



# Making the Best Even Better

*A straightforward approach to capturing  
a larger market share by improving EMR  
workflow and winning the everlasting  
admiration of doctors everywhere*

**Dr. Bill Morehouse – His Branches Health Services**

November 9, 2015 Presentation at CCS – Not for public distribution

# The Winner's Circle



## Overall Opinion of EHR

Medent	7.3
Office Practicum	6.9
Modernizing Medicine	6.8

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Epic	5.9
eClinical Works	5.6
Allscripts	4.0
NexGen	3.7

# Hope, Healing, and Restoration



# CCS, Medent, and Us

- I've known about **Medent** for over 20 years.
- CCS was developed and has been operated by generations of the **Cuthbert** family as a service to the medical and patient community.
- A measure of **faith** is behind it.
- We honor, respect, and **value** its heritage.
- Our faith-based community health center chose Medent after serious prayer and consideration, and we count it a **privilege** to be offered the opportunity to assist in its development.

# My Background

- **1943 Youth** – WWII, models, bikes, scouts, sci-fi, cars
- **1962 College** – Clarkson engineering, Brown biology
- **1966 Medical School** – U of K, hi-fi, motorcycle riding and repair, photography, surfboarding – loved it all!
- **1970 Residency** – Family Medicine (Peds, Med, Surg, Psych, Women's Health, Ob), skiing – loved it all!
- **1973 Early Practice** – Attica, inner city, faith commitment, marriage, Kodak, family – loved it all!
- **1978 Current Practice** – Faith-based full family practice inner city community health center, neighborhood renewal, family and grandkids, and all the rest – still loving it all!

# Doctor at Attica 1972

STATE OF NEW YORK  
DEPARTMENT OF CORRECTION  
~~XXXXXXXXXX~~ EMPLOYEE'S PASS

NAME MOREHOUSE, William R. MD 203

SIGNATURE *W. R. Morehouse MD*

INSTITUTION Attica Corr. Fac.

~~XXXXXXXXXX~~ HOSPITAL


EMPLOYMENT Part Time Physician

~~XXXXXXXXXX~~

DATE 5/22/72

This pass must be carried on your person at all times.  
when working inside the institution. It must be turned  
in at the gate on leaving and picked up when re-entering.

*[Signature]*  
WARDEN  
SUPERINTENDENT





# Doctor at the Doorstep 1978



# Doctor with Family Now





# Computer technology and me

- **1980s PCs** – 8086, 286, 386, 486, floppies, dot-matrix, etc.
- **1980s DOS programs** – MultiMate, Lotus 1-2-3, Norton Commander, dBase, Procomm, etc.
- **1990s Windows programs** – Xerox Ventura Publisher, Corel, Wordstar, Word, Excel, Access, PowerPoint, etc.
- **1980s+ Communications** – voice pager, suitcase phone, bag phone, brick phone, Star-tac, and on to the iPhone...
- **Online** – AOL, email, create/ maintain >10 FrontPage websites - converted to WordPress in 2013.

## NEW COMPUTER PRODUCTS & PRODUCTIVITY TOOLS

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**Framework** ..... \$345

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**Lotus Symphony** ..... \$425

**dBase III** ..... \$379

**Multiplan (IBM/MS)** ..... \$135

**Word Perfect (4.0)** ..... \$265

**Multimate (3.3)** ..... \$275

**PFS Series** ..... \$79/Ea

**KnowledgeMan (1.07)** ..... \$275

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**Printers (Epson, Okidata, Toshiba, NEC)** ..... Call

**Hercules Monochrome/Color** ..... \$305/\$165

**AST e-Pak (64K)** ..... \$250

**M.A. Systems Pro Kit for PC Juniors** ..... Call

**Plantronics Color** ..... \$369

**Irma Card** ..... \$850

**Miniscribe 10MB Drive w/DTG** ..... \$695

**Controller Card** ..... \$2,495

**Bernulli Box 20 MB** ..... \$345

**PC Net** ..... \$345

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**1630 Oakland Rd., Suite A114, San Jose, CA 95131**  
**(408) 293-3360**

