Achieving Collaboration Amongst Independent Physicians on a Common Database Employing an EHR

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Fragmented Market

With 70% of physicians practicing in groups of five or fewer, how can independent doctors collaborate in order to address the high cost and quality challenges of healthcare delivery and achieve the full promise of evidence based medicine?

Volume and Complexity

Each Patient Visit Generates
300+ Business
Transactions

Processes Are All Connected

Picture of Inter-Connected Gears

"Why" Physician Collaboration?

IOM Core Competencies for the Twenty-First Century

1. Provide patient centered care
2. Work in interdisciplinary teams
3. Employ evidence-based medicine
4. Apply quality improvement
5. Utilize informatics

Modern Physician
October 2000

- "Will your practice invest in electronic medical record in the next twelve months?

»39.9% answered "yes"

"How" Physician Collaboration

CPOE at Cedars Sinai

January 20, 2003, decision was made to "temporarily" suspend the implementation.

"One of the lessons learned is human change management may be easily underestimated."

– Michael Langberg, M.D., CMO

Pay for Performance

- Today
  - High scores in patient satisfaction surveys
  - Variety of clinical metrics
  - A demonstrated investment in information technology
- The Future
  - Preventive care and outcomes
  - Treatment variation and tracking
  - Medical Errors

Patient Satisfaction

Physician Manager 1994

- Listening and explaining skills
- Amount of time spent during office visits
- Amount of time required to get an appointment
- Efficiency and courtesy of the non-medical staff

You Cannot Collaborate With Paper Medical Records

Picture of Chart Filing System

The PPMC "Top Down" Model

- Practice purchase
- Loss of independence
- Lack of technological integration
- Inability to manage practices
- Lack of data necessary for changing behavior
- Workflow unchanged, complexity increased

The IPS "Bottom Up" Model "Leap of Faith"

- Bottom up model
- Integrated software at the point of care
- ASP with shared database
- Collaboration in clinical and business areas
- Process and Workflow Reengineering
- Hybrid centralization/decentralization
- Demonstrated ROI with continuous improvement

The Early Model

2001 Starting Point

- Florida: ten locations
- Virginia: seven locations
- California: six locations
- Colleges: CA and OH

Barriers for Physician Collaboration and Involvement

- Trust
- Understanding “quality,” value, patient satisfaction, and workflow
- Technological barriers and fear of change
- EMR learning curve
- Reengineering disruption
- Cost and ROI of technology investment
- Physician involvement

Creating Trust

- Practice evaluation
- Report which provides physician education
- Quantification of opportunities
- Common vision with doctors and tech vendor
- Reputation of leaders
- On-going communication with staff
- 24/7 availability for doctors
- Momentum of “successes”

Evidence Based Medicine and Pay for Performance

- "In God we trust – all others must bring data."
  - Dr. W. Edwards Deming
- You get the behavior you measure
- If you pay for it, you will get more of it

Why Six Sigma Quality Goal?

Errors per 1,000,000	Error Rate	Process Sigma	Cost of Revenue
50,000	5.0 %	3.14	25% to 40%
10,000	1.0%	3.83	25% to 40%
3.14	0.0003%	6.00	5%

Physician Needs a Return on Technology Investment

"The typical company is getting only 20% of the benefits possible from technology."

Bill Gates, *Business @ the Speed of Thought*.

"Automating a bad process not only ensures that we can do a bad job every time but that we can do it faster and with less effort than before."

