

Meaningful Data: A Prerequisite for Meaningful Use



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Outline

- ✓ OHSR's state-wide partnerships with federally qualified health centers and free clinics
- ✓ What's the meaning of meaningful use?
- ✓ Meaningful data: Insights into success
- ✓ Perspective: How far we've already come

Perspective on Health Information Technology

“Nothing is more fundamental to the future of medicine and health care than having better information that is well managed, easily accessible and timely in order to meet the needs of the US population and to improve the overall quality of care.”

-- David Blumenthal, MD, MPP, National Coordinator for Health Information Technology – US Dept. of Health and Human Services

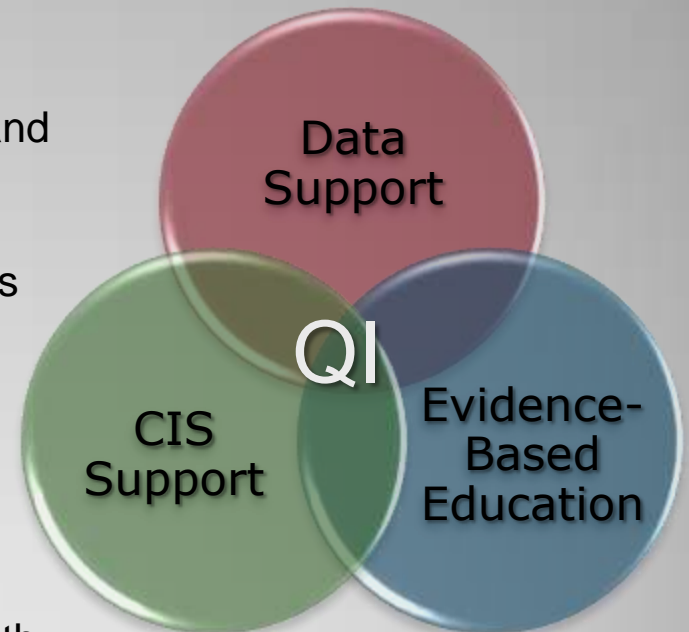
Source: *Focus on Supporting Quality Improvement Through the Use of Health Information Technology*, National Committee for Quality Assurance, 2009

WVU Office of Health Services Research

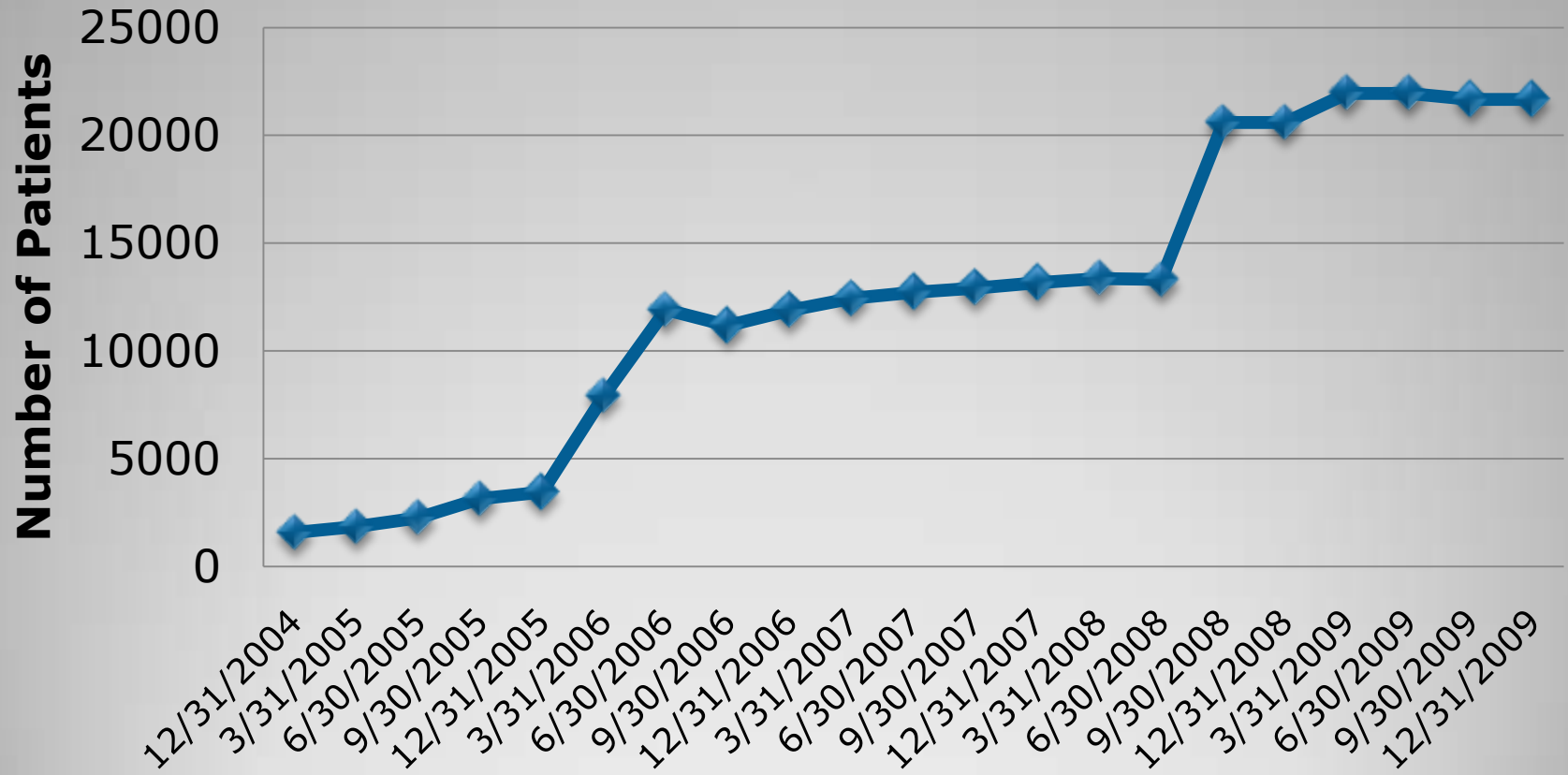
West Virginia is a state characterized by low socioeconomic status, limited economic opportunity, persistent