

Using Health IT to Support Oral Health Integration:

Dealing with Common Barriers

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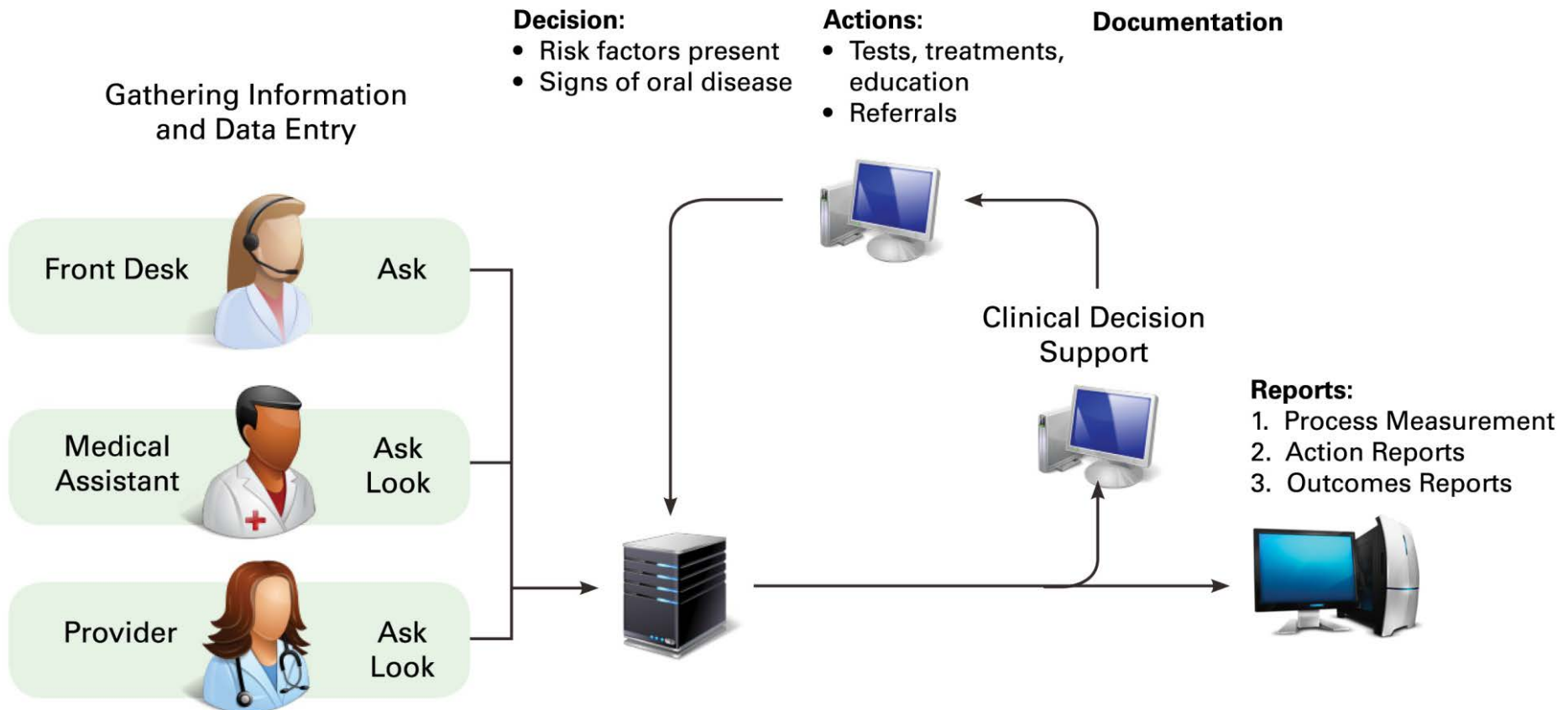
Advancing Healthcare
Improving Health

Goals for this Session

- Understand 3 aspects of oral health information management in which Health IT supports quality improvement methodology:
 1. Defining target populations, and measuring the care they receive
 2. Entering data at the User Interface
 3. Clinical Decision Support throughout the workflow
- Review the barriers to using health IT for these issues, and options for dealing with these barriers



The Flow of Information



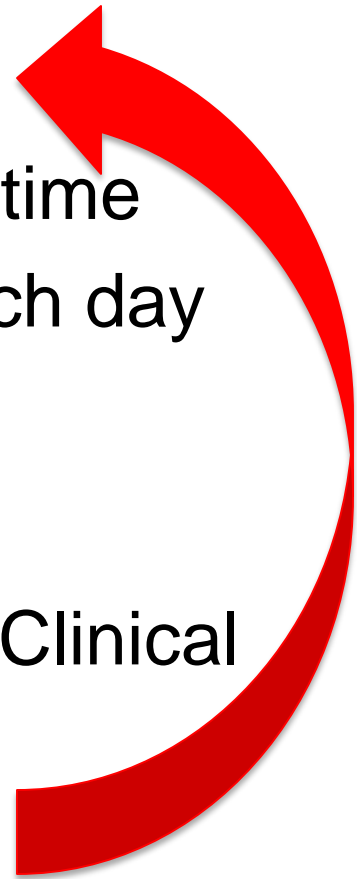
Major Oral Health IT Components

- Population Health: Making the target population visible
 - Who's in the target population – in real time
 - Among patients on the schedule for each day
- Cycle of Information in Office Visit
 - Data entry
 - Data organization and presentation for Clinical Decision Support (CDS)



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 - Data organization and presentation for Clinical Decision Support (CDS)
 - Reporting for population management



*1. Making the target
population visible*

What are we trying to accomplish?