H. James Harrington, author *Business Process Improvement*

Physician Understanding

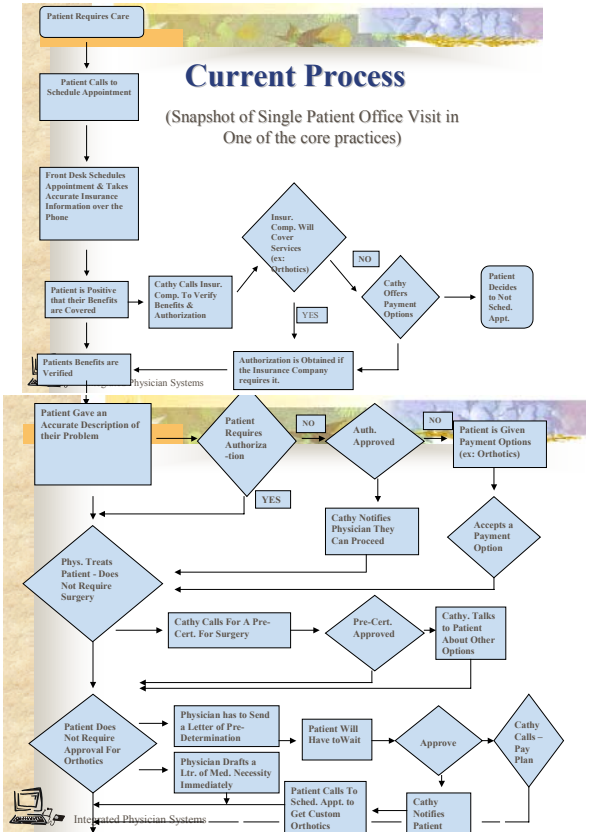
"While the practices of engineering continually evolve, the laws of physics remain relatively fixed."

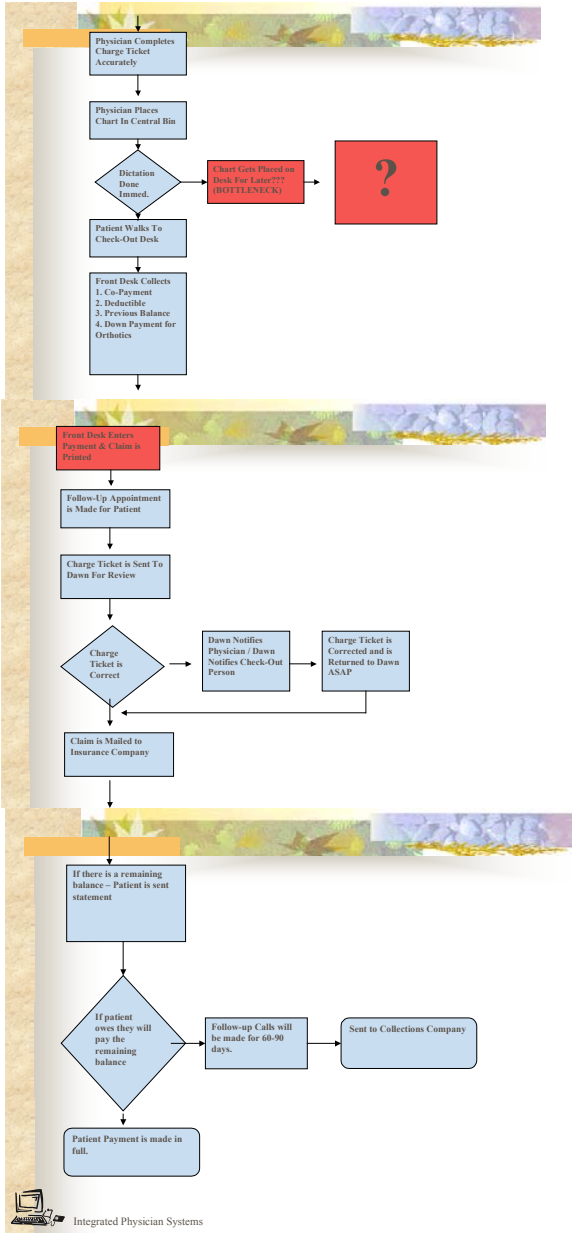
- Jim Collins, *Good to Great*

Harness Forces to Achieve Positive Leverage

FORCES/CONSTRAINTS	ENVIRONMENT
• Bottlenecks	• Price competitive
• Variation	• High volume
• Waste	• Complex
• The Butterfly Effect	• Consumer driven
• Cycle Time	• Employer cost shifting
•Office Policies	• Evidence based medicine
• Pricing (“Mix”)	• Outcomes
• Cost/quality	• Patient satisfaction
	• Medical error prevention
	• Informatics ROI
	• Malpractice

