Diagnostic Codes in Health Center/Safety-Net Oral Health Programs: Lessons Learned from Early Adopters

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1. Introduction

In medicine, diagnostic codes are alphanumeric codes used to group and identify diseases, disorders, symptoms, and medical signs. The codes can be entirely alphabetical, and therefore much more user-friendly, but the number of diagnoses that the system can hold is limited. Completely numeric code systems offer limitless volumetric capacity.

Standard clinical terminologies and classifications represent common dental and medical language, allowing data to be effectively utilized and shared between systems. The most currently used diagnostic codes classification system is ICD-9/10 (International Classification of Diseases), normally used for external reporting requirements or other uses where data aggregation is beneficial. ICD-10 is scheduled for implementation on October 1, 2013 but may be delayed to October 1, 2014. An emerging reference terminology is the Systematized Nomenclature of Dentistry (SNODENT), a much larger system of coding conditions and the clinical information captured during the course of patient care. Still, other classification systems exist.

In August 2011, NNOHA released a synopsis of an initial expert panel discussion on the use of diagnostic codes in the Health Center/safety-net setting, including recommendations for next steps to further study implementation and promising practices, and identify technical assistance needs. Based on these recommendations, NNOHA, in partnership with the National Association of Community Health Centers (NACHC) and the DentaQuest Institute conducted an environmental scan to assess the knowledge base and current scope of usage of diagnostic codes in June 2012. This report highlights findings of the scan.

Moving forward, NNOHA, NACHC and the DentaQuest Institute recognize the growing need to understand that the implementation of new dental terminology and diagnostic codes will become a high priority for many Health Centers in the future, and the importance of providing support for Health Centers in these efforts.

2. Study Methods

Diagnostic Coding Assessment Online Survey

The diagnostic coding assessment survey was conducted online over a four-week period. The objectives of the survey were to understand the current scope of usage of diagnostic codes in safety-net settings. The survey targeted Health Center and safety-net oral health program leaders (mainly Dental Directors, but also CIOs, CEOs, CFOs, and administrators) identified by NNOHA, NACHC and the New York State Oral Health Coalition. Responses were received from 157 out of approximately 1,400 individuals across the nation. The online survey results were used to identify Health Centers/safety-net programs that were early adopters of diagnostic codes compared to the majority of respondents. These early adopter organizations were then invited to participate in NNOHA’s focus group sessions.
Focus Group Sessions

Two focus group sessions were conducted with a total of nine early adopter Health Centers and programs. Each focus group session was conducted during a one-hour conference call. The NNOHA moderator led the group and presented nine questions for the group to address (refer to the Appendix for the list of questions). Each participant responded to the questions based on their knowledge and experience in their dental program and use of diagnostic codes and provided insight into how their dental program currently uses diagnostic codes. NNOHA staff documented the highlights of each focus group discussion and recorded each session.

Based on these results, this report presents an environmental scan of how diagnostic code are being used in Health Centers and safety-net programs, characteristics of the early adopter organizations, challenges to implementation, and promising practices for organizations just starting or considering diagnostic codes utilization.

3. How Dental Programs Currently Use Diagnostic Codes

Electronic Dental Records (EDRs) in current use among participants included Open Dental and eClinicalWorks, Dentrix, QSI-NextGen, and EasyDent. Focus groups results highlighted that the use of diagnostic codes has the potential to assist dental practitioners. Key uses of diagnostic codes highlighted by the focus groups include:

1. Billing, Grant Preparation and Management: Participants revealed that a primary use of diagnostic codes was for billing, preparing grants or generating reports for the Health Center. Programs use the population level prevalence of certain diagnostic codes, such as dental caries or periodontal disease, for needs assessments and other reports.

2. Recording, Maintaining and Sharing Clinical Outcomes: As the EDR/EHR database of a Health Center builds over time, clinical, financial and administrative staff can begin to use the information accumulating in the computerized records to analyze the effectiveness of care. Providers utilize interoperable health IT systems to identify and alert medical providers about special populations that need a dental referral. By using diagnostic codes and templates designed by the Health Center itself, a dental provider can have the capacity to compare the outcomes of patients with a common diagnosis, to determine the level of severity of the condition and/or review, document and share the types of services that provide better outcomes.

3. Demonstrating Improvement of Oral Health Services and Outcomes: Aggregated Health Center-wide data can be consistently reported to demonstrate the beneficial effects of dental prevention and care, as well as to validate the investment in training dental health care providers on the use of diagnostic codes. Using diagnostic codes in an EDR system can improve the ability to measure health care services and patient outcomes.

4. Communicating with Patients and Providers: Diagnostic codes in an EDR or EHR system offer a standardized, computer and human readable list of all of the identified conditions or diagnoses made during a patient encounter. Communications can be greatly improved and increase both patient and provider satisfaction.

5. Identifying and Tracking Best Practices: Dental providers utilized EDR/EHR systems and diagnostic code data to assess the extent and severity of dental conditions, develop consensus on the best practices to treat the conditions, and track success.

