CONSUMER PRODUCT SAFETY COMMISSION

Better Data Collection and Assessment of Consumer Information Efforts Could Help Protect Minority Children
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Why GAO Did This Study
In 2004, the U.S. Consumer Product Safety Commission (CPSC) estimated that 29,400 deaths in the United States were related to consumer products. As required under Section 107 of the Consumer Product Safety Improvement Act of 2008, this study reviews what is known about the relative incidence of preventable injuries and deaths among minority children associated with products intended for children's use and also examines what actions CPSC has taken through its public information and education initiatives to minimize these injuries and deaths. To address these issues, we assessed injury and death data sources used by CPSC, compared CPSC's consumer education efforts with key practices, and interviewed federal officials and groups representing the health and consumer interests of minority populations.

What GAO Found
Few studies have assessed racial and ethnic differences in child death rates from injuries related to consumer products, and CPSC has not analyzed whether specific racial or ethnic groups are disproportionately affected by product hazards because of data limitations. These limitations include incomplete and inconsistent race and ethnicity data on emergency room reports and the inconsistent presence of product-related information on death certificates. In 2007, race and ethnicity data were not coded in about 31 percent of cases in CPSC’s National Electronic Injury Surveillance System (NEISS), which collects data from a nationally representative sample of hospital emergency rooms. In addition, the hospitals that do record race and ethnicity information in CPSC's NEISS system do so inconsistently, in part because of limited CPSC guidance. While death certificates may include more complete race and ethnicity information compared with nonfatal injury data from hospitals, related product information is not consistently documented on the certificates.

Despite this lack of data, CPSC has developed or modified some consumer information efforts to reach specific minority populations, but it has not assessed the results of these efforts. CPSC provides information in Spanish for many of its outreach efforts, including its telephone hotline, Web site, television, radio, and print publications. CPSC has also identified and established relationships with other organizations to help disseminate consumer safety information to minority communities. And while CPSC has used some consumer input to develop safety information, it has not assessed outreach efforts for specific audiences. CPSC has also established goals for its overall consumer information efforts, but not for its messages targeted to specific populations. In addition, CPSC relies on its Neighborhood Safety Network, a group of organizations that have expressed interest in receiving product safety information, to share information with audiences that can be hard to reach, but the agency has not assessed whether these populations are receiving and using the information. Organizations we contacted for this report, including Neighborhood Safety Network members and children’s safety groups, generally reported using safety information provided by CPSC, but some offered suggestions for improvement of efforts to reach minority communities, such as providing safety information in other languages and additional exposure through broadcast media.

What GAO Recommends
GAO recommends that CPSC develop and implement cost-effective means of improving data collection on factors that may contribute to any differences in the incidence of consumer product-related injury and death. GAO also recommends that CPSC develop and implement cost-effective ways to enhance and assess the likelihood that safety messages are received and implemented by all the intended audiences. CPSC and the Department of Health and Human Services (HHS) agreed with GAO's recommendations.
August 5, 2009

Congressional Committees

The U.S. Consumer Product Safety Commission (CPSC), an independent federal agency charged with protecting the public from consumer products that pose an unreasonable risk of injury and death, estimated that 29,400 deaths in the United States related to consumer products occurred in 2004. CPSC works to fulfill its broad mission in part by conducting research into the causes and prevention of product-related deaths, illnesses, and injury and assisting consumers in evaluating the comparative safety of consumer products. CPSC has identified certain populations as vulnerable or hard to reach with safety information, including older Americans, urban and rural low-income families, new parents, and minority groups. Consumer groups and researchers have also suggested that minority children, particularly those living in low-income communities, may face an increased risk of death from injuries because of factors associated with living in poverty, such as poor living conditions and less access to health care, quality recreational activities, and safety devices. Similarly, reports from the Centers for Disease Control and Prevention (CDC) have documented racial disparities in injury-related death rates among children.

The Consumer Product Safety Improvement Act of 2008 (CPSIA) established consumer product safety standards and other safety requirements for children’s products. It also contained a provision requiring GAO to study disparities in the risks and incidence of preventable injuries and deaths among children of minority populations related to consumer products intended for children’s use. Specifically, GAO is to look at preventable injuries and deaths related to suffocation, drowning, and poisoning, and including those associated with the use of swimming pools and spas; toys; cribs, mattresses, and bedding materials; and other products intended for children’s use. Minority populations

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1 CPSC has jurisdiction over consumer products used in and around the home and in sports, recreation, and schools, including many products intended for children’s use, such as toys, swimming pools, cribs, and beds. However, CPSC does not have jurisdiction over all consumer products, such as car seats protecting children in on-road vehicles, automobiles, foods, drugs, cosmetics, and boats.

specified in the mandate include Black, Hispanic, American Indian, Alaska Native, Native Hawaiian, and Asian/Pacific Islander. The mandate also required GAO to provide information about ways to minimize risks of preventable injuries and deaths among minority children, including through consumer education initiatives. To address this mandate, we examined (1) what is known about the relative incidence of preventable injuries and deaths related to drowning, poisoning, and suffocation associated with products intended for children’s use among minority children compared with nonminority children, and (2) what actions CPSC has taken through its public information and education initiatives to minimize child injuries and deaths, including those in minority populations, related to products intended for children’s use.

To answer these questions, we reviewed studies and reports by the Institute of Medicine, federal agencies, researchers, and other organizations that assessed racial or ethnic differences in injury and death among children and related studies that discussed injury prevention programs targeted to minority populations. We reviewed injury and death data sources used by CPSC to estimate product-related injuries and deaths. We interviewed federal officials at CPSC and five Department of Health and Human Services (HHS) organizations to learn about their related programs and initiatives. In addition, we obtained information about injury data, racial and ethnic disparity issues, and injury prevention campaigns from researchers, representatives of injury prevention programs, consumer groups, and groups representing the health and consumer interests of minority populations. Finally, we reviewed CPSC documents and interviewed CPSC officials regarding the development, operation, and evaluation of the agency’s consumer information efforts.