1. Start by defining the target population
 - Demographic attributes: Age, gender, ethnicity, language, socio-economic status
2. Clinical conditions:
 - Problem list entry,
 - Medication requiring special monitoring,
 - Temporary condition e.g., pregnancy
3. Standard of care to which we will hold ourselves in managing this population

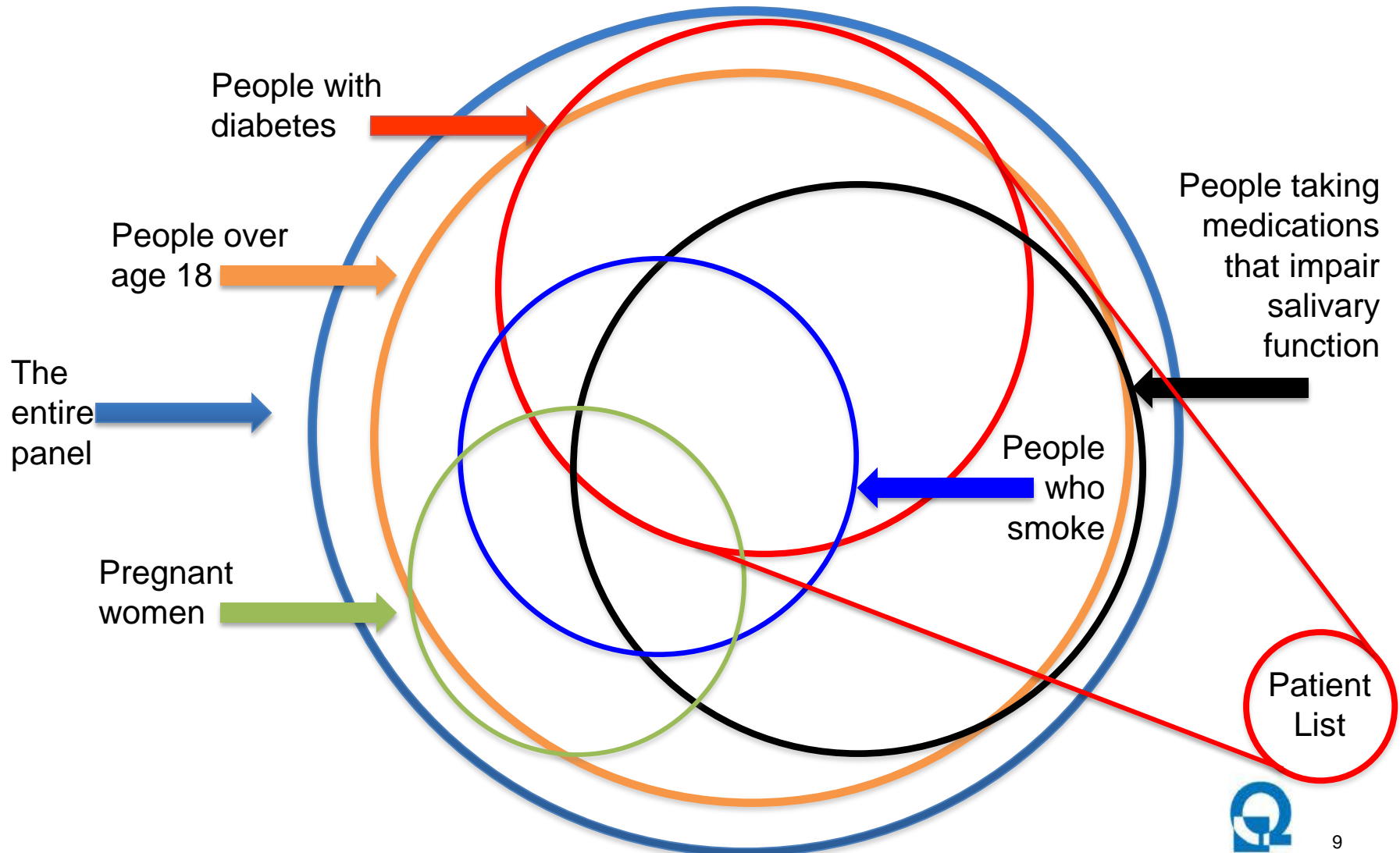


What does that mean in oral health?

- Practice identifies its target population
- Practice holds itself to an agreed upon standard of care for everyone in the target population
 - Everyone in the target population will have their oral health assessed yearly
 - Patients found to be at high risk will receive a risk factor intervention
 - Patients found to have caries or periodontal disease will be referred to a dentist for treatment



