

Improving Effectiveness and Efficiency in Office Based Practice

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Problems with Health Care

- **Delays in care**
- **Disparities**
- **Cost is too high**
- **Miscommunications**
- **Poor coordination**
- **Burn out**

“Work Smarter not Harder”

Effectiveness – “doing the right thing”

- Answering patient calls within 30 seconds
- Notifying patients of test results within 2 days
- Register and room patients within 5 min
- Respond to patient calls by day's end
- Going home at a reasonable time

Efficiency – “Doing the thing right”

- With the least amount of resource
 - Materials, Space, Time, Staff
- While still maintaining quality
- Creating the opportunity to backfill with value
 - Update equipment
 - Extra exam rooms or workstations
 - More time with patients
 - More personal time

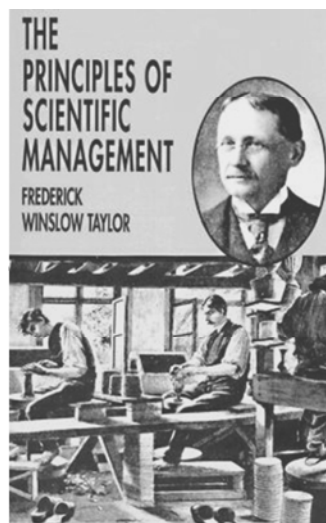
The Study of Work

- **Scientific management theory**
 - **Methods engineering**
 - **Industrial engineering**
 - **Systems engineering**
-
- **Increase desired outcome of a job (process)**
 - **Make the job (process) easier**

Frederick W Taylor (1880)



Image from Wikipedia



Frank and Lillian Gilbreth (1885)



Images from Wikipedia

The Study of Work

- **Time Study** –designed to measure how long an average worker takes to complete a task
- **Motion Study** – designed to determine the best way to complete a repetitive activity

Time and Motion Studies







Brick Laying (multistep process)

- **Stooping**
- **Lifting**
- **Turning**
- **Walking**
- **Applying mortar**
- **Laying brick**
- **Inconsistency**
- **Inaccuracy**
- **Wasted materials**
- **Wasted time**
- **Work injury “burn out”**

Application of Work Study

- **Manufacturing**
- **Banking**
- **Military**
- **Healthcare**
 - **Ex. Scrub Nurse**

Scrub Nurse

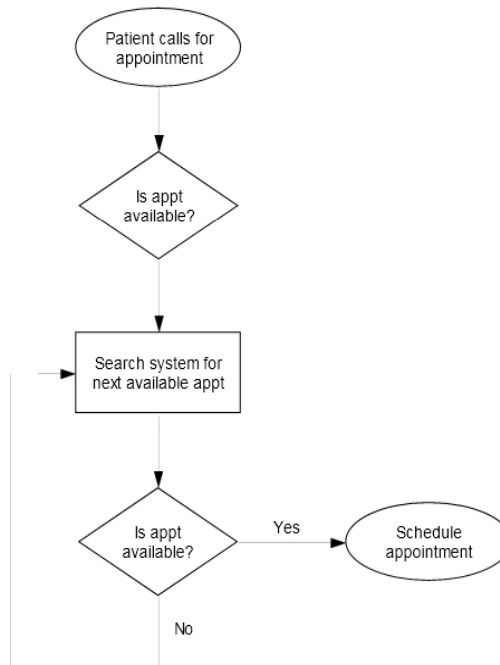


SIPOC FMEA
Pareto Charts **5 Whys**
Axiomatic Design
Fishbone Diagrams **5S**
Root Cause Analysis **Histograms**
Control Charts **DMAIC**
Check Sheets **PDSA**

DMAIC and PDSA

- D – Define
- M – Measure
- A – Analyze
- I – Implement
- C – Control
(sustain improvement)
- P – Plan
- D- Do
- S – Study
- A - Act