We compared the processes used by CPSC with key practices identified by experts in GAO’s previous work on consumer information and education.

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3 Racial and ethnic categories defined in Office of Management and Budget standards for maintaining, collecting, and presenting federal data on race include American Indian or Alaska Native, Asian, Black or African-American, Native Hawaiian or Other Pacific Islander, and White. There are two categories for data on ethnicity: Hispanic or Latino, and Not Hispanic or Latino. Hispanic or Latino refers to a person of Spanish culture or origin, regardless of race.

4 The Institute of Medicine is a branch of the National Academy of Sciences, a private nonprofit organization made up of subject matter experts that advises the federal government on scientific and technological matters.

The key practices include defining goals and objectives; analyzing the situation; identifying stakeholders; identifying resources; researching target audiences; developing consistent, clear messages; identifying credible messengers; designing media mix; and establishing metrics to measure success. Appendix I explains our scope and methodology in more detail.

We conducted this performance audit from December 2008 through August 2009 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

CPSC was created in 1972 under the Consumer Product Safety Act to regulate consumer products that pose an unreasonable risk of injury, assist consumers in using products safely, develop uniform safety standards for consumer products, minimize conflicting state and local regulations, and promote research and investigation into product-related deaths, injuries, and illnesses. CPSC oversees about 15,000 types of consumer products used in the home, in schools, and in sports and recreation. In fiscal year 2008, CPSC carried out its mission with a budget of about $80 million and 396 full-time employees. Prior to 2008, CPSC experienced significant budget cuts and a sharp decline in its staffing level from a high of 978 employees in 1980. Congress appropriated increased funding totaling about $105 million for fiscal year 2009. This appropriation funds a staffing level of 483 full-time employees, according to CPSC’s 2010 budget request.

CPSC Efforts to Inform Consumers about Product Hazards

CPSC uses different methods to inform the public about product recalls and safety practices that can help prevent product-related injuries (see fig. 1). CPSC maintains a National Injury Information Clearinghouse that disseminates information to the public related to deaths and injuries associated with consumer products under the agency’s jurisdiction. CPSC also warns the public about product hazards by announcing product recalls and providing other safety information through print and electronic media, a telephone hotline, electronic mail, and the Internet. For example, CPSC works with manufacturers to provide public notice of product recalls, in which a defective item is to be removed from store shelves and consumers are alerted to return the item for repair, replacement, or
refund, or otherwise dispose of them. To further its reach, CPSC also provides safety information to broadcast outlets, such as radio and television stations, and to print media outlets. According to CPSC officials, CPSC has allocated approximately $1 million annually to support its consumer information efforts and has nine employees in the Office of Public Affairs, the office responsible for developing and implementing CPSC’s consumer information efforts in consultation with CPSC’s technical experts and other CPSC staff. Congress appropriated funding in 2009 to help CPSC administer the Virginia Graeme Baker Pool and Spa Safety Act, including about $2.4 million for a state grant program and over $4 million for a program to inform the public and pool owners of pool and spa hazards to prevent children from drowning.

**Figure 1: CPSC Consumer Information Methods**

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone hotline</td>
<td></td>
</tr>
<tr>
<td>Web site</td>
<td>(Press releases, recall alerts, wireless cell phone access, podcast recordings, video news releases, e-publications for download)</td>
</tr>
<tr>
<td>E-mail notification service</td>
<td></td>
</tr>
<tr>
<td>Television</td>
<td>(broadcast interviews, video news releases)</td>
</tr>
<tr>
<td>Radio news releases</td>
<td></td>
</tr>
<tr>
<td>Print publications</td>
<td>(CPSC posters/safety information, newspaper and magazine articles)</td>
</tr>
</tbody>
</table>

Sources: CPSC and Art Explosion (photos).
Recently passed legislation requires CPSC to improve its consumer information activities. For example, the Consumer Product Safety Improvement Act (CPSIA) requires CPSC to develop an online database that is publicly available and searchable by date, product name, model, and manufacturer. The database must contain reports of harm relating to the use of consumer products. CPSIA also specifies the information that must be included in a mandatory product recall notice, including details about related injuries and deaths. The act also authorizes CPSC to require manufacturers to give public notice in languages other than English, although this provision applies only to mandatory recalls, according to CPSC officials.6

While CPSC is charged with protecting the public from unreasonable risks of injury and death from the thousands of types of consumer products under the agency's jurisdiction, HHS offices and agencies also play a role in injury prevention by conducting injury prevention research and information campaigns, collecting injury data, and promoting the health of minority populations. For example, according to agency officials and documents, CDC and the National Institutes of Health support research on a variety of topics, including injury prevention, and have conducted public information campaigns to reduce childhood injury. CDC's National Center for Health Statistics (NCHS) collects information about injuries, including race and ethnicity characteristics, from death certificates in all 50 states and the District of Columbia, as well as from household surveys and health care provider surveys. The Maternal and Child Health Bureau (MCHB) and the Indian Health Service (IHS) finance public health services, including injury prevention programs. HHS offices and agencies also lead efforts aimed at understanding and addressing racial and ethnic disparities in health care, including rates of unintentional injury among minority groups. For example, HHS's Office of Minority Health serves as a focal point within HHS to coordinate efforts to improve racial/ethnic minority health and eliminate racial/ethnic health disparities. The Office of Minority Health is charged with providing leadership and coordination for offices of minority health operating in other HHS agencies and in states to reduce racial and ethnic health disparities, according to agency officials. CDC is the lead agency charged with measuring progress toward national HHS

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6CPSC rarely uses its authority to seek a mandatory recall. All of the 563 product recalls conducted in 2008 were voluntary, with CPSC negotiating a corrective action plan with the responsible companies.
goals to eliminate disparities in injuries, disabilities, and deaths due to unintentional injuries and violence.

