

Transforming Healthcare Delivery Through Communities

HUBbub, April 6, 2011 3:00 – 3:30 p.m.

Regenstrief Center for Healthcare Engineering

A growing field

- Healthcare delivery, healthcare engineering, healthcare systems research (etc.)
- □ The challenges we see
 - Right care, right patient, right time
 - Fragmentation, variation

"We need a hub..."

- □ How can we create a better healthcare system?
 - Researchers/universities, professional organizations, research companies, QIOs, etc.
- Enable collaboration:
 - Aligning stakeholders (think vertical integration)
 - Multi-site trials and validation

Toward a better healthcare system

- Online collaboration to <u>transform healthcare delivery</u>.
- Develop <u>research and educational tools</u> and materials in healthcare delivery.
- Provides a <u>free and open place</u> for researchers to <u>share</u> data sets, <u>develop</u> and pilot tools, and collaborate on projects.
- Provides a place for the <u>outcomes</u> of such projects to be <u>disseminated</u> to researchers, practitioners, and patients.

How We Use Communities

- Some types of tools are not "owned"
 - May not be publicly available
 - Not the source of published work
- Tools and data are secured through HUB groups
 - Some research content is not public-facing
- Tools are not the results; they are the method
 - Results may be in the form of case studies, policy and practice recommendations, and to a lesser extent, research publications.
- Tools and data may have finite lifetimes

How We Use Communities

- Data is often shared across institutions
 - Motivations
 - User agreements
- Community participants are diverse
 - Researchers and practitioners
 - Interplay of RQs and practice, policy

Community Example 1: Preventing Hospital Readmissions

Researchers at multiple universities sharing

- Data from several hospital systems
 - De-identified data and secured on separate server
- Three tools for data exploration and visualization
 - Technical discussion with tool developers
- Data analysis plans
- Manuscripts in progress

Readmissions Community Tools

Reducing Preventable Hospital Readmissions

롿 All communities

Tools	Discussion	sources	Wiki	Messages	Members	Overview
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Analytical Visualization Tools

RainDrop: Interactive Daily Activity Viewer



Use this viewer to see a graphical view of logitudinal patient behavior. Choose attributes to filter and/or color the display to see specific patient behaviors.

Launch ~ View Training

Aubice: Interactive Correlation Tester



Use this viewer to see a graphical view of logitudinal patient behavior. Choose attributes to filter and/or color the display to see specific patient behaviors.

Launch ~ View Training

NOTE: you must log in to this system separately. Your login name is the same as for catalyzecare.org and your initial password is available by email to mzentner (at) purdue.edu or plmorris (at) purdue.edu. You will be asked to change your password upon first login.

Tabular Data Viewers

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Tabular data viewers provide an easy to use interface for dynamically filtering the large sets of data in this project. Use these to construct data tables the way you want to see them and download the CSV files for further analysis.

View Training

• Patient Data - A summary of the basic information about the patients irrespective of their admissions.

Challenges

- Few HUB resources...the Dropbox problem
 - Work in progress...by multiple parties
 - Not well-suited to HUB resources

Reducing Preventable Hospital Readmissions

		Overview	Members	Messages	Wiki	Resources	ſ
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- **Resources 8 results**
- "Tools" are not really HUB resources
- Future HIPAA compliance
- No "push" of data from groups

Community Example 2: Infusion Pump Informatics



Healthcare systems sharing:

- Access to a tool that visually presents data
 - Data from "smart" medication infusion pumps
 - Compare my data to others
 - Ease of use
- Pharmacy medication profiles
- Participation in technical discussions
 - Wish list for tool improvements
- Best practices for patient safety

Infusion Pump Informatics Community

Infusion Pump Informatics

Overviev	Members	Overview Mem	Messages	Wiki	Resources	Discussion	Run
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About (private)

This group supports general users of the Infusion Pump Informatics system on CatalyzeCare.



What's in this group for you?

The Wiki

The Wiki is where this group has a place for its private web pages. Currently, we have:

- NEW! March 24, 2011 User Community Update Page
- 2011 Conference Photos
- An overview of IPI
- A page of IPI user contacts
- A start of documentation about data handling
- AC's Notes from August 2010 meeting