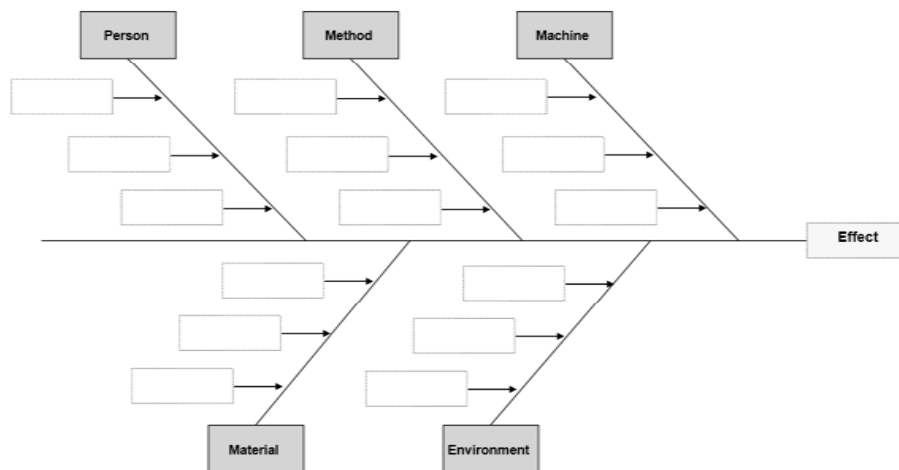
Flow Chart the Process



Data Collection for Cycle Time

Process Step	Cumulative Time	Value-added Time	Non-value added Time	Notes

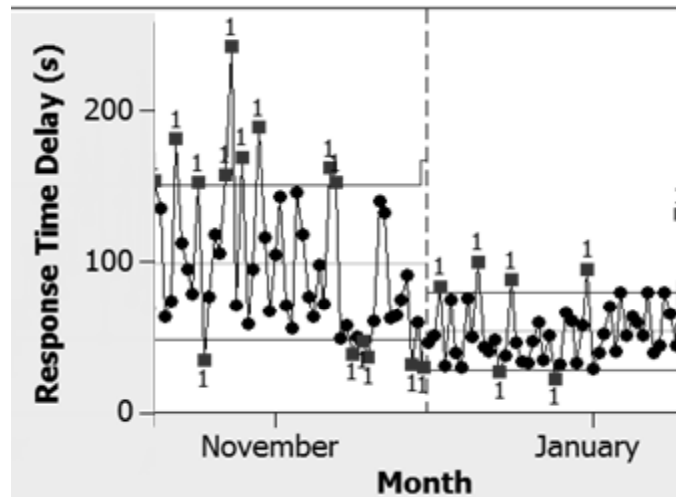
Cause and Effect “fishbone”



Target Checkout Counter



Response Time Delay Before & After Pilot



Where To Get Started?

- Waiting area
- Registration
- Call center
- Nurses stations
- Communications
- Documents
- Electronic medical record system

Improving Effectiveness and Efficiency in Office Based Practice

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**“The value
of an idea
lies in the
using of
it.”**

-Thomas A. Edison

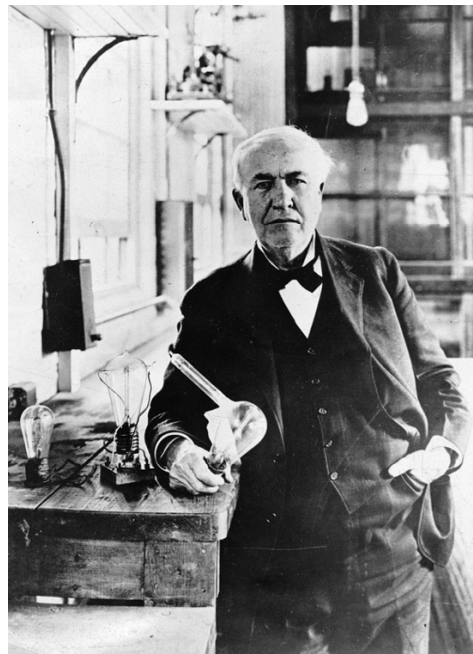


Image from Wikipedia



Source: de.wikipedia, original upload 26. Jun 2004 by Author: KMJ, alpha masking by Edokter



Effectiveness and Efficiency

- Transformation occurs when a deliberate process is used to analyze needs *and* available resources.
- **GOAL = VALUE ADDED** (More time, space, staff to devote to other office needs)

Effectiveness and Efficiency

- **Transformation requires vision**
 - Looking at our resources from a different perspective
- **Resource Utilization**
 - Space
 - Information/Materials
 - Time
 - Relationships (RN, MA, MD, Patients)

RESOURCE #1: Space



Source: Cubespace Author: Asa Wilson



Space Utilization

- **Goal - Use space available to improve efficiency in three areas**
Clinical Area – Improve Patient Care
Registration – Improve Patient Flow
Call Center – Improve Access

