DID YOU HEAR?
Half of Americans have periodontitis. Here’s what the AAP is doing about it.

Half of all American adults suffer from periodontitis, according to results from the 2009-2010 National Health and Nutrition Examination Survey (NHANES). Data from the survey, published in the Journal of Dental Research, confirm more adults have periodontal disease than originally thought. Over 64 million Americans have some form of periodontal disease, which is more than 2 1/2 times the number of people who have diabetes (24.6 million). By comparison, approximately 80 million people have heart disease.

"This is the most accurate assessment of the prevalence of periodontal disease in the U.S. population," said AAP President Dr. Pamela McClain. "We thank the Centers for Disease Control (CDC) for its significant effort to determine this precise figure."

The Academy has been collaborating with the CDC since 2003 to develop a surveillance system to determine the incidence and prevalence of periodontal disease in the U.S. population. The CDC’s goal was to identify alternative measures for identifying periodontal disease for local and state agencies conducting health surveys of the population. A workgroup comprised of CDC and AAP experts has met regularly for the past 10 years to help the CDC determine the incidence and prevalence of periodontal disease in adults over 30. Self-report questions and disease case definitions were developed, and a full-mouth comprehensive periodontal examination was added to the 2009-2010 NHANES survey. Findings were analyzed by the National Center for Health Statistics (NCHS), the statistical arm of the CDC.

The NHANES is designed to assess the health and nutritional status of adults and children in the United States. The survey employs a unique combination of interviews and physical examinations. The 2009-2010 NHANES provides estimates on the prevalence, severity, and extent of periodontitis in the adult U.S. population. The findings will impact the future of population-based surveys of periodontal disease at the local, state, and national level by helping the CDC identify a reliable, but less resource-demanding measure to be integrated into existing systems.

"The NHANES allows researchers to identify trends of diabetes, obesity, and heart disease in our populations, but up until now we had not known the state of periodontal health," said AAP member and CDC/AAP Workgroup Chair Dr. Robert Genco. "We now have hard data as to the prevalence of periodontal disease and a methodology to obtain data on periodontal disease trends at the national, state, and local levels."

The findings also mark the first time the NHANES used a comprehensive periodontal evaluation in the clinical portion of the survey. The comprehensive evaluation is slated to be included on the 2011-2012 and 2013-2014 NHANES surveys, facilitating a 6-year trending analysis.

According to CDC epidemiologist and lead author Dr. Paul Eke, the findings may drive public health policy decisions. "We have demonstrated a high burden of periodontal disease in the adult U.S. population, especially among adults 65 and older," he said. "Periodontal disease is associated with age, and as Americans live longer and retain more of their natural teeth, periodontal disease..."
may take on more prominence in the oral health of the U.S adult population. Maintaining good periodontal health is important to the overall health and well-being of our aging population. Our findings support a need for public health programs to improve the oral health of adults."

The survey data showed an astonishing number of the U.S. adult population has periodontal disease (47.2% of Americans 30 and older). In adults 65 and older, prevalence rates increase to 70.1%.

"We expected the prevalence to be higher than formerly estimated, but I must say we were very surprised with the results," said Dr. Genco. "Almost half of the U.S. population has periodontal disease."

"The results are stunning with respect to other segments of the population," continued Dr. Genco. "Periodontal disease affects more men than women, the Mexican-American population, smokers, and those with less than a high school education — this is a significant public health problem, especially for those at high risk."

The findings show more than 45% of males have moderate to severe periodontitis compared to approximately 31% of females. After adjusting for age, 70.4% of Mexican-Americans have some form of periodontitis, as well as 59% of non-hispanic blacks.

The findings also indicated that attachment loss is a more relevant measure of periodontitis than pocket depth.

This link between periodontal disease and other inflammatory diseases moves the importance of oral health to the forefront of people's minds. "The public health implications from the results of NHANES study are huge," said Dr. Genco.

"This study will likely lead to more robust evaluation of the relationships among periodontal disease and other chronic diseases such as diabetes and heart disease."

The 2009-2010 NHANES periodontal disease data support the need for comprehensive periodontal evaluations performed annually by a member of the dental team, including a dentist, dental hygienist, or periodontist. According to Dr. McClain, this includes examining every tooth and measuring both attachment loss and probing depth to get the most accurate assessment of periodontal disease. "Many of our patients have periodontal disease and do not know it," she explained. "As dental professionals, it is more important than ever that we provide patients with a comprehensive periodontal evaluation annually to determine their disease status."

Periodontists can take this information to their patients and communities. "There is a lot to be done yet. Periodontal disease is under-diagnosed. Knowing the prevalence is very high gives us all a reason to be more proactive in making sure those who have the disease are diagnosed and treated," said Dr. McClain.