Target population must be visible



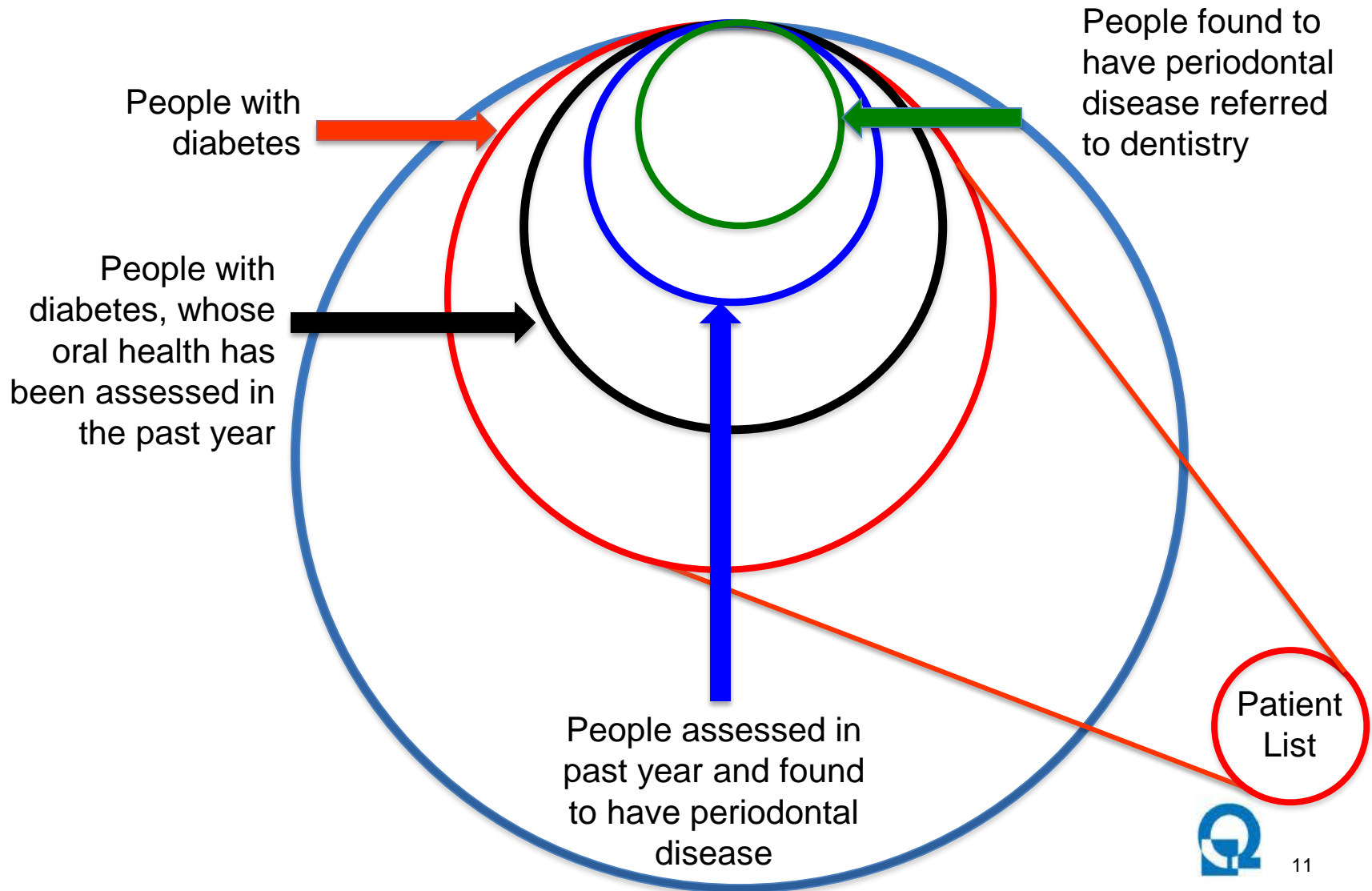
How will we know if a change is an improvement?

Health IT helps us see:

- Who is in the target population?
- Of those, who have we assessed in the past year?
- Of those assessed, what was found?
- Of those in which something was found, what was done?