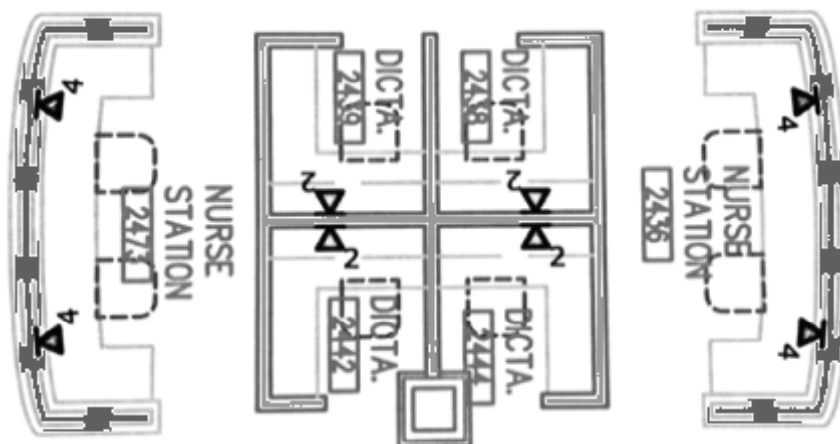
Clinical Area – Improve Patient Care

- **Team approach to Patient Centered Medicine**
- **Doctors are not practicing in isolation**
 - **Nurses**
 - **MAs**
 - **Pharmacists**
 - **Social Workers**
 - **Nutritionists**
- **Clinical workspace needs to reflect this philosophical change**

Clinical Area – Improve Patient Care

- Our clinical area had limited function
 - Need:
 - Any given half day: 6 MDs + 6 MAs + 1 pharmacist + 1-2 learners + RN = 16-17 workstations
 - Actual capacity:
 - 4 total workstations for MDs + 3 computers at nursing station = 7 workstations
- Physical barriers led to communication barriers

Before Renovation



Before Renovation

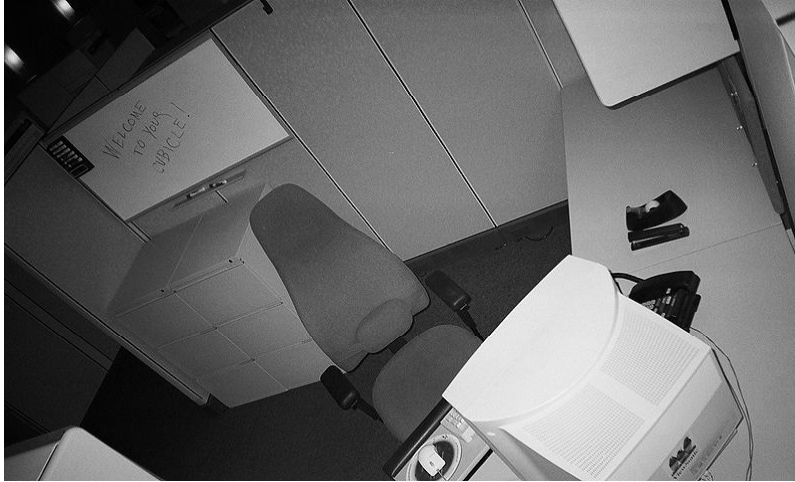
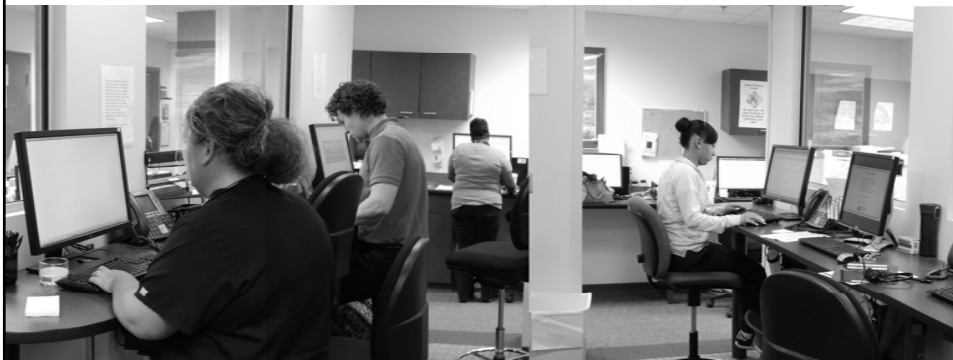


