

## **Dental Practice Advocacy**

### **Survey Results: AGD Members' Use of Artificial Intelligence (AI)/Augmented Intelligence (AuI) in the Dental Practice**

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A 2023 AGD survey provided valuable baseline data regarding AGD members' use of Artificial Intelligence (AI)/Augmented Intelligence (AuI) in their dental practices. Highlights of the survey's results are shown in the tables below.

“AGD’s Dental Practice Council (DPC) asked that the survey be done so we could establish a baseline regarding members’ adoption of and opinions regarding AI/AuI,” said Darren S. Greenwell, DMD, MAGD, chair of DPC. “The Council has maintained a Subcommittee on AI/AuI for several years and, while we’ve done a great job of monitoring and tracking AI/AuI’s impacts on the profession, it was time to assess how widely-adopted the technology was among our own members.”

#### **AGD Position Statement on AI/AuI**

In 2023, AGD’s House of Delegates adopted a statement on “Artificial Intelligence in Dentistry” that had been developed by the DPC Subcommittee. “The DPC recognizes that the use of AI/AuI is trending upwards and it was important to us to have a statement that established guardrails for this technology that has the potential to shift how we provide care for our patients and how outside entities assess whether that care was appropriate,” said Callan D. White, DDS, FAGD, chair of the DPC Subcommittee on AI/AuI. “The most crucial element of AGD’s policy is the position that AI should never supersede or replace the dental practitioner in clinical decisions or in any way erode the patient/practitioner relationship.”

#### **Survey Highlights**

Survey respondents’ primary reasons for incorporating AI/AuI into the practice involved increased accuracy of diagnosis ; enhanced patient education; higher case acceptance of treatment plans; and greater efficiency for both the dentist and the staff. Only a few commented that they were using the information from this technology to support submissions to third-party payers.

Less than 15% of AGD members participating in the survey reported using Ai/AuI in their practices (Table 1). The most frequently reported uses for the technology were (Table 2): diagnosis (69.70%); treatment planning (53.03%); and decision-making (43.94%). AI/AuI platforms used most-frequently in the practice were (Table 3): Pearl (28.79%); Overjet (21.21%); and VideaHealth (10.60%). Nearly 40% of respondents cited other technologies, including their in-office practice management software systems, as the AI/AuI platform in use.

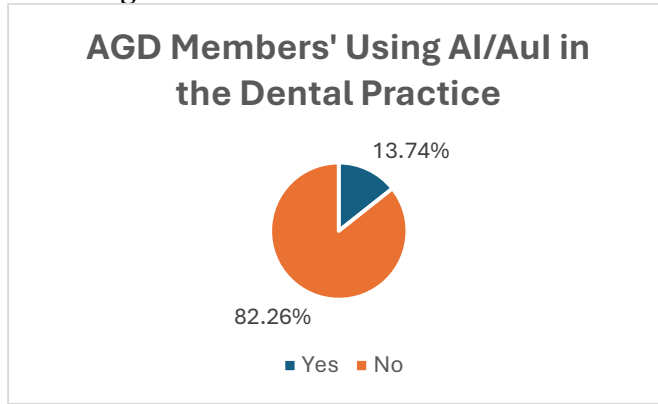
Key benefits of using AI/AuI in the practice (Table 4) included: enabling staff to be more effective (59.09%); achieving an increase in patients’ acceptance of treatment plans (56.06%); increasing finances/production (33.33%); and influencing patients’ behaviors (24.24%). A significant majority of AGD members (84.85%) currently using AI/AuI plan to continue or expand their use of the technology (Table 5).

Primary concerns with the use of AI/AuI among both users and non-users included: loss of critical thinking among users who may use AI as a “crutch” or lean on it to make the diagnosis rather than relying on their own clinical training and expertise; costs associated with purchasing the technology and training staff to use it; false positives and negatives; the possibility of overtreating patients; concern about bias within the platform; fear that patient or provider may be hacked or accessed by unauthorized users; and fear that patients may view it as an opportunity to promote additional/unnecessary treatment.

