



**West Virginia**  
**Health Information Network**



# HealthBridge Background

- Operating since 1997
- Serve a population of over 2.2 million patients (3 states) with 1.8 million in the Patient Index
- Steady utilization growth by physicians, office staff, hospital employees, billing offices, nursing homes.
- Hospitals include : St Elizabeth's St Luke's, The Health Alliance, TriHealth, Mercy Health Partners, Children's, Deaconess, McCullough Hyde, Christ Hospital and Adams County



# HealthBridge Background

- Other participating facilities- Quest, LabCorp, ProScan Imaging, Kentucky Diagnostic Center
- Running Axolotl since 2000
- 17 different Health Departments connected to HealthBridge
- Working with independent exchanges including eHealth Collaborative in Bloomington and CCHIE in Springfield Ohio
- Jointly develop products and leverage each others strengths.



Greater Cincinnati Healthbridge - Windows Internet Explorer

https://ssl.healthbridge.org/,DanaInfo=portal.healthbridge.org+index.cfm

File Edit View Favorites Tools Help

Google G Go Bookmarks Popups okay Check AutoLink AutoFill Settings

UPS: Tracking Inf... WV Healthcare

**HealthBridge**

Home Physicians Directory

Clinical Messaging Hospital Systems Insurance Medical Reference

**Announce**

**McCullough**

McCullough-Hyde transcriptions, a you receive your automatically. If you're not electr happy to assist

**Patient information available when**

Since 2004 Mercy Health Partners (MHP) has provided the Mercy Health Partners Web Portal as a comprehensive and accessible viewing tool for patient information. New additions to DOCView include medications, vital signs, and the Medical Record.

MHP also providing two new services: DX View through Healthbridge and Mercy MD Advantage.

DX View is a medical imaging review tool that enables physicians to view

Administration Contact Us Logoff

» Keith Hepp is logged in to WEB01 «

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HorizonWP Physician Portal - Windows Internet Explorer

http://physicianportal.mercy.healthbridge.org

File Edit View Favorites Tools Help

Google G Go Bookmarks

HorizonWP Physician Portal

**DOC**  
V · I · E · W

>Welcome

Login last refresh: 12:53 PM

**Log In**

Username:

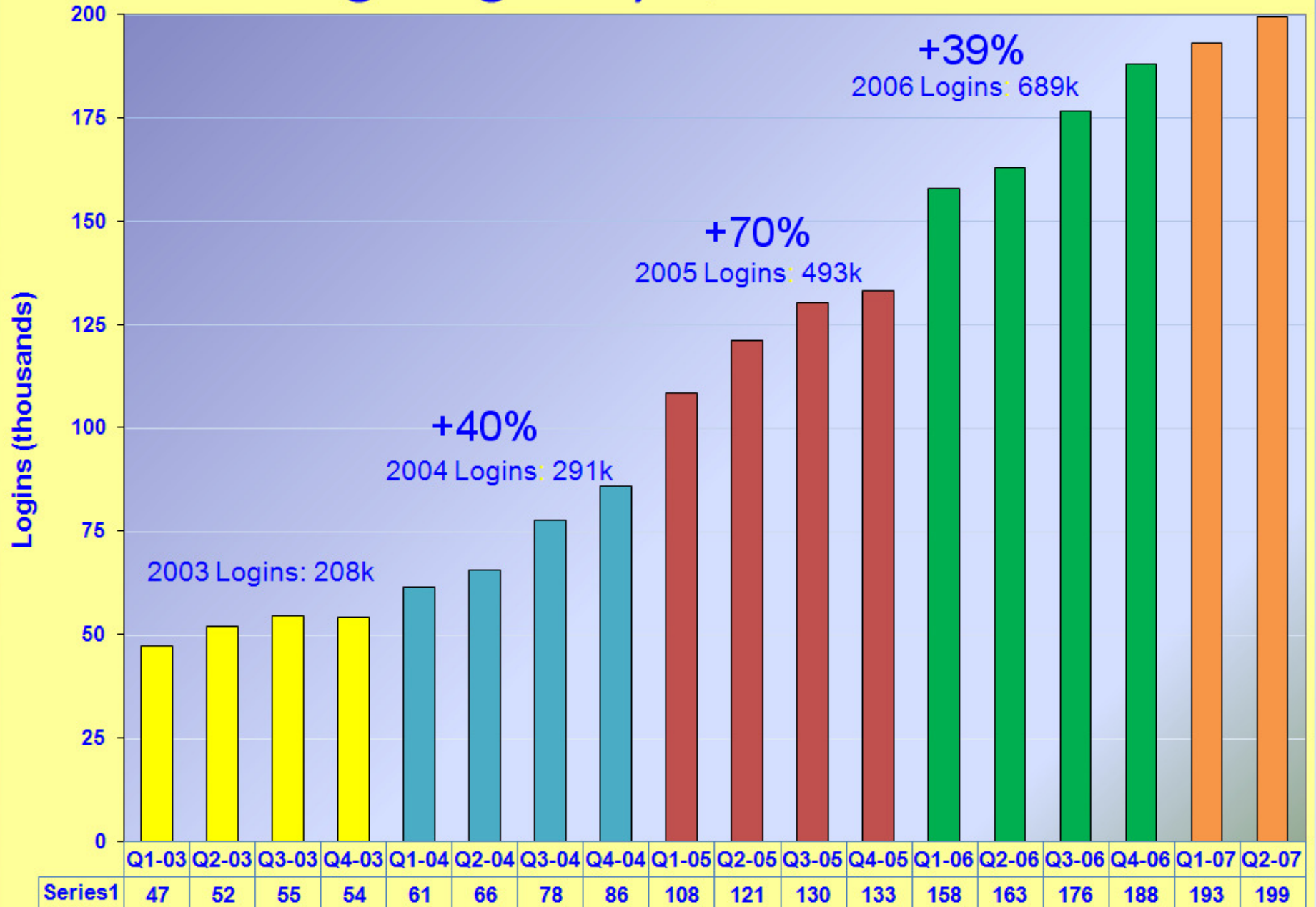
Password:

Log In

Done Internet 100%

Start 7 M Mic... Jo... 5 I... 12 ... Mic... Google 12:53 PM

# HealthBridge Logins by Quarter 2003 to 2007



# ORGANIZATIONS CREATING CLINICAL TRANSACTIONS

PHYSICIAN ORGANIZATIONS

HEALTH SYSTEMS & HOSPITALS

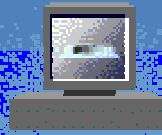
LABS, IMAGING CENTERS, ETC.

PUBLIC HEALTH DEPARTMENTS

Forward Results  
EMR Outbound  
Lab Results

Lab Results, Radiology Reports,  
Transcribed Reports, ADT Notices

Health Alerts  
Reportable Diseases



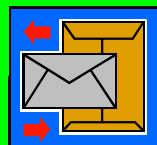
- PHYSICIAN DIRECTORY
- MASTER PATIENT INDEX



AUTOMATED "PUSH"

- PHYSICIAN OF RECORD
- CONTENT TRIGGER

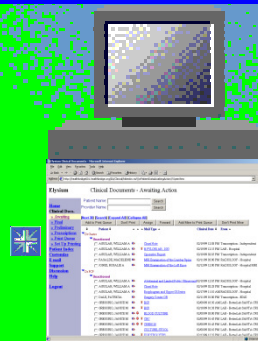
PHYSICIANS  
PUBLIC HEALTH  
HEALTH PLANS



