

# Innovative HIT Bridges Geographic Healthcare Barriers

Allen L. Gee, MD, PhD, FAAN  
Frontier NeuroHealth  
Wyoming

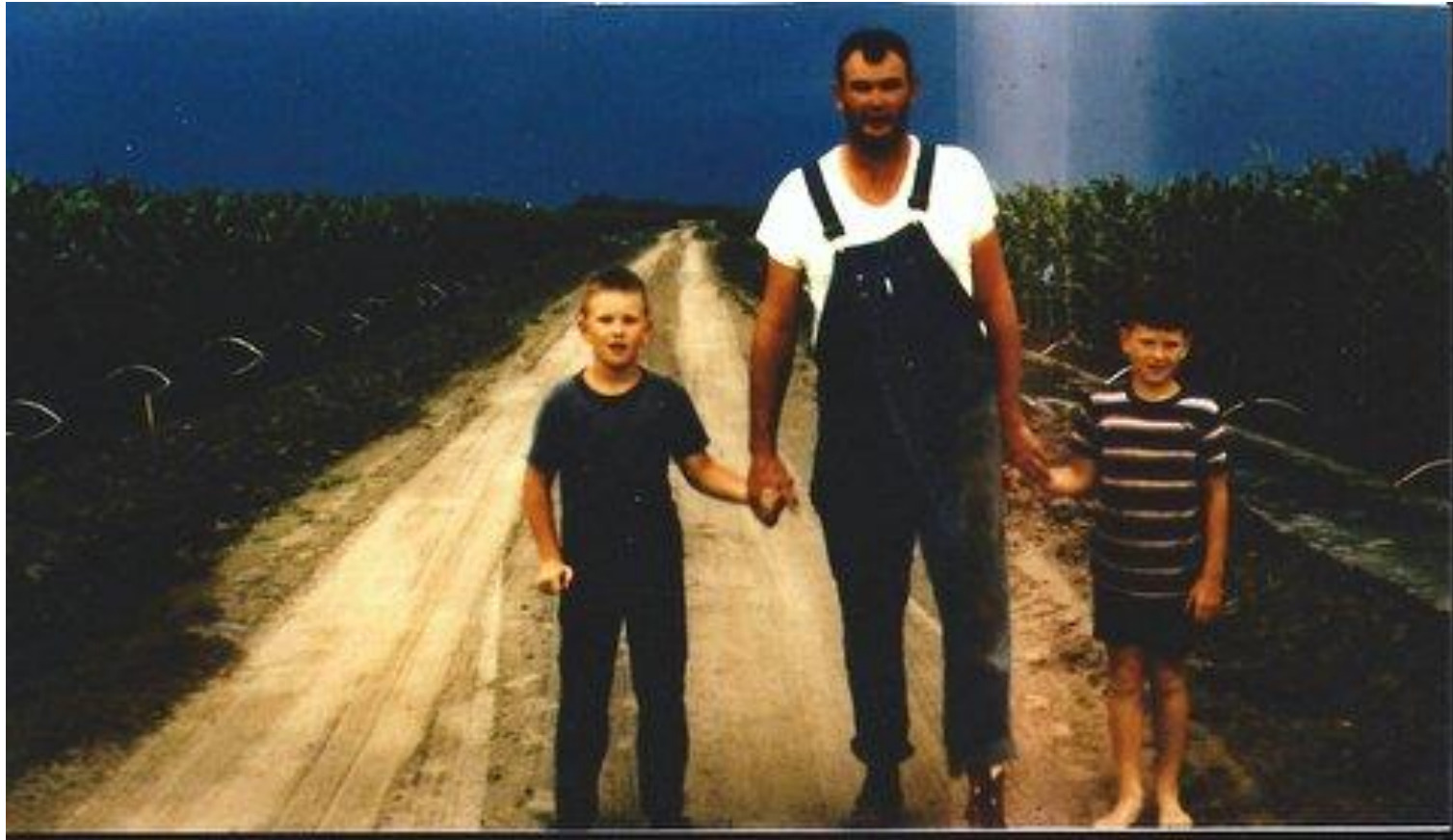
# Learning Objectives

Participants should understand how small practices can leverage technology to their benefit.

Participants should understand Innovative solutions to connect patients and providers

Participants should understand a new model of sustainable health information exchange.

# Life on the Farm



# Life since the Farm

MD/PHD at U of NE

NE is vertically challenged

Neurology Residency at U of Utah

No parking at wilderness trailheads

Opened First Neurology Practice in Sheridan

Have built an Integrated NeuroHealth Network

# Rural Healthcare Barriers

Culture

Geography

Financial

Isolated providers/lack of colleagues

Regulations and Bureaucracy

# Rural Culture



# Geography/Population

We are a small town with really long roads.