6. Aligning Patient Dental Care to Best Practices: Clinical decision support tools can be used to support clinical decision analysis. For example, dentists could access their aggregated computerized records to compare their pattern of care to clinical guidelines and best practices to identify the gaps between their current pattern of care and the recommended pattern, and monitor the changes in their practices.

7. Identifying and Tracking High-need Groups: Diagnostic code data can be useful in identifying which populations have the greater burden of illness. Such analysis would allow the providers and public health authorities to increase efforts to deal with the underlying causes of the excess morbidity, provide more focused care, and track improvements in a timely manner.

8. Reporting on Oral Health at the Local, State and National Levels: Use of diagnostic coding enhances the ability to conduct public health surveillance. Health Center system-wide data could allow for an electronic disease surveillance system across communities. Such information provides the basis to plan preventive and treatment programs, and could be used to estimate the number of and the training required for dental care providers.
4. Necessary Ingredients for Early Adopters of Diagnostic Codes

**Key Participants and Champions**
A necessary ingredient for early adopters of diagnostic codes is identifying Health Center leadership that understands the value and sense of urgency to move forward. Several participants stated that while dental diagnostic codes are not widely used in Health Centers today, their Health Center leadership understands that diagnostic codes have the potential to help dental practitioners.

Dental directors and program managers stated that they work closely with key Health Center staff, i.e., finance, billing and administration managers, grant managers and other key stakeholders in the organization, and clearly communicate the need for an integrated EDR/EHR system and identify the organizational change agents that can drive adoption of diagnostic codes. Focus group results revealed the office manager was a key team member and that successful projects are supported and reinforced by the CEO, CFO and COO. The IT director was also identified as a major contributor and an IT-EDR/EHR specialist team member should support the effort at the initial start of the project. Lastly, some participants stated that the EDR vendors have supported the Health Center’s leadership and end-users during the transition to diagnostic coding.

**Promoting a Common Vision, Training**

Another major ingredient for early adopters of diagnostic codes is providing training and educational material to the Health Center clinical, financial and administrative staff. Early adopters stressed continuous training of dental staff to implement and keep diagnostic coding on the clinical dental team’s radar. Health Centers should assess the readiness of the staff with ongoing training and education modules most relevant to functional roles.

5. Challenges

**General Challenges**

The focus groups stated there were several challenges in implementing diagnostic codes. At the top of the list was the need to break down the silos of clinical care, engage leadership of the Health Center, and improve the integration of oral health records into EHRs.

In order to implement diagnostic codes in the dental program, another challenge was the varying levels of education and training required by staff across the Health Center. A sufficient level of understanding is critical for project planning across the organization and for the management of cross-functional departments, payers, vendors, and other interdependencies.

The future transition of a dental program to ICD-10 and/or SNODENT will require additional significant planning effort with appropriate resourcing of people, processes and technology. This change will impact every paper-based system and software application, information system, and functional department that currently uses or generates ICD-9 codes.

**Additional Support Needed**

Additional support will be required as Health Centers move forward with implementing diagnostic codes. There are barriers to adoption that the focus groups shared and need to be addressed:

- Leadership’s lack of understanding of the value of using diagnostic codes and developing IT integration
- Management’s reluctance to invest in training, IT system enhancements, and improved coordination of patient care
- Lack of knowledge of the resources to support implementation of diagnostic codes in oral health
- Lack of training and educational material for Health Center clinical staff (medical and dental) or guidelines for care
• Lack of clear incentives to integrate/coordinate oral health into other Health Center services

• Need for additional training materials on the basics of other coding systems, such as SNODENT

• Planning and training on the transition to ICD-10 in 2013/2014 when clinical documentation and accurate coding will be more critical than ever

The focus group participants understood that there are other coding systems being used today and that the multiplicity of systems must also be addressed. Without a consensus and decision on which classification will be the national standard, it is difficult to completely commit resources to implementation.

6. Suggestions for Health Centers Starting with Diagnostic Codes

Health Centers just starting with diagnostic coding should seek external and internal support resources. Focus group participants underscored that the benefits for moving forward far outweigh the costs, however there is an initial investment in training personnel that is required and lost production impact. Dental providers, dental support staff, billing, finance, and grant-writing personnel must all receive in-depth training.

Understanding the clinical, financial and administrative areas most impacted by the transition to diagnostic codes can help Health Centers make better decisions relating to training and educational opportunities and process improvements. Health Center leadership must first understand how diagnostic codes will be used in the organization (e.g., quality improvement, needs assessment, etc.), and then design the system to gather the data. They must spend time planning and coordinating with key stakeholders in the Health Center, obtain commitment from each department, and ensure that there is a multi-year budget, talent, and strategy in place.

Key steps to consider moving forward include:

• Identifying key champions and assigning stakeholder responsibilities

• Identifying stakeholders and team members, and assessing impact to the Health Center

• Formulating strategies and identifying goals for each department (clinical, financial and administrative)

• Analyzing documentation needs (EDR/EHR, dictation, etc.)