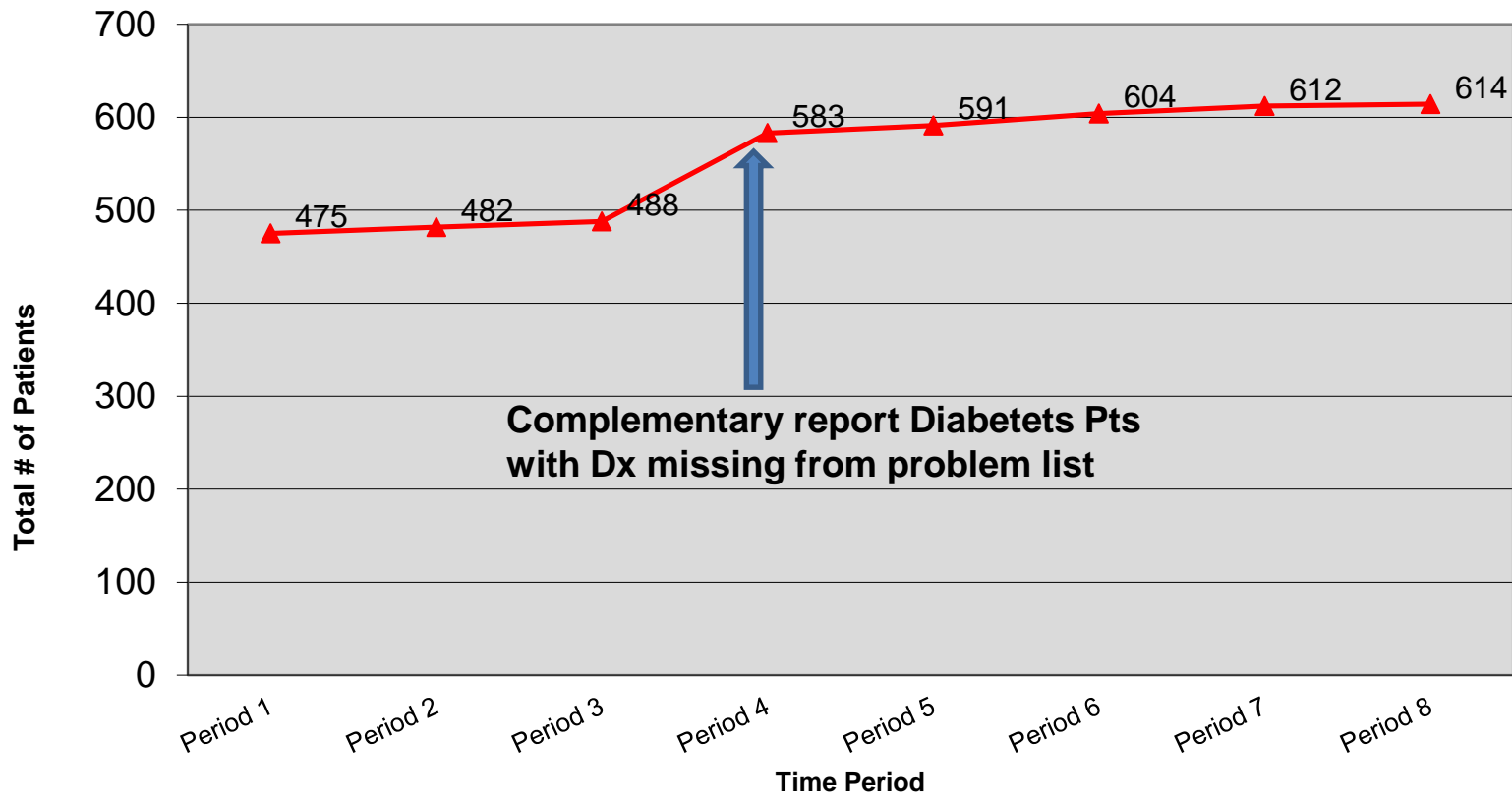


Target population must be visible

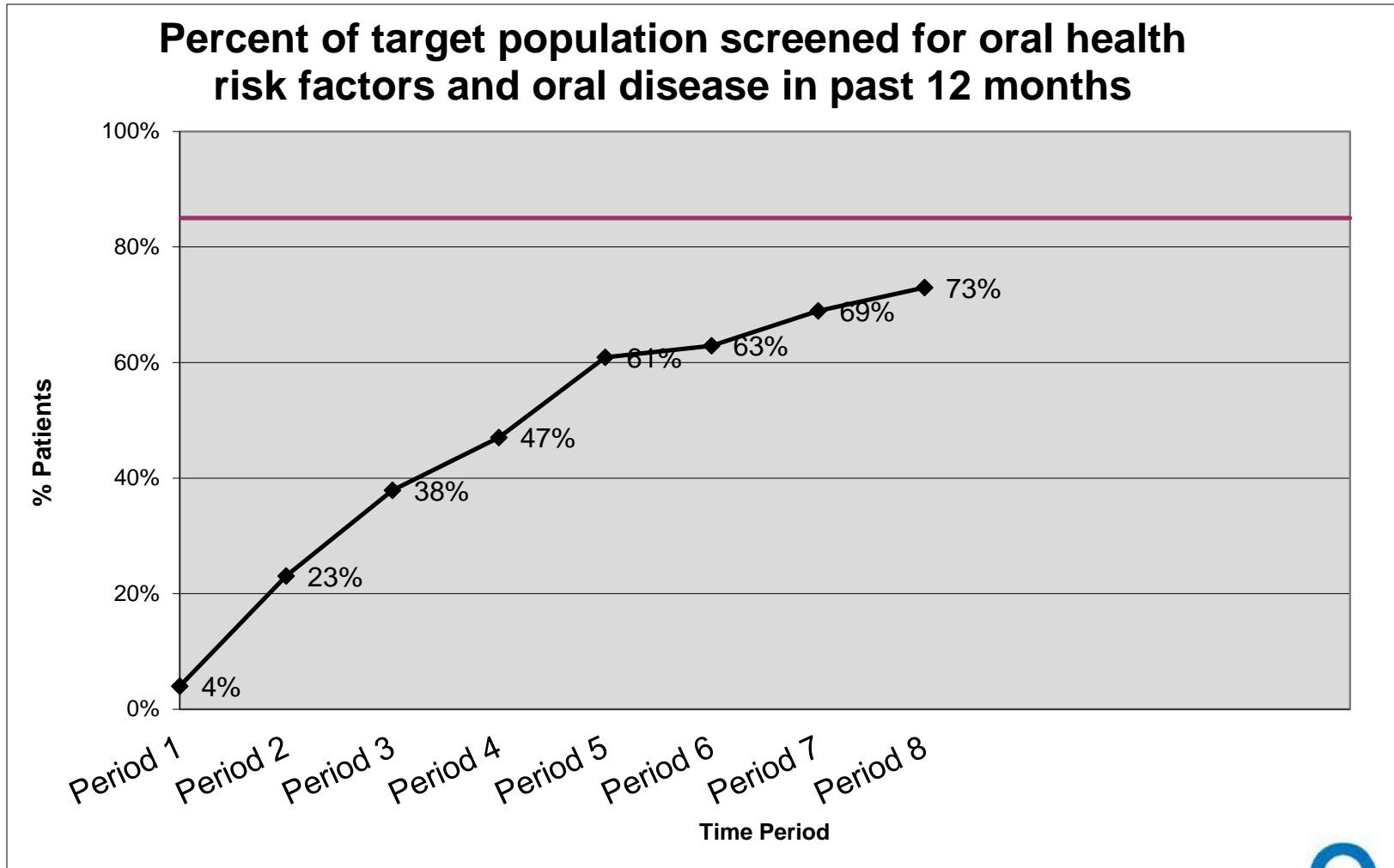


Here is our target population

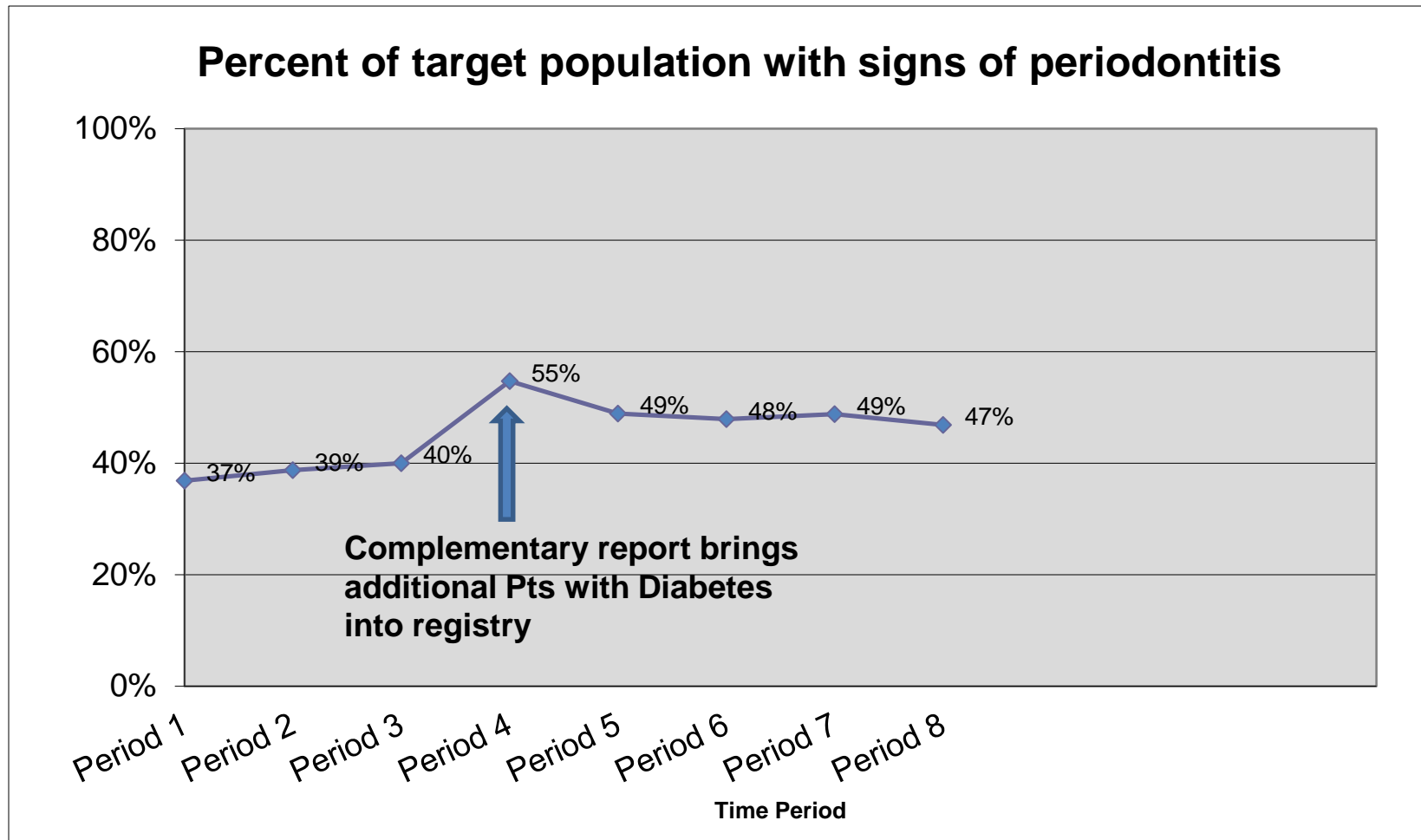
Number of patients in target population



This is who we assessed

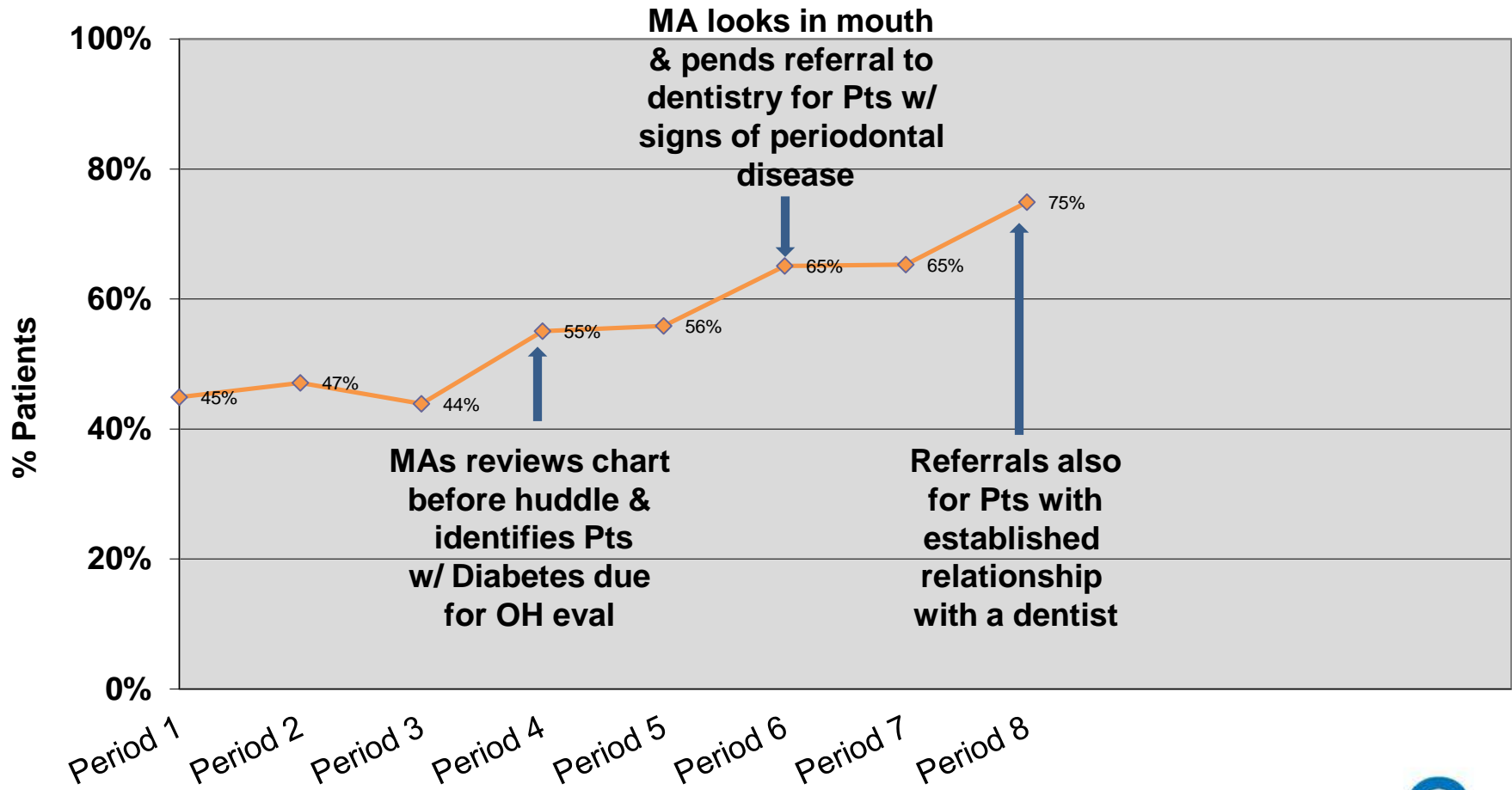


This is what we found



Here is what we did

% of Pts found to have periodontal disease and referred to dentistry



Barriers to doing run charts

- Knowing how to:
 - Generate accurate numerators and denominators
 - Easily turn numerators and denominators into actual run charts
- Finding time to do the work



Option 1: Stacked Queries

Ad hoc reports: Requires reporting database, query engine software (e.g., Crystal Reports) someone with skills to use it, Technical Assistance in developing a reporting strategy

- Write a simple query identifying all of the patients in the target population and put resulting list in a table