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TOLL FREE IN CALIFORNIA

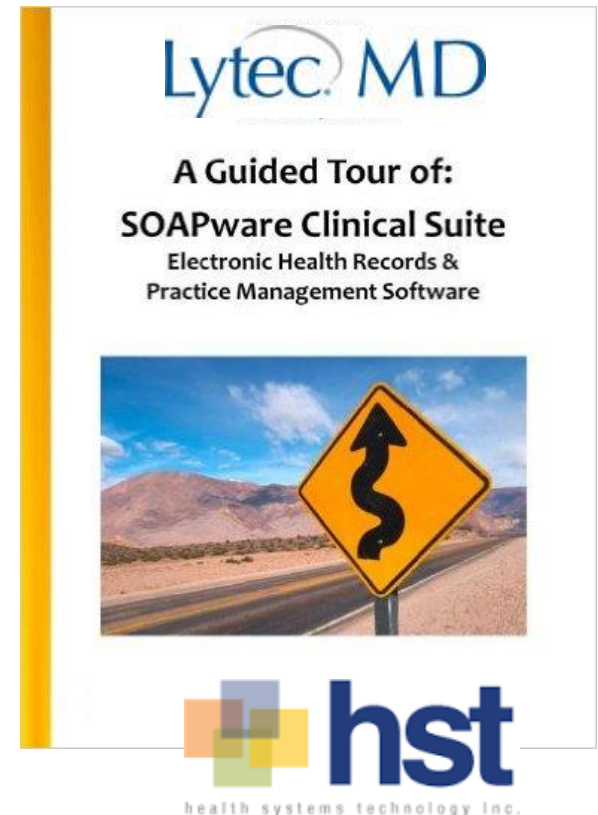
# Evolution of Medical Records

- Traditionally kept on **5x7 file cards** in drawers with one or two lines of handwriting for each visit
- Sometimes kept on **8.5x11 sheets** in manila folders
- Later the **manila folders** incorporated dividers that separated notes from labs, reports, correspondence
- **SOAP note system** (developed by Dr. Larry Weed in the 1960s as part of POMR project) written or typed on formatted sheets in folders with printed dividers that had places for PMSH, Problem Lists, Med and Allergy Lists and different sections for types of content. Weed's SOAP method was taught in Family Medicine residency in 1970s and incorporated into our practice in 1978.



# Our Medical Software

- **1986 Billing** – DOS-based
- **1992 Billing and Appointments** – Lytec integrated, Windows-based
- **2001 Medical Records** – SOAPware EMR, then 2004 HST integrated PMP/Medpointe suite
- **2000s Hospital Records** – GE maternity QS program, Epic eRecord with Med, Peds, Ob, SCN templates...
- **2015 Clinic conversion** – Medent All-In-One



out with the old...

# My Personality and Change

- **I love change** and welcome it.
- I create and lead change.
- I'm challenged by it.
- I see it as an opportunity, not a problem.
- I'm by nature a "can do" kind of person, not a complainer.
- I always want to help make things better.
- **I especially like change that improves things.**





# What is the Difficulty?

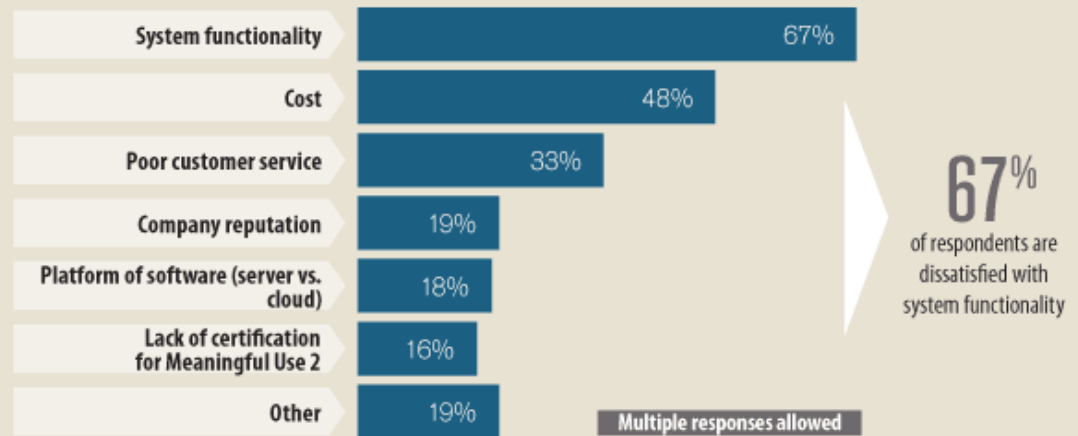
## **DOCTORS ARE STRUGGLING WITH THEIR EMRs** **(and we can understand)**

- Provider usability is the root of problem
  - Not intuitive or fully workflow optimized
  - Time consuming, intrusion on patient care
  - Require too many screens/clicks, data entry
  - Slows productivity, “note bloat”, etc.
- RAND Study October 2013 – 9 negatives vs. 3 positives
- Medical Economics February 2014 – over 2/3 don’t like
- Regular news reports and ongoing studies – ongoing angst
- Medical Economics October 2015 – confirms concerns

Functionality is  
the primary area  
of difficulty...

## Practices dislike EHR functionality and cost

Q: If you are planning to switch EHR systems, which factors are influencing your decision?