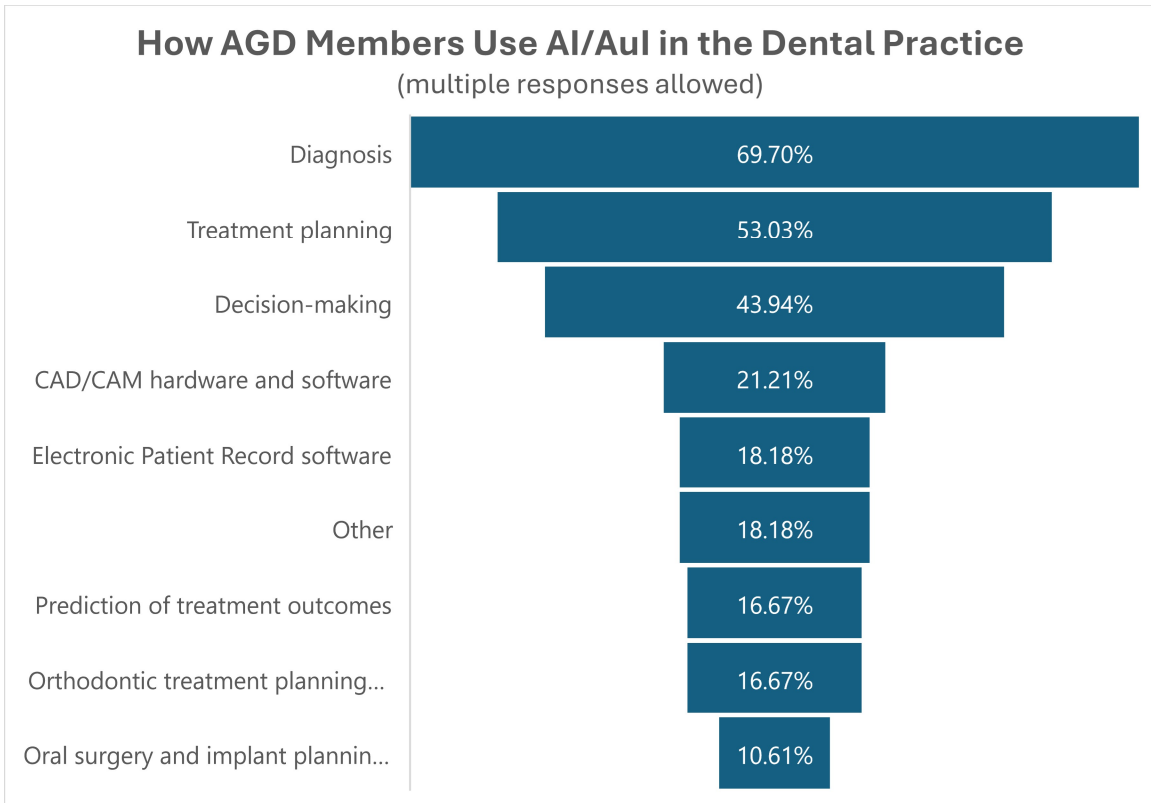
### **AGD Involvement in AI/AuI**

Dr. White presented lectures on AI/AuI during the 2022 and 2023 AGD Advocacy Conferences and represents AGD on the American Dental Association’s (ADA) Standards agencies addresses the issue. Updates on this topic will be published as appropriate .