Workflow


Current Process
(Snapshot of Single Patient Office Visit in One of the core practices)
Patient Requires Care
Patient Calls to Schedule Appointment
Front Desk Schedules Appointment & Takes Accurate Insurance Information over the Phone
Patient is Positive that their Benefits are Covered
Cathy Calls Insur. Comp. To Verify Benefits & Authorization
Insur. Comp. Will Cover Services (ex: Orthotics)
NO
YES
Cathy Offers Payment Options
Patient Decides to Not Sched. Appt.
Authorization is Obtained if the Insurance Company requires it.
Patients Benefits are Verified
Integrated Physician Systems
Patient Gave an Accurate Description of their Problem
Patient Requires Authoriza -tion
NO
YES
Auth. Approved
NO
Patient is Given Payment Options (ex: Orthotics)
Cathy Notifies Physician They Can Proceed
Accepts a Payment Option
Phys. Treats Patient - Does Not Require Surgery
Cathy Calls For A Pre-Cert. For Surgery
Pre-Cert. Approved
Cathy, Talks to Patient About Other Options
Patient Does Not Require Approval For Orthotics
Physician has to Send a Letter of Pre-Determination
Physician Drafts a Ltr. of Med. Necessity Immediately
Patient Will Have toWait
Approve
Cathy Calls – Pay Plan
Patient Calls To Sched. Appt. to Get Custom Orthotics
Cathy Notifies Patient
Integrated Physician Systems


Physician Completes Charge Ticket Accurately
Physician Places Chart In Central Bin
Dictation Done Immed.
Chart Gets Placed on Desk For Later??? (BOTTLENECK)
?
Patient Walks To Check-Out Desk
Front Desk Collects
1. Co-Payment
2. Deductible
3. Previous Balance
4. Down Payment for Orthotics
Front Desk Enters Payment & Claim is Printed
Follow-Up Appointment is Made for Patient
Charge Ticket is Sent To Dawn For Review
Charge Ticket is Correct
Dawn Notifies Physician / Dawn Notifies Check-Out Person
Charge Ticket is Corrected and is Returned to Dawn ASAP
Claim is Mailed to Insurance Company
If there is a remaining balance – Patient is sent statement
If patient owes they will pay the remaining balance
Follow-up Calls will be made for 60-90 days.
Sent to Collections Company
Patient Payment is made in full.
Integrated Physician Systems