MAIL



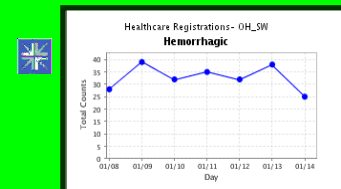
FAX



CLINICAL INBOX



EMR



SYNDROMIC SURVEILLANCE



HealthBridge

# Community Clinical Messaging Results Sent

October 2007

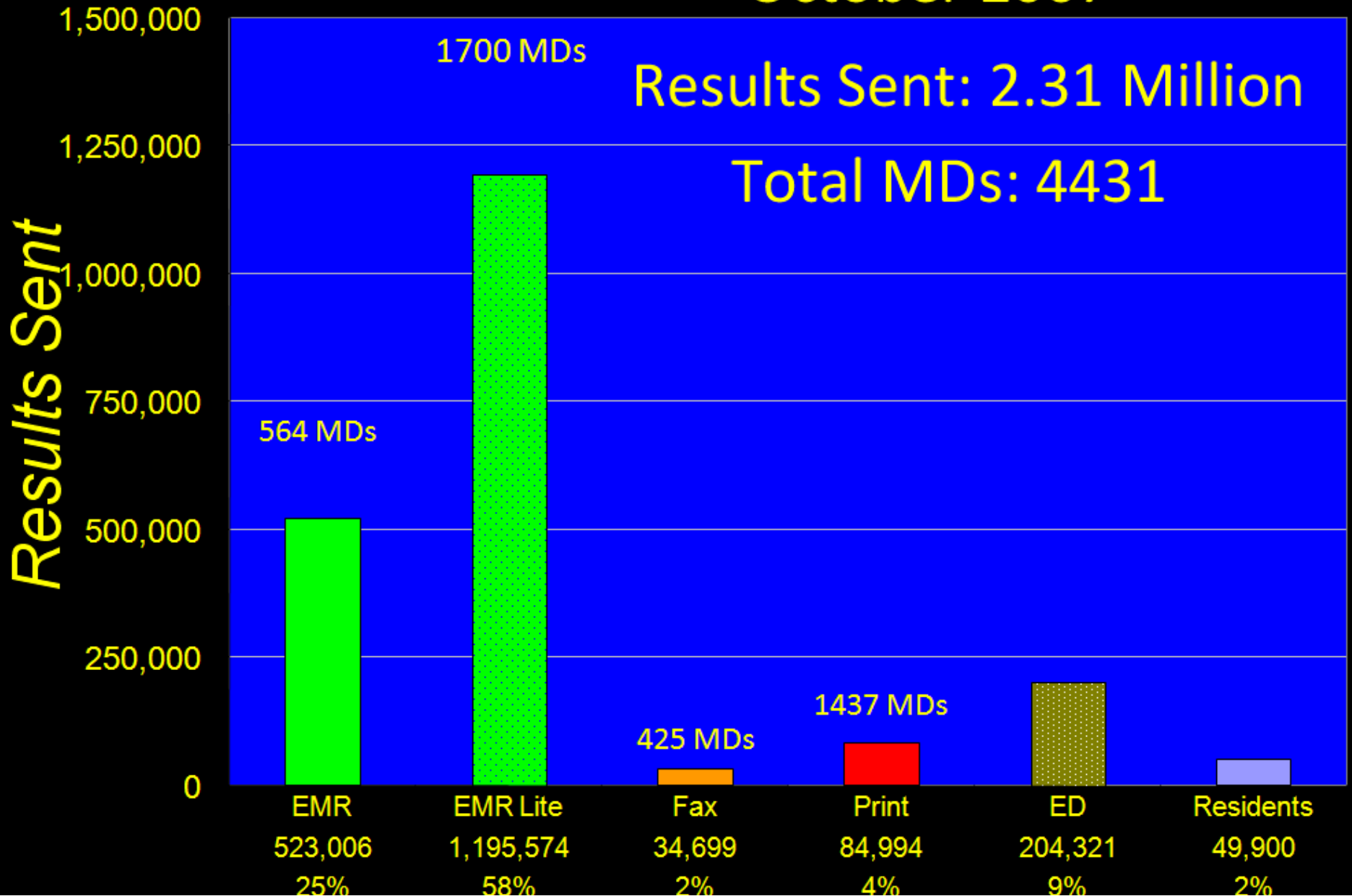




# Clinical Messaging Results Sent October 2007

Results Sent: 2.31 Million

Total MDs: 4431



# HealthBridge Clinical "Inbox"

Elysium

Clinical Documents - Awaiting Action

Note lab, radiology & transcribed reports from several hospitals for a two physician office

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**Clinical Docs.**

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Patient Name:

Provider Name:

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◆ Patient ◆	▲ ▲ ▲ Mail Type ▲	Clinical Date ◆	From ▲
▼ Dr Gastro			
▼ Unactioned			
<input type="checkbox"/> AGUILAR, WILLIAM A	<a href="#">Chart Note</a>	02/19/99 12:08 PM	Transcription - Independent
<input type="checkbox"/> AGUILAR, WILLIAM A	<a href="#">H.PYLORI AB - IGG</a>	02/19/99 12:55 PM	LAB - Hospital
<input type="checkbox"/> AGUILAR, WILLIAM A	<a href="#">Operative Report</a>	02/19/99 02:05 PM	Transcription - Independent
<input type="checkbox"/> FAGALDE, MADELEINE	<a href="#">MRI Examination of the Lumbar Spine</a>	02/11/99 03:00 PM	RADIOLOGY - Hospital
<input type="checkbox"/> JONES, ROSALIE A	<a href="#">MRI Examination of the Left Knee</a>	02/12/99 12:00 PM	RADIOLOGY - Hospital MRI
▼ Dr PCP			
▼ Unactioned			
<input type="checkbox"/> AGUILAR, WILLIAM A	<a href="#">Abdominal and Limited Pelvic Ultrasound</a>	02/18/99 12:05 PM	RADIOLOGY - Hospital
<input type="checkbox"/> AGUILAR, WILLIAM A	<a href="#">Chart Note</a>	02/16/99 02:28 PM	Transcription - Hospital
<input type="checkbox"/> AGUILAR, WILLIAM A	<a href="#">Esophagram and Upper GI Series</a>	02/17/99 11:10 AM	RADIOLOGY - Hospital
<input type="checkbox"/> DALE, PATRICIA	<a href="#">Surgery Center OR</a>	02/11/99 01:00 PM	Transcription - EDiX
<input type="checkbox"/> GREGORIO, JANICE M	<a href="#">BCP</a>	02/09/99 10:50 AM	LAB - BetterLab SANTA CRUZ
<input type="checkbox"/> GREGORIO, JANICE M	<a href="#">BCP</a>	02/10/99 01:38 PM	LAB - BetterLab SANTA CRUZ
<input type="checkbox"/> GREGORIO, JANICE M	<a href="#">BLOOD CULTURE</a>	02/08/99 03:00 PM	LAB - BetterLab SANTA CRUZ
<input type="checkbox"/> GREGORIO, JANICE M	<a href="#">CBC</a>	02/08/99 01:45 PM	LAB - BetterLab SANTA CRUZ
<input type="checkbox"/> GREGORIO, JANICE M	<a href="#">CHEM 20</a>	02/08/99 01:45 PM	LAB - BetterLab SANTA CRUZ
<input type="checkbox"/> GREGORIO, JANICE M	<a href="#">CULTURE, STOOL</a>	02/08/99 02:10 PM	LAB - BetterLab SANTA CRUZ

# HealthBridge Clinical "Inbox"

Elysium

Clinical Documents - Awaiting Action

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**Clinical Docs.**

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Patient Name:

Provider Name:

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<input type="checkbox"/>	<a href="#">Patient</a>	<a href="#">Lab Type</a>	<a href="#">Clinical Date</a>	<a href="#">From</a>
<input type="checkbox"/>	SAMUELS, ELMER K	CRP	02/12/99 02:53 PM	LAB - BetterLab SANTA CRUZ
<input type="checkbox"/>	GREGORIO, JANICE M	BCP	02/10/99 01:38 PM	LAB - BetterLab SANTA CRUZ
<input type="checkbox"/>	GREGORIO, JANICE M	CBC	02/08/99 01:45 PM	LAB - BetterLab SANTA CRUZ
<input type="checkbox"/>	AGUILAR, WILLIAM A	H.PYLORI AB - IGG	02/19/99 12:55 PM	LAB - Hospital
<input type="checkbox"/>	GREGORIO, JANICE M	WEST SEDRATE OP	02/08/99 01:45 PM	LAB - BetterLab SANTA CRUZ
<input type="checkbox"/>	GREGORIO, JANICE M	ELECTROLYTES	02/12/99 12:32 PM	LAB - BetterLab SANTA CRUZ
<input type="checkbox"/>	WAY, DOROTHY A	CBC	02/05/99 02:40 PM	LAB - BetterLab SANTA CRUZ
<input type="checkbox"/>	SAMUELS, ELMER K	CBC	02/12/99 02:53 PM	LAB - BetterLab SANTA CRUZ
<input type="checkbox"/>	GREGORIO, JANICE M	CHEM 20	02/08/99 01:45 PM	LAB - BetterLab SANTA CRUZ
<input type="checkbox"/>	GREGORIO, JANICE M	WESTERGREEN SED	02/08/99 12:40 PM	LAB - BetterLab SANTA CRUZ
<input type="checkbox"/>	SAMUELS, ELMER K	WEST SEDRATE OP	02/12/99 02:53 PM	LAB - BetterLab SANTA CRUZ
<input type="checkbox"/>	GREGORIO, JANICE M	BCP	02/09/99 10:50 AM	LAB - BetterLab SANTA CRUZ
<input type="checkbox"/>	WAY, DOROTHY A	UA COMPLETE	02/05/99 02:40 PM	LAB - BetterLab SANTA CRUZ
<input type="checkbox"/>	SAMUELS, ELMER K	ASO SCREEN	02/12/99 02:53 PM	LAB - BetterLab SANTA CRUZ
<input type="checkbox"/>	AGUILAR, WILLIAM A	UA COMPLETE	02/14/99 12:45 PM	LAB - UniLab
<input type="checkbox"/>	GREGORIO, JANICE M	CULTURE, STOOL	02/08/99 02:10 PM	LAB - BetterLab SANTA CRUZ
<input type="checkbox"/>	AGUILAR, WILLIAM A	Esophagram and Upper GI Series	02/17/99 11:10 AM	RADIOLOGY - Hospital
<input type="checkbox"/>	WAY, DOROTHY A	BLOOD CULTURE	02/05/99 06:05 PM	LAB - BetterLab SANTA CRUZ
<input type="checkbox"/>	JONES, ROSALIE A	MRI Examination of the Left Knee	02/12/99 12:00 PM	RADIOLOGY - Hospital MRI

Results sorted by abnormal lab values

# Community Standard Lab Result

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[📌 Results normal](#) [Add to Print Queue](#) [No Print](#) [Action](#) [Cumulative View](#)

## Elysium FINAL LAB RESULTS FROM BETTERLAB SANTA CRUZ HOSPITAL

▼ GREGORIO, JANICE M Age: 49 Sex: F Phone: (408) 195-2888 DOB: 06-Feb-1952

Name: GREGORIO, JANICE M SSN: Age: 49  
 Address: PO BOX 55 Sex: F Date of Birth: 06-Feb-1952  
 FREEDOM CA 95019 Elysium Patient ID: 000217590014 Alias:  
 Home Phone: (408) 195-2888 Work Phone: Ext:

▼ Ordered STAT by DR PCP


Attending Physician: DR GASTRO Consulting Physician:  
 Referring Physician: UNKNOWN Copies To:

### Hematology CBC

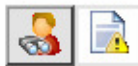
Sample taken on: 08-Feb-1999 10:45 AM


Observation	Value	Reference Range	Units	Note
✓ WBC	9.65	4.80-10.80	THOUSAND	
✓ HGB	↓ 8.8	12.0-16.0	G/dl	
✓ HCT	↓ 29.2	36.0-48.0	PERCENT	
✓ PLATELETS	↑ 533	130-400	THOUSAND	
✓ RBC	↓ 3.16	4.20-5.40	MILLION	
✓ MCV	92.3	83.0-99.0	fl	
✓ MCH	27.9	27.0-32.0	pg	
✓ MCHC	↓ 30.2	32.0-37.0	G/dl	
✓ RDW	14.5	11.5-14.5	PERCENT	
NEUT	↑ 77.4	40.0-74.0	PERCENT	
LYMPH	↓ 8.7	19.0-48.0	PERCENT	
MONO	↑ 10.0	3.5-9.0	PERCENT	

