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July 2005

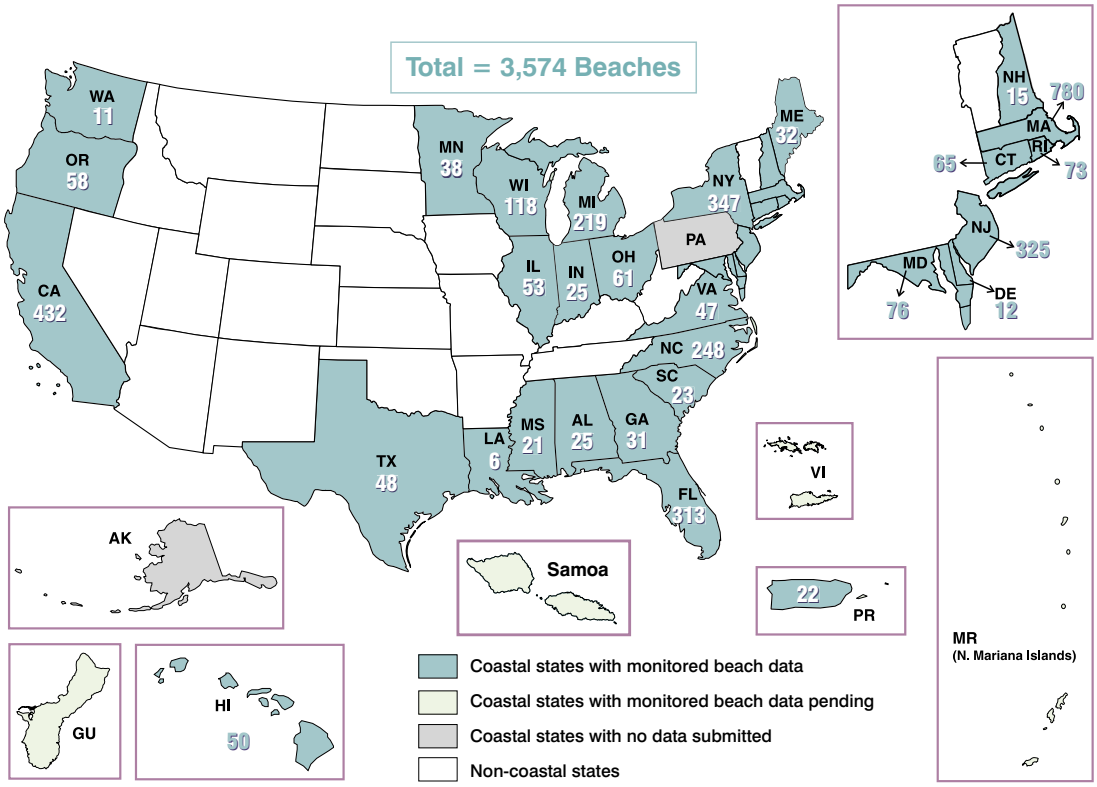
EPA's BEACH Program: 2004 Swimming Season Update

Introduction

To further its commitment to reducing the risk of exposure to disease-causing bacteria at recreational beaches, EPA is posting its latest data about beach closings and advisories for the 2004 swimming season. To help protect the public at beaches, Congress passed the BEACH Act of 2000 (BEACH Act), requiring that coastal and Great Lakes states and territories report to EPA on beach monitoring and notification data for their coastal recreation waters. The BEACH Act also requires EPA to maintain an electronic monitoring and notification database of that data.

The BEACH Act defines coastal recreation waters as the Great Lakes and coastal waters (including coastal estuaries) that states, territories, and authorized tribes officially recognize or designate for swimming, bathing, surfing, or similar activities in the water.

Figure 1. Coastal states with 2004 monitored beach data.



Advisories and Closings

When monitoring of water at swimming beaches shows that levels of certain bacteria exceed standards, states or local agencies notify the public of potential health risks. This public notification may be either a beach advisory, warning people of possible risks of swimming, or closing a beach to the public.

For the 2004 swimming season, 28 of 30 coastal states and one of five territories reported public notification actions to EPA. At this time, Pennsylvania's 2004 data from Erie County are being finalized, and Alaska's monitoring program is pending. The four territories American Samoa, Guam, N. Mariana Islands, and Virgin Islands are in the process of submitting 2004 data.

The data for the 2004 swimming season show that only four percent of beach days were lost due to advisory or closures triggered by monitoring. Even then, most actions were of relatively short duration (see Figure 2). Of the 3,574 beaches that were monitored in 2004, 942 or 26 percent had a least one advisory or closing during the 2004 season (Figure 3). A total of 4,906 beach notification actions were reported by the 28 states and Puerto Rico for the 2004 swimming season.

EPA calculates beach days to get a better sense of the extent of beach advisory and closure information. We do this by multiplying the number of beaches by the number of days in the swimming season. For the 2004 swimming season, EPA determined there were a total of 584,150 beach days for all of the 3,574 monitored beaches. Of those, actions were reported on 21,061 days (Figure 4), meaning that beaches were closed only about 4% of the time.

The data include only advisories issued as a result of local monitoring. They do not include advisories issued by state or local authorities as a result of local conditions or events. For instance, California automatically issues an advisory for 24 hours after a rainfall event without specific monitoring data. Hawaii issued an island-wide advisory in March 2004 based on heavy rainfall that could have elevated pathogen levels.