Dependent Series Versus Parallel

Picture of Series and Parallel Light Bulbs

Medical Business Advisors

Series Medical Practice

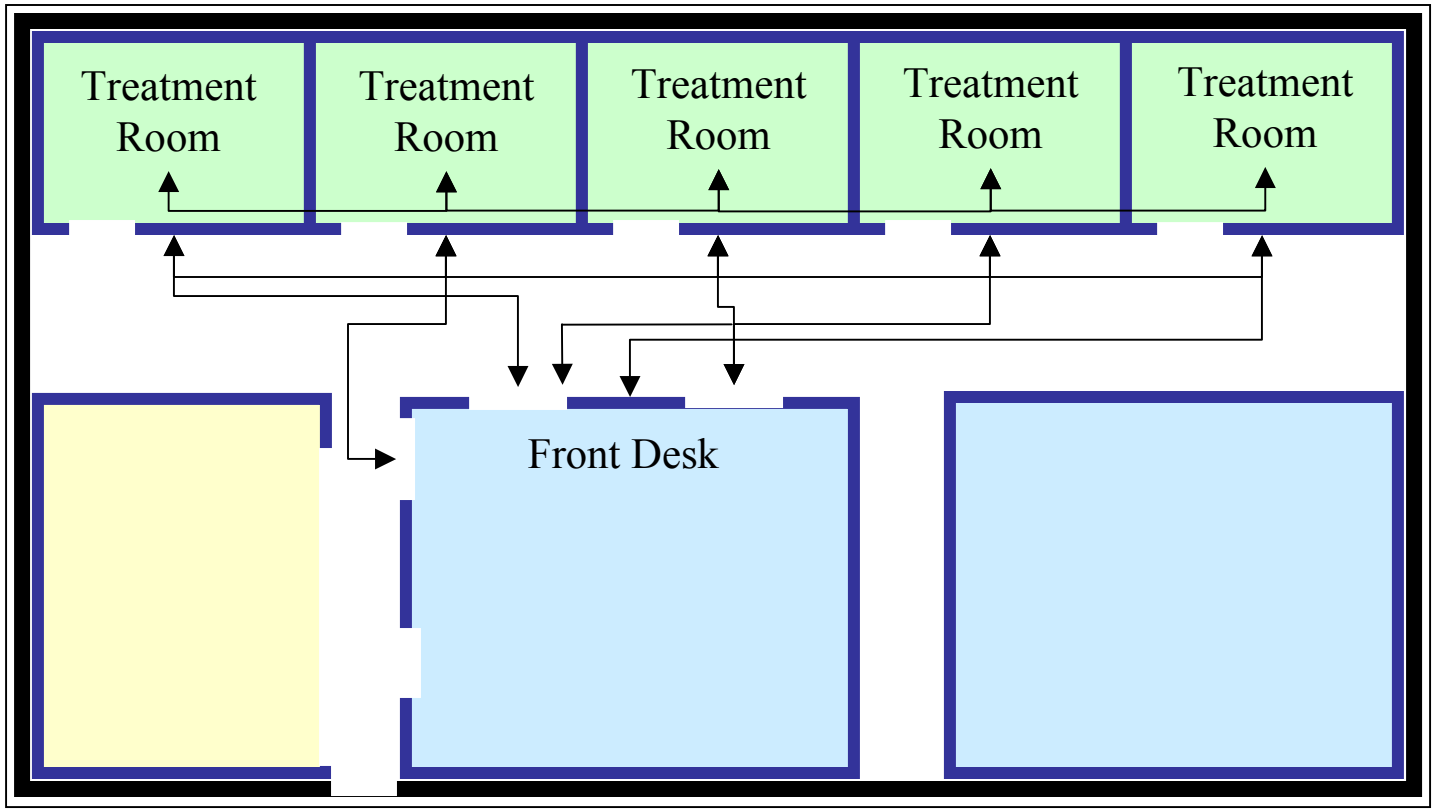
Picture of Freeway Bottleneck

Medical Business Advisors

Parallel Medical Practice

Picture of Freeway With Bottleneck “Fixed”

Parallel Infrastructure



Staffing Ratios

Toyota estimated that using traditional processes, 85% of workers may not be working at any given time.

Only 5% are actually not working

Picture

Where Does the Time Go?

25% are performing waste 30% are waiting for something

Picture Examples

25% are using inefficient methods

Picture Examples

Double and Triple Interruptions

Picture

Ask three questions

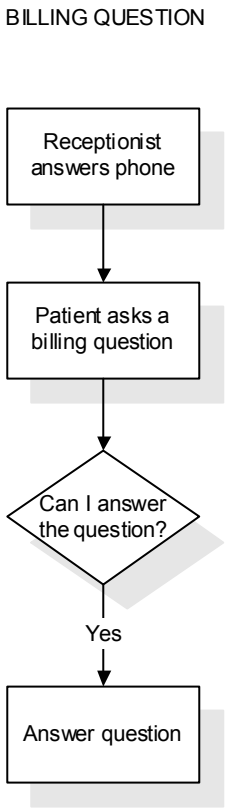
- What information was unavailable?
- What training was not received?
- What authority was not delegated?