Driving from Alzada to Kalispell is the same as driving from Alzada to Texas

In Wyoming most towns have a higher elevation than population



# Financial

Small communities cannot financially support extensive medical expertise

HIT is expensive. \$44K/provider to implement outpatient HIT solution

Telemedicine AV solutions have historically been expensive

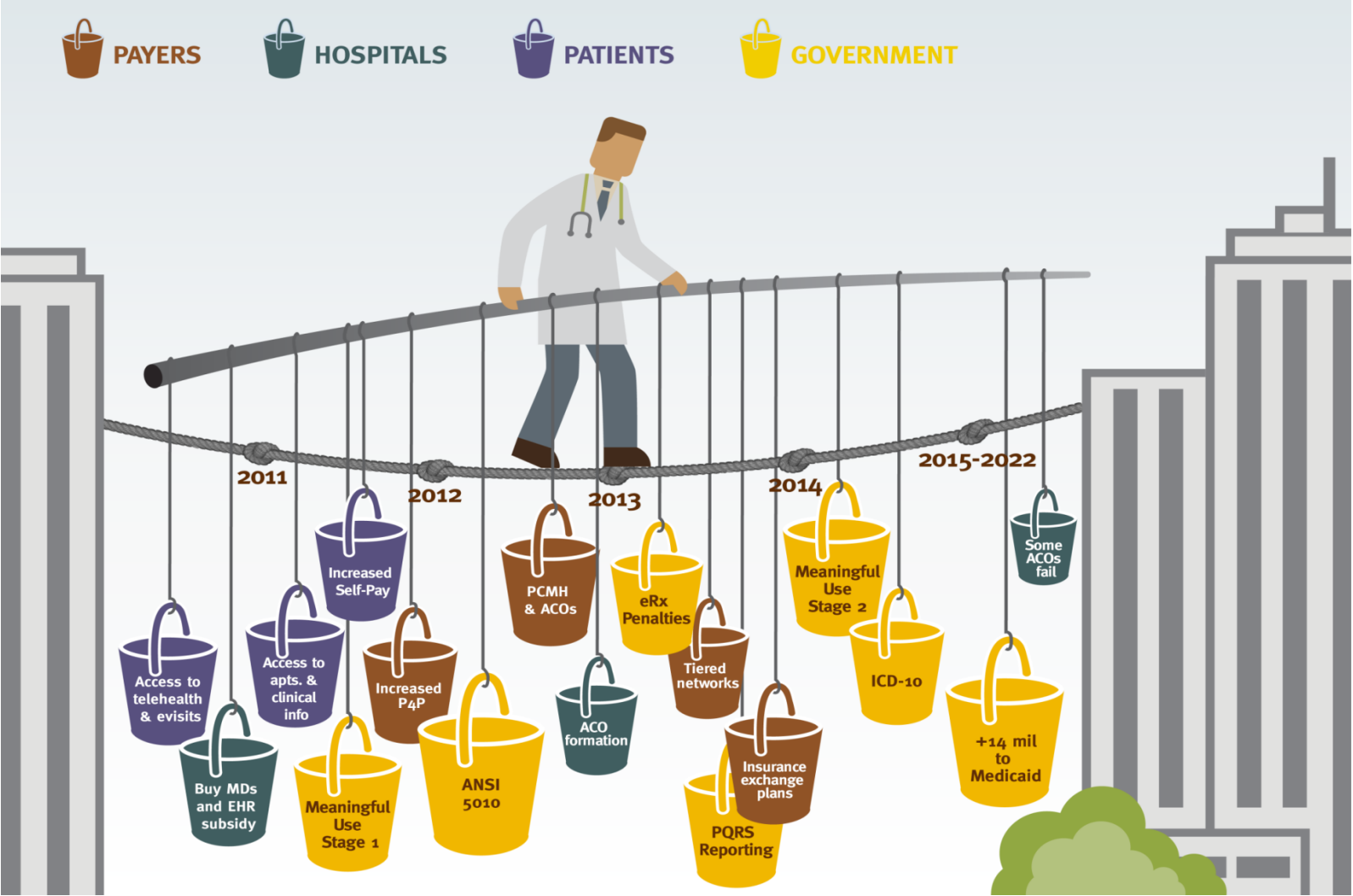


# Isolated providers/lack of colleagues

Tradition has been for concentrated expertise in larger communities with outreach to smaller communities as time and personnel permit



