# Data Flow for Oral Health Reporting

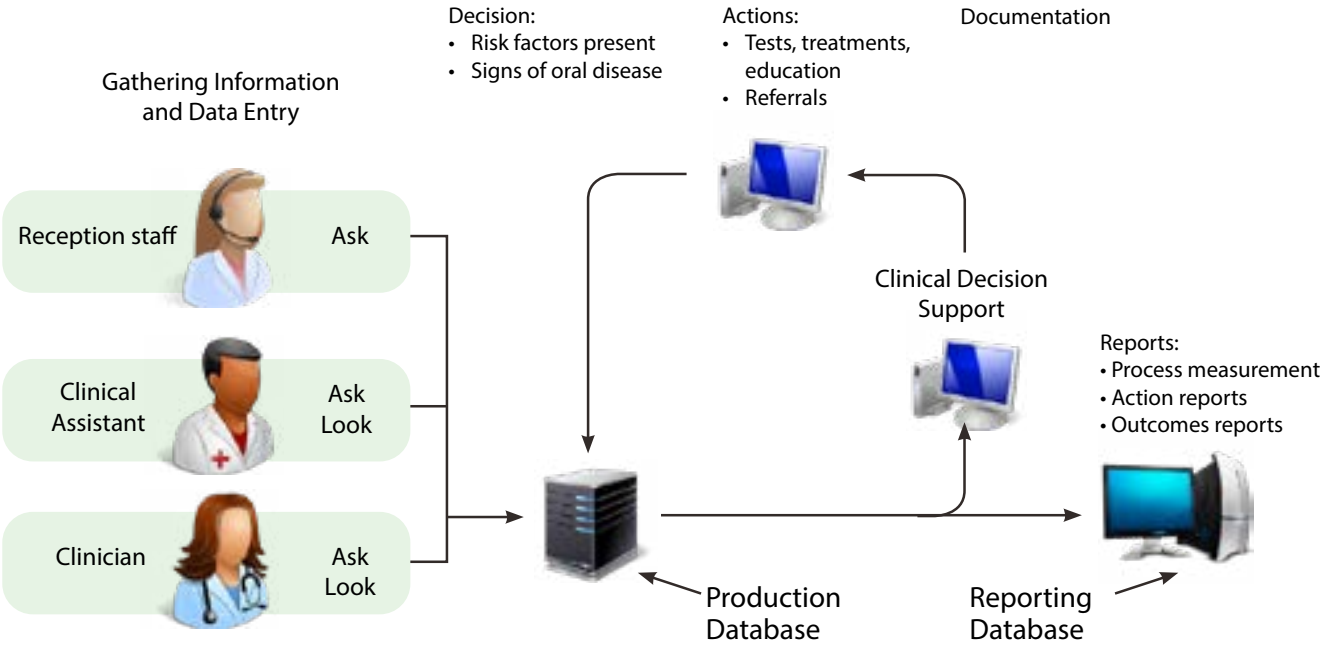
Most electronic health record (EHR) systems utilize two databases: a production database and a reporting database.

Production database: In most health information technology (HIT) systems, a primary care practice's EHR runs on the production database. This database may be on a server in the clinic, maintained regionally in a technology service organization, or managed remotely in a cloud-based computing system. This is a "live" database, which means it is constantly changing as new information is entered.

Reporting database: The reporting database receives uploads periodically from the production database but remains stable in between. Between uploads of data, it can be used to write reports without affecting the performance of the EHR.

Developing and running accurate reports for oral health integration quality improvement depends both upon information entered into the production database by the clinical team during the Ask/Look and Act steps of the Oral Health Delivery Framework (Framework) and upon the practice's ability to create reports from the reporting database.

## Some EHR systems do not have a separate reporting database available. You will need to work with your client and the EHR to understand their reporting functionality.




Source: Hummel J, Phillips KE, Holt B, Hayes C. Oral Health: An Essential Component of Primary Care. Seattle, WA: Qualis Health; June 2015.