Image from Wikipedia

After Renovation





Clinical Area

- **New design added workstations and opened up walls**
 - 12 stations (compared to 6) for providers
 - + 4 computers (compared to 3) for nursing stations
 - Total: 16 workstations**
- Increased communication between MD & MA
- Better learning environment for students
- Effective environment for charting

Registration

- **Add equipment**
- **Improve workflow**
- **Decrease patient wait time**

Registration – Improve workflow

- **One printer and one scanner shared for 4 workstations**
 - **Waiting for available scanner/printer**
 - **Movement from desk required with each patient check-in**
- **Single monitor screen**
 - **Toggle back and forth for different aspects of registration**

Registration – Improve Workflow

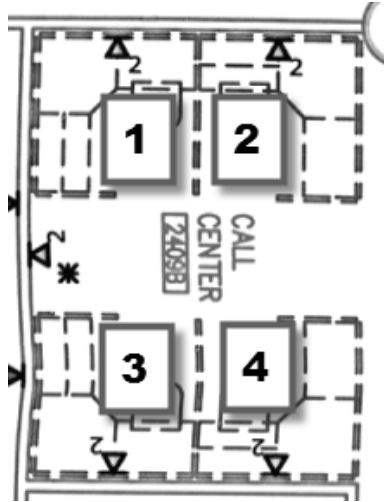
- **IF...**
 - **30 seconds saved for each patient registration**
- **FOUND TIME...**
 - **690,000 seconds per year**
 - **11,500 minutes per year**
 - **191 hours per year**
 - **23 days per year**



Call Center – Improve Access

- **More staff needed to accommodate the results of the call center project**
- **Staffing increase from 3 to 6 call center employees**
- **Need to add 3 more work stations**

Call Center



Call Center



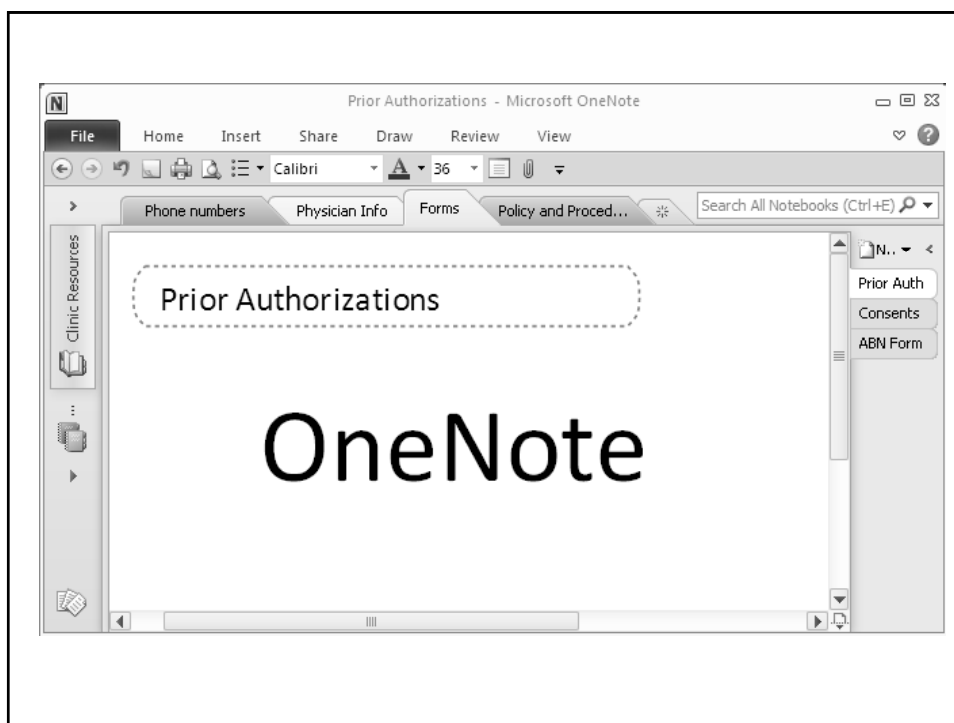
Call Center – Improve Access

- Utilizing space improved:
 - Quantity of workstations
 - Quality of environment
- Warm, inviting, clean
 - Better staff retention
 - More skilled/experienced staff over time

