



# ALABAMA

The **Preventive Health and Health Services (PHHS) Block Grant** provides funding for health problems in Alabama that range from food-borne infections to tuberculosis. PHHS Block Grant dollars fund five different Alabama health programs. PHHS Block Grant funds allow Alabama to use dollars **where** we need them, **when** we need them to protect the public's health. Programs that serve our state's unique health needs through the PHHS Block Grant include the following:



## **Waterborne Diseases**

PHHS Block Grant funds are used to reduce waterborne disease outbreaks arising from drinking water among persons served by individual water wells and community water systems to no more than two outbreaks per year. This program aims to reduce or prevent bacterial contamination of surface/groundwater drinking sources. Each year approximately 25,000 permits for septic tank installation are issued statewide. It is estimated that about 40 percent of existing septic tank systems statewide have failed or are in need of repair or maintenance.

Samples from 175 wells and 228 waste disposal sites were evaluated for contaminants during 2003.

- 46% of private individual water wells samples submitted were contaminated,
- 85% of 228 waste disposal sites were evaluated. 15% of the sites were found to have failed septic tank systems and about 95% were corrected.

## **Foodborne Infections**

Alabama Department of Public Health started using PHHS Block Grant funds in the early 1990s. Comparisons are made against the baseline established in 1987, which was the latest year information was available. Program progress has been measured against that baseline.



Based on reports from the Division of Epidemiology for 2003, Salmonella cases dropped to 17.5 per 100,000 population from the 1987 baseline of 18 per 100,000 population; campylobacter jejuni (the most common cause of foodborne illness) cases dropped to 4 per 100,000 population from the 1987 baseline of 50 per 100,000 population; E coli cases dropped to 0.4 per 100,000 population from the 1987 baseline of 8 per 100,000 population; and listeria monocytogenes cases dropped to 0.3 per 100,000 population from the 1987 baseline of 0.7 per 100,000 population.

## **Alabama Department of Public Health**

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## Clean Water for All: How Block Grant Funds have Enabled Alabama to Address Community Waterborne Disease Prevention

### Issue:

Images of three low-income families in Lowndes County, Alabama, forced to live in tents after septic tanks failed, were seen on TV screens across the nation in 2003–2004. These images gave Americans a look into a reality faced by many rural Alabamians. Failing septic tanks place about 340,000 low-income persons in rural Alabama who use well water for consumption at risk for waterborne disease. Contaminations of water wells in rural areas are an issue that continuously needs to be addressed.

- Approximately 40–50% of the private well water samples routinely tested by the Alabama Department of Public Health were contaminated with fecal coliforms, nitrates, and pesticides.
- Percentages are even higher for privately dug shallow wells less than 30 feet and for water sources in rural and coastal areas.
- There is a significant cost to investigate and manage outbreaks, as well as costs of medical treatment and lost productivity for those that become ill.

### Intervention:

While the Alabama Department of Environmental Management regulates and funds the protection of large municipal and community drinking water wells and well drillers, it does not have funds for private drinking wells. Consequently, approximately \$109,000 of the state's Preventive Health and Health Services Block Grant (PHHSBG) is used to develop a statewide monitoring system that enables the state to identify problems and take corrective action for both community and private wells. During 2005, the Alabama Department of Public Health environmentalists and soil scientists funded by the PHHSBG Waterborne Disease Prevention Program did the following:



- Investigated and evaluated more than 150 failed septic tanks in sensitive areas statewide.
- Worked with each owner to repair the septic tanks to meet sewage discharge standards.
- Evaluated approximately 50 proposed subdivisions for suitability of septic tanks.
- Provided a detailed soil analysis and consultation to prevent the contamination of sensitive groundwater, natural springs, and nearby water wells.
- Conducted continuing education programs with the Alabama Onsite Wastewater Association and other municipal and academic institutions.
- Trained over 500 septic tank installers, pumpers, manufacturers, engineers, and surveyors in the proper installation of onsite sewage systems.

### Impact:

Alabama established a goal of no more than two outbreaks of waterborne disease per year. PHHS Block Grant funds have enabled the state to investigate private wells and to review in real time the results of all well water samples (both private and community) analyzed in the state clinical laboratories so that investigation and corrective action could be implemented quickly. As a result—

- There were no waterborne disease outbreaks from 2003 to 2005.
- Approximately 96% of the state's public water systems now meet the federal drinking water standards.
- Lower contamination levels require fewer chemicals to be applied to the water. Based on 780 community water systems, the result is **a saving in chemical costs of at least \$300,000 per year.**
- The cost of an epidemiological investigation of a single outbreak in a typical rural Alabama county costs approximately \$25,000. This cost was eliminated.

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