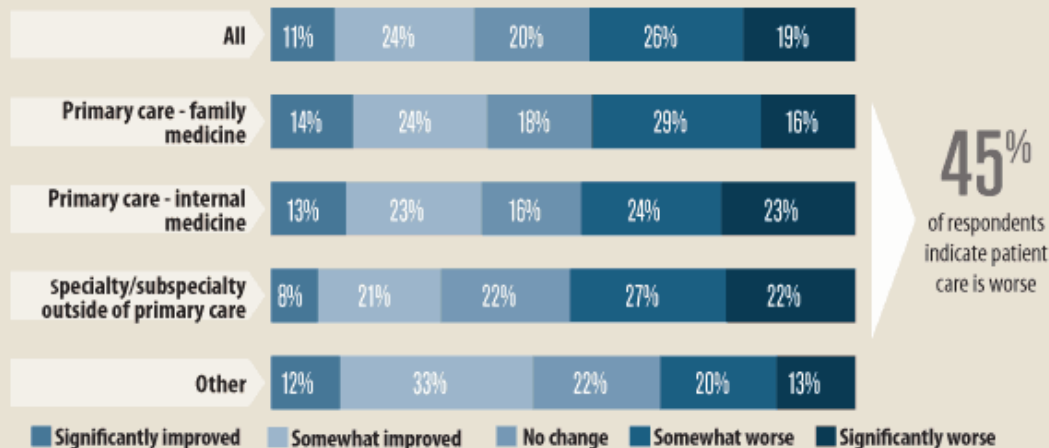


Source: 2014 EHR Survey; MPI Group/Medical Economics

N=606

## Impact on patient care

Q: To what extent has your EHR system improved the quality of patient care?\*



Source: 2014 EHR Survey; MPI Group/Medical Economics

\* Categories may not sum to 100% due to rounding.

N=959

...but negative  
impact on  
patient care is  
the bottom line.



"I hear there's a new ICD-10 code for carpal tunnel syndrome caused by clicking too many times in an EMR system."

# Medical Economics 2015 Best EHRs

## Medent currently leads the pack!

### Where do doctors think EMRs can improve?

- “**Why can’t I find an EHR that helps me** provide better care for my patients, lets me run my practice more efficiently, **and is easy to use?**”
- “**Most EHR systems ... fall short when it comes to doing what primary care doctors generally value most: capturing the exam room interactions.**”
- “**Where the problem comes now is the need to document things like the review of systems, the history of present illness and the assessment. But the products just aren’t well designed for that.**”
- “The **lack of user-friendliness** found in many EHRs, in part reflects the outlook of the people who design and build them.”
- “Vendors’ efforts to appeal to diverse segments of the healthcare market... with the result that EHRs so far have been big, monolithic things. **They try to be all things to everyone, and do a poor job for any given workflow.**”



# Medical Economics Rankings

## Medent missed 2015 top rating in 4 areas to Modernizing Medicine:

1. Chronic Care
2. Quality Metrics
3. Population Health
4. Vendor Support

Misses 1-3 will be overcome by collaboration with Arcadia. The 4<sup>th</sup> by reducing training time.

## Quality of Care Scores:

	<u>2014</u>	<u>2015</u>
SOAPware	8.0	-
Medent	7.2	7.2
Office Practicum	-	7.2
Modernizing Medicine	6.1	6.1

This presentation is all about picking up for lack of gain here.

# Components of an all-in-one EHR

## Front Office

- Scheduling
- Checking in/out
- Phone Messaging
- Filing/routing
- Printing documents
- Forwarding charts
- Patient Portal
- Email, triaging

## Back Office

- Billing/coding
  - ICD 9 to 10
- Referral approval
- Prior Authorization
- Report generation
  - Financials
  - Productivity
  - DMHM tracking
    - PCMH
    - Meaningful Use
    - Value-based

## Providers = EMR

- Rooming
- Encounter documentation
- History & Physical
- Problem List
- Diagnosis generation
- Medication List and ordering
- Lab ordering & evaluation
- Imaging ordering
- Referral generation
- Hospital/consultant follow up
- Billing code selection
- DMHM preventative health
- Care management

# Selected Areas for Improvement

## Documentation

- **Encounter workflow**

- Navigation
- Diagnosis selection
- H&P input
- Template integration
- A&P documentation

## Tracking

- **Clinical Flowsheets**

- V/S, Lab results

## Output

- **Printed/faxed material shared with patients and providers**

- Requisition and referral slips
- Referral letters
- Progress notes
- Prenatal charts

# Comparison of two EHR systems

## HST PMP/Medpointe

### Front Office

- Good, except for portal

### Back Office

- Reasonable billing but not for clinic, poor financial reports
- Poor data management, PCMH, MU, PQRS, DMHM tracking

### Provider EMR

- Fluid in room documentation with intuitive navigation and user-friendly, workflow-optimized interface

## Medent All-In-One

### Front Office

- Excellent

### Back Office

- Excellent clinic billing/reports, data management, PCMH, MU, PQRS, DMHM tracking
- Excellent population interface with Arcadia

### Provider EMR

- Fair in room documentation with linear navigation, less user-friendly and incompletely workflow-optimized interface



# **DOS** vs. **Windows type interfaces**

## **DOS-like**

- Data underneath
- Each program manipulates data individually
- Allows only one program to be active at a time
- Primarily menu-based operations
- Allows only one screen and one operation to be open at a time

## **Windows-like GUI**

- Data underneath
- Each program manipulates data individually
- Multiple programs may be active simultaneously
- Dialog, menu-based, and graphical operations
- Overview allows many operations to be managed at the same time

# DOS-like = No Multitasking

“Forget multitasking; DOS did one thing at a time. When you opened a program, that program took up your entire screen. Want to use another program? You’d need to close the current program and enter the command to open the other program.

