



Save the Children®

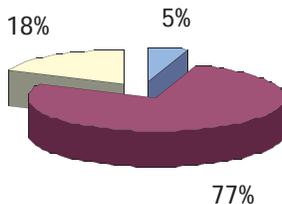
Water and Sanitation

Save the Children Research Reveals Deteriorating Environmental Health in West Bank

In January and October 2002 Save the Children Federation, in cooperation with USAID's Environmental Health Project, conducted surveys in 50 villages in the West Bank to assess the delivery of safe and sustainable water and sanitation services to the population of some 170,000 people. Two regions were surveyed – the Nablus region in northern West Bank and the Hebron region in the south.

The two-phase survey was designed to study seasonal variations of key health indicators, such as the prevalence of diarrhea and intestinal parasites in winter and summer conditions. In addition, it was important to study the impact of the continuing deterioration of the social, economic and political situation in the West Bank in general and in the project communities in particular. The authors recognized that it would be difficult in some cases to differentiate seasonal effects and the impact of the political situation. The data are the result of the interaction of the two factors.

Nablus Household Water Sources
in Survey 2



■ piped only
■ tanker only
■ other

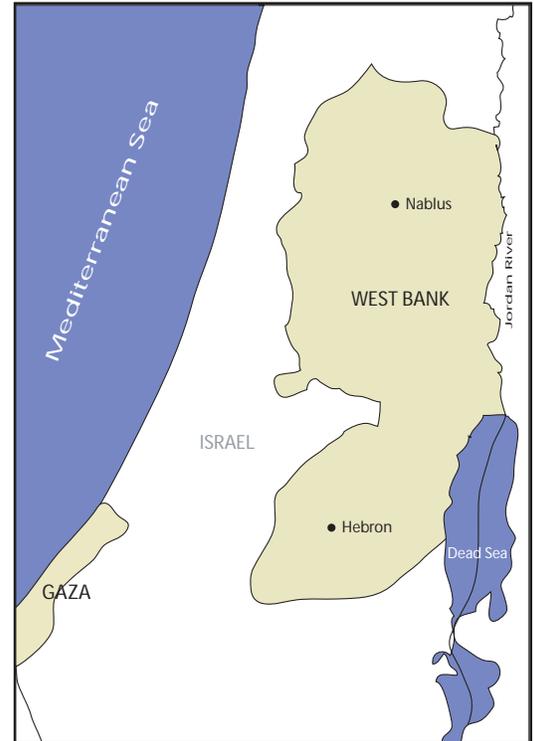
Key Findings

Access to and quality of water

- Household access to adequate supplies of water decreased. Sufficient water supply was noted in only 39% of the households compared with 48% in the first survey.
- Water quality deteriorated. In surveyed households with piped water, 41% had water contaminated with fecal coliform versus 20% in the first survey, and the quality of water delivered by tankers was consistently poor with 65% contaminated.
- The cost of tanker water increased by 84% during the dry summer months. A corresponding decrease of 23% in use of tanker water was also shown in the second survey.

Health outcomes

- Prevalence of diarrhea and intestinal parasites in children under-five increased substantially: a 42% increase in diarrhea and a 40-60% rise in the prevalence of ameba and giardia.
- Fewer children with diarrhea were treated by medical personnel, and fewer received worm medicine, indicating that the deteriorating socioeconomic situation was a factor.
- Over 80% of respondents continued to believe that their water was safe although 55% were drinking water contaminated with fecal bacteria. The number of households practicing home water treatment decreased.



Socioeconomic status

- Poverty remained very high. Fewer household members were fully employed, and three in four households lived below the poverty level of \$564 per capita annually.
- The number of households selling property to meet basic needs rose to 21%, and 60% reported borrowing money.
- The monthly cost of electricity and water may be as high as 40% of total household income.

Previous Updates

Update #1: Malnutrition - April 2003

Update #2: Psychosocial Trauma - August 2003

all updates available on the web at www.caresaveupdate.org

Recommendations

The survey findings reveal the need for immediate interventions in several areas to avoid further deterioration of environmental health conditions, health care, and ultimately the health of the target populations.