# Regulations and Bureaucracy



# I Believe Technology can Bridge Geographic Barriers

My First attempt to Network Offices failed

Learned

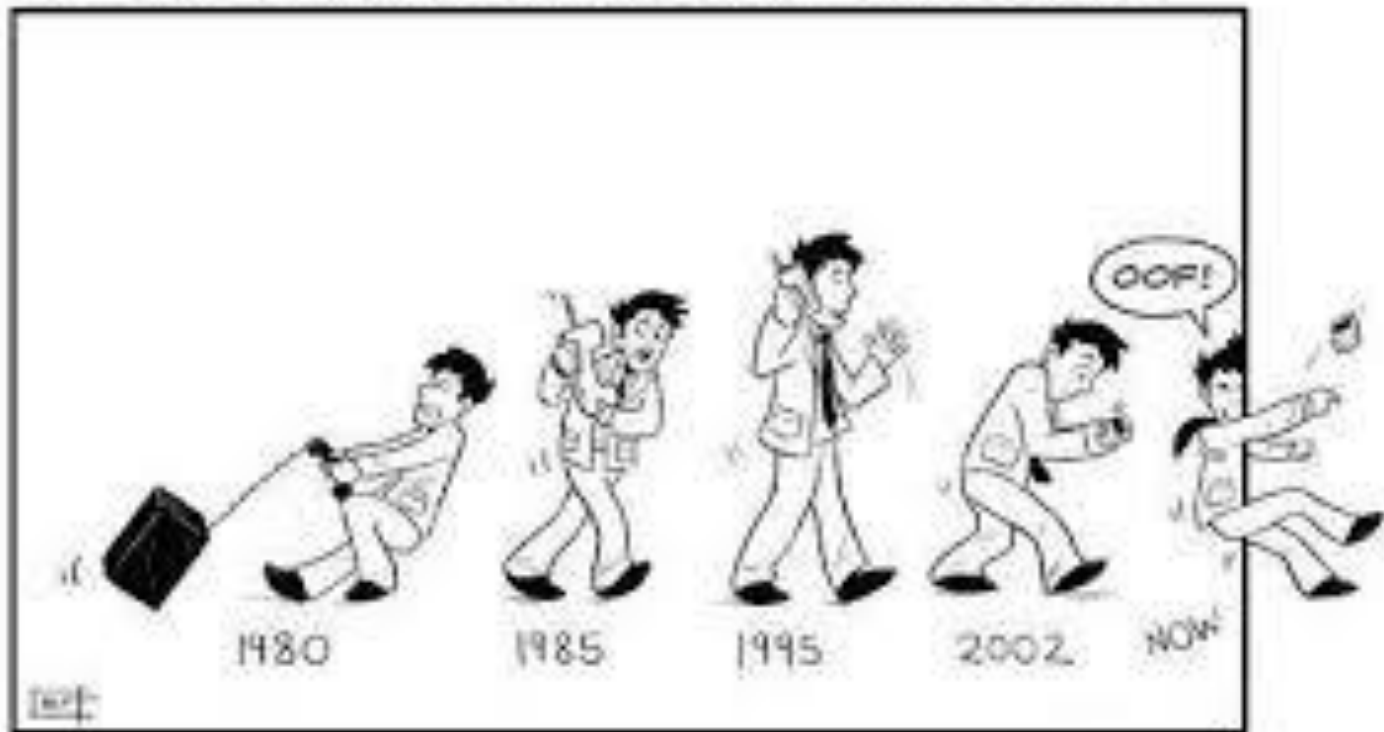
We don't need EHRs

HIT is just a tool and buying software doesn't deliver results and is expensive

Currently have offices in 8 communities in WY

# Technology Changes

*the* EVOLUTION of CELL PHONES



I Believe the Internet will be Big  
Someday

# Computing is Following an Evolutionary Path to the Cloud



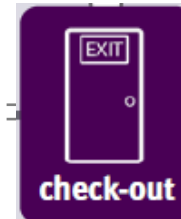
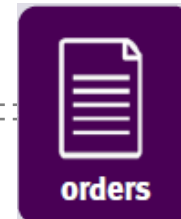
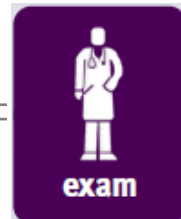
# Physician Practice Process

- Register patients
- Schedule appointments
- Referral management

- Confirm demographics
- Collect co-pays and deductibles
- Scan insurance cards
- Collect completed HIPAA forms

- Collect outstanding balances
- Schedule next visit
- Charge entry
- Referral management

- End-of-day review process
- Self-pay follow-up
- Review performance monthly



- Appointment reminders
- Enroll provider for EDI, ERA, EFT
- Check patient eligibility
- Identify co-pay amounts

- Process credit cards
- Track HIPAA compliance, global table of insurance

- Ensure accuracy of data entry
- Track, report, coach, and optimize workflow
- Benchmark across the practice, peer group, region, and network

- Embedded rules engine
- Provide coding reference tools and payer responsibility advice (select payers)

# How can Cloud SeS improve a Practice?

Improved access to expertise and knowledge

Insurance rules based engine

3000 back office staff

Access to powerful reporting and analytic tools

Guaranteed MU

“The World is Flat”



# **You Can't Improve What You Can't Measure**

You need ongoing visibility into your practice's  
productivity

# The Revenue Cycle

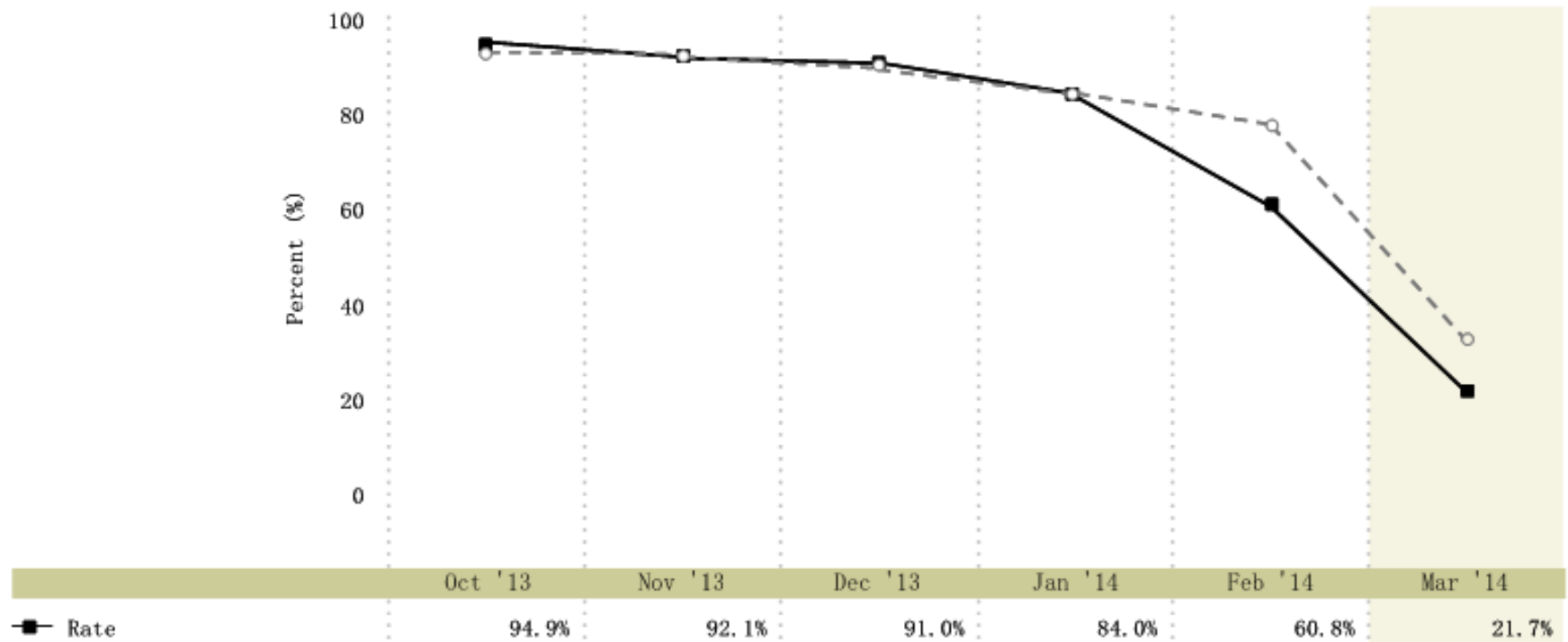
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# Revenue Realization Rate