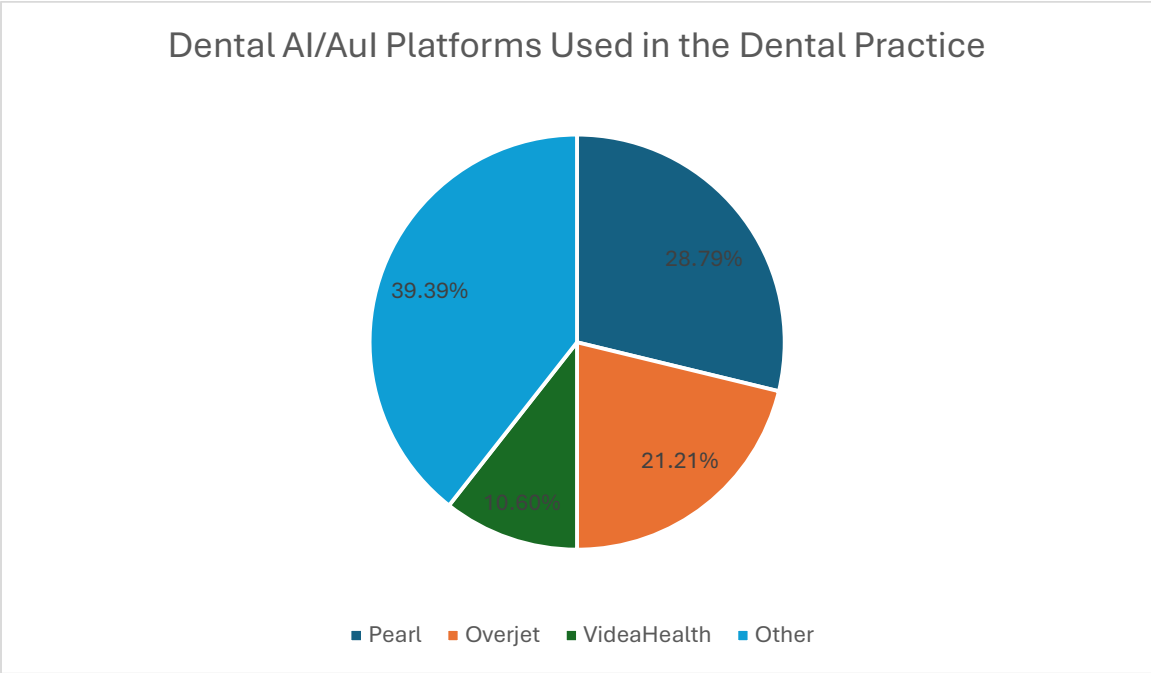
**Table 1: AGD Members' Using AI/AuI in the Dental Practice**



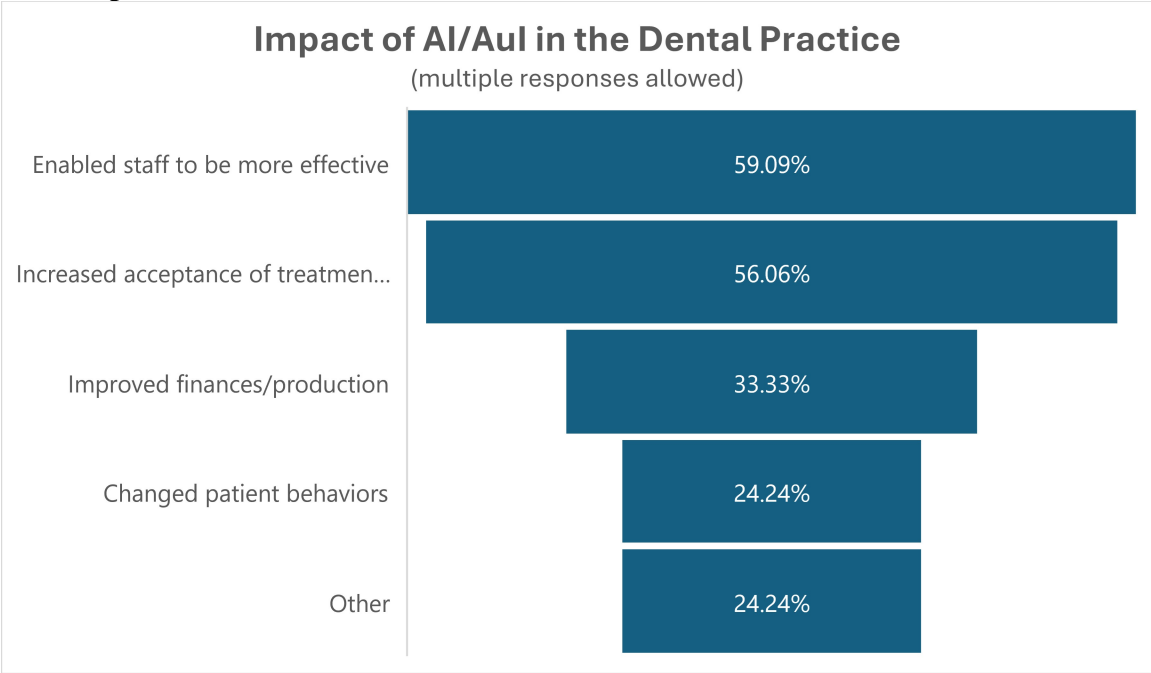
**Table 2: How AGD Members' Use AI/AuI in the Dental Practice**