Process Workflow Innovation

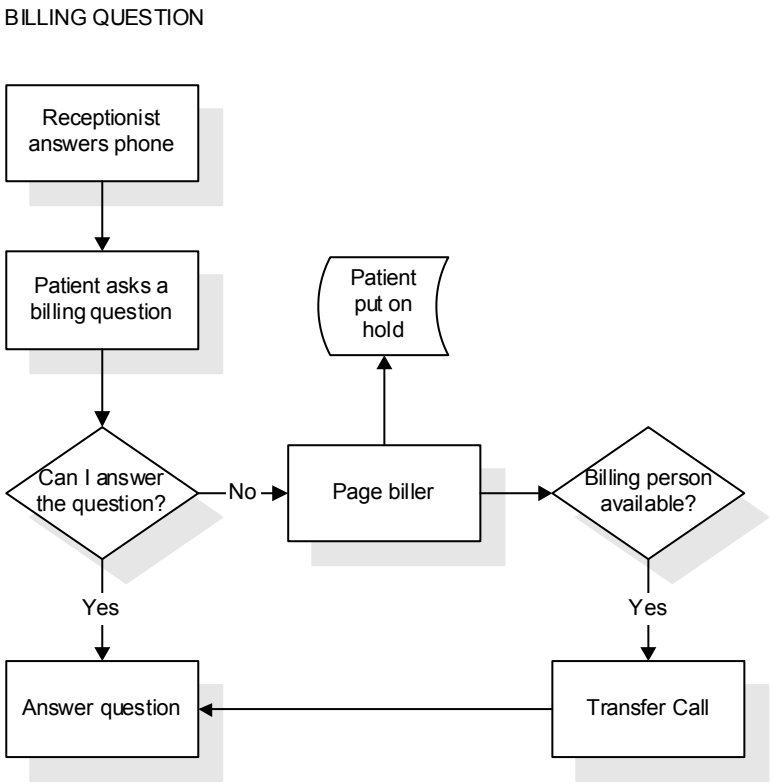
- "Some of the most revolutionary ideas come from spotting something old to leave out rather than thinking of something new to put in."
  - Douglas Adams, The Salmon of Doubt