“To get around this limitation, DOS provided a “terminate and stay resident” (TSR) function. TSR isn’t really multitasking. The program isn’t actually running in the background. Instead, it’s shut down and there’s a quick way to relaunch it. DOS can only run one program at a time.

“This is significantly different from modern shells which allow you to run programs and services in the background.”

From [PCs Before Windows: What Using MS-DOS Was Actually Like](#)

# Current Situation

## Difficulty

The current Medent All-In-One system is extremely capable with data management and has recently topped the 2015 Medical Economics survey, **but its EMR user interface remains linear, busy, and challenging for primary care providers to set up and use efficiently.**

However, many practices are and will continue using it.

## Opportunity

Develop a new Windows-like graphical user interface (GUI) shell program overlying the current Medent EMR data base that operates the EMR in a more intuitive, fluid, workflow maximized and efficient way.

Optimize shell as a primary care option, then let both old and new providers choose and allow the market to decide.

# Help Available

- Health Systems Technology developed a very good EMR graphical user interface that can be used as a **design model** to create an even better one. I have access.
- Their design is **not patented** or copyrighted.
- The physician who designed their EMR is no longer with HST, has **deep insight** into his design, is a personal acquaintance of mine, and has offered to help.



# A New Interface – Elements

## EMR Elements

- Dashboard
- Preventative Health
- Radiology, Consults
- Subjective
- Diagnosis Selection
- Problem List
- PMSH
- Objective
- Lab Results
- Analysis
- Plan
- Medication Handling
- Referrals
- E&M/Billing Coding
- Printing, Closeout

## Current

- Many lists/pages
- Separate screens
- Back to menus
- HPI Docgens
- Complex search, X2
- Fixed names
- PMSH DocGens
- Exam Docgens
- Complex flowsheets
- Multiple pages/clicks
- Separate elements
- Multiple clicks
- Multistep process
- Selected in exam
- All done individually

## New Interface?

- Accessible from one page
- List visible during encounter
- Easily accessible
- Diagnoses with dialog templates
- Simple Dx search in Subjective
- Can individualize Dx names?
- PMSH dialogs
- Exam element dialog templates
- Simple flowsheets
- Unified dialog each diagnosis
- Bundled with Analysis
- Simplified navigation
- Simplified process
- Selected from menu anytime
- Automated at close of visit

# Feature Comparison – Navigation

## Current

Individual pages for:

- Menus
- Messages
- Schedule
- All chart elements
- PMH, Fam Hx, Soc Hx
- Lab and X-ray orders
- Result flowsheets
- Prescriptions
- Etc., etc.

## New Interface?

One page accessibility:

- Menus
- Messages
- Schedule
- All chart elements
- PMH, Fam Hx, Soc Hx
- Lab and X-ray orders
- Result flowsheets
- Prescriptions
- Etc., etc.

# One Page Navigation

MedPointe - William R. Morehouse, MD (Grace Family Med)

File Reports Patient Billing Insurance Processing Patient Activity Appointments Clinical Documents Communications Tables Tools < all EHR elements

Clinical

Profile HPI ROS General Derm HEENT Neck Chest Heart Breasts Abd Male Rectal Ext Ortho Neuro Pulses Nodes Results < all Exam elements

Dx CPT Labs Imaging Referral Instruct Handout Meds Msg Note A&P Close Intake Alert Pt Info Print Queue SOAP < all Management elements

Account: 12738 585-123-1234

Patient Test

DOB: 01/18/53 Age: 62 Sex: M

appt/ins/contact info

Last Visit: 08/19/14 Next Visit: Sliding Scale 80% Rate Metro Health East

Schedule < Inbox < TOC Visit <

Consult Letters Hospital Reports Other

All Notes Labs Radiology

Date	Type	Subject
10/30/14	Letters	Health Care Proxy
10/28/14	Letters	Appointment Letter
10/08/14	Other	Faxed document
10/08/14	Other	Insurance Card
07/24/14	Reports	Misc Document
06/13/14	Reports	test
01/14/14	Letters	No show final
09/05/13	Notes	Vaccine, other viral
08/08/13	Reports	Phone Call
08/08/13	Reports	Phone call
06/25/13	Reports	Phone Call
11/12/12	Consult Letter	*other* Nurse-Family P
09/17/12	Notes	Notes
08/16/12	Reports	test

Overview Problems Meds History FlowSheets Ob/Gyn Notes Letters Documents < all Chart components

Problem List

Problem
Back Spasm
Bicuspid Aortic Valve
Bladder Diverticulum
Bleed Rectal
Ca Cheek
Derangement Shoulder
Dementia, senile
HTN, essential
Diabetes (IDDM) with complica
COPD
Migraine Common not intracra
Smoker, continuous

Add Problem Resolved Delete Problem Build List No Problems Show Notes Guidance

Medications

Medication	Strength
Sertraline	50mg
Sertraline	100mg
Oxycodone	5mg
Melatonin	3mg
Diovan	160mg
Lantus	100unit/m
Sertraline	100mg
Sertraline	100mg
Sertraline	25mg
Sertraline	50mg
Sertraline	50mg
Sertraline	50mg
Sertraline	100mg

Add Med Stop Med Delete Med Refill Build List No Meds Refill Hx Reaction Drug Info Sheet Pharmacy

General Notes

Flags, scratch pad notes...