RESOURCE #2: Information



GOAL: Organize and Utilize

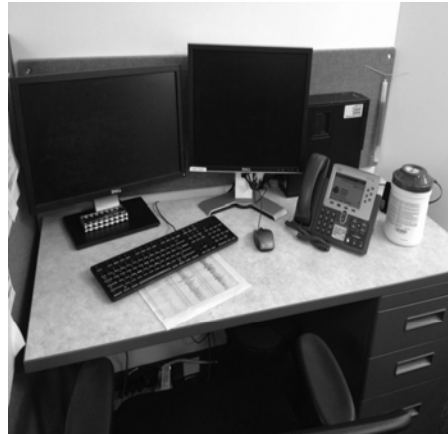


Resources and Contacts		
Clinical, S and Compliance		
Policies and Forms		
MH		
SR		
CPE		
GV		
Files		
<div>Gen Med Phone List of CPE</div> <div>Monday, March 18, 2013</div> <div>5:20 PM</div>		
Important Clinic Info	Location	Number
LDC (long distance code)	Gen Med CPE	777 631#
Tax ID	Gen Med CPE	31 1445515
<u>Attendings</u>	Location	Number
Dr. Michael Langan	Room 3195	3 2254
Dr. Corina Ungureanu	Room 3079B	8 6034
Dr. Nnenna Oluigbo	Room 3079B	8 6036
Dr. Helen Katsman	Room 3079C	8 6033
Dr. Andrew Schreiner	Room 3079E	8 6005
Conference Room	Room 3079D	8 6035

BEFORE



AFTER



Resource #3: Time



- How can we shave seconds off a process?
- Those seconds lead to hours to devote to other tasks...

Time Utilization: Refill Requests

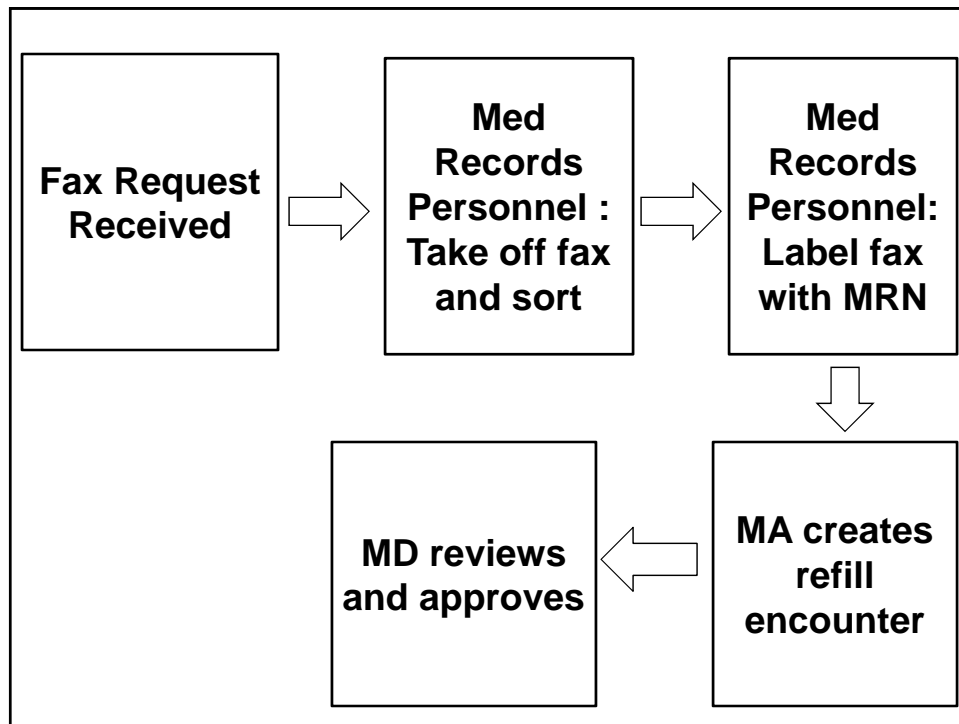


Electronic scripts helped save time but significant work devoted to refills still exists

Image from Wikipedia

Refill Requests





Refill Request Intervention

All requests pended for 90 day supply with 3 refills

(With exception of controlled substances)

- **Goal: To create uniform process that decreases frequency of refill requests= TIME SAVED**
- **Based on article from Dr. Christine Sinsky**

- Christine A. Sinsky, MD. Improving Office Practice: Working Smarter, Not Harder: Seemingly simple strategies can transform your practice. Fam Pract Manag. 2006 Nov-Dec;13(10):28-34.