- Use that table to query against the database to give date of most recent Oral Health Screening Eval. Sort by date
- For Pts with Oral Health Screening Eval in past year run report showing number desired finding, e.g. signs of periodontal disease.
- For Pts with Periodontal disease run report showing those referred to dentistry



Option 2: Registry Functionality

Registry functionality: Patient list inside EHR, designed for clinical management, limited analytics, but adequate for numerators and denominators

- Patient List for target population
- Date and value of last evaluation
- Significant elevation of risk for caries
- Presence of caries
- Presence of periodontal disease
- Fluoride order for risk of caries, and for caries
- Referral to dentistry for caries and for periodontal disease



Enter numbers in “Run Chart Tool”

	Reporting Period 1		Reporting Period 2		Reporting Period 3		Reporting Period 4	
	Den	Num	Den	Num	Den	Num	Den	Num
Pts with Diabetes	475	---	482	---	488	---	583	---
Diabetes Pts with OH Assessment done in past year	475	19	482	111	488	185	583	274
Diabetes Pts assessed in past year found to have periodontal disease	19	7	111	43	185	74	274	150



Finding Time to Do the Work

- Make 1 person responsible and allocate time on their schedule to do the work
- Write out step-by-step instructions so variation eliminated
- Run the reports monthly to minimize relearning curve



2. Entering information at the user interface

Entering OH info as structured data

- Most, if not all, EHRs are capable of creating new fields to accept new information
- Changes take place where EHR is hosted
- The barriers are:
 - Cost of changes to the User Interface
 - Configuring new fields to accept the right structured data
 - Mapping tables in production EHR to reporting database
 - Prioritizing the work
- Every EHR is different - there is no “off the shelf” App. However....