CPSC collects and analyzes data on consumer product-related injuries and deaths for products under its jurisdiction to determine where hazards exist and how to address them. CPSC obtains most of its information on injuries from its National Electronic Injury Surveillance System (NEISS), which gathers information from a nationally representative sample of about 100 hospital emergency rooms. NEISS provides national estimates of the number and severity of emergency room-treated injuries associated with, although not necessarily caused by, consumer products in the United States. Characteristics coded in the NEISS system include the date of treatment; the patient’s age, gender, race and ethnicity, injury diagnosis, body part affected, case disposition; incident location; as well as the product involved. In 2000, NEISS was expanded to provide data on all trauma-related injuries. The expanded data provide other federal agencies, researchers, and the public with more comprehensive information on injuries from all sources, not just consumer products. CPSC receives approximately $2 million each year from CDC to support this effort.

CPSC obtains most of its information on fatal injuries from death certificates. Information recorded on death certificates includes the date and place of death, cause of death, age, gender, race and ethnicity, and residence of the deceased. CPSC estimates the number of consumer product-related deaths from data collected by NCHS about all deaths through the National Vital Statistics System. Because of the complexity and volume of collecting information about all deaths, there is over a 2 year lag before NCHS mortality data become available. According to a CPSC official, to obtain more timely information, CPSC annually purchases about 8,000 death certificates directly from states for selected causes of death that the agency has determined are likely to be product-related, such as bicycle accidents or falls involving playground equipment.

CPSC supplements information from the NEISS system and death certificates with reports from individual consumers and with data from private organizations such as fire prevention groups and poison control centers. CPSC collects approximately 4,600 additional reports from participating medical examiners and coroners throughout the country, about 7,400 news clips, and 14,300 other reports of product-related injuries and deaths from consumers, lawyers, physicians, fire departments, and other sources, according to its 2010 performance budget request.
Few Studies Assess Racial and Ethnic Differences in Children’s Risk of Death from Injuries Related to Consumer Products, and Data Limitations Constrain CPSC Analysis

Although some research suggests racial disparities in child death rates resulting from general causes of injury—including drowning, poisoning, and suffocation—we identified few studies that assessed racial and ethnic differences in child death rates from injuries related to consumer products. The studies we identified included two that identified racial and ethnic disparities in drownings in swimming pools and a study that identified a disparity between black and white infants in the risk of suffocation or strangulation in bed. We did not identify any studies that compared the incidence of poisoning related to consumer products by children’s race and ethnicity. While these studies identified racial and ethnic differences in death rates related to specific products, the researchers were not consistently able to consider all factors that may contribute to these differences, such as differences in exposure to the consumer products.

Drowning

Mortality data reported by CDC suggest racial disparities in drowning rates, although these data do not specify whether the deaths involved consumer products. Drownings can occur in a variety of settings, such as natural water settings, swimming pools, bathtubs, and buckets. According to CDC, between 2000 and 2005, the fatal unintentional drowning rate of black children ages 5 to 14 was 3.2 times that of white children in the same age range. For American Indian and Alaska Native children, the fatal drowning rate was 2.4 times higher than for white children.
One study, conducted by researchers from HHS’s National Institutes of Health, CPSC, and a research institute, found racial and ethnic disparities in swimming pool drowning rates. This study examined circumstances surrounding 678 swimming pool drownings among U.S. residents aged 5 to 24 years that occurred between 1995 and 1998. The study used data collected by CPSC about drowning deaths from death certificates, medical examiner reports, and newspaper clippings. The study found that black non-Hispanic males and females had higher swimming pool drowning rates compared with white non-Hispanic males and females of comparable age. Drowning rates were highest among black males, often occurring during the day at public pools, and this increased risk persisted after controlling for differences in neighborhood income. Hispanic males also had higher rates of pool drowning compared with white non-Hispanic males, but they had lower rates compared with black non-Hispanic males of comparable age. The drowning rates among Hispanic females were similar to those of white non-Hispanic females. The drowning rates among foreign-born victims were higher than among American-born victims. The study concluded that targeted interventions are needed to reduce the incidence of swimming pool drownings across racial and ethnic groups; it particularly recommended adult supervision at public pools and swimming instruction to increase children’s swimming ability.

Another study examining racial disparities in drowning rates in specific locations found that after the age of 5 years, the risk of drowning in a swimming pool was greater among black males compared with white males. Specifically, this study analyzed death certificate data collected by CPSC and NCHS about U.S. drowning deaths of children aged up to 19 in 1995. This research found that among black males aged 5 to 19 years, about 37 percent of drowning deaths with known location of drowning were in swimming pools, while only 10 percent of similar drownings among white males occurred in pools.

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8 Although the race of the victim was included as a precoded field on death certificates, researchers used data on death certificates about place of birth, nationality, and country of origin to more specifically code ethnicity.

One study conducted by CDC researchers found that black infants were disproportionately affected by accidental suffocation and strangulation in bed (27.3 versus 8.5 deaths per 100,000 live births for blacks and whites, respectively). This study analyzed infant deaths occurring between 1984 and 2004 using CDC’s National Center for Health Statistics mortality files containing information from all death certificates. Researchers only analyzed differences between black and white infants in this study because of concerns about misreporting of racial and ethnic identity on death certificates for other racial and ethnic groups. Although not reported by racial group, beds, cribs, and couches were reported overall as the most common sleep surfaces where accidental suffocation and strangulation deaths occurred. In addition, co-sleeping or bed sharing was reported in over half of the cases. The study concluded that efforts should target those at highest risk and focus on helping parents and caregivers provide safer sleep environments.