Intervention Effects

- **Decreased faxes for Med Records to sort
= FOUND TIME**
- **Decreased refill requests for MA staff to enter
= FOUND TIME**
- **Decreased items in EMR inbox for MD to review
= FOUND TIME**
- **Decreased failed transmissions of requests
(fax machine not busy)**
- **Decreased waiting - improved patient satisfaction**

Concerns

- **Using refill requests to “catch” chronic disease patients who miss their appointments**
- **Patients won’t keep their follow up**
- **Physicians can change amount and number of refills when they sign order**
- **Decrease in MA work time for refills can now be shifted to develop a more proactive recall system for no shows**

Christine A. Sinsky, MD. Improving Office Practice: Working Smarter, Not Harder: Seemingly simple strategies can transform your practice. Fam Pract Manag. 2006 Nov-Dec;13(10):28-34.

Resource# 4: Relationships



Image from Wikipedia Commons

Relationships: Utilization and Organization

- **Successful relationship relies on successful communication**
- **Communication must be easy**
- **Teams can make the work even easier**
- **Methods**
 - **Pre-Visit Calls**
 - **Team Communication using EMR**
 - **Electronic patient portal**

Relationships: Organization and Utilization

- Doctor to Patient
- Doctor to MA
- MA to Patient
- Nurse to Doctor
- Social worker to Patient
- Nurse to MA
- Doctor to Nurse
- Pharm to Patient
- Patient to Nurse

Pre-Visit Calls

- RN or MA starts the visit before patient walks into clinic
- Intervention Effects:
 - Prioritize/Triage list of patient concerns
 - Update EMR with medication changes
 - Identify and obtain information from interval hospital admissions and ED visits
 - Decrease No Show Rates

- **Staff Messaging within EMR**



Image from Wikipedia Commons

Handy patients enterprise edition

File Edit View Help

David (3 month and 10 days old)

10 days (20 years and 6 hours)

Robert Towler

Father, Financial advisor

Parents (Maid)

Last Anderson

First David

Birth 5 January 2009

Age: 8 month and 10 days Patient no: 3

Appointments

Form

Meeting (Doctor)

2nd (Drain) (Doctor)

Assess

Billing

Reports

Statistics

SUM Sun 8.0

S-W T, P, PC

Admission Agency

Meetings

2 month checkup 5 Mar 09 10:00

1 month checkup 5 Feb 09 10:00

Respiratory problem 22 Nov 08 12:00

10 days checkup 12 Jan 09 08:00

Counsel for return at home 9 Jan 09 04:00

Birth 5 Jan 09 04:00

Diagnosis

General

My Diagnosis

Social

New documents

Abdomen palp

18 Sep 2009

Cardiac auscult

18 Sep 2009

To do

Send checkup

Assess 1

Doc 0

Notes

Father ask: many questions, add 10 minutes to consultation

Current doctor Dr Herman

Menu 1 Menu 2 Menu 3 Search

Digestive

Digestive inspection

Normal

Digestive auscultation

Normal abdomen noises

Digestive palpation

Little pain on the right lower area

Thurs, 22 Jan 2009

Liver

No hepatomegaly.

Rectal

Page 1/1

Draw

Mask

Color

Size

Abdomen palp

18 Sep 2009

Cardiac auscult

18 Sep 2009

To do

Send checkup

Assess 1

Doc 0

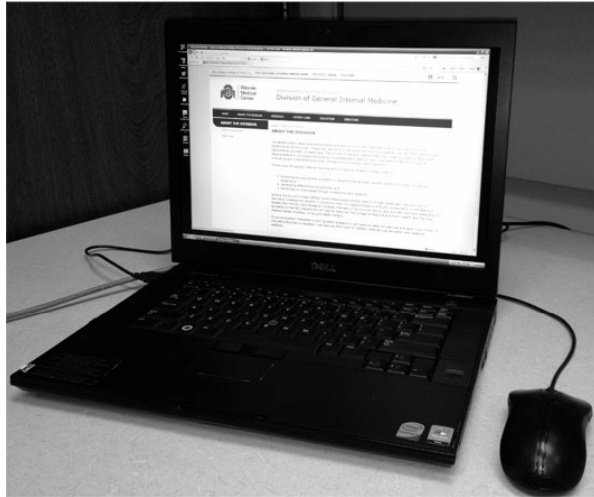
Documents manager

Previous page

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Image from Wikipedia Commons

Electronic Patient Portals



Summary

- Transformation requires resources *and* vision
- Deliberate process leads to maximal impact of change
- Look at your own practice's resources
- A change in perspective can lead to a change in efficiency and effectiveness