

A woman in a business suit is shown from the chest up, holding a smartphone in her right hand. The background is dark and filled with various white icons representing technology and healthcare, such as a smartphone, a camera, a telephone, a download arrow, a calculator, a game controller, a calendar, a padlock, a cloud, a Wi-Fi symbol, a play button, a thumbs up, a mail envelope, a headset, and a medical cross. The overall tone is professional and tech-oriented.

Learning Health Systems Tech Forum

It's Time for a New Kind of Electronic Health Record

John Glaser, PhD | December 7, 2020

<https://hbr.org/2020/06/its-time-for-a-new-kind-of-electronic-health-record>

Value-base care is a significant change in the health care business model



Reactive sick care
to proactive
management of
health



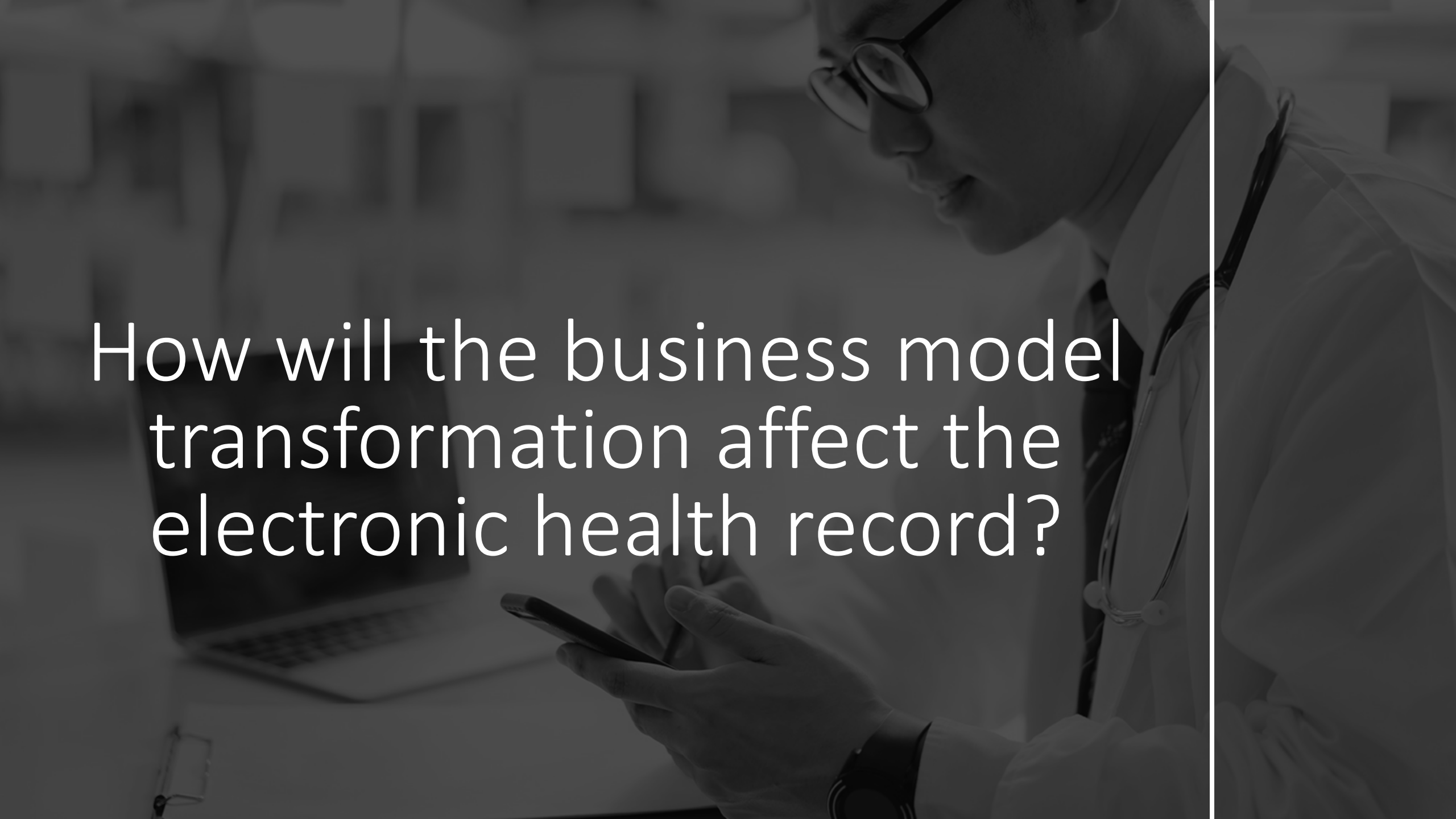
Rewarded for
volume to rewarded
for quality, safety
and efficiency