We did not identify any studies that compared the incidence of poisoning related to consumer products by children's race and ethnicity. CPSC has assessed differences in the incidence of product-related poisonings among children by age group and gender. A recent study conducted by CPSC staff found that 70 percent of an estimated 86,194 child poisoning incidents involving children less than 5 years of age treated in hospital emergency rooms that occurred in 2004 involved children 1 to 2 years of age; slightly more than one-half involved boys; and about 60 percent involved oral prescription drugs, nonprescription drugs, and supplements. The study concluded that while fatal child poisonings involving drugs and other


12Accidental suffocation and strangulation in bed is a subgroup of sudden, unexpected infant deaths, a leading category of injury-related infant deaths.

hazardous household substances have decreased in recent years, nonfatal child poisonings treated in hospital emergency rooms have remained at high levels.

Poisoning can also occur when children swallow or put in their mouths products that contain excessive levels of lead paint or lead content, such as toys or children’s costume jewelry; however, CPSC receives little information about such incidents through its data systems. According to CPSC officials, the agency rarely receives reports of child lead poisoning through its data systems because lead poisoning usually appears as a chronic illness rather than an acute injury, and as we have previously reported, CPSC’s data systems are not set up to capture information about chronic illnesses.

CPSC Has Not Analyzed Racial and Ethnic Differences in Product-Related Injury and Death because of Data Limitations

CPSC estimates product-related injury and death rates by age group, but because neither emergency room nor death certificate data provide complete information about both race and ethnicity and related products, CPSC has not analyzed product-related injury and death rates by race and ethnicity or other characteristics that could identify particularly vulnerable populations. While other federally supported data collection efforts provide more, or more reliable, information on the range of factors, including race and ethnicity, that may contribute to injury risk, these efforts have not collected data on consumer product involvement or CPSC has not been involved with them.

NEISS System

While products related to patients’ injuries are coded in the NEISS system, limited patient race and ethnicity information has hindered analysis of racial and ethnic differences in product-related injuries. CPSC’s NEISS system specifies the products involved in injuries treated in hospital emergency rooms. NEISS coders can choose from approximately 900 product codes when identifying any products mentioned in hospital

14Elevated blood lead levels are associated with harmful health effects in children, such as impaired mental and physical development.


16We previously found that CPSC uses its data to identify rates of injury and death by age group, but not other characteristics, to assess which consumer product hazards have a disproportionate effect on vulnerable populations, such as persons with disabilities. For details, see GAO/HEHS-97-147.
emergency room records, such as toys, cribs, and swimming pools. Consumer products are coded to allow for specificity. For example, a baby bathtub seat would be specified differently from a baby bath. In its 2008 performance report, CPSC reported conducting annual monitoring visits to all of the NEISS hospitals in its sample, concluding that data were collected on over 90 percent of product-related cases in emergency room records through the NEISS system.

As shown in figure 2, our analysis of CPSC’s NEISS data found that race and ethnicity data were not coded in about 31 percent of cases in 2007. The percentage of NEISS cases missing race and ethnicity information has prevented CPSC and CDC from assessing racial and ethnic differences in nonfatal injury rates, according to agency officials. According to a CPSC official, the agency has been aware of the missing race and ethnicity data and considered ways of statistically estimating race and ethnicity information using existing data, but has not pursued such analysis because of competing agency priorities.¹⁷

¹⁷Developing accurate estimates of product-related injury rates by racial and ethnic group could be challenging given existing CPSC data and data collection methods. Adequate numbers of cases from each racial and ethnic group are needed to develop accurate rates of product-related injury, and developing such rates could be a challenge in smaller minority groups. In addition, CPSC data systems do not collect other information that could explain differential rates of injuries treated in hospital emergency rooms, such as access to health insurance.
Our analysis of CPSC’s NEISS data found that some hospitals have a high percentage of cases missing race and ethnicity information. As shown in figure 3, about one-quarter of NEISS hospitals had more than 75 percent of cases missing race and ethnicity information in 2007.
In addition, NEISS hospitals that have recorded race and ethnicity information do so inconsistently, in part because of limited CPSC guidance. For example, a NEISS coder in one NEISS hospital we visited reported that the hospital registrar would generally record the patient’s race and ethnicity using visual observation and rarely verify this information with the patient. Staff at other NEISS hospitals reported that the admitting staff may ask for race or ethnicity data along with other information when the patient is checking into the emergency room. In its manual, CPSC does not specify how hospital staff should obtain the information about patient race and ethnicity, although some researchers suggest that information reported by patients or patient representatives is more accurate than visual observation by hospital staff. In addition, CPSC’s coding system for race and ethnicity is limited to white, black, and a narrative field for “other” categories, resulting in inconsistent coding and making data on other categories challenging to analyze. Our review of NEISS data found that NEISS hospitals use different terminology to code the same racial or ethnic categories in the “other” category.

According to a few organizations we interviewed, hospital-based collection of data on the race and ethnicity of patients is a challenge for several reasons. A hospital staff member from one NEISS hospital we visited said that these data are missing because hospital staff are uncomfortable asking patients about race and ethnicity. CDC officials and a researcher we interviewed said that hospital staff may not be trained to
collect race and ethnicity information or may not understand that it is being used for purposes other than providing medical care.

Other studies have found incomplete and inconsistent collection of information about patient race and ethnicity from hospitals. A panel convened by the National Academy of Sciences conducted a survey of hospitals and found that many hospitals report collecting race and ethnicity information, but these data are not reported to state and federal programs in a standardized format, and the information reported for racial and ethnic groups other than white and black may be unreliable. The panel recommended that HHS require health insurers, hospitals, and private medical groups to collect data on race, ethnicity, socioeconomic position, and acculturation and language and provide leadership in developing standards for collecting these data. Another qualitative study, funded by the California Endowment, reviewed hospital efforts to provide culturally and linguistically appropriate health care in 50 hospitals nationwide. The majority of hospitals reviewed in this study had inconsistent methods for collecting data on patient race, ethnicity, and primary language. In some hospitals, systems were in place but not used; in others, staff appeared not to have been trained on methods to accurately collect data from patients.