## How data is entered into the HIT system at each step of the Framework

Reception Staff (Ask)

Gathering Information
and Data Entry




- Patient has dentist [Y/N]
- Dentist name and address in list of specialists

In this step, a member of the reception staff enters information about dental clinicians into the EHR. These two data elements are optional, depending on whether the primary care organization has in-house dentistry or whether they have to rely on relationships with community dentists. Although focus of this oral health integration work is on the primary care practice, for optimal integration of medicine and dentistry, knowing who the patient's dentist is and whether the relationship is active is essential.

The best place in the workflow to enter information about dentists and last dental appointment will depend on the needs of the clinic, but certainly while the patient is making an appointment or checking in for an appointment are options. Since this information will be used for referrals, it is important that it be entered in a place where it will be available from within the EHR when ordering or processing referrals. For clinics using a practice management system at reception to connect to a separate EHR through an interface, it will be necessary to find a point in the workflow where this information can be entered directly into the EHR. This is likely to be discussed during workflow optimization, and will necessitate the usual methods of developing or amending the workflow to be sure the information is entered in the correct field in the EHR, educating staff about the new process, and performing periodic check-ups to make sure the new process is followed. These steps are appropriate to add to the task list as it is developed during workflow optimization.

Many EHRs have a section that is used as a place to document the medical/surgical specialists that the patient is seeing, including contact information for the specialist. This could be a logical place to enter information about dentists as well. In settings with an in-house dental team and an EHR with an integrated dental module, there may be additional ways to document the dentist information.

Care Team (ASK/LOOK)




- Date of last dental visit (optional question included by some practices)
- Answers to screening questions
- Observational findings

Members of the care team enter ASK/LOOK information from the screening assessment into the EHR. The care team needs to ask and look to perform the full screening assessment upon which decisions are based using the Oral Health Delivery Framework.

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## Remember that every practice will determine, through their workflow optimization mapping, which questions they will ask and where in the visit they will be asked, so examples given may differ from practice to practice.

(See Oral Health Integration Workflow Optimization Mapping: A Coach's Guide)

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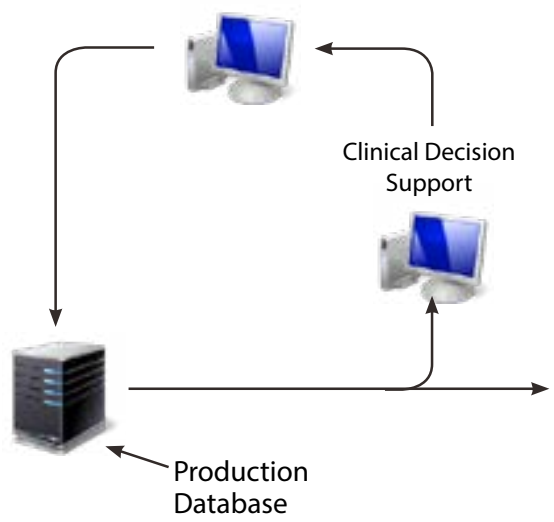
Clinical Decisions (DECIDE)

Much of the "DECIDE" portion of the Framework is not documented in the EHR separately from the ASK/LOOK documentation. The exception to this is if a clinician places a description of what was seen in the exam, e.g., tooth decay, on the problem list. Otherwise, the decision as to whether a risk factor is present or there are signs of oral disease is documented by noting the findings in the chart note template.

Clinician Orders (ACT)

Decision:
- Risk factors present
- Signs of oral disease

Actions:
- Tests, treatments, education
- Referrals




Actions should be documented within the EHR. However, the decision about how to document each action is up to each practice, and will depend upon whether they intend to use the information for quality improvement reporting. Generally, when an order is placed in the EHR, it indicates that an action (e.g., a referral) should happen. The order then needs to be closed to indicate that the action actually occurred. Data reports can show the number of orders that were closed, indicating the number of patients who received the intended action. Some orders may be set up to automatically close (auto close), meaning that the order is closed when the clinician signs and places it; the data definition for the report is the signed order.