## Revenue Realization Rate (RRR)

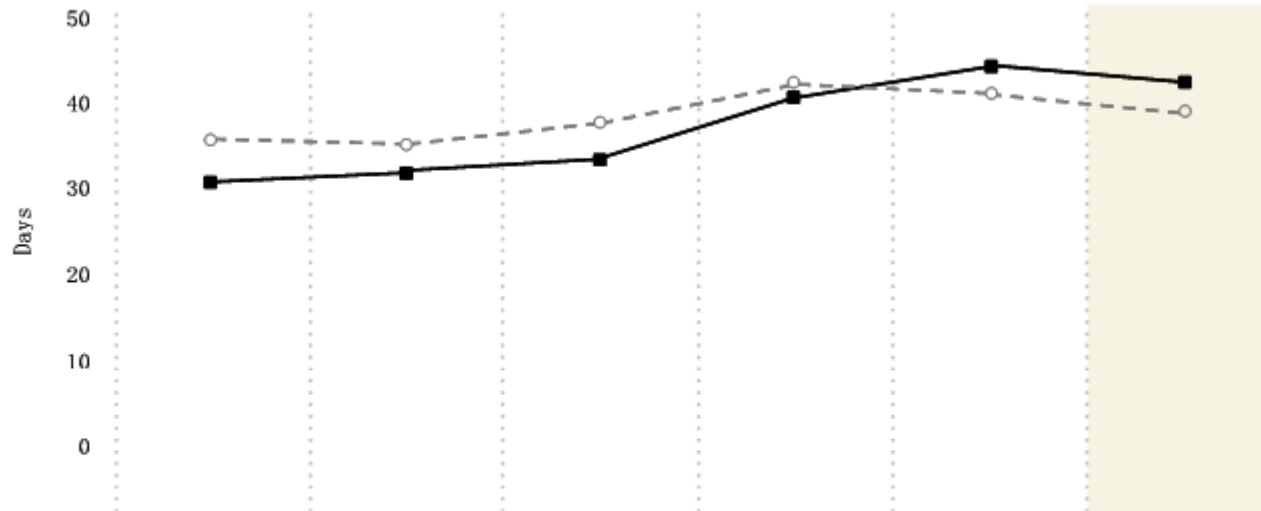
-○- Benchmark Rate: Neurology, Nationwide (75 Practices)



# DAR

## Days in Accounts Receivable (DAR)

-○- Benchmark Rate: Neurology, Nationwide (75 Practices)



|                    | Oct '13      | Nov '13      | Dec '13      | Jan '14      | Feb '14      | Mar '14      | YoY<br>Mar '13 |
|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|
| ■ Days             | 30.8         | 31.9         | 33.5         | 40.6         | 44.3         | 42.2         | 39.4           |
| Avg outstanding AR | \$406,025.20 | \$396,701.92 | \$388,248.43 | \$480,321.08 | \$670,642.67 | \$774,329.03 | \$364,531.72   |
| Avg daily charge   | \$13,206.19  | \$12,452.81  | \$11,583.29  | \$11,823.21  | \$15,134.98  | \$18,350.62  | \$9,259.85     |
| -○- Benchmark Rate | 35.7         | 35.0         | 37.7         | 42.3         | 41.1         | 39.0         | 37.9           |

Your performance - Mar '14:



# DAR

## Days in Accounts Receivable (DAR) for Top 5 Payers

|                   | Oct '13 | Nov '13 | Dec '13 | Jan '14 | Feb '14 | Mar '14 | Mar '13 |
|-------------------|---------|---------|---------|---------|---------|---------|---------|
| Medicare B-WY     | 19.4    | 18.8    | 15.7    | 16.9    | 26.5    | 38.0    | 18.4    |
| BCBS-WY           | 20.2    | 22.2    | 17.2    | 28.6    | 28.2    | 28.2    | 30.7    |
| GWH-CIGNA         | 15.7    | 20.3    | 28.9    | 15.9    | 22.0    | 21.0    | 25.3    |
| Medicaid-WY       | 15.8    | 18.4    | 16.5    | 38.9    | 41.6    | 19.9    | 14.6    |
| United Healthcare | 26.2    | 16.7    | 26.3    | 41.5    | 15.8    | 23.0    | 5.4     |

## Days in Accounts Receivable (DAR) for Self-Pay

|                                    | Oct '13 | Nov '13 | Dec '13 | Jan '14 | Feb '14 | Mar '14 | Mar '13 |
|------------------------------------|---------|---------|---------|---------|---------|---------|---------|
| Self-Pay                           | 60.4    | 58.2    | 63.5    | 65.4    | 66.5    | 66.9    | 42.6    |
| athenaCommunicator Benchmark Rate* | 60.4    | 59.6    | 54.8    | 64.5    | 64.5    | 47.2    | --      |

\*Neurology, Nationwide (37 Practices)

# Permits Benchmarking Across an Entire Client Base

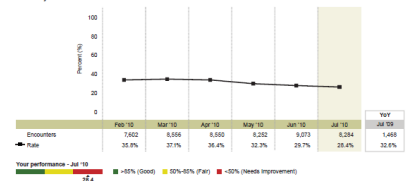
How productive and efficient are your providers?