• Creating timelines with target dates for completing the implementation, training and go-live plans

• Providing the expertise and clinical knowledge the team needs to make complex code translation decisions

• Developing education/training material and plans for employees at all levels in the Health Center

• Developing an EDR/EHR systems plan that includes testing and "go live" dates and deploy system changes

• Planning for on-going training of key stakeholders and personnel, and ensuring maintenance of documentation changes

• Evaluating the need to convert historical ICD-9 data once transition complete
7. Conclusions

The focus groups stated that Health Centers should use diagnostic codes as a tool, not as a destination. Implementing diagnostic codes will drive evidence-based dentistry and help patient centered medical – dental home initiatives. Health Centers should take the necessary steps now to be prepared for the transition and this requires initiating planning and training now. The focus groups underscored that Health Centers should not delay in obtaining information and resources that will allow them to start planning the implementation of diagnostic codes in the most useful manner.

Sharing lessons learned from early adopters and is one key strategy to driving widespread adoption of diagnostic codes. This brief is the initial step in disseminating information on diagnostic codes use in Health Center and safety-net programs, with the goal of improving the health care we provide.

Links to Resources

Focus group results revealed that more training sessions should be offered at future conferences on this topic. NNOHA and NACHC are collaborating on best practices and developing educational material that will assist Health Centers in the transition to using diagnostic codes.

Visit the following websites for more information on diagnostic codes and suggestions for Health Centers:

- **NNOHA Diagnostic Codes Resources**
  - American Health Information Management Association (AHIMA) ICD-10 Information: [http://www.ahima.org/icd10](http://www.ahima.org/icd10)
  - Centers for Disease Control and Prevention (CDC) ICD Update with GEM & Source Data for ICD-10: [http://www.cdc.gov/nchs/icd.htm](http://www.cdc.gov/nchs/icd.htm)
Appendix

Diagnostic Code Assessment Online Survey Questions

1. Are you familiar with the term diagnostic codes?
   Yes
   No

2. Do you use or plan to use diagnostic codes in your Health Center dental program?
   Yes
   No

3. If the answer to question 2 is “No” (you do not use or plan to use diagnostic codes), check all the following possible reasons why not.
   • Do not understand the value of using diagnostic codes
   • Do not have an electronic dental record system
   • Do not have the resources to train staff
   • Other (please specify)

4. What electronic dental record (EDR) system are you currently using?
   • Dentrix Enterprise
   • QSI Electronic Dental Record
   • Mediadent
   • Open Dental
   • Axium
   • PracticeWorks
   • SoftDent
   • EagleSoft
   • Mogo Dental
   • Easy Dental

5. Are the diagnostic codes a feature that is offered in the electronic dental record (EDR) system software your Health Center uses?
   Yes
   No

6. For which of the following purposes does the Health Center’s dental department use the information obtained from diagnostic codes?
   • Meaningful Use
   • Patient management
   • Billing
   • Quality management
   • Utilization
   • Patient Centered Health Home
   • Academia
   • Other (please specify/describe in detail)

7. What staff member codes the procedure?
   • Provider (DDS/RDH)
   • Dental Assistant
   • Office Staff
   • Other (please specify)
8. Are there any incentives associated with using diagnostic codes or the results of diagnostic code analysis in the dental program?
   Yes
   No

9. Please tell us any Best Practices you have developed in using diagnostic codes.
   Written Response

10. If you feel you could do more with diagnostic codes please describe.
    Written Response

11. Please share a contact name and e-mail so we may contact you with follow-up question regarding diagnostic codes and your dental program.
    - Name:
    - Health Center Name:
    - City/Town:
    - State:
    - Email Address:
    - Phone Number:

Focus Group Interview Discussion Questions

NNOHA staff documented the highlights of each focus group discussion and also recorded each session for future reference. The questions asked to each Health Center oral health/dental program participant are as follows:

Questions asked to each Health Center oral health/dental program participant prior to the session:
- How many medical/dental sites do you have at your Health Center?
- How many medical/dental users (UDS) do you have at your Health Center?
- What is your current position?
- How long have you been in this position at your program?
- What EDR & EMR do you utilize?
- How long have both systems been in service?
- What practice management system do you use?
- Do you use a service provider for coding, billing, or accounts receivable (AR) management?

Questions asked during the focus group sessions:
- How does your dental program use diagnostic codes?
- What are some of the reasons that you feel that you have been able to achieve as much as you have utilizing diagnostic codes?
- Who have been the champions and key participants in supporting your efforts at different levels of your organization?
- What types of training/education had to take place in order to implement your diagnostic codes activities?
- Give an example of something with diagnostic codes that you have not been able to implement or really had challenges with.
- What advice would you give a program that is just starting with diagnostic codes?
- What support do you wish was available for strengthening diagnostic codes activities?
- Looking towards the future in diagnostic codes, are you aware of the conversion to migrate to ICD-10 in 2014 and/or the implementation of SNODENT?
- As mentioned in the e-mail, we are going to distill the best practices from these interviews and make them available to NNOHA participants and others so they can learn from your successes and challenges. Do you have anything you wish to add?
References


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