To improve water quality:

- Implement steps to provide reliable, treated piped water
- Improve purification of tanker water and access of trucks

To improve water quality monitoring systems and procedures:

- Enhance the Palestinian Water Authority's capacity for monitoring water sources
- Improve district-level capacity for water quality monitoring through multisectoral cooperation

To enhance health and hygiene education programs:

- Promote simple and effective water treatment in households as an emergency measure until safe piped water becomes widely available
- Provide education on appropriate home care for children with diarrhea
- Train health service providers in the appropriate management of diarrhea
- Emphasize community-wide responsibility and action for a healthier environment

USAID and Save the Children are implementing programs based on the findings of this study. However, additional investigation of the following is still needed:

- Low overall water quality
- Origin of fecal coliforms and contaminants such as nitrate
- Causes of the deteriorated quality of piped water in the southern district
- Use of lead pipes in homes
- Access to formal and nonformal health care

Methodology

The West Bank Village Water and Sanitation Program is a two-year initiative funded by the U.S. Agency for International Development and undertaken by the Environmental Health Project, Save the Children Federation and the Palestinian Water Authority. In January 2002 an initial survey was conducted in 596 randomly selected households in the Nablus and Hebron districts. In October 2002 researchers reexamined the same households.

In each survey, interviews were conducted with key household informants and caretakers of children under five years of age. Stool samples were collected for one child aged 12-47 months per household, and water samples from internal sources were collected from every third household. Because of major mobility restrictions and the unpredictability of work conditions, decentralized management and high levels of logistic and communication support in the field were essential.

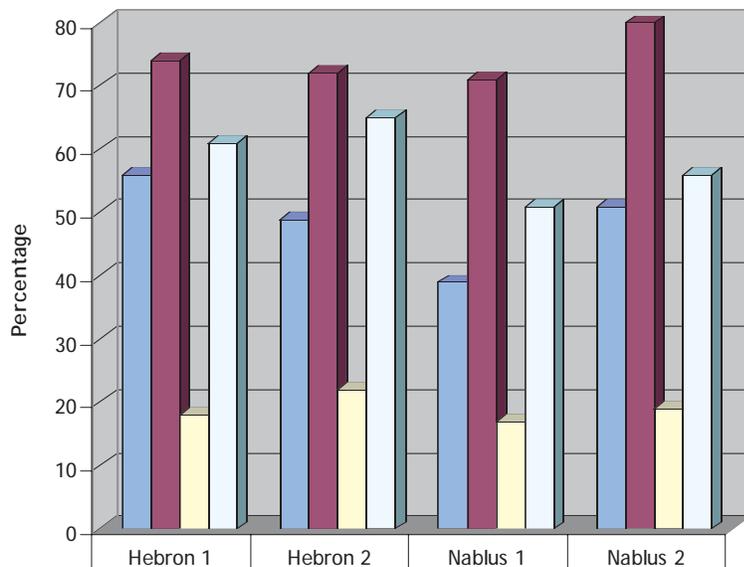
CARE and Save the Children

Founded in 1945, CARE has programs in 69 countries around the world supporting the efforts of families in poor communities to improve their lives. CARE works in the West Bank and Gaza to eliminate poverty, strengthen civil society and public institutions, and promote dignity, social justice and democracy. Visit CARE online at www.care.org.

Save the Children began assisting poor children in 1932 during the depression in the United States and now works in more than 40 countries, including the United States. Programs in the West Bank and Gaza invest in education, improved health and economic opportunities, and address the physical and emotional well-being of some of the poorest children and mothers. Visit Save the Children online at www.savethechildren.org.

CARE and Save the Children developed a privately-funded initiative in 2002 to inform policy makers about the humanitarian situation in the West Bank and Gaza through research findings and staff experience. Download this update and link to other program information at www.caresaveupdate.org.

Household Monthly Income Levels and Sources in Surveys 1 and 2



	Hebron 1	Hebron 2	Nablus 1	Nablus 2
Below hardship (0-\$104)	56	49	39	51
Below poverty level (0-\$332)	74	72	71	80
Sold property to support household	18	22	17	19
Borrowed money to support household	61	65	51	56

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