Death certificates may include more complete and accurate race and ethnicity information compared with nonfatal injury data from hospitals, according to CDC officials, but concerns remain about the accuracy of this information for some groups. The accuracy of race and ethnicity information recorded on death certificates has been studied over time. A recent evaluation conducted by CDC found that race and ethnicity reporting on death certificates has been excellent for white and black populations, poor for the American Indian or Alaska Native populations, and reasonably good for the Hispanic and Asian or Pacific Islander populations. According to CDC, studies have shown that individuals who

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self-reported as American Indian, Asian, or Hispanic on census and survey records were sometimes reported as white or non-Hispanic on the death certificate, resulting in an underestimation of deaths and death rates for the American Indian, Asian, and Hispanic groups.

While death certificates may contain more complete and accurate race and ethnicity data than the NEISS system, according to CPSC and CDC officials, related product information is not consistently documented on the certificates. Unlike coders who enter data into CPSC’s NEISS system, individuals who complete death certificates are not prompted or required to record information identifying specific consumer products related to the death. Information about product involvement may be found in the narrative recorded on the certificate; however, this information is not consistently recorded, according to both CPSC and CDC officials. CPSC has developed national estimates of consumer product-related death rates by age group using HHS data containing information about all deaths; but CPSC has not analyzed these deaths by race and ethnicity, according to CPSC officials. A CPSC official told us that CPSC staff could analyze consumer product-related deaths by race and ethnicity, although the agency has not done so to date. CDC officials said that given the limited information about product involvement found on death certificates, estimating product-related death rates by race and ethnicity could produce underestimates.

Some states are collecting information about product-related deaths as part of investigations to understand the causes of child deaths; however, CPSC has not been involved in this effort. HHS’s Maternal and Child Health Bureau funds a Web-based system and technical assistance center to support state collection of data from child death reviews, including race and ethnicity, type of injury, and details on product involvement. Child death reviews involve state and local officials from multiple disciplines sharing information to better understand child deaths and prevent future deaths. Since 2002, HHS’s Maternal and Child Health Bureau has funded the National Maternal Child Health Center for Child Death Review, a technical assistance center that developed the Child Death Review Case Reporting System. As of February 2009, 28 states have used the system, and states vary in the types of deaths reviewed, the timing of entry into the system, and the amount of detail entered into the system, according to officials. The system prompts the user to record whether the death was a consequence of a problem with a consumer product and, if so, collects information about the product and whether the incident was reported to CPSC. However, according to officials, CPSC has not been involved in the development and implementation of this system. CPSC does not currently
receive updates from HHIS or the states directly through the Child Death Review Case Reporting System.

According to CDC, injury data collected from household interviews through its National Health Interview Survey may include more accurate data on race and ethnicity compared with medical records-based data collection efforts because the information is self-reported or reported by a knowledgeable representative. The National Health Interview Survey also contains information about other factors that could account for health conditions, such as socioeconomic status, but lacks consistently reported information about product involvement, according to CDC officials. A CPSC official said the agency has not pursued working with CDC to augment its data collection efforts by modifying this survey, citing doubts that the data collected could include sufficient detail about product involvement even if the survey were modified.

CPSC Has Developed or Modified Some Consumer Information Efforts to Reach Specific Minority Populations, but Has Not Assessed the Results of These Efforts

CPSC has incorporated some elements of key consumer education practices to provide consumer product safety information to minority populations, such as periodically using consumer and other stakeholder input to inform its outreach efforts, but it has not specifically defined goals or developed measures to assess whether these efforts are effectively reaching minority populations (see app. II for further detail on the key practices).

CPSC Has Tailored Some Outreach for Hispanic Communities and Established Relationships to Assist in Reaching Other Minority Populations

CPSC’s consumer information efforts are intended to provide notice of product recalls and guidance on safely using products to the general public, although some of its safety information regarding children’s products has also been targeted to minority populations, particularly the Hispanic community. CPSC provides information in Spanish for many of its outreach efforts, and according to CPSC officials, has hired a Hispanic media consumer outreach specialist to assist with translations and to work with the Hispanic media, and has established practices to develop and disseminate safety information to this community. CPSC officials also told us that they provide information to Spanish-language television and radio stations, use Spanish-speaking telephone operators for CPSC’s toll-free
hotline, and maintain a language bank to provide assistance for calls in other languages.\footnote{According to CPSC officials, CPSC’s language bank is a working list of CPSC staff members who have proficiency in other languages.} During fiscal year 2008, CPSC records indicate that CPSC hotline staff answered 1,570 calls in Spanish. The main CPSC Web site also includes a section called El Mundo Hispano de la CPSC with recall notices and other product safety information in Spanish. See figure 4 for examples of CPSC consumer information in Spanish and English.
Figure 4: Examples of CPSC Consumer Information

NSN poster on safe sleep (in English)

NSN poster on safe sleep (in Spanish)

NSN poster on drowning prevention (in English)

NSN poster on drowning prevention (in Spanish)