Encounters offer insight into whether your staff is working collaboratively to maximize provider efficiency. Gauge the efficiency of your practice by tracking how often encounters are closed the same day, the time your providers spend documenting in AthenaNet, and whether appropriate delegation is taking place during the intake stage.

**Same Day Encounter Close Rate**

We recommend that providers close as many encounters as possible by the end of each day, a delay in closing encounters may indicate a lack of efficiency in your patient visit workflows. Summary data provides insight into your providers' overall efficiency. Provider detail shows the rankings for your top volume providers.

**Same Day Encounter Close Rate**



## Same Day Encounter Close Rate

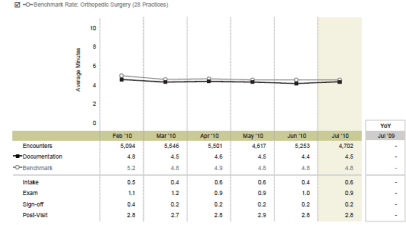
| Provider               | Encounters | Rate |
|------------------------|------------|------|
| Dr. Andrew Clinton, MD | 367        | 42%  |
| Dr. Timothy Benson, MD | 383        | 40%  |

Click deeper with Report Builder > Learn more about this metric

**Provider Documentation Time in AthenaNet**

Viewing the average amount of time that your providers spend documenting encounters (entering information into AthenaNet) can highlight opportunities for increased efficiency and delegation. Below you can view provider documentation time across all encounters by reporting month, including time per encounter stage and post-visit.

**Provider Documentation Time in AthenaNet**



Note: Documentation and stage data is time, measured in average minutes for the reporting period.

Click deeper with Report Builder > Learn more about this metric

## Provider Documentation Time (ave across all encounters)

**Provider Documentation Time in AthenaNet (Detail)**

Explore provider efficiency in more detail by viewing how often providers document in AthenaNet in specific encounter stages and post-visit, and the average time spent on that work. Viewing this detail, along with benchmark data, can point areas for improved workflow and delegation. Provider detail shows the rankings for your top volume providers.

| Encounter Stage               | Feb 10 | Mar 10 | Apr 10 | May 10 | Jun 10 | Jul 10 | YTD |
|-------------------------------|--------|--------|--------|--------|--------|--------|-----|
| <b>Encounters with Intake</b> | 636    | 630    | 739    | 613    | 707    | 804    | -   |
| Documentation                 | 4.4    | 3.9    | 4.5    | 4.6    | 4.4    | 4.3    | -   |
| Delegation to Staff           | 3.2    | 3.1    | 3.1    | 2.9    | 2.6    | 2.9    | -   |
| <b>Exam</b>                   | 1,056  | 1,096  | 900    | 803    | 893    | 866    | -   |
| Documentation                 | 5.4    | 5.9    | 5.4    | 5.2    | 5.5    | 5.3    | -   |
| Delegation to Staff           | 4.1    | 4.1    | 4.2    | 4.2    | 4.3    | 4.2    | -   |
| <b>Sign-off</b>               | 391    | 301    | 331    | 249    | 239    | 236    | -   |
| Documentation                 | 4.9    | 4.3    | 4.0    | 4.1    | 4.2    | 3.9    | -   |
| Delegation to Staff           | 2.3    | 2.3    | 2.3    | 2.2    | 2.2    | 2.3    | -   |
| <b>Post-Visit</b>             | 4,242  | 4,757  | 4,669  | 3,925  | 4,397  | 3,719  | -   |
| Documentation                 | 3.4    | 3.1    | 3.3    | 3.4    | 3.3    | 3.2    | -   |
| Delegation to Staff           | 2.9    | 2.8    | 2.8    | 2.8    | 2.8    | 2.8    | -   |

Note: Documentation data is time, measured in average minutes for the reporting period.

Your performance - Jul 10: 31.7%

Legend: +15% (Above Avg), 65-85% (Avg), -65% (Below Avg)

## Provider Documentation Time (distributed across stages)

| All Providers | 4.62 | 4.5 | 4.3 | 4.3 | 4.3 | 4.2 | 4.2 |
|---------------|------|-----|-----|-----|-----|-----|-----|
|---------------|------|-----|-----|-----|-----|-----|-----|

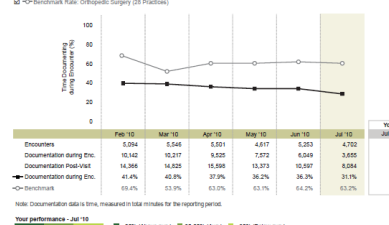
Note: Stage data is time, measured in average minutes for the reporting period.

Click deeper with Report Builder > Learn more about this metric

**Provider Documentation Time during Encounters**

Completing a higher percentage of encounter documentation before the patient visit checkout stage is completed in AthenaNet is an indication of provider efficiency. Below you can track the percentage of time your providers are documenting during encounters. Provider detail shows the rankings for your top volume providers and practice-wide.