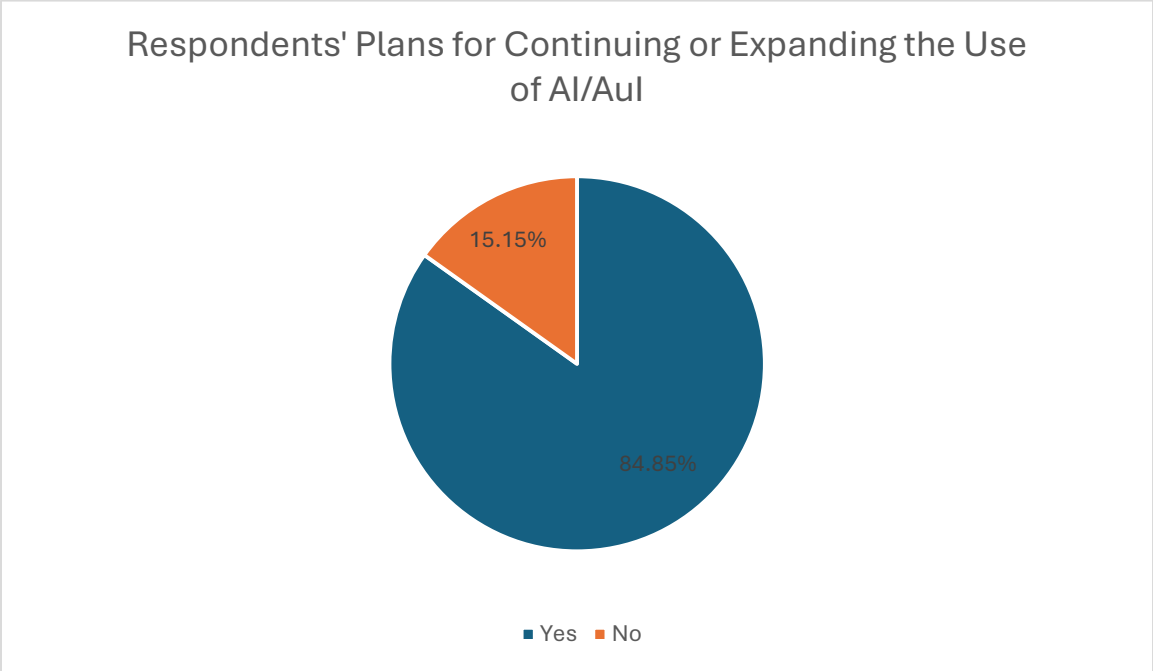
**Table 3: Dental AI/AuI Platforms Used in the Dental Practice**