Source: CPSC Web site.
CPSC has also identified and established relationships with other organizations to help disseminate consumer safety information to additional minority communities through electronic, broadcast, and print media. For example, CPSC officials noted that in 2000, CPSC worked with the Bureau of Primary Health Care, Gerber, and Black Entertainment Television (BET) to launch a safe sleep campaign to help lower sudden infant death syndrome (SIDS) rates, especially among African-Americans. The campaign included a nationwide television public service announcement about placing babies to sleep on their backs to prevent SIDS, and special programming to be televised on BET. CPSC has also worked on media outreach campaigns with other organizations such as public health agencies, industry groups, and child safety organizations. In 2004, CPSC launched the Neighborhood Safety Network (NSN), to enlist support from community-based organizations in extending its messages to communities it designated as hard to reach, including older Americans, urban and rural low-income families, new parents, and minority groups. According to CPSC officials, CPSC uses NSN, now numbering about 5,600 member organizations, to deliver information to minority populations. Membership in NSN is free and enrollment is voluntary. Some of the member organizations include HHS, hospitals and health clinics, day care centers, fire stations, parent organizations, and American Indian reservations. CPSC has developed a Web page offering online safety materials that NSN members can modify for use with specific groups. NSN member organizations receive CPSC’s e-mail updates with product safety information on topics such as drowning prevention, crib and toy safety, and poison prevention and may elect to employ these in their own outreach efforts.

Organizations we contacted for this report, including NSN members, consumer groups, and organizations that conduct injury prevention research or implement injury prevention programs in diverse communities generally reported using safety information provided by CPSC, and some offered suggestions for improving efforts to reach minority communities. Some of the organizations said that they receive information from CPSC via e-mail notifications, and some mentioned distributing flyers or posters provided by CPSC and incorporating information from CPSC into their own pamphlets and brochures. Some suggestions to improve consumer information efforts for minority populations included additional exposure through broadcast media because access to electronic information via computers may be limited. Some NSN members also said it would be useful if safety information were provided in additional languages. According to CPSC officials, the agency does not have the resources to translate information into additional languages, but one NSN member we
interviewed mentioned that their organization had translated some CPSC materials for its audiences. Some organizations also expressed interest in collaborating more closely with CPSC on its consumer information efforts.

**CPSC Has Used Some Consumer Input to Develop Safety Information, but Has Not Assessed Outreach Efforts to Specific Audiences**

CPSC has periodically conducted audience research to strengthen its consumer information efforts. In 2003, the agency funded a literature review to examine the factors influencing consumers’ understanding of and responses to recall notices and other safety information. The study findings suggested ways product recall communications could be improved to help consumers eliminate or reduce product hazards, such as using pictures and signal language like “warning” or “danger” to help consumers attend to and understand safety messages. CPSC also created an online Consumer Opinion Forum that consumers can join to provide feedback on product safety issues, such as how a recall notice could be written more clearly; however, consumers must have Internet access to participate in this forum. In addition, CPSC recognizes that to understand the culture and diversity within the Hispanic community, it must take certain steps such as interviewing members of the community, reviewing related research, and consulting with colleagues from other federal agencies. For example, to translate and adapt materials for one of its outreach campaigns for different segments of the Spanish-speaking audience, CPSC conducted interviews with members of the Hispanic community from varying educational backgrounds. Although CPSC has periodically conducted audience research, agency officials told us they do not have the resources to regularly pretest safety messages. However, officials from a few organizations we interviewed noted that CPSC could conduct focus groups with members of the target audience or include representatives of organizations that work with the target audience on an advisory committee to help design and implement safety campaigns.

CPSC has also established goals for its overall consumer information efforts, but not for its messages targeted to specific populations. In its 2008 performance and accountability report, CPSC stated that its goal for using consumer information was to alert the public to children’s and other hazards through consumer outreach, press releases, and conducting nine public information efforts that included topics such as drowning and poisoning prevention. CPSC sets annual performance goals that measure the success for each of these consumer information methods according to the total number of items issued, viewed, or conducted during that fiscal year. For example, CPSC set a fiscal year 2008 goal to receive 450 million views of its safety messages through television appearances, video news releases, and downloads of e-publications.
CPSC relies on the Neighborhood Safety Network to share product safety information with audiences that can be hard to reach, but the agency has not formally assessed whether these populations are receiving and using the information. And while CPSC tracks the number of views its safety messages receive, CPSC officials stated that they do not collect information on audience demographics, which could indicate the target audiences being reached. Likewise, CPSC has conducted surveys to assess customer satisfaction with its toll-free hotline, Web site, and partnerships with state government agencies, and these surveys indicate a high level of satisfaction with CPSC services; however, these surveys do not collect information about the demographic characteristics of the consumers using CPSC’s services to determine the extent to which they are representative of the general population. According to CPSC officials, CPSC has also not identified outcome measures to evaluate how well its campaigns affected the attitudes and behaviors of the target audiences it set out to influence. We previously identified strategies used by other federal agencies to evaluate the effectiveness of information campaigns, including analyzing findings from previous research, collaborating with program partners to help meet the information needs of diverse audiences and expand the usefulness of evaluations, and surveying the intended audience to ask about program exposure, knowledge, and attitude change.\(^\text{22}\) CPSC officials have also cited a lack of resources as a challenge to establishing evaluation programs to measure results; however, CPSC has recently received more resources from the fiscal year 2009 appropriation for the Virginia Graeme Baker Pool and Spa Safety Act. In the course of our review, CPSC officials stated that with this new funding for the act, they planned to include an evaluation component, but as of the writing of this report, it was not yet known how CPSC planned to implement this component.

Conclusions

Protecting children from dangerous consumer products is a critical part of CPSC’s mission. Some research suggests that there are racial and ethnic disparities in child death rates due to injuries related to particular consumer products; however, CPSC does not routinely assess whether such disparities exist, primarily because data limitations make it challenging to conduct such analyses. In addition, the lack of information about other characteristics of individuals who are injured or die from

involvement with a consumer product, such as socioeconomic status, prevents CPSC from identifying potential underlying causes of racial and ethnic differences in injury and death rates. Without efforts to augment or improve existing data, CPSC may not know which groups are most vulnerable to product-related injury or death. If available data are improved, CPSC may be better able to identify hazards that disproportionately affect certain communities and develop ways to reduce those hazards.