**Provider Documentation Time during Encounters**



Note: Documentation data is time, measured in total minutes for the reporting period.

Your performance - Jul 10: 31.7%

Legend: +15% (Above Avg), 65-85% (Avg), -65% (Below Avg)

## Real-time vs Post-visit Documentation

| Provider | 2.85 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 |
|----------|------|-----|-----|-----|-----|-----|-----|
|----------|------|-----|-----|-----|-----|-----|-----|

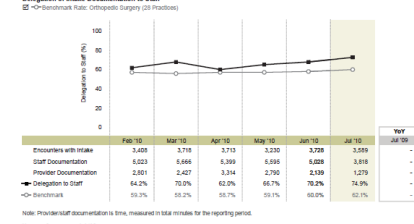
Note: Encounter post-visit visit data is time, measured in average minutes for the reporting period. +15% (Above Avg), 65-85% (Avg), -65% (Below Avg)

Click deeper with Report Builder > Learn more about this metric

**Delegation of Intake Documentation to Staff**

Delegating intake documentation to practice staff is a key to increasing the efficiency and productivity of providers. Below you can gauge how effectively your practice is delegating intake by comparing the documentation time of your practice staff and providers. Provider detail shows the rankings for your top volume providers and practice-wide.

**Delegation of Intake Documentation to Staff**



Note: Provider staff documentation is time, measured in total minutes for the reporting period.

Your performance - Jul 10: 31.7%

## Delegation: Intake

| Provider | 351 | 316 | 202 | 152 | 65.5% | 62.1% |
|----------|-----|-----|-----|-----|-------|-------|
|----------|-----|-----|-----|-----|-------|-------|

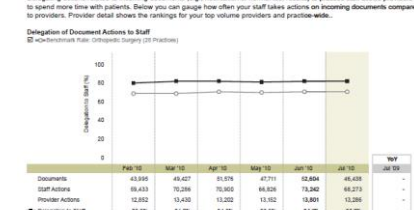
Note: Provider staff time data is measured in total minutes for the reporting period. +15% (Above Avg), 65-85% (Avg), -65% (Below Avg)

Click deeper with Report Builder > Learn more about this metric

**Delegation of Document Actions to Staff**

Delegating actions related to incoming documents (e.g., notification of normal test results) to practice staff allows providers to spend more time with patients. Below you can gauge how often your staff takes actions on incoming documents compared to providers. Provider detail shows the rankings for your top volume providers and practice-wide.

**Delegation of Document Actions to Staff**



Note: Documentation and stage data is time, measured in total minutes for the reporting period.