Fragmented, niche
care to a cross-
continuum system
of care



Clinician centricity
to patient
centricity

A grayscale photograph of a doctor in a white lab coat and glasses, looking down at a smartphone held in their hands. A stethoscope is visible around their neck. In the background, a laptop is open on a desk. The image is dimly lit and serves as a background for the text.

How will the business model transformation affect the electronic health record?

A grayscale photograph of a doctor in a white lab coat and glasses, looking down at a smartphone held in their hands. A stethoscope is visible around their neck. In the background, a laptop is open on a desk. The overall scene is dimly lit, suggesting a clinical or office environment.

From the record
to the plan



The shift to the plan

The movement to value-based care will place an emphasis on creating, sharing, effecting, monitoring and evaluating a plan for health for each person and the plans for a population of people.

This shift requires that the EHR have several plan-centric capabilities

- A library of customizable plans
- Means to combine plans; identify redundancies, conflicts and priorities
- Ability for plan tasks to be assigned across multiple members of the care team including the patient and family



The shift to the plan

This shift requires that the EHR have several plan-centric capabilities

- Tailoring of the plan to address care roles across multiple venues
- Decision support and workflow logic to monitor plan conformance and alert if material deviation is occurring
- Analytics to determine the aggregate effectiveness of plans
- Analytics to identify superior plans



From transaction-oriented
to intelligence-oriented

The shift to intelligence-oriented

The movement to value-based care will place an emphasis on applying intelligence to transactions, processes and the plan to help advance the efficiency, effectiveness and safety of care and improve health

This shift requires that the EHR have several intelligence-oriented capabilities

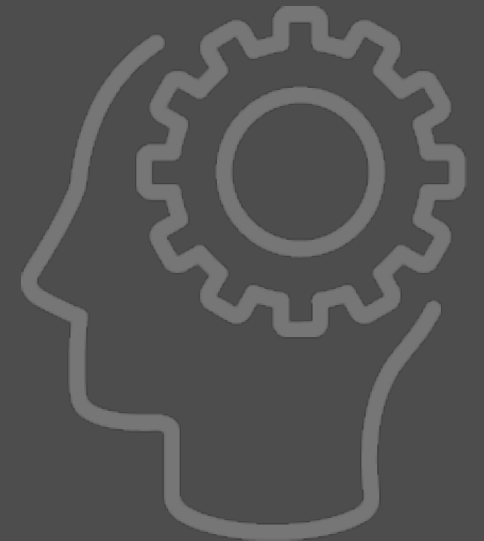
- Guide clinical diagnostic and therapeutic decisions
- Analyze patient data to discover new treatments, uncover safety issues, and identify unusual clinical findings
- Monitor the execution of core clinical processes



The shift to intelligence-oriented

This shift requires that the EHR have several intelligence-oriented capabilities

- Present the clinician with data and potential actions tailored to reflect the patient's conditions, the physician's preferences, and the medical evidence
- Support care delivery by teams across venues and types of professionals
- Provide information and decision support to patients and their families



Andersen, Pat
57yr M w/ Hx CAD, HTN, DM1, Colon Ca, ITP, Dyslipid, BPH, Gout, Anxiety, c/o Cough, f/u Diabetes