Allergies & Reactions

Medication	Reaction
------------	----------

Add Allergy Delete Allergy NKDA

Preventive Care

DT FLP Exercise CPE Tdap Pneumo Guaiac Adv Dir MicroAlb HBA1C PPD DT Flu Unique Profile

Prev. Care

One Page Accessibility

# Feature Comparison – Multitasking

## Current

- Can only have one page open at a time unless multiple copies of Medent are running.
- If a page is open in one copy, it can be opened in another but not modified.
- Moving from screen to screen involves closing one and then opening the other to edit.

## New Interface?

- Auto save feature allows/encourages going from screen to screen and function to function without exiting and reopening over and over.
- Manage multiple tasks from one interface instead of one task per interface.

# Feature Comparison – Subjective

## Current

- Each piece of Subjective data including Chief Complaint and individual HPI sections must be crafted individually with DocGens using custom-made templates or free texted.
- Diagnoses must be entered again as a separate function in A&P.

## New Interface?

- Subjective data is entered into a premade, userbase tested, streamlined, diagnosis-linked dialog box that is auto-selected when diagnoses are chosen at start of encounter.
- Diagnosis selections in HPI auto populate Chief Complaint section above and A&P sections below.

# Subjective Interface

MedPointe - William R. Morehouse, MD (Grace Family Med)

File Reports Patient Billing Insurance Processing Patient Activity Appointments Clinical Documents Communications Tables Tools

Clinical

Profile HPI ROS General Derm HEENT Neck Chest Heart Breasts Abd Male Rectal Ext Ortho Neuro Pulses Nodes Results

Dx CPT Labs Imaging

Account: 2759  
William Morehouse  
DOB: 03/13/43 Age: 72  
for presentation purpose  
Last Visit: 11/03/14 Next Visit  
Medicare Blue Cross  
Walmart - Chili Ave

Schedule Inbox T  
August 15, 2014  
Time Room Type  
4:00pm OV Morehouse

**Urinary Hx**

Pre-Set: Default

**General**

Initial/Follow up: Undetermined  
Complaint/Problem: BPH w/o obstruction

**Onset**

Problem began: 0 Unspecified ago  
Timing: Unspecified

**Course**

It is: Unspecified Unspecified  
Since: Unspecified 0 Unspecified

**Characteristics**

**At Onset** **Currently**  
Severity: Unspecified Unspecified

**Associated Sx**

**Episodes**

**Number**  
There have been 0 episodes  
Unspecified Unspecified

**Duration**  
Episodes last approximately 0 Unspecified  
The longest lasted 0 Unspecified

**Setting**  
Episodes occur: Unspecified

Note

Save Cancel

**Preventive Care**

DT 08/06/09  
FLP  
Exercise  
CPE  
TdaP  
Pneumo  
Guaiaac  
Adv Dir  
DT  
Flu 11/03/14  
Scope 01/16/09  
Unique Profile

Diagnosis dialog, tab 1



# Dialog boxes guide/record history

MedPointe - William R. Morehouse, MD (Grace Family Med)

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Walmart - Chili Ave

Schedule Inbox T  
August 15, 20  
Time Room Type  
4:00pm OV Morehou

Urinary Hx

Pre-Set: Default

**General**

**Bladder/Urethra** WNL

Urinary frequency ☐ Yes ☐ No ☒ Unspecified  
Incontinence ☐ Yes ☐ No ☒ Unspecified  
Urinary hesitation ☐ Yes ☐ No ☒ Unspecified  
Diminished stream ☐ Yes ☐ No ☒ Unspecified  
Post-void dribble ☐ Yes ☐ No ☒ Unspecified  
Nocturia ☐ Yes ☐ No ☒ Unspecified  
Pressure ☐ Yes ☐ No ☒ Unspecified

**Urine** WNL

Hematuria ☐ Yes ☐ No ☒ Unspecified  
Malodorous urine ☐ Yes ☐ No ☒ Unspecified  
Cloudiness ☐ Yes ☐ No ☒ Unspecified

**Associated Sx**

**Constitutional Sx** WNL

Fevers ☐ Yes ☐ No ☒ Unspecified  
Chills ☐ Yes ☐ No ☒ Unspecified  
Sweats ☐ Yes ☐ No ☒ Unspecified  
Malaise ☐ Yes ☐ No ☒ Unspecified  
Myalgias ☐ Yes ☐ No ☒ Unspecified  
Weight loss ☐ Yes ☐ No ☒ Unspecified

**GI Sx** WNL

Nausea ☐ Yes ☐ No ☒ Unspecified  
Vomiting ☐ Yes ☐ No ☒ Unspecified

**Pain** WNL

Dysuria ☐ Yes ☐ No ☒ Unspecified  
Flank pain ☐ Yes ☐ No ☒ Unspecified  
Groin pain ☐ Yes ☐ No ☒ Unspecified  
Suprapubic pain ☐ Yes ☐ No ☒ Unspecified  
Testicular pain ☐ Yes ☐ No ☒ Unspecified