# Final View- Used To Access All Electronic Results for a Practice





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**Welcome, Dr Jones! – Wednesday, September 1**

**Aguilar, William I – 07/26/1902 M 123345-CMH** Visit:  Facility:  From:  To:  

All
Summary
Cumulative Lab
Lab
Radiology
Reports
ADT
Patient Info

### Lab

<input type="checkbox"/>	09/14/2004 06:20 AM	 CBC	Timothy Morningstar
<input type="checkbox"/>	09/13/2004 06:20 PM	Bas. Metab. PNL	Robert Jones
<input type="checkbox"/>	09/13/2004 06:20 AM	 CA Serum	Robert Jones
<input type="checkbox"/>	09/13/2004	Protime, PTT	Jessica Sullivan

### Radiology

<input type="checkbox"/>	09/14/2004	Chest 2 Views	Timothy Morningstar
<input type="checkbox"/>	09/14/2004 06:00 AM	ABDOMEN PELVIC ULTRASOUND	Robert Jones
<input type="checkbox"/>	09/13/2004	CHEST DECUB	Robert Jones
<input type="checkbox"/>	09/12/2004	Chest 2 Views	Timothy Morningstar

### Reports

<input type="checkbox"/>	09/14/2004	Cardiac Cath	Robert Jones
<input type="checkbox"/>	09/14/2004	Consultation	Robert Jones
<input type="checkbox"/>	09/10/2004	History and Physical	Jessica Sullivan
<input type="checkbox"/>	08/02/2003	Discharge Summary	Timothy Morningstar
<input type="checkbox"/>	08/01/2003	History & Physical	Timothy Morningstar

### Visits and Current Location

<input type="checkbox"/>	I S	09/13/2004	Inpatient Transfer	2201-2	Timothy Morningstar
<input type="checkbox"/>	I S	09/10/2004	Inpatient Admission	2200-1	Timothy Morningstar
<input type="checkbox"/>	E R	06/11/2004	Emergency Admission	Home	Germain Patel
<input type="checkbox"/>	I M	08/02/2003	Inpatient Discharge	SNF	Robert Jones
<input type="checkbox"/>	I M	08/01/2003	Inpatient Admission	2211-2	Robert Jones

### Cumulative Lab

	09/14/04 06:20 am	09/13/04 04:20pm	09/13/04 06:20 pm	09/13/04 12:30 pm	09/13/04 06:30 am	09/12/04 01:00 pm	09/12/04 06:20 am	09/11/04 06:20 pm	09/11/04 06:00 am	09/11/04 04:00 am	06/12/03 09:00 am	08/01/03 06:00 am
HEMOGLOBIN	9.6		8.9		9.7		10.2				11.4	9.2
HEMATOCRIT	29.7		27.3		30.0		33.1				31.5	29.1
SODIUM	139		144		140		139				167	139
POTASSIUM	5.4		5.3		4.6		6.3				4.3	4.1
PTT	14.4	14.6	18.2	21.9	13.6	13.6	13.7	12.2	12.3			

# Other Activity

- Physician office exchanging data:
  - Patient First attached the office lab onto Clinical Messaging
  - Cardiology Associates sending office notes through platform
- Ambulatory lab ordering
- Public Health reporting
- Public Health communication link
- EMR Connectivity back to the exchange
- Syndromic surveillance feeds
- OR Data search



# Cath Lab Example

- Cath lab image project:
  - Images created at cath lab at St E's and St Luke's
  - Read at Cardiology Associates of Northern KY
  - Images requiring consult used to be burned to CD, and couriered
  - Patient on table during transport
- Placed PACS server at HealthBridge
- All share images
- Reduced the time from hours to minutes to communicate
- Measurable quality improvement

# Future Products

- ePrescribing – Q1 2008 – using Axolotl ePrescribing product. Leveraging the CPI key
- Registries – Q4 2007
- Hand held integration – Q1 2008
- Automation of cancer reporting – Q2 2008
- Interconnect with Indiana Health Exchange Q1 2008
- Interested in connecting to KY eHealth work
- State reportable diseases feeds
- HIE clerical and professional staff outsourcing



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