- Variation "puts something new" into processes

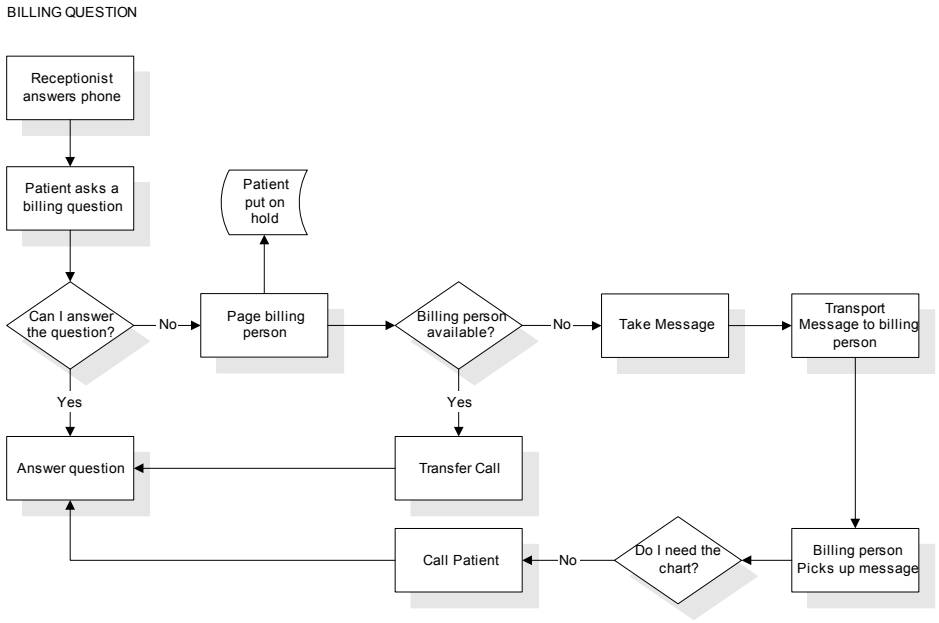
“Quality, Cost, and Variation σ



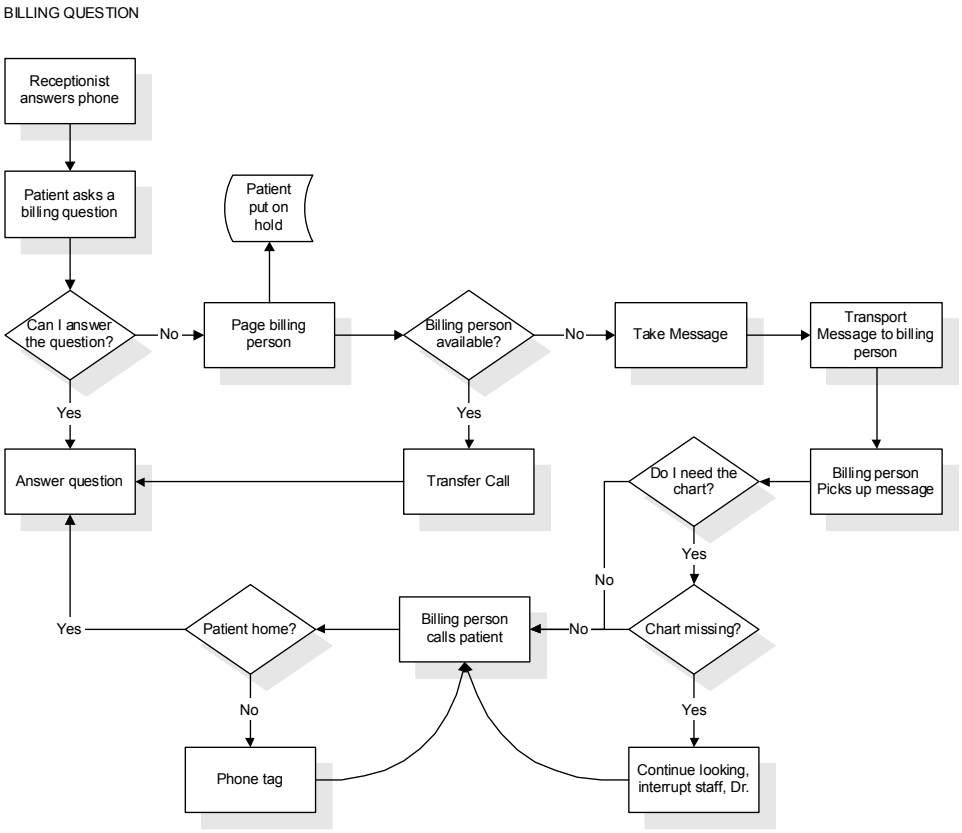
Variation


BILLING QUESTION
Receptionist answers phone
Patient asks a billing question
Patient put on hold
Can I answer the question?
No
Page biller
Billing person available?
Yes
Yes
Answer question
Transfer Call