Save Cancel

**Preventive Care**

DT [i](#)  
FLP [i](#) 08/06/09  
Exercise [i](#)  
CPE [i](#)  
TdaP [i](#)  
Pneumo [i](#)  
Guaia [i](#)  
Adv Dir [i](#)  
DT [i](#)  
Flu [i](#) 11/03/14  
Scope [i](#) 01/16/09  
Unique Profile

Urinary Hx

Diagnosis dialog, tab 2

# Feature Comparison – Dx names

## Current

- Each Diagnosis has one name under which it can be located. This name cannot be changed on Problem List or looked up under any aliases, e.g. “Peptic reflux disease” cannot be found under “GERD,” “Acid reflux,” “Gastroesophageal reflux,” etc.

## New Interface?

- Each Diagnosis can have multiple aliases, each of which is linked to the same underlying code making selection much easier. Name can be changed for clarity on Problem List, e.g. “Intrinsic asthma without status asthmaticus” can be renamed “Intrinsic asthma”

# Dx selection, naming

MedPointe - William R. Morehouse, MD (Grace Family Med)

File Reports Patient Billing Insurance Processing Patient Activity Appointments Clinical Documents Communications Tables Tools

Clinical

Profile HPI Dx CPT Lab

Account: 12738  
DOB: 01/18/53  
Age: 62  
Sex: M

Problem  
Back Spasm

Medications

Medication Strength Add Med

Patient Diagnosis

Diagnosis: 718.91  
Description: Derangement, left shoulder  
Date Onset: 04/20/10  
Resolved: // Priority: High

Onset  
☐ Since Birth ☐ Since Childhood ☐ Since Adolescence  
☐ Since Adulthood ☐ Other

Goal

Added by on 04/20/10

Note:

Save Cancel

AKA - Alternate Descriptions

Derangement Shoulder

Can also be found as

Add Item Delete Item Exit

Diagnosis Table

Code: 718.91

Description: Shoulder Derange NOS

Chart Text: Derangement, shoulder

Snomed Code:

Category: Unspecified

Pick List Group: Unspecified

AKA

Diagnosis Sets

AutoVisit

Guidelines

☐ Code is no longer in use  
☐ Prefix Required  
☐ Related To Family Planning  
☐ Related To Well-Child Visit  
☐ Requires Special Preventive Care  
☐ Chronic Problem  
☐ Acute Problem  
☐ Problem is Pertinent (treated by practice)  
☐ Do not report to the patient portal

Raw code

Save Delete Cancel

Preventive Care

DT  
FLP  
Exercise  
CPE  
Tdap  
Pneumo  
Guaic  
Adv Dir  
MicroAlb  
HBA1C  
PPD  
DT  
Flu

Unique Profile

# Feature Comparison – PMSH

## Current

- Each piece of PMSH data must be assembled individually with complex DocGens or free-texted.
- Relevant material is difficult to find and document.
- Output is not intuitively easy to scan and read.

## New Interface?

- Fill out PMH/PSH, Family History, and Social History using pretested elements selected from dialog boxes.
- Output is thorough, lucid, consistent, and easily understood.

[illegible]

**Note separate tabs for PMH, Fam Hx, Soc Hx and output format**



# Social History input example

MedPointe - William R. Morehouse, MD (Grace Family Med)

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Profile HPI ROS General Derm HEENT Neck Chest Heart Breasts Abd Male Rectal Ext Ortho Neuro Pulses Nodes Results

Dx CPT Labs Imaging Referral Instruct Handout Meds Msg Note A&P Close Intake Alert Pt Info Print Queue SOAP

Account: 2759 585-436-1628

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DOB: 03/13/43  
for presenta  
Last Visit: 11/03/14  
Medicare  
Walmart

Schedule Inbo

August

Time Room Type  
4:00pm OV

Overview Problems Meds History FlowSheets Ob/Gyn Notes Letters Documents

DMH / DSH Family Hx Social Hx Infectious Disease

**Social Hx**

Habits Educational/Occupational Life/Situational Other Barriers to Learning

**Tobacco** WNL

Smoker Former Amt Type Unspecified per day

Quit Date 1974 Pack year hx 15

☐ Second Hand Smoke

**Exercise**

Regular exercise ☐ Yes ☒ No ☐ Unspecified

**Alcohol** WNL

☐ None Amt 3-4 / Year

Wine

**Illicit Drug Use** WNL

☐ None

Marijuana in college

**Caffeine**

☐ None

**Diet**

☐ Vegetarian ☐ Vegan ☐ Gluten-free ☐ Low salt ☐ Diabetic

☐ Low F& ☐ Low Carb ☒ No limitations

Save Cancel

**Social Hx**

FlowSheet

Add Record  
Delete Record  
Include  
Select  
Reverse  
Graph  
Print  
Fax  
Preventive Care



# Feature Comparison – Objective

## Current

- Each piece of Objective data must be assembled individually with complex DocGens or free-texted.
- Templated exams often have missing or irrelevant sections that need to be added or subtracted.
- No way to save patient-specific findings.