- Medication change orders are of limited utility in measuring oral health processes because there is no way to know the reason for a medication change order without reading the chart note.
- Patient education orders are often not entered as a formal signed order; a practice simply does the education. If the practice does decide to set up patient education as an order, it is common for them to do this as an auto close order.
- Fluoride varnish orders may also be set up to auto close, as there is little additional value in having the clinical assistant close the order after applying the fluoride varnish, and if the clinical assistant forgets to close the order, the clinician can't close the chart. This differs from, for example, immunizations, in which the clinical assistant must document the lot number and there are risks associated with the injection.
- Referral to dentistry orders: With referrals, the situation is more complex, because ordering the referral cannot be regarded as synonymous with seeing the specialist. Ideally, a consultation report from the specialist, in this case the dentist, will be attached to the referral order after the patient is seen, and the completed order will then be routed to the ordering clinician for review. This completes the order. The standard of care for medical-surgical referrals is that all referrals should be tracked to ensure patients receive the consultation. If they do not, they can either be given additional scheduling help, or the order can be cancelled if it is no longer necessary. There is currently considerable variation in how this process is structured across different clinical settings.

Reporting Database

Data uploaded to the reporting database are stored in tables that the reporting software uses for running queries and producing reports.

Reports:
• Process measurement
• Action reports
• Outcomes reports



For information to be available for reporting, three things must happen:

• The information has to be entered into the EHR in a field that accepts it as structured data.

• The data in the EHR field have to be uploaded to the corresponding table in the reporting database.

• The reporting software has to know where to look for the appropriate table.

## Generating reports

Most clinics have a member of the staff who is comfortable running quality and/or utilization reports. This person is often a billing manager, quality improvement director, practice manager, or sometimes a clinician who has taken on a role as a "super user."

If one of these people is not available to run reports on denominators and numerators needed for the oral health project, the coach will need to look for other ways to learn the reporting functionality and help train someone in the clinic to run the reports moving forward. A practice might work directly with the EHR vendor to learn some of the reporting functionality. Many vendors have free live or recorded webinars on various topics that practices can participate in. Alternatively, the coach might assist the practice to file a support ticket or call the support line to ask for assistance with running reports. Many EHR vendors offer manuals describing some functionality, including how to run reports on various federal incentive program metrics such as meaningful use and Physician Quality Reporting System (PQRS). These manuals might have some information about how to run reports on patient data.

## About the Oral Health Integration in Primary Care Project

Organized, Evidence-Based Care Supplement: Oral Health Integration joins the Safety Net Medical Home Initiative Implementation Guide Series.

The goal of the Oral Health Integration in Primary Care Project was to prepare primary care teams to address oral health and to improve referrals to dentistry through the development and testing of a framework and toolset. The project was administered by Qualis Health and built upon the learnings from 19 field-testing sites in Washington, Oregon, Kansas, Missouri, and Massachusetts, who received implementation support from their primary care association. Organized, Evidence-Based Care Supplement: Oral Health Integration built upon the Oral Health Delivery Framework published in Oral Health: An Essential Component of Primary Care, and was informed by the field-testing sites' work, experiences, and feedback. Field-testing sites in Kansas, Massachusetts, and Oregon also received technical assistance from their state's primary care association.

The Oral Health Integration in Primary Care Project was sponsored by the National Interprofessional Initiative on Oral Health, a consortium of funders and health professionals who share a vision that dental disease can be eradicated, and funded by the DentaQuest Foundation, the REACH Healthcare Foundation, and the Washington Dental Service Foundation.

For more information about the project sponsors and funders, refer to:

National Interprofessional Initiative on Oral Health: niioh.org.

DentaQuest Foundation (now CareQuest Institute for Oral Health): carequest.org.

REACH Healthcare Foundation: reachhealth.org.

Washington Dental Service Foundation (now Arcora Foundation): arcorafoundation.org.

The guide has been added to a series published by the Safety Net Medical Home Initiative, which was sponsored by The Commonwealth Fund, supported by local and regional foundations, and administered by Qualis Health in partnership with the MacColl Center for Health Care Innovation.