Your performance - Jul 10: 31.7%

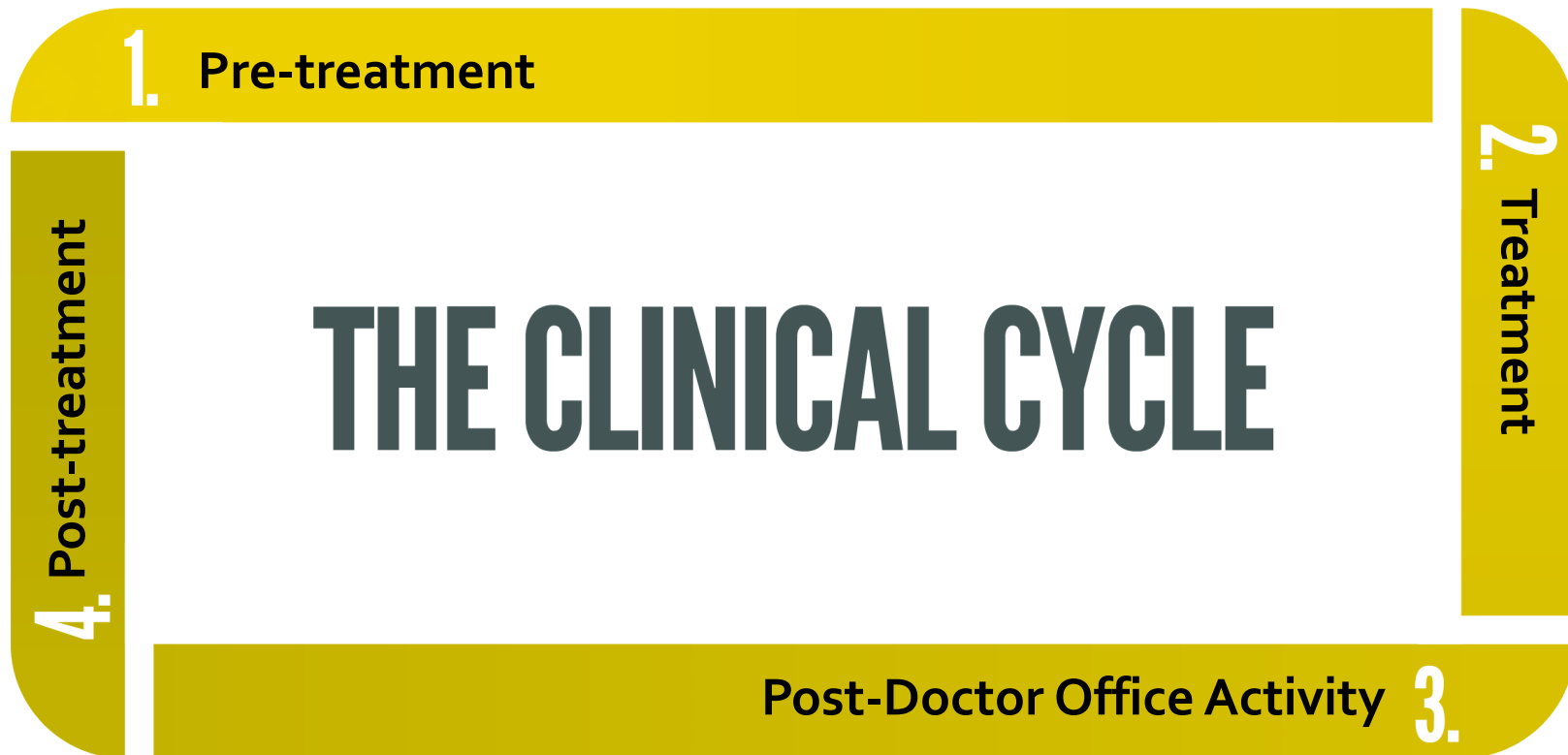
## Delegation: Document Actions

| Provider | 2,627 | 1,336 | 292 | 16.3% | 73.2% |
|----------|-------|-------|-----|-------|-------|
|----------|-------|-------|-----|-------|-------|

Note: Encounter post-visit visit data is time, measured in average minutes for the reporting period. +15% (Above Avg), 65-85% (Avg), -65% (Below Avg)

Click deeper with Report Builder > Learn more about this metric

# Clinical Cycle



**I believe Technology should  
Facilitate Health Information  
Acquisition and Utilization (HIAU)**



# Health Information Acquisition

## Standard Background Medical Data

- + Staff entered and reviewed
- + MD is NOT Medical Data-entry
- + Data Verification
- + HIE
- + Digital data transfer



# Health Information Utilization

- + Diagnostic order sets
- + Integrate best practice guidelines
- + Procedure templates
- + Assessment templates
- + Intelligent systems
- + Tracks most used
- + Tracks orders to completion
- + Presents data and modifies plans (future fx)

# I Believe Cloud SeS is a Cost-Effective Solution for Rural Practices

No Capital costs/nothing to buy

Small implementation cost

ROI less than three months

>10% increase in revenue

Minimal hardware costs

# Innovative solutions to connect patients and providers

Patient Portal

Automated communications

Telemedicine

# Patient Portal

The screenshot shows a web browser window titled "Patient Portal". The header features the "FRONTIER NEUROSCIENCES" logo in orange and grey, set against a background of a mountain range and trees. The main content area is divided into two columns. The left column, on a light green background, contains a "Sign In" section with a checkbox for "Sign in to your family or guarantor account.", a "PIN" input field with a "Forgot your PIN?" link, a "Home/primary phone" input field with a "( ) -" format, a "Date of Birth" input field with a "mm/dd/yyyy" format, and a "Sign in" button. Below this is a question "Are you new to the patient portal?" with a "Create an account" link. The right column, on a white background, has a "Welcome to the Frontier Neurosciences personal health portal!" heading, followed by a paragraph about the portal's benefits and a bulleted list of features: "Exchange messages with our practice", "Review and pay billing statements", "Request appointments", "Research health topics", "Review Personal Health Information", "Complete and update medical forms", and "Update your profile and contact information". At the bottom of this column is a note about urgent medical matters and a phone number: "(307) 578-1985. In case of a medical emergency, call 911." The footer includes the "athenahealth" logo with "powered by" text, and links for "FAQ", "Terms of Use", and "Privacy Policy".

Patient Portal

## FRONTIER NEUROSCIENCES

### Sign In

Sign in to your family or guarantor account.

PIN

[Forgot your PIN?](#)

Home/primary phone

Date of Birth

mm/dd/yyyy

**Sign in**

Are you new to the patient portal?  
[Create an account](#)

### Welcome to the Frontier Neurosciences personal health portal!

Creating a health portal account is a convenient and secure way to coordinate your health needs with our practice. As a registered member, you can:

- Exchange messages with our practice
- Review and pay billing statements
- Request appointments
- Research health topics
- Review Personal Health Information
- Complete and update medical forms
- Update your profile and contact information

For urgent medical matters, please contact us during our regular office hours at (307) 578-1985. **In case of a medical emergency, call 911.**

powered by  
**athenahealth**

[FAQ](#) [Terms of Use](#) [Privacy Policy](#)