The Academy has resources available to help educate patients. See the sidebar for more information on what the resources are and where to find them on Perio.org.

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What is a comprehensive periodontal evaluation?

The American Academy of Periodontology recommends that every patient receive a comprehensive periodontal evaluation, or CPE, on an annual basis. The CPE gauges periodontal health, diagnoses existing disease, assesses risk for disease, and determines any treatment, if needed. The CPE can be performed annually by a member of the dental team, including a general dentist, dental hygienist, or periodontist. For more information about the comprehensive periodontal evaluation, visit Perio.org>Patient Resources.
Putting it in context…
A Q&A with Dr. Robert Genco

Dr. Robert Genco is co-author of “Prevalence of Periodontitis in Adults in the United States: 2009 and 2010,” which was recently published online in the Journal of Dental Research. He is also editor emeritus of the Journal of Periodontology, chair of the CDC/AAP Workgroup, and is this year’s recipient of the AAP’s Distinguished Scientist award (see page 25).

Why is this information important for periodontists?
These data give us national prevalence figures for periodontal disease. Practicing periodontists interact with the community and they can educate the public on risk factors and other inflammatory diseases that periodontal disease is linked to such as diabetes and heart disease. As we get more information from the surveys, they can target those communities at high risk.

Why did the Academy collaborate with the CDC?
The CDC approached the Academy in 2003 to help determine the prevalence of periodontal disease across the U.S. population. The Academy provided input on how to conduct a comprehensive periodontal evaluation and how to identify periodontal disease. This was a collaborative effort, with many contributors from dentistry, public health, epidemiology, and periodontology.

What were the challenges?
We needed to do a lot of work before getting a comprehensive periodontal evaluation and self-report questions into such a comprehensive and significant study such as the NHANES. The experts involved wanted to make sure that the study would scale up to the general population, so we could achieve an accurate measure of periodontal disease in the U.S. adult population.

How surprised were you with the results?
Very surprised! We expected a modest increase, maybe 20%. The results were twice what we expected. This confirmed what periodontists already know – there is much more periodontal disease out there. The findings also provide us with a significant amount of valid data, which will allow us to do a set of secondary analyses about the relationship between periodontal disease and diabetes, heart disease, smoking, and other risk factors.

What is ahead for the Academy’s relationship with the CDC?
The CDC has invited the Academy to continue as a collaborator through at least 2014, when we will have six years of data to analyze. After those
findings are reviewed, we will also be able to see any trends over this period of time. It has been a privilege for the Academy to be involved in such a project. It has taken a lot of work by a lot of experts in epidemiology, public health, dentistry, and periodontics to put together such a comprehensive assessment of the prevalence of disease. This is at the core of what we do as periodontists, and we have a lot of work ahead.

What does this mean for the future of periodontology?
Right now periodontal disease is under-diagnosed. Knowing the prevalence is high gives us all a reason to be more proactive in making sure those who have the disease are diagnosed and treated. We know periodontal disease can be preventable and treatable. If you resolve the infection you can get many years of life out of the teeth.

How could a periodontist apply this news to their practice?
Academy members have a responsibility to educate patients about periodontal disease, but we also share a responsibility to let other members of the dental team know as well. We all work together for timely diagnoses and treatment. This is an opportunity to open up a dialogue with our colleagues in dentistry and medicine. The prevalence is higher than we thought; we must work together for the good of the patient.

By the numbers...
47.2% of American adults have some form of periodontal disease. In adults 65 and older, estimates increase to 70.1%.
Periodontal disease is higher in men (56.4%) than women (38.4%)
Highest prevalence in:
- Mexican-Americans (66.7%)
- Smokers (64.2%)
- Individuals living below federal poverty level (65.4%)
- Individuals with an education level below a high school degree (66.9%)

Resources for you
Here are some supporting resources to help you start a conversation about the CDC findings with both your patients as well as general dentists in your area. Visit AAP Connect, the Academy's online community, to access these member-only resources. Login to access the resource libraries.

- A customizable PowerPoint presentation that you can use to educate your referring colleagues about the AAP's collaboration with CDC and what these findings mean for patient care.

- A customizable template letter to send to referring colleagues informing them of the new prevalence data accompanied by a reprint or link to the Academy's Comprehensive Periodontal Therapy Statement to help them better understand what the comprehensive periodontal evaluation entails.

- Talking points to help communicate the key aspects of the prevalence data and why it is crucial that all patients receive a comprehensive periodontal examination on an annual basis.

- A customizable press release that you can personalize and send to local media outlets to help boost your reputation as the "go-to" resource for reliable periodontal information in your community.

- Helpful Questions and Answers for you to use with your patients and referring colleagues.

- An infographic that helps depict the prevalence data and what segments of the population are at risk.

- Pre-written social media posts that you can use to promote the findings via your practice's Facebook and Twitter pages.