Most Have Custom Data Entry Tools

- Example: Epic uses SmartText with SmartLists embedded in data entry fields
- Answers to questions are stored in a table of the production EHR
- The table is mapped to a corresponding table in the reporting database or shadow server
- Query engine software used in the reporting database



Workflow

- Weight: 58.06 kg (128 lbs)
- Height: 157.48 cm (62 in)
- Pulse: 72 bpm
- Blood Pressure: 132/74 mmHg
- Tobacco Use: Never, No sec
- Body Mass Index: 23.4 kg/m²
- Oral Exam

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Favorites Vitals

- Patient Health Questionnaire
- Asthma Control Test for 12 y
- Childhood Asthma Control T
- Menstruation
- Blood Pressure
- 000 Adult Planned Visit
- 00 tobacco counseling 3-10
- 00 tobacco counseling > 10
- adolescent vitals
- 000 infant vitals
- adult vitals: respiratory
- child vitals: respiratory
- Oral Exam

Collection

Oral Exam:

Collected Date Time: 03/20/2015, 09:40 [Current Time]

Last visit to a dental provider (required):

Date
 In the last year
 In the last 6 months
 More than a year

Unsure
 In the last 3 months
 In the last 9 months

Last periodontal exam/teeth cleaning: [Clear]

Date
 In the last year
 In the last 6 months
 More than a year

Unsure
 In the last 3 months
 In the last 9 months

Does the patient have any natural teeth present?: [Clear]

Yes
 No

Did you conduct a visual oral examination today?: [Clear]

Yes
 No

Visual Oral Exam Observations (optional):

<input type="checkbox"/> Bad Breath	<input type="checkbox"/> Ulcers in the mouth	<input type="checkbox"/> Missing teeth	<input type="checkbox"/> None
<input type="checkbox"/> Swollen gums	<input type="checkbox"/> Red/White lesions in the mouth	<input type="checkbox"/> Other <input type="text" value=""/>	
<input type="checkbox"/> Bleeding gums	<input type="checkbox"/> Tooth decay		
<input type="checkbox"/> Redness of the gums	<input type="checkbox"/> Broken teeth		

Refer to (optional):

Internal Dentist (FHC)
 External Dentist
 Advised the patient to follow-up with their Dentist

Education Provided (optional):

Resources provided



Suggested Request

Ask: Oral Hygiene

- Question: How many days each week (on average) do you brush twice daily for 2 minutes with fluoride toothpaste, AND floss?
- Answer: [0, 1, 2, 3, 4, 5, 6, 7,]

Ask: Diet

- Question: On average how many times daily do you have dessert, a sugary snack, or sugary drink?
- Answer: [≤ 1 , 2 – 3, 4 – 5, ≥ 6]



Suggested Request

Ask: Dry Mouth

- Question: Do you have dry mouth, e.g. need water to swallow crackers?
- Answer: [Yes, No]

Ask: Symptoms of Oral Disease

- Question: Do you experience pain or bleeding with brushing or eating?
- Answer: [Yes, No]



Suggested Request

Look:

“Findings on Oral Screening Exam”

- Normal exam
- Poor oral hygiene
- Oral dryness
- Signs suggestive of caries
- Signs suggestive of periodontal disease
- Broken teeth
- Missing teeth
- Edentulous
- Other: _____



Suggested Request

Decision Support

- Date of most recent Oral Health Screening Assessment
 - Date on which answers to both Ask & Look templates are documented
- Visible on Chart “Snapshot View
- Flag if most recent Screening Exam > 1 year ago



Solutions we've encountered

- If the delivery system is its own service provider, it is relatively easy to make changes, *IF* it is an organizational priority
- If the service provider is off-site, it requires finding a way to pay for programmer time



Leverage the information you do have

- Use the data you have to tell a success story
- Tell your success story to top leadership
- Point out limitations in ability to describe the full extent of the success, due to information you are unable to collect or report
- Be very explicit about what it would take to capture enough information to tell the full success story



*3. Using Health IT for
Clinical Decision
Support in the workflow*

What changes we can make that may result in an improvement?

1. Workflow: We can change something about the way we deliver care
2. Clinical Decision Support: We can change something about the way we use information to make decisions

In the world of Health IT, two sides of the same coin



What is decision support?

- Creating structures to represent data so complex relationships can be visualized
- Developing methods for data gathering & presentation that avoid information overload
- Managing change so information use is optimized
- Integrating information into work processes so it can be acted on when it has the greatest impact



Clinical Decision Support Follows Workflow

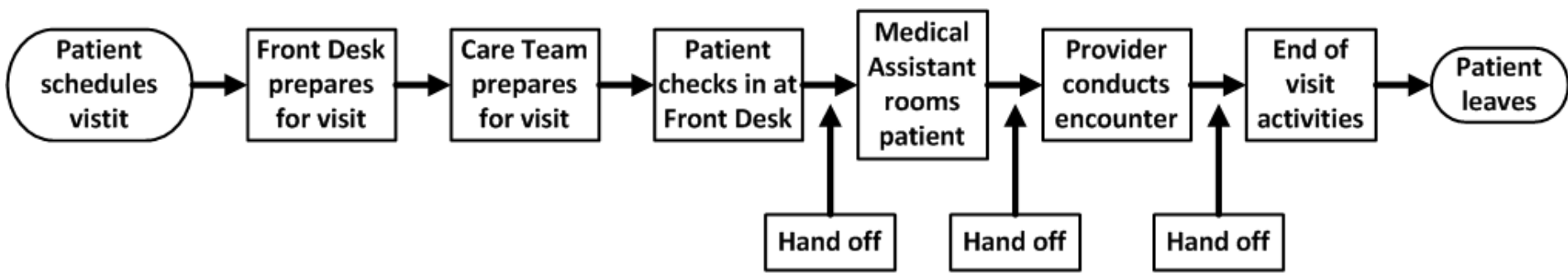
- Get the right information
- To the right person
- At the right time
- Using the right medium
- Formatted right for the decision