Figure 2: Beach notification actions by duration.

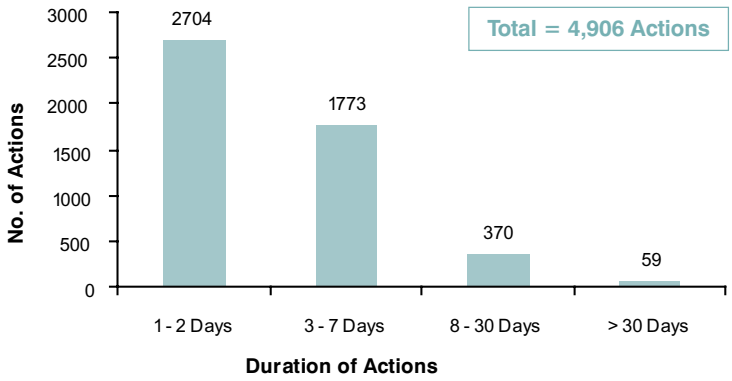


Figure 3: Beach notification actions in 2004.

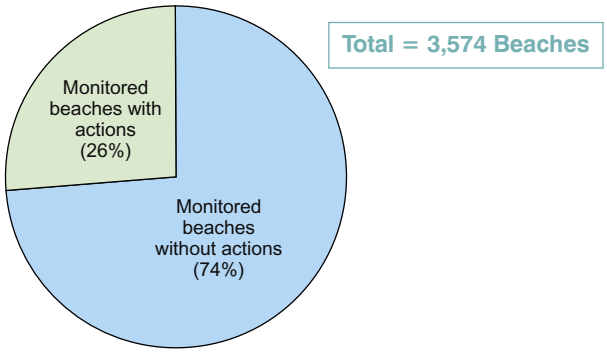
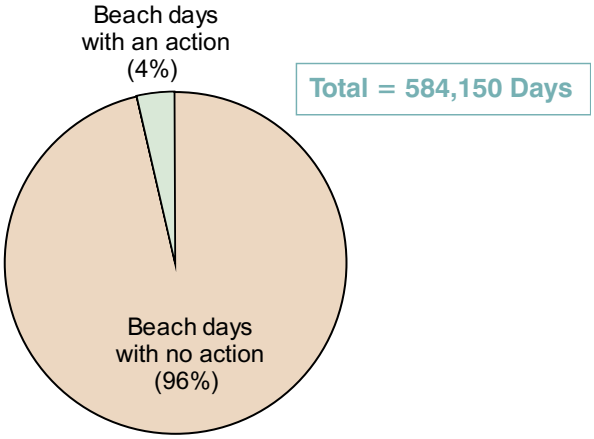


Figure 4: Beach days by notification actions.



State Reporting Data

Data trends are difficult to establish due to the new reporting requirements that began in 2003. The 2003 and 2004 data cannot easily be compared to data gathered from 1997 to 2002. From 1997-2002 beach monitoring data was collected and submitted to EPA on a voluntary basis and included coastal, Great Lakes, and some inland waters. Beginning with the 2003 season, states are required to submit data to EPA under the BEACH Act for beaches which are in coastal and Great Lakes waters (Table 1).

Table 1. Data collected on beaches, advisories, and closings.

	Voluntary Survey						Required Reporting	
	1997	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**
Number of beaches	1,021	1,403	1,891	2,354	2,445	2,823	1,857*	3,574
Number of beaches affected by advisories or closings	230	353	459	633	672	709	395*	942
Percentage of beaches affected by advisories or closings	23	25	24	27	27	25	21*	26

**Incomplete data from 11 states; EPA working to complete data set.*

Uniform Water Quality Standards

The BEACH Act of 2000 required coastal states and states bordering the Great Lakes to adopt EPA's most current recommended bacteria criteria to better protect beach bathers from harmful pathogens. On November 8, 2004, EPA finalized more protective bacteria standards for *E. coli* and enterococci for coastal and Great Lakes recreational waters for those states that had not yet complied with the BEACH Act of 2000. Twenty-one states and territories were affected by this rule; the other 14 had standards in place that were as protective of human health as EPA's most current bacteria criteria.

Funding to State Programs

For the past five years, EPA has provided nearly $42 million in grants to 35 coastal and Great Lakes states and territories. The funds are designed to help improve water monitoring and public information programs to alert beachgoers about the health of their beaches.

The grants are designed to support water monitoring, which helps to ensure that the public receives information on how to protect their health when visiting beaches. Beach water monitoring results are used to issue warnings and closures if bacteria levels are at unsafe levels and to help identify actions needed to reduce pollution.

Planned Improvements

EPA is working proactively to improve the delivery of its beach advisory information to the public. BEACON (BEach Advisory and Closing Online Notification system) is part of EPA's overall "eBeaches" effort to provide the public with monitoring and notification information by electronic means. EPA is working to improve eBeaches to enable faster, easier, and error-free transmittal of information about beach water quality. This includes improved public access to information about beach conditions and the health risks associated with swimming in polluted water. EPA's goal is to make the 2005 swimming season data available sooner and to improve the beach mapping functions by incorporating beach lengths. EPA consults regularly with its state counterparts and provides technical assistance to make these improvements.

For More Information

For general information about beaches visit:

http://www.epa.gov/beaches/

For information about a specific beach:

http://www.epa.gov/waterscience/beacon/