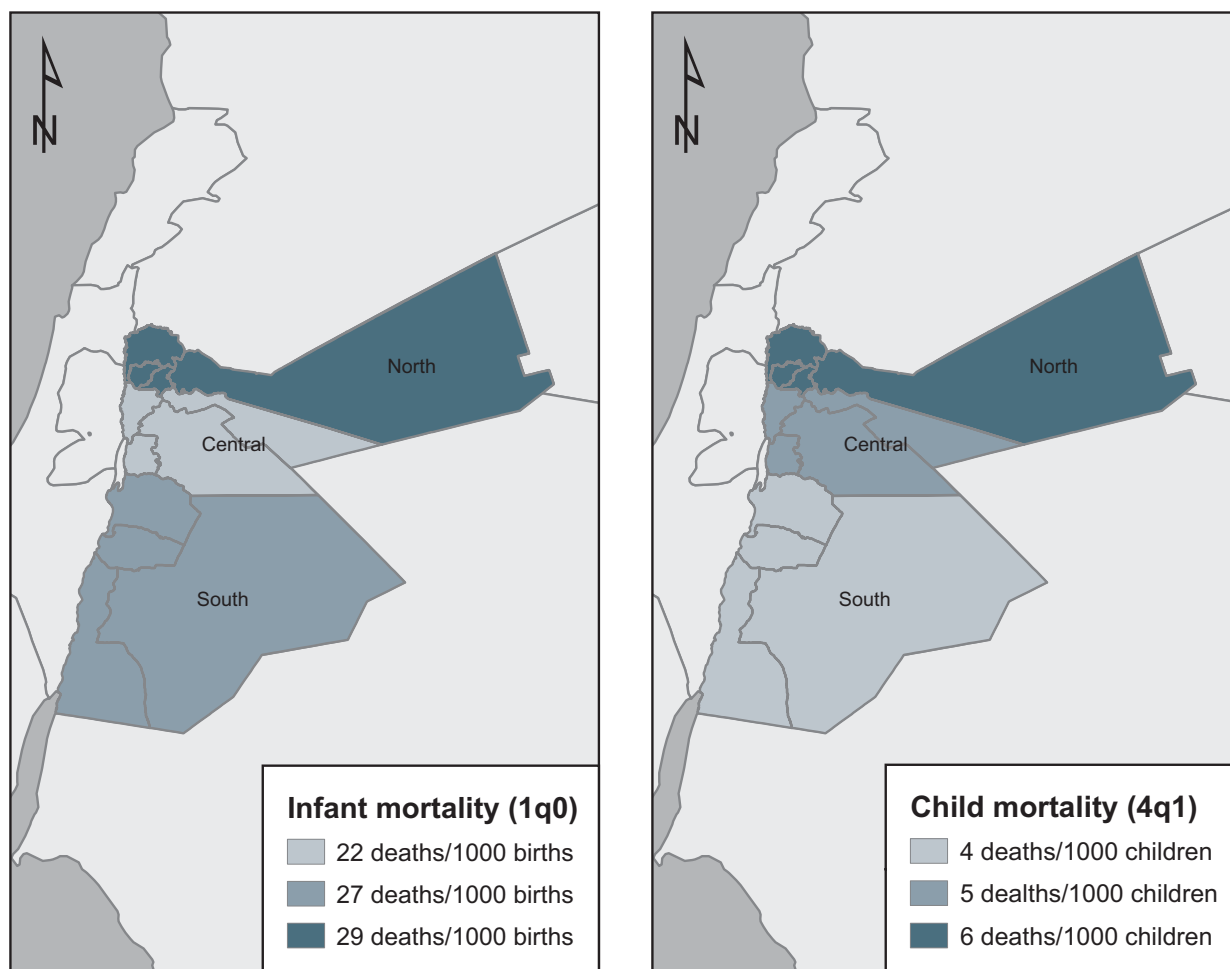
Region	Urban			Rural		
	No one	Doctor	Nurse/ traditional	No one	Doctor	Nurse/ traditional
Amman	0.61	95.86	3.53	2.07	93.15	4.79
Irbid	1.57	92.04	6.39	1.44	87.89	10.68
Zarqa	0.36	94.94	4.7	7.21	85.34	7.45
Balqa/Madaba	1.69	94.27	4.03	1.72	91.93	6.35
Ma'raq/Jarash/Ajloun	1.34	85.9	12.75	3.78	89.04	7.18
Karak/Tafiela/Ma'an/Aqaba	3.19	91.84	4.97	3.2	93.58	3.21
<b>Total</b>	<b>1.02</b>	<b>94.11</b>	<b>4.88</b>	<b>2.67</b>	<b>90.86</b>	<b>6.47</b>



**Figure IV-3. Place of Delivery for Births in Five Years Preceding Survey, Jordan, 2002**



**Figure IV-4. Infant and Child Mortality in Ten Years Preceding Survey, Jordan, 2002**



**Table IV-3. Early Childhood Mortality by Geographic Area and Urban Residency**

Region	Neonatal mortality (NN)	Postneonatal mortality (PNN)	Infant mortality (1q0)	Child mortality (4q1)	Under-five mortality (5q0)
Central	16	6	22	5	27
North	20	8	29	6	35
South	18	9	27	4	31
Amman	15	5	19	4	23
Irbid	18	7	25	6	31
Zarqa	16	7	24	7	31
Urban	17	6	23	5	27
Rural	20	10	30	6	36
<b>Total</b>	<b>17</b>	<b>7</b>	<b>24</b>	<b>5</b>	<b>29</b>

**Figure IV-5. Children aged 12-23 months who have received selected vaccines, Jordan, 2002**