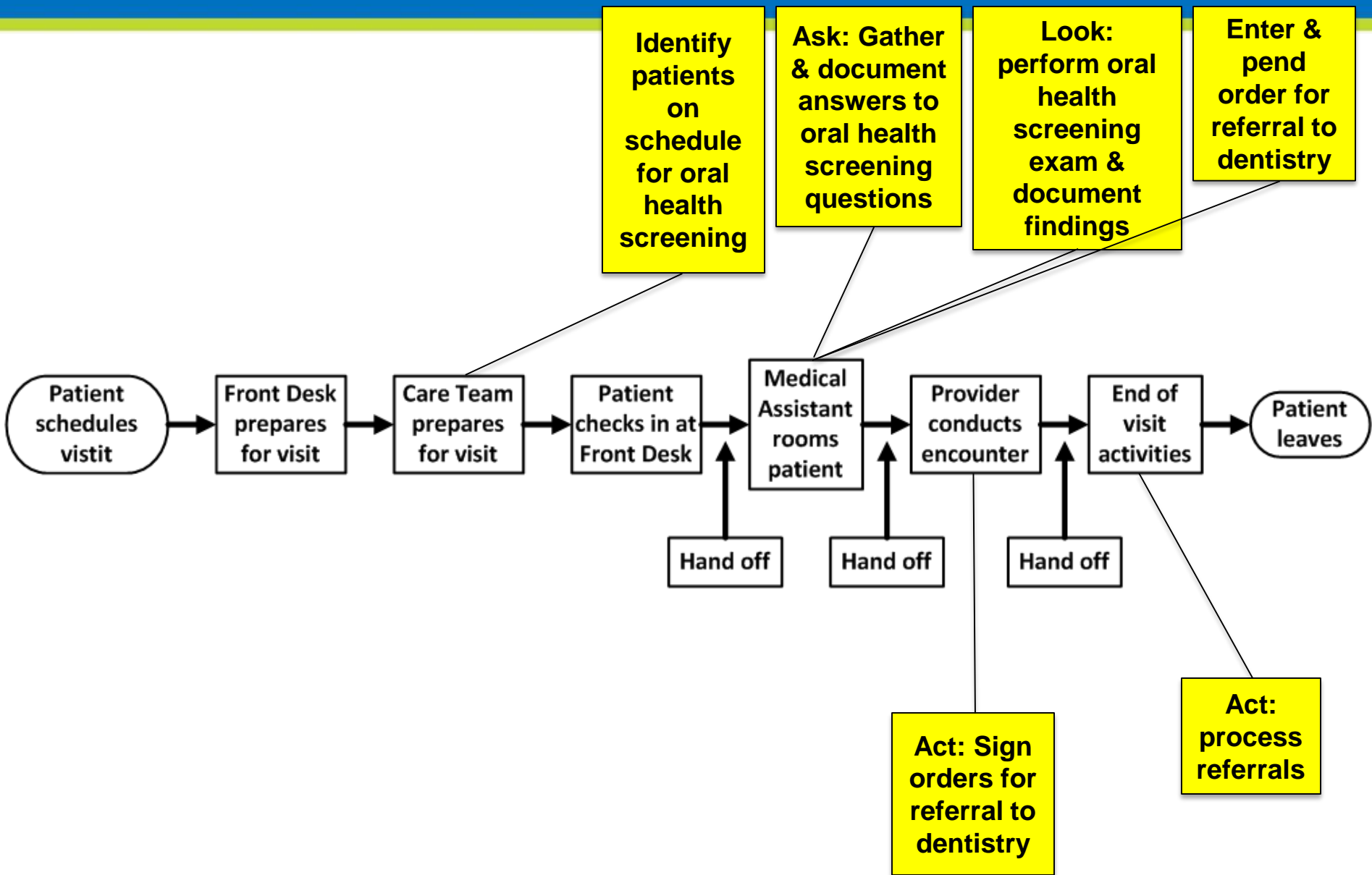


Categories of Clinical Decision Support

- Documentation templates
- Charts, graphs & flow sheet
- Order and prescription facilitators
- Protocol pathway support
- Reference information and guidance
- Alerts and reminders







MA reviews the chart before huddle

Action	Decision	Right Info	Right Person	Right Time	Right Medium	Right Format
Oral Health put on today's visit agenda	Pt is due for oral health assessment	Date of last oral health assessment	MA	Reviewing chart in advance of huddle	EHR	Health maintenance dashboard



Use Health IT to tell the story

- This is our target population, and here is the standard of care to which we hold ourselves accountable as a care team
- These are the members of the target population at each point in time, that we had evaluated within the prior year
- This is what we found among those we evaluated: elevated risk of caries and/or active caries or periodontal disease
- This is what we did for the people found to have elevated risk of caries
- This is what we did for the people found active to have active caries or periodontal disease



Key Health IT pieces of the story

- Track the population over time
- Use modifications of the user interface to enter information from the oral health assessment as structured data
- Use clinical decision support as part of the oral health delivery framework workflow
- Create orders to document as structured data, key actions intended to reduce oral health risk
- Create referral orders and referral tracking procedures to tell what happened to referrals



Questions?