## New Interface?

- Can choose which exam elements to use on the fly
- Exam elements each have templates with all relevant and customizable choices easily selected from one dialog box
- Patient- or exam-specific findings can be saved in an exam template.

# Objective Interface

[illegible]

## Exam dialog

# Feature Comparison – Flow Sheets

## Current

- Each flow sheet must be viewed separately with several clicks
- Hand-selected Lab results can be included in Notes only by date ordered, not from flow sheet
- Immunizations use a separate method
- Lab gibberish is imported along with results

## New Interface?

- Flow sheets can be seen in rapid sequence by just choosing one from main menu
- Lab results can be included in Note by date and flow sheet element, labeled as such in Note
- Immunizations are listed in a Flow Sheet
- Only clean values imported

# Flow Sheet interface

MedPointe - William R. Morehouse, MD (Grace Family Med)

File Reports Patient Billing Insurance Processing Patient Activity Appointments Clinical Documents Communications Tables Tools

Clinical

Profile HPI ROS General Derm HEENT Neck Chest Heart Breasts Abd Male Rectal Ext Ortho Neuro Pulses Nodes Results  
Dx CPT Labs Imaging Referral Instruct Handout Meds Msg Note A&P Close Intake Alert Pt Info Print Queue SOAP

Account: 672 585-235-4531  
**Sabrina Chatman**  
DOB: 12/23/59 Age: 55 Sex: F  
Last Visit: 01/21/15 Next Visit: MVP Healthcare  
SIDNEY HILLMAN HEALTH CTR

Overview Problems Meds History FlowSheets Ob/Gyn Notes Letters Documents  
Screening Rheumatology Medications Pap smear Gyn/Prenatal Urine Tox STD Celiac OB - Visit OB - Other Export  
Vitals Immunizations Orders All Data Diabetes Management Coagulation Lipids CBC Endocrine Lytes/Renal Thyroid Heme Hepatic

**Many Flow Sheets to choose from above customizable menu**  
**Lytes/Renal**

	01/17/15	01/06/15	08/02/14	01/06/14	10/19/13	01/07/13	07/09/12	03/15/12	01/17/12	01/05/12	12/03/11	03/05/11	10/05/09	09/20/08
FGLU	138	155	117	114	94	90	77	103	151	88	117	122	210	211
BUN	10	8	7	9	9	9	9	7	9	10	10	8	9	9
CREA	0.71	0.79	0.67	0.74	0.67	0.73	0.74	0.62	0.59	0.65	0.71	0.71	0.8	0.8
NA	144	141	140	142	142	145	144	141	141	141	142	141	140	138
K	4.5	4.0	4.0	4.0	3.9	4.0	3.9	3.7	3.9	4.6	4.1	4.2	4.0	4.0
CL	106	102	100	102	106	106	104	102	99	100	103	106	103	102
CO2	32	30	28	29	28	27	28	28	27	26	28	29	29	27
CA	8.7	9.1	9.8	8.7	8.9	8.4	8.5	8.9	8.7	9.5	9.4	9.2	8.9	9.5
Phosphorous														
Magnesium														
GFR														
GFR Black	>60	97	115	106	>60	> 59	> 59	> 59	> 59	> 59	>60	>60	92	92
GFR Cauc	>60	85	100	92	>60	> 59	> 59	> 59	> 59	> 59	>60	>60	76	76
MicroAlb													72.0	37.0

FlowSheet  
Add Record  
Delete Record  
Include  
Select  
Reverse  
Graph  
Print  
Fax  
Preventive Care

**One click comprehensive Flow Sheets**

# Feature Comparison – **Assess/Plan**

## **Current**

- Diagnoses that have been discussed in individually crafted HPI sections above must be entered again as a separate function in the A&P section, often using a cumbersome diagnosis look-up function.
- Chief Complaint section is a separate Subjective entry.

## **New Interface?**

- Diagnosis selections chosen for the HPI section auto populate the A&P section below.
- Diagnoses may be changed or reordered in A&P list without changing HPI text.
- Top diagnosis in A&P auto populates the Chief Complaint section above.

# Feature Comparison – A&P cont.

## Current

- Each Diagnosis has several A&P buttons that must be opened and closed sequentially with separate clicks to document status, make comments, arrange follow up plans, and enter orders (including printing each one individually).

## New Interface?

- Each Diagnosis has a simple integrated A&P interface with assessment, comments, and frequently used order selections included.
- Plans for lab scheduling, office follow up, billing, time spent, and sign out (including printing all orders) are on one page.



# A&P Interface

MedPointe - William R. Morehouse, MD (Grace Family Med)

File Reports Patient Billing Insurance Processing Patient Activity Appointments Clinical Documents Communications Tables Tools

Clinical

Profile HPI ROS General Derm HEENT Neck  
Dx CPT Labs Imaging Referral Instruct Handout

Account: 2759 585-436-1628  
**William Morehouse**  
DOB: 03/13/43 Age: 72 Sex: M  
for presentation purposes  
Last Visit: 11/03/14 Next Visit:  
**Medicare Blue Choice**  
Walmart - Chili Ave.