Added Variation



Variation Complexity



Theory of Constraints

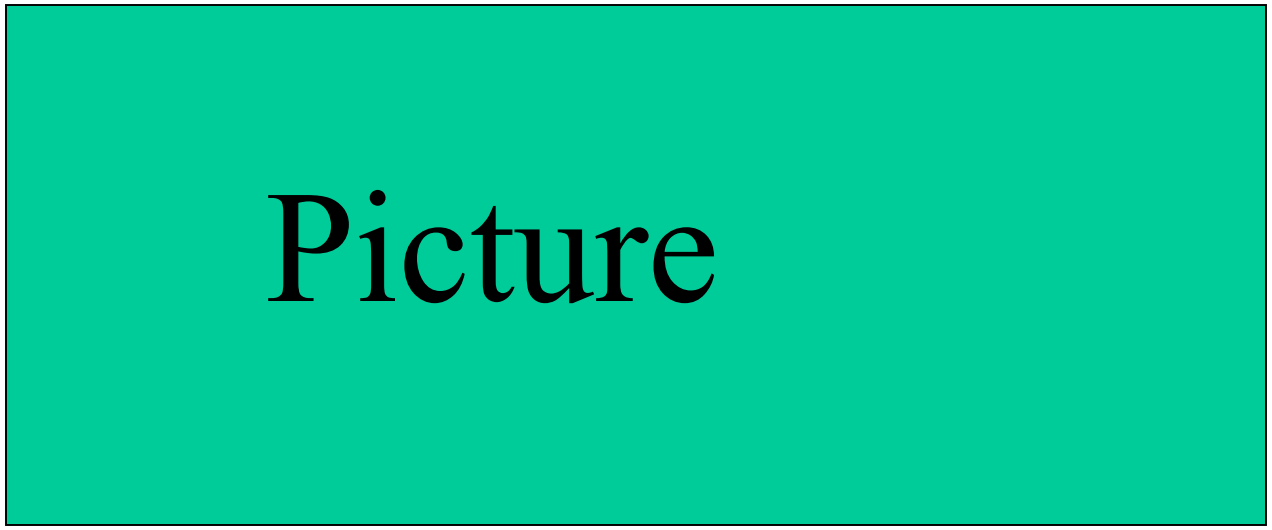
- Valerie Borzov: "The winner of the sprint is not the one who runs the fastest, it's the one that slows down the least."
- Performance improvement requires using a number of "simple" concepts, observations, and principles that are "obvious" in much the same was that the discover of penicillin was a obvious.

The Butterfly Effect and Workflow

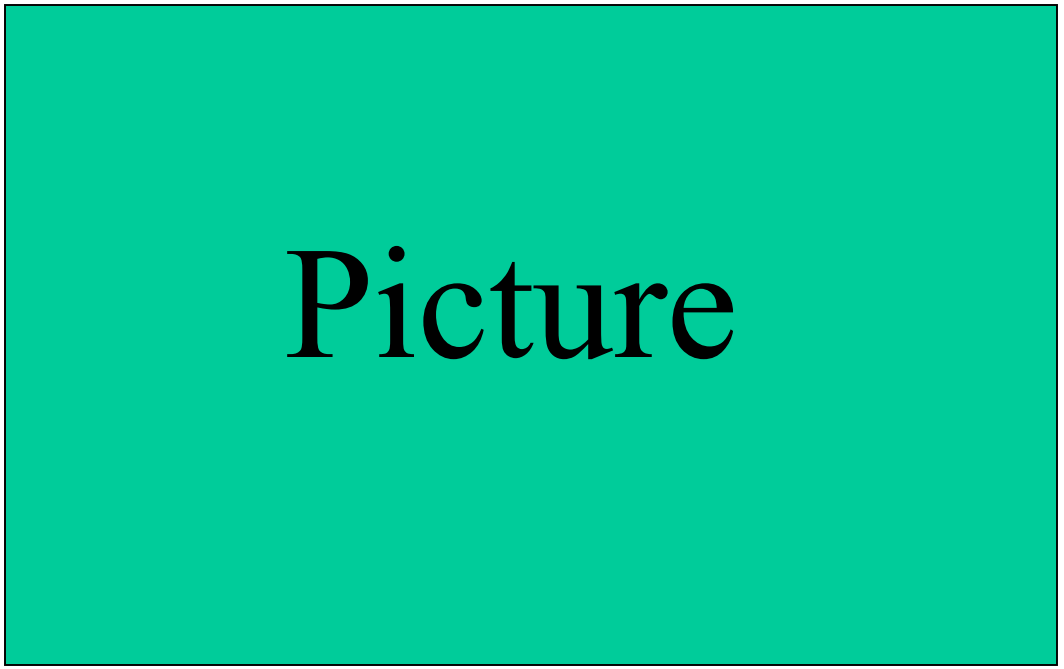
- "Sensitive dependence on initial conditions"
- Ripples to Tsunamis
  - Initial phone contact and check-in process
  - Initial interview with doctor ("What else")
  - Point of care data collection (CPOE)
  - Patient education and tracking follow-up care
  - Patient check-out