Despite limited information on racial and ethnic differences in product-related injury and death, CPSC has made some special efforts to deliver some of its consumer information to audiences the agency identified as hard to reach, including minority groups. However, CPSC has not collected information on whether these targeted groups are receiving and acting on the safety information. Without fully assessing its consumer education and public outreach campaigns, CPSC cannot know how effective these initiatives are at reaching intended audiences, some of which may be at an elevated risk of injury or death.

### Recommendations for Executive Action

To better understand the relative risk of product-related injury among minority and nonminority children, we recommend that the Commission, in consultation with HHS,

- Develop and implement cost-effective means of improving CPSC’s data collection on factors that may contribute to differences in the incidence of injury and death related to specific types of consumer products, including race, ethnicity, and other patient characteristics. For example, steps CPSC could consider include improving the NEISS racial and ethnic classification system; working with NEISS hospitals to improve collection of data on patient race and ethnicity; and leveraging related data collection efforts, such as those sponsored by the Maternal and Child Health Bureau, the National Center for Health Statistics, or the National Institutes of Health.

To improve the effectiveness of consumer information efforts, we recommend that the Commission,

- Develop and implement cost-effective ways to enhance and assess the likelihood that CPSC’s safety messages are received and implemented by all the intended audiences. For example, CPSC could consider convening groups of consumers or Neighborhood Safety Network members to advise on the design and implementation of campaigns targeted to specific
communities, surveying NSN members, establishing metrics to measure NSN’s success, and evaluating the effectiveness of information campaigns targeted to the racial and ethnic groups at highest risk of drowning as part of its implementation of the Virginia Graeme Baker Pool and Spa Safety Act.

Agency Comments and Our Evaluation

We provided a draft of this report to CPSC and HHS for review and comment. CPSC and HHS concurred with our recommendations and provided technical comments, which we incorporated as appropriate. A letter conveying HHS’s comments is reproduced in appendix III.

We are sending copies of this report to the appropriate congressional committees, the Chairman of the U.S. Consumer Product Safety Commission, the Secretary of Health and Human Services, and other interested parties. In addition, the report will be available at no charge on GAO’s Web site at http://www.gao.gov.

If you or your staff have any questions regarding this report, please contact me at (202) 512-7215 or ashbyc@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made major contributors to this report are listed in appendix IV.

Cornelia M. Ashby
Director, Education, Workforce, and Income Security Issues
List of Committees

The Honorable John D. Rockefeller, IV
Chairman
The Honorable Kay Bailey Hutchison
Ranking Member
Committee on Commerce, Science
and Transportation
United States Senate

The Honorable Henry A. Waxman
Chairman
The Honorable Joe Barton
Ranking Member
Committee on Energy and Commerce
House of Representatives

The Honorable Mark Pryor
Chairman
The Honorable Roger Wicker
Ranking Member
Subcommittee on Consumer Protection,
Product Safety, and Insurance
Committee on Commerce, Science
and Transportation
United States Senate

The Honorable Bobby L. Rush
Chairman
The Honorable George Radanovich
Ranking Member
Subcommittee on Commerce, Trade
and Consumer Protection
Committee on Energy and Commerce
House of Representatives
Appendix I: Objectives, Scope, and Methodology

The objectives of this report were to examine (1) what is known about the relative incidence of preventable injuries and deaths related to drowning, poisoning, and suffocation associated with products intended for children's use among minority children compared with nonminority children, and (2) what actions the Consumer Product Safety Commission (CPSC) has taken through its public information and education initiatives to minimize child injuries and deaths, including those in minority populations, related to products intended for children's use.

To address the first objective, we reviewed injury and death data sources used by CPSC to estimate product-related injuries and deaths. We reviewed data and documentation obtained from CPSC concerning its databases that contain injury and death data, including the Death Certificates database, National Electronic Injury Surveillance System (NEISS), Injury or Potential Injury Incidents file, and In-Depth Investigations file.¹ We reviewed information describing Department of Health and Human Services (HHS) mortality data, which includes information from death certificates filed in the United States collected through the National Vital Statistics System. We also reviewed HHS household and health care provider surveys that include injury data, such as the National Health Interview Survey and the National Hospital Discharge Survey. We also interviewed CPSC officials, HHS officials, and researchers to gather information about the strengths and weaknesses of available data sources.

We assessed the completeness and reliability of the NEISS data set by (1) reviewing NEISS's technical documentation and methodological reports, (2) interviewing CPSC officials, (3) examining these data for obvious inconsistencies, and (4) visiting three NEISS hospitals to better understand how the data are coded. We determined that these data were sufficiently reliable to use as sources of summary statistics about the extent of missing race and ethnicity information in the NEISS system. To determine the extent of missing race and ethnicity information in CPSC's NEISS system, we analyzed NEISS data obtained from CPSC for the years 1999-2007.

To explore available data published in related studies, we searched relevant databases, including PubMed, ProQuest, PsycFirst, and

¹The Injury or Potential Injury Incidents and In-Depth Investigations files include information about related consumer products, but not race and ethnicity information.
Appendix I: Objectives, Scope, and Methodology

ScienceDirect. We also consulted with CPSC and HHS staff to identify related studies. We limited the scope of our work by looking at studies published since 1999. Through this process, our literature search identified about 70 studies, but only 3 studies published data on racial and/or ethnic differences in child injury or death rates related to specific consumer products, and we conducted detailed reviews of these studies. Our reviews entailed an assessment of each study’s research methodology, including its data quality, research design, and analytic techniques, as well as a summary of each study’s major findings and conclusions. We also assessed the extent to which each study’s data and methods supported its findings and conclusions.