Schedule Inbox TOC Visit

Diagnosis / Complaint

BPH w/o obstruction

Renumber Recode Remove

Overview

Cambria

ID:

Subject

Review:

Medical

Objectiv

Vitals:

General:

Chest:

Assess/

1) BPH w/o

**Assessment and Plan**

**Selected Diagnosis**

BPH w/o obstruction

Status: Controlled  
Adequately

☒ Continue Current Regimen  
☐ Add to Problem List  
☐ Dictate Plan

☒ Family History was reviewed  
☒ Social History was reviewed  
☒ Past Medical History was reviewed  
☐ Allergies were reviewed  
☐ Medication List was reconciled  
☐ Updated Med List was given

Additional Instructions: Patient Instructions

Restrict fluids after supper.

Note: (Does not appear on Visit Summary)  
Rx needs Prior Auth

**Actions Linked**

**Maintenance Meds**

☒ Cialis  
☐ Aspirin  
☐ Calcium + Vit D  
☐ Ranitidine HCl

**Preventive Care**

DT 08/06/09  
FLP  
Exercise  
CPE  
TdaP  
Pneumo  
Gualac  
Adv Dir  
DT  
Flu 11/03/14  
Scope 01/16/09

Unique Profile

5mg 1 Tab daily.

In pain. Appropriate

Auto Correct

Save Cancel

A&P dialog with Actions Linked

# Feature Comparison – **Printing**

## **Current**

**Every item must be printed or sent individually from its own screen:**

**Checkout slips, Clinical Visit Summaries, Lab & Imaging Requisitions, New & Reordered Rx's, Orders, Referral slips, Handouts, Notes, and Portal Access info sheets.**

## **New Interface?**

**Every item in the list at the left can be printed or sent individually if so chosen or all at once at closing with one click.**

# Feature Comparison – Closing

## Current

- All that is actually done at closing now is signing the note.
- Every other task must be accomplished in advance, one item at a time, with each item requiring opening a full page screen, inputting information, and closing the screen.

## New Interface?

- Every item on the closing dialog box on the next page can be handled from one page with one closing stroke, including E&M coding, lab scheduling and CC, follow up visit, chart contents, notes to front and back office, printing...
- Signing is separate.

# One Stop Closing

MedPointe - William R. Morehouse, MD (Grace Family Med)

File Reports Patient Billing Insurance Processing Patient Activity Appointments Clinical Documents Communications Tables Tools

Clinical

Profile HPI ROS General Derm HEENT Neck Chest Heart Breasts Abd Male Rectal Ext Ortho Neuro Pulses Nodes Results

Dx CPT

Account: 2759  
DOB: 03/13/43  
Last Visit: 11/03/14

Schedule  
Time Room T  
4:00pm O

**Close Visit**

**E&M Code**  
new pt. visit, level 5 99205  
est. pt., level 1 (5 min) 99211  
est. pt. visit, level 2 99212  
Established Patient, Level 3 99213  
**Office/Outpatient Visit, Est 99214**  
est. pt. visit, level 5 99215  
[Code Assist](#)

**Review**  
☒ Family History was reviewed ☐ Include in note  
☒ Social History was reviewed ☐ Include in note  
☒ Past Medical History was reviewed ☐ Include in note  
☐ Allergies were reviewed ☐ Transfer of care  
☒ Medication list was reconciled  
☐ Updated medication list was given  
☒ Significant counseling Time: 35 minutes

**Nurse Order**  
**Just look at all this!**  
[Add Comment](#)

**Message To Checkout**  
Call transportation  
☐ Include in note ☐ Courtesy - No Copay

**Labs To Be Done In**  
1 ☐ Days ☐ Weeks ☐ Months ☐ Persistent Order [Multiple Reqs](#)

**Next Appointment**  
3 ☐ Days ☐ Weeks ☐ Months ☐ Years  
☐ PRN ☐ CPE  
Extended Visit  
William R. Moreho

**Copy Results To**  
☒ Cannon, John  
[Add Copy To](#)

**Print** **Hello!**  
☒ Check-Out Slip  
☒ Prescriptions  
☒ Lab Requisitions  
☒ Imaging Requisitions  
☒ Visit Summary  
☒ Orders  
☒ Referral Slips  
☒ Handouts  
☒ Notes  
☐ Portal Access Info

**Portal Participant**

**Preventive Care**  
DT 08/06/09  
FLP  
Exercise  
CPE  
TdaP  
Pneumo  
Guaiaac  
Adv Dir  
DT  
Flu 11/03/14  
Scope 01/16/09  
[Unique Profile](#)

[Save](#) [Cancel](#)

One Stop closing dialog



# Is this where our EMR is today?



# How do we get it flying like this?





# What will it take to succeed?

1. A heart to move forward
2. Commissioning a dedicated interdisciplinary team of software developers and primary care users
3. Corporate support with moderate investment



## Result:

1. Less new user training/support needed
2. Substantial increase in sales, revenue, and ratings
3. Thousands of happy doctors down the road