Intra-Office Communication

JIT and Double Interruptions



Capture Data at the Point-of-Care



Information at Check-Out

Picture

POC data capture increases collection ratio and eliminates data re-entry

Use of EMR

Picture

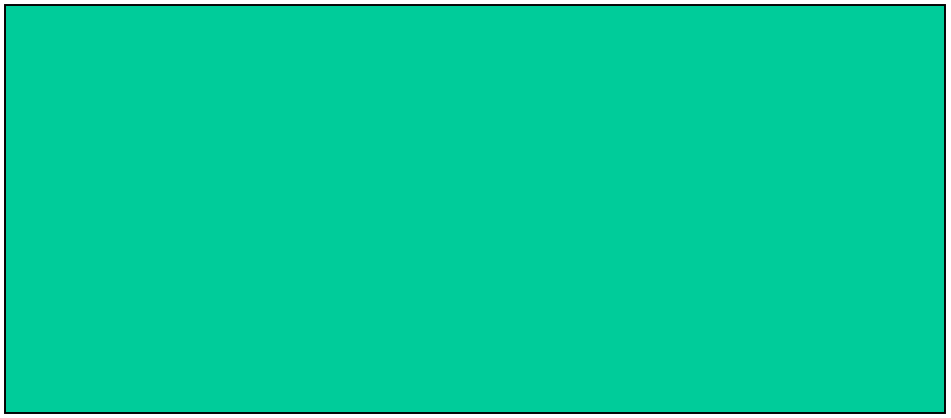
Reduce treatment variation, capture billing codes, measure outcomes, clinical studies, physician collaboration, best practices, elimination of chart movement

Point of Care Rescheduling

Picture

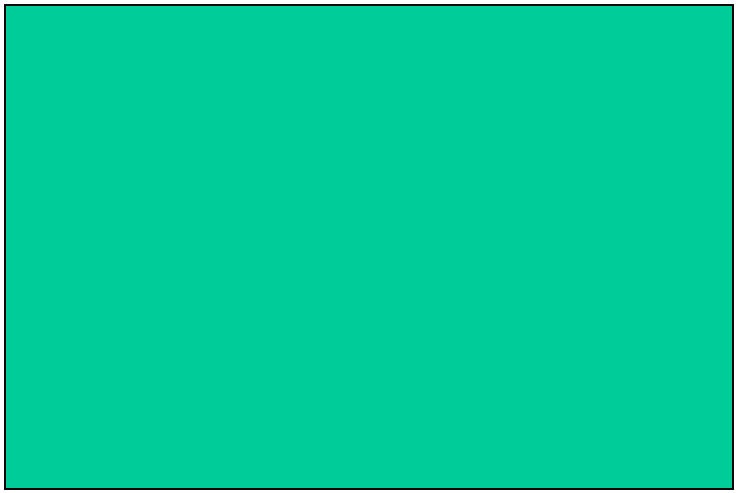
Capacity Increase
through
workflow change
and elimination
of front bottleneck

Electronic Prescription



Reduce errors, check allergies, check for drug interactions, and populate EMR

Tracking Care



Track orders, tests, and prescription renewals