DOB: 4/16/1957 MRN: 2412231

Summary

Full Patient Chart

MY PROBLEM LIST (10)

Cough
x1 week

Coronary Artery Disease
Metoprolol, Plavix, Aspirin

Hyperlipidemia

Stage 4 Colon Cancer
Met to lung

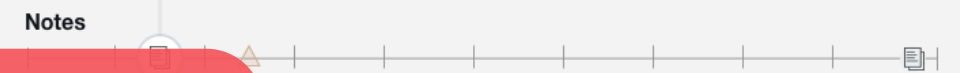
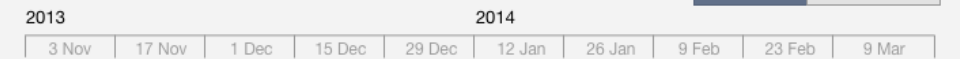
ITP
s/p Splenectomy

Anxiety
Details...

Diabetes Mellitus, Type I w/ Peripheral Neuropathy

Diagnosis Date: 1975 (39 years ago)
On insulin since 1995. Never hospitalized.

History Scheduled



Therapy

Humalog	3/5/2014 17:45	201	Point of Care Glucose
	3/6/2014 07:01	90	Serum Glucose
	3/6/2014 18:32	169	Point of Care Glucose
	3/7/2014 07:10	157	Point of Care Glucose
	3/7/2014 18:15	175	Point of Care Glucose
	3/8/2014 07:31	134	Serum Glucose
	3/8/2014 18:06	262	Point of Care Glucose

Results

Glucose	117-245	117-232					93-139	90-262	161-246
Glycosolated Hgb		8.4							

History

Examination

Cough

Diabetes Mellitus, Type I w/ Peripheral Neuropathy

Control:

Comment:

Current Prescriptions:

Orders:

Follow up with me:

Diagnosis Billing Code:

1 Organize the chart by the clinicians concerns
...aka 'My' Problem List

- Where the data came from is secondary
- My list is not your list



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Hyperlipidemia

Crestor

Diabetes Mellitus, Type I ...

Victoza, Humalog

CRI Stage 3

CR = 1.9

BPH

Flomax, Proscar

Gout

Allopurinol

Stage 4 Colon Cancer

Met to lung

ITP

s/p Splenectomy

Anxiety

Details...

Diabetes Mellitus, Type I w/ Peripheral Neuropathy

3 users

Diagnosis Date: 1975 (39 years ago)

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History

Scheduled



2 Summarize

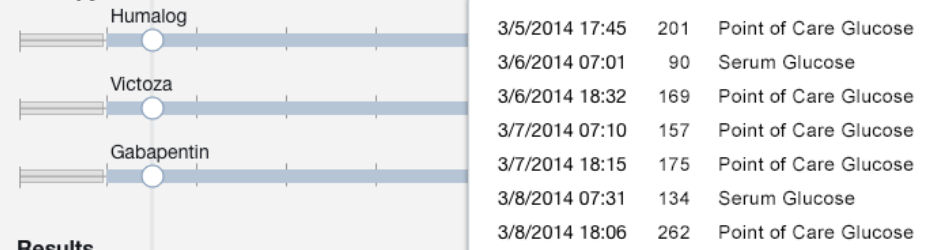
... the relevant data needed to manage that concern

... to give the big pictures first, details later

Notes



Therapy



Results

Glucose	117-245	117-232					93-139	90-262	161-246
Glycosolated Hgb		8.4							

Show more

History

Examination

Cough

Diabetes Mellitus, Type I w/ Peripheral Neuropathy

Control:

Good

Fair

Poor

Comment:

Current Prescriptions:

Humalog

Victoza

Gabapentin

Orders:

Glycosolated Hemoglobin

Consult Podiatry

Consult Ophthalmology

Follow up with me:

1 Week

2 Weeks

3 Weeks

Diagnosis Billing Code:

E10.9

Change



Order



Document



Bill

?