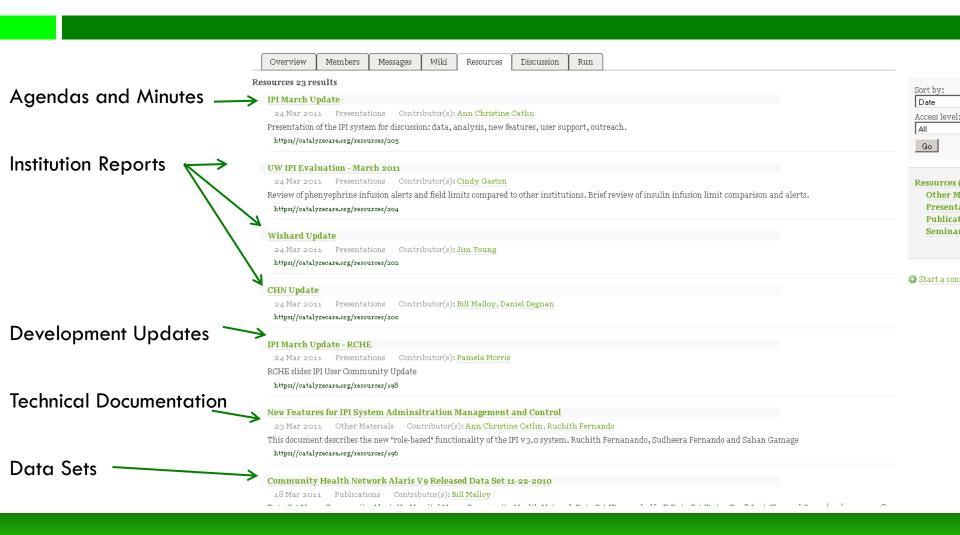
Resources

Anyone can contribute resources to the group. Examples of our resources include:

- Tutorial ⇒Video 1 and ⇒Video 2
- Information about past and upcoming IPI muser meetings
- And more IPI-relevant documentation!

Discussion

IPI Community Resources

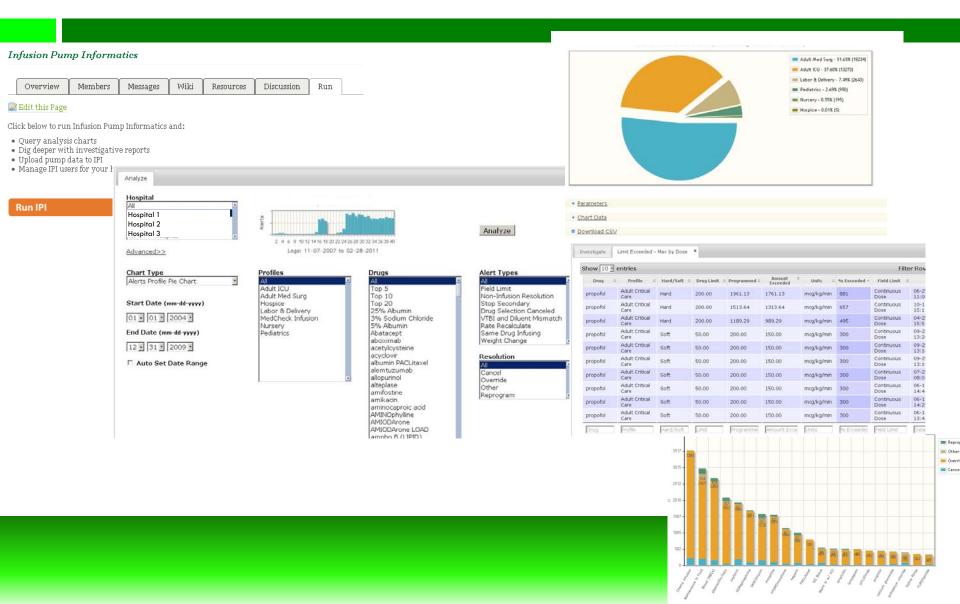


IPI Community Discussions

Infusion Pump Informatics

Overview	Members	Messages	Wiki	Resources	Discussion	Run		
					New topic			
Торіс							Replies	Author
Sticky: Infusior	n Pump Resear	ch Questions					0	Ken Musselman 2011-01-13 09:42:54
CQI data accros	s multiple hosp	bitals					2	Bill Malloy 2011-03-21 16:33:39
Oncology medic	ations						3	Cindy Gaston 2011-03-07 21:37:49
Comments on H	iospital Inform	ation Templat	B				1	Pamela Morris 2011-01-08 18:09:27
What Documen	tation is neede	d for IPI?					5	Pamela Morris 2010-12-08 13:50:34

IPI Community Tool



Community: Lessons Learned

□ Ease of use is key

Audience is not necessarily technically savvy

- Straightforward vocabulary
- No code

Overview Members Messages Wiki Resources Discussion

```
* '''bold''', '''!''' can be bold too''', and '''! '''
* '''talic''
* ''''bold italic'''''
* __underline__
* {{{monospace}}} or `monospace`
* ~~strike-through~~
* ^superscript^
* ,,subscript,,
```

Community: Lessons Learned

- Need for compelling reason to access group
 - Tool access or data access
 - Key documentation
 - Access to tool developers (discussion board)
- ...And a reason to return
 - Not once-and-done
 - Use feedback, currency, fresh data, new members, and growth of diversity in membership

Question 1