# Patient Portal-our experience

Engage Patients

Share patient information posted to Portal

Share educational information

Challenging buy-in. We are at 10% at this time

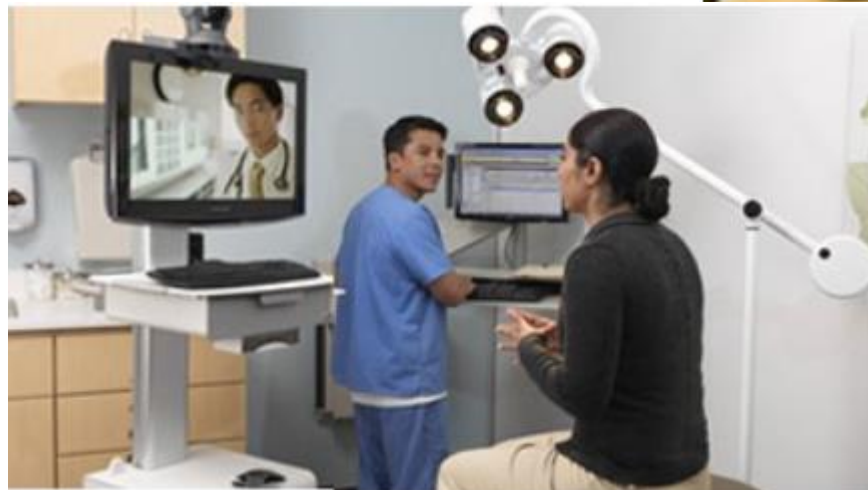
# Automated Communications

Automated call reminders

Automated check-in

Automated interactions for life coaching

# Telemedicine





# Telemedicine

HIT provides infrastructure for Telemedicine

85% of telemedicine is patient information

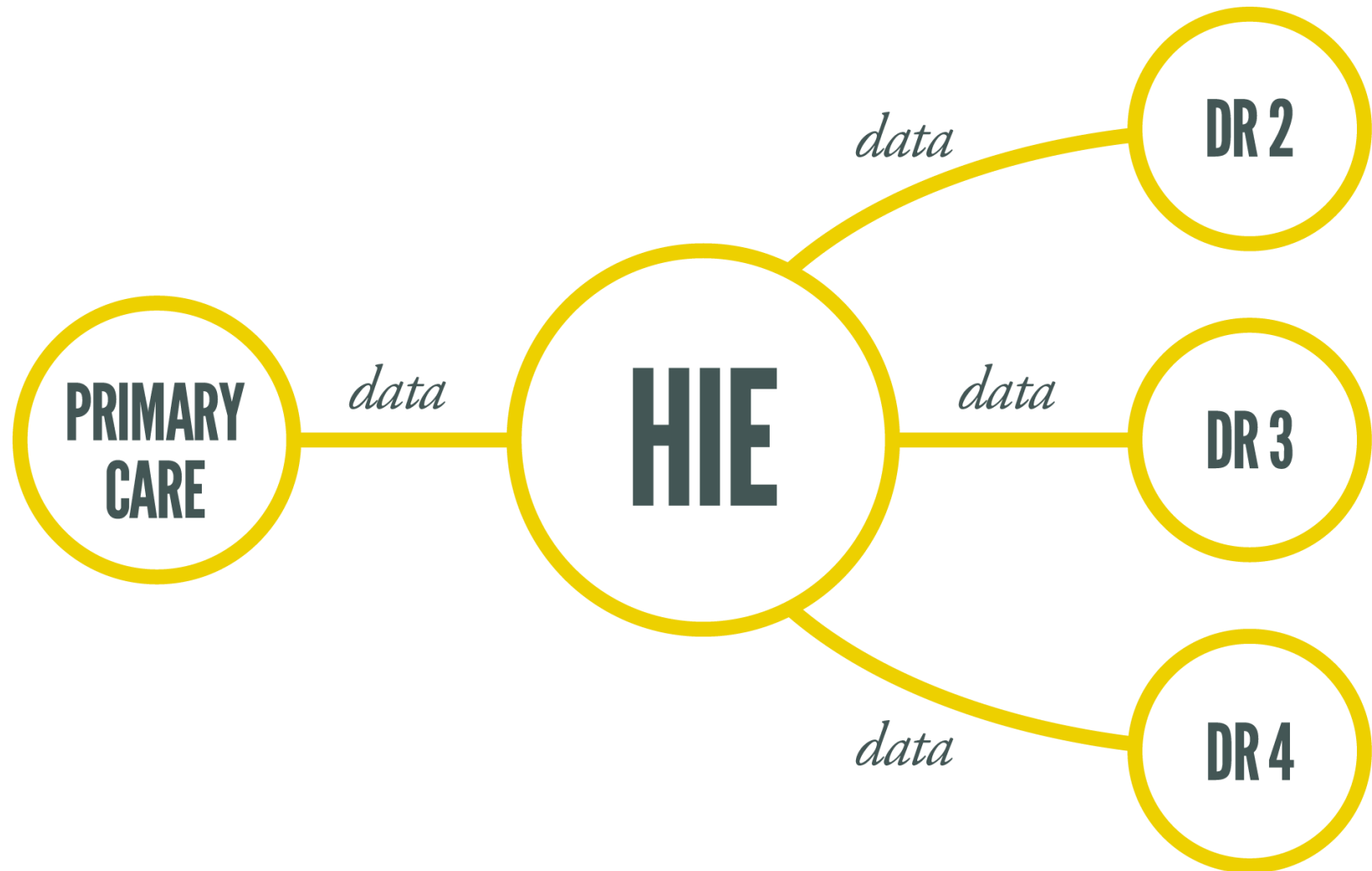
10% is images and other ancillary

5% is the AV link

Barriers have been cost and efficiencies.

I prefer to work with a physician extender remotely for higher quality data abstraction, examination and patient communication

# Sustainable health information exchange (HIE)



# Health Information Exchanges (HIE)

HIEs are inherently unsustainable and require continuous Gov subsidies

HIEs lack the basic incentives for the free flow of information

Physicians bear the cost of sending reliable, curated, and cleanly formatted digital patient information

Stark and Anti-Kickback Statute prohibit transaction based payment models

OIG reversed and terminated Advisory Opinion 11-08 just as process was proving a functional market exchange for health information

Government-subsidized health information exchanges need to be replaced with a sustainable, market-based approach

# Conclusion

Rural Culture is changing

We can expect the best solutions

We can bridge geographic barriers to healthcare with technology

I believe we can have NeuroHealth care in every clinic in WY and MT.

HIT solutions exist that are affordable, powerful, and efficient

Rural providers and patients are no longer isolated

Transaction based HIE could be sustainable

Lee, MD, Ph.D  
Vision Award Winner



<http://www.athenahealth.com/our-company/user-conference/awards.php>