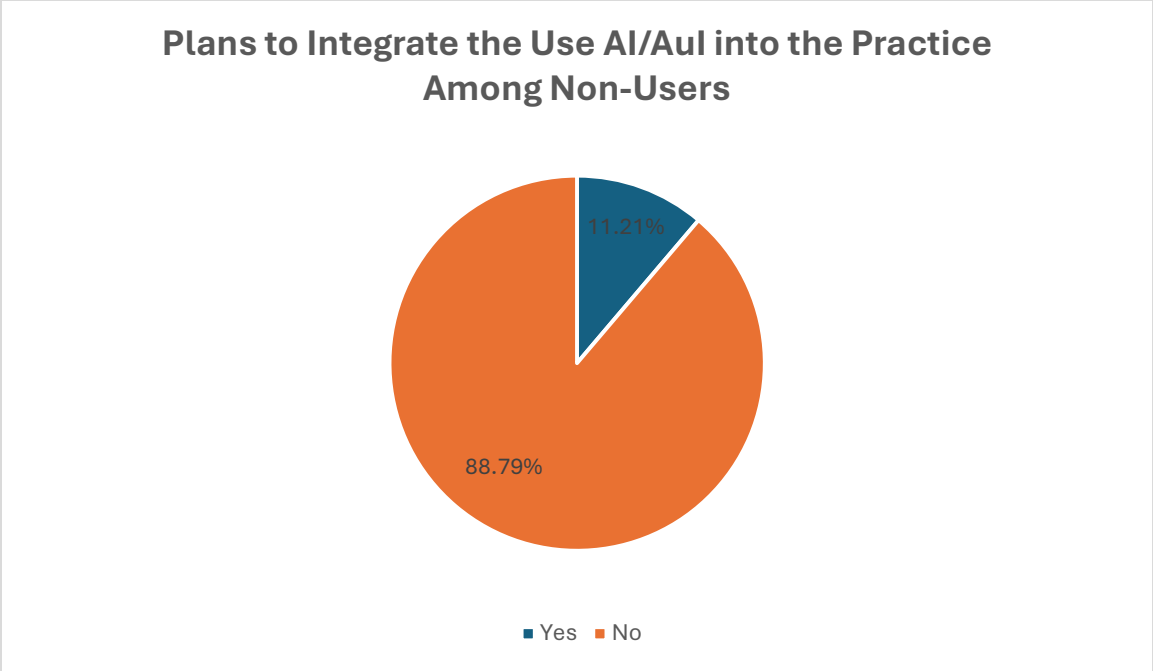
**Table 4: Impact of AI/AuI in the Dental Practice**



**Table 5: Respondents' Plans for Continuing or Expanding the Use of AI/AuI**



**Table 6: Plans to Integrate the Use of AI/AuI into the Practice Among Non-Users**



## **AGD Statement on “Artificial Intelligence in Dentistry”:**

### **Artificial Intelligence in Dentistry**

Artificial Intelligence (AI) is defined as intelligence demonstrated by machines rather than natural intelligence displayed by humans.

The AGD recognizes the role of AI as an adjunctive tool or application that can be used by the general dentist to aid in the success of patient centered oral health and administrative efficiency. The dentist-patient relationship is sacrosanct; AI should never supersede or replace the dental practitioner in clinical decisions or in any way erode the patient/practitioner relationship. Dentists are licensed by state agencies and determine the diagnosis, prevention, care and treatment of oral diseases and conditions.

Transparency in the development and utilization of AI systems is vital for the trust of practitioners and patients. Therefore, the AGD advocates for transparency in AI system tests and validation sets, for equal distribution of sensitivity and specificity outcomes, and to reduce bias and contamination of AI software development.

AGD holds that third party payers who utilize AI should not unduly track and/or attempt to influence recommended treatment and ensure equal reimbursement for providers without regard to the use of AI within the practice. Furthermore, AGD holds that third party payers should not use AI data as the basis for removing a provider from their provider network. Therefore, dental AI data transparency should be available to providers detailing what data are collected from the practice, how long the data are retained, and what manner the data are being used, especially regarding the determination of reimbursement schedules and developing business plans.

The AGD understands the complexity and dynamism of AI systems and therefore acknowledges the need for review of AI policy statements to reflect current knowledge of AI as applied in dentistry.

Resolved, that this policy will sunset at the close of the 2028 House of Delegates.”