Andersen, Pat

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Met to lung

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s/p Splenectomy

Anxiety

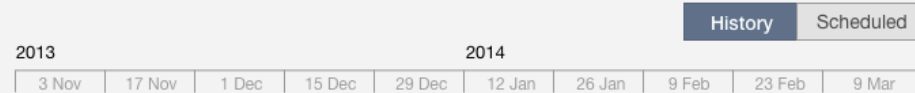
Details...

Diabetes Mellitus, Type I w/ Peripheral Neuropathy

3

Diagnosis Date: 1975 (39 years ago)

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Visits

Notes

Therapy

Medication	Date/Time	Value	Test Type
Humalog	3/5/2014 17:45	201	Point of Care Glucose
Victoza	3/6/2014 07:01	90	Serum Glucose
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Test	Result	Reference Range
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		161-246
Glycosolated Hgb	8.4	

History

Examination

Cough

Diabetes Mellitus, Type I w/ Peripheral Neuropathy

Control:

Good
 Fair
 Poor

Show more

Comment:

Current Prescriptions:

Humalog
 Victoza
 Gabapentin

Orders:

Glycosolated Hemoglobin
 Consult - Ophthalmology

Follow up with me:

1 Week
 2 Weeks
 3 Weeks

Diagnosis Billing Code:

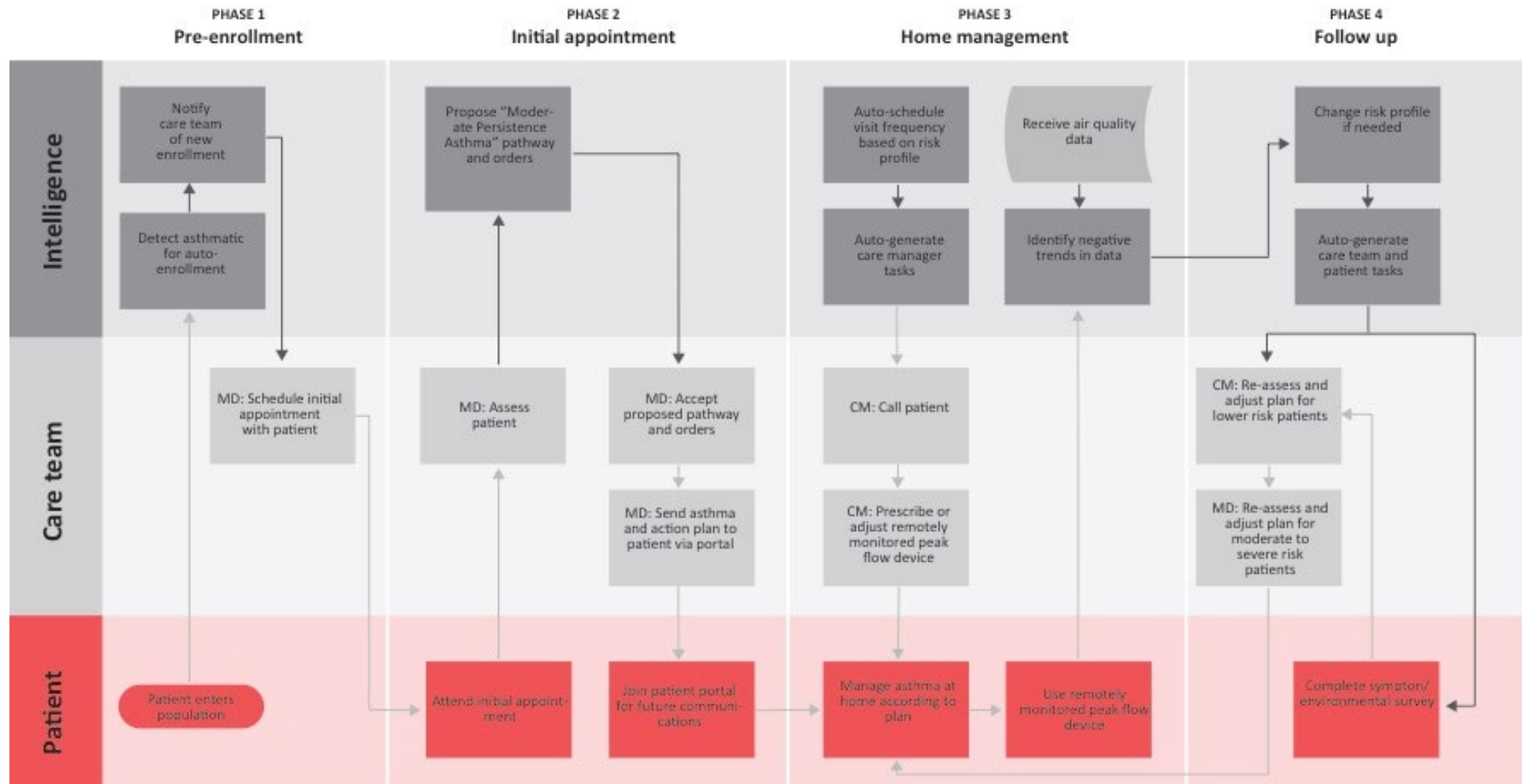
E10.9
 Change

3 Manage the concern ... not the application

Secondary output to drive:

- Documentation
- Orders / prescription
- Med reconcile
- Billing
- Decision support / analytics
- Research studies

Dynamic plan for asthma





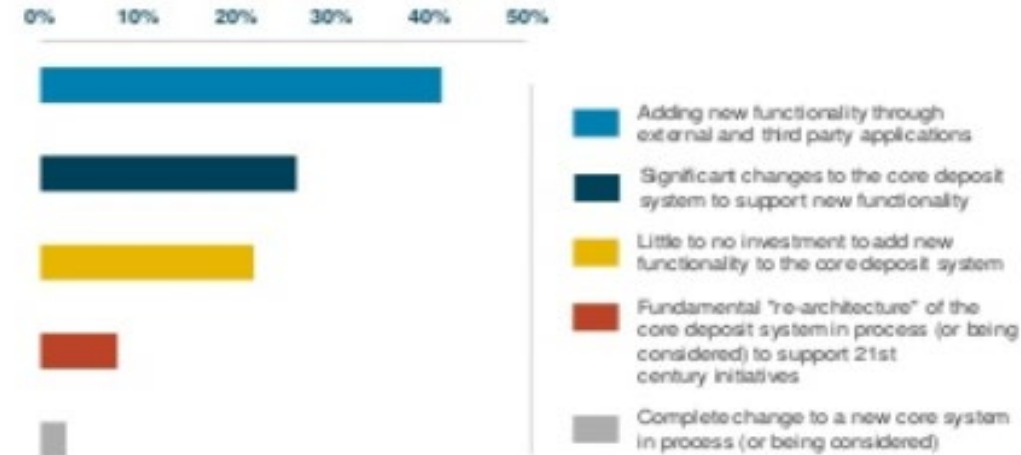
The transition

Banks struggle to modernization their systems

Top modernization fears

1. Information security risk
2. Catastrophic failure
3. Implementation and integration
4. Public damage
5. Dependence on specialized vendor resource

Current Architecture and Product Strategy:



Q18. What is the bank's current position on the architecture and product strategy for core deposit systems over the next 3 years?





Several types
of capabilities
will wrap
around the
EHR

- Population health management
- Health information exchanges
- Patient health management applications
- Big data analytics
- Decision support
- Workflow support

A woman in a business suit is shown from the chest up, holding a smartphone in her hands. She is smiling slightly. The background is dark and filled with various white icons representing different digital concepts: a camera, a calendar with the number 31, a Wi-Fi symbol, a game controller, a thumbs up, a clapperboard, a smartphone with a shopping cart, a headset, a speech bubble, a download arrow, a calculator, an envelope, a padlock, and a cloud with an arrow. The word "Questions?" is written in a large, white, sans-serif font across the center of the image.

Questions?