To address the second objective, we reviewed CPSC documents and interviewed CPSC officials regarding the development, operation, and evaluation of the agency’s consumer information efforts. Specifically, we reviewed CPSC’s Web site, and documents such as CPSC customer satisfaction surveys, press releases, strategic plans, and performance and accountability reports. We compared the processes used by CPSC with key practices identified by experts in GAO’s previous work as important to planning a consumer education campaign, motivating a target audience, and alleviating challenges in a campaign (see app. II for a description of these practices). We interviewed federal officials at CPSC and five HHS organizations—Centers for Disease Control and Prevention, Indian Health Service, Maternal and Child Health Bureau, National Institutes of Health, and the Office of Minority Health—to learn about their related programs and initiatives. In addition, we interviewed representatives of injury prevention programs, consumer groups, and members of CPSC’s Neighborhood Safety Network to obtain their views on CPSC’s efforts to provide product safety information to minority communities.

We conducted this performance audit from December 2008 through August 2009 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.
Appendix II: Key Practices for Consumer Education Planning

In a 2007 GAO report on consumer issues pertaining to the digital television transition, a panel of 14 senior management-level experts in strategic communications identified and came to consensus on key planning components for consumer education and outreach (see table 1).

<table>
<thead>
<tr>
<th>Key practice</th>
<th>Description</th>
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<tbody>
<tr>
<td>Define goals and objectives</td>
<td>Define the goals of the communications campaign, e.g., to increase awareness or motivate a change in behavior. Define the objectives that will help the campaign meet those goals.</td>
</tr>
<tr>
<td>Analyze the situation</td>
<td>Analyze the situation, including any competing voices or messages, related market conditions, and key dates or timing constraints. Review relevant past experiences and examples to identify applicable “lessons learned” that may help to guide efforts.</td>
</tr>
<tr>
<td>Identify stakeholders</td>
<td>Identify and engage all the key stakeholders who will be involved in communications efforts. Clarify the roles and responsibilities of each stakeholder, including which entity or entities will lead overall efforts.</td>
</tr>
<tr>
<td>Identify resources</td>
<td>Identify available short- and long-term budgetary and other resources.</td>
</tr>
<tr>
<td>Research target audiences</td>
<td>Conduct audience research, such as dividing the audience into smaller groups of people who have relevant needs, preferences and characteristics, as well as measuring awareness, beliefs, competing behaviors, and motivators. Also, identify any potential audience-specific obstacles, such as access to information.</td>
</tr>
<tr>
<td>Develop consistent, clear messages</td>
<td>Determine what messages to develop based on budget, goals, and audience research findings. Develop clear and consistent audience messages; test and refine them.</td>
</tr>
<tr>
<td>Identify credible messengers</td>
<td>Identify who will be delivering the messages and ensure that the source is credible with audiences.</td>
</tr>
<tr>
<td>Design media mix</td>
<td>Plan the media mix to optimize different types of media such as news stories, opinion editorials, and broadcast, print, and Internet advertising. Identify through which methods (e.g., advertising in newsprint ads), how often (e.g., weekly or monthly) and over what duration (e.g., 1 year) messages will reach audiences.</td>
</tr>
<tr>
<td>Establish metrics to measure success</td>
<td>Establish both process and outcome metrics to measure success in achieving objectives of the outreach campaign. Process metrics ensure the quality, quantity, and timeliness of the contractor’s work. Outcome metrics evaluate how well the campaign influenced the attitudes and behaviors of the target audience(s) that it set out to influence.</td>
</tr>
</tbody>
</table>

Source: GAO-08-43.
Appendix III: Comments from the Department of Health and Human Services

JUL 14 2009

Cornelia M. Ashby
Director, Education, Workforce
and Income Security
U.S. Government Accountability Office
441 G Street N.W.
Washington, DC 20548

Dear Ms. Ashby:

Enclosed are comments on the U.S. Government Accountability Office’s (GAO) report entitled: "CONSUMER PRODUCT SAFETY COMMISSION: Better Data Collection and Assessment of Consumer Information Efforts Could Help Protect Minority Children" (GAO-09-731). The Department appreciates the opportunity to review this report before its publication.

Sincerely,

Barbara Pisaro Clark
Acting Assistant Secretary for Legislation

Attachment
GENERAL COMMENTS OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES (HHS) ON THE GOVERNMENT ACCOUNTABILITY OFFICE'S (GAO) DRAFT REPORT ENTITLED: BETTER DATA COLLECTION AND ASSESSMENT OF CONSUMER INFORMATION EFFORTS COULD HELP PROTECT MINORITY CHILDREN (GAO-09-731)

The Centers for Disease Control and Prevention (CDC) wishes to thank the GAO for the opportunity to review and comment on this Draft Report. CDC concurs with the GAO’s recommendations and respectfully submits the following general comments.

The National Center for Health Statistics (NCHS) has a history of working with the Consumer Product Safety Commission (CPSC) to provide death certificate information to assist the CPSC in its mission. Mortality data from NCHS are a fundamental source of demographic, geographic, and cause of death information including the characteristics of individuals dying in the United States. The death certificate is not intended, however, to provide detailed information about consumer products that may contribute to death. NCHS will continue to assist the CPSC in using death certificate data to monitor the safety of consumer products.
Appendix IV: GAO Contact and Staff Acknowledgments

<table>
<thead>
<tr>
<th>GAO Contact</th>
<th>Cornelia M. Ashby, (202) 512-7215, <a href="mailto:ashbyc@gao.gov">ashbyc@gao.gov</a></th>
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<tbody>
<tr>
<td>Staff Acknowledgments</td>
<td>In addition to the contact named above, individuals making key contributions to this report include Betty Ward-Zukerman (Assistant Director), Carl Barden, Mitch Karpman, Kristy Kennedy, Jim Rebbe, Cathy Roark, Jay Smale, Gabriele Tonsil, and Kate van Gelder.</td>
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