

Why GAO Did This Study

The rapid adoption of mobile phones has occurred amidst controversy over whether the technology poses a risk to human health as a result of long-term exposure to RF energy from mobile phone use. FCC and FDA share regulatory responsibilities for mobile phones. GAO was asked to examine several issues related to mobile phone health effects and regulation.

Specifically, this report addresses (1) what is known about the health effects of RF energy from mobile phones and what are current research activities, (2) how FCC set the RF energy exposure limit for mobile phones, and (3) federal agency and industry actions to inform the public about health issues related to mobile phones, among other things. GAO reviewed scientific research; interviewed experts in fields such as public health and engineering, officials from federal agencies, and representatives of academic institutions, consumer groups, and the mobile phone industry; reviewed mobile phone testing and certification regulations and guidance; and reviewed relevant federal agency websites and mobile phone user manuals.

What GAO Recommends

FCC should formally reassess and, if appropriate, change its current RF energy exposure limit and mobile phone testing requirements related to likely usage configurations, particularly when phones are held against the body. FCC noted that a draft document currently under consideration by FCC has the potential to address GAO's recommendations.

View [GAO-12-771](#). For more information, contact Mark Goldstein at (202) 512-2834 or goldsteinm@gao.gov, or Marcia Crosse at (202) 512-7114 or crossem@gao.gov.

TELECOMMUNICATIONS

Exposure and Testing Requirements for Mobile Phones Should Be Reassessed

What GAO Found

Scientific research to date has not demonstrated adverse human health effects of exposure to radio-frequency (RF) energy from mobile phone use, but research is ongoing that may increase understanding of any possible effects. In addition, officials from the Food and Drug Administration (FDA) and the National Institutes of Health (NIH) as well as experts GAO interviewed have reached similar conclusions about the scientific research. Ongoing research examining the health effects of RF energy exposure is funded and supported by federal agencies, international organizations, and the mobile phone industry. NIH is the only federal agency GAO interviewed directly funding studies in this area, but other agencies support research under way by collaborating with NIH or other organizations to conduct studies and identify areas for additional research.

The Federal Communications Commission's (FCC) RF energy exposure limit may not reflect the latest research, and testing requirements may not identify maximum exposure in all possible usage conditions. FCC set an RF energy exposure limit for mobile phones in 1996, based on recommendations from federal health and safety agencies and international organizations. These international organizations have updated their exposure limit recommendation in recent years, based on new research, and this new limit has been widely adopted by other countries, including countries in the European Union. This new recommended limit could allow for more RF energy exposure, but actual exposure depends on a number of factors including how the phone is held during use. FCC has not adopted the new recommended limit. The Office of Management and Budget's instructions to federal agencies require the adoption of consensus standards when possible. FCC told GAO that it relies on the guidance of federal health and safety agencies when determining the RF energy exposure limit, and to date, none of these agencies have advised FCC to change the limit. However, FCC has not formally asked these agencies for a reassessment. By not formally reassessing its current limit, FCC cannot ensure it is using a limit that reflects the latest research on RF energy exposure. FCC has also not reassessed its testing requirements to ensure that they identify the maximum RF energy exposure a user could experience. Some consumers may use mobile phones against the body, which FCC does not currently test, and could result in RF energy exposure higher than the FCC limit.

Federal agencies and the mobile phone industry provide information on the health effects of mobile phone use and related issues to the public through their websites and mobile phone manuals. The types of information provided via federal agencies' websites on mobile phone health effects and related issues vary, in part because of the agencies' different missions, although agencies provide a broadly consistent message. Members of the mobile phone industry voluntarily provide information on their websites and in mobile-phone user manuals. There are no federal requirements that manufacturers provide information to consumers about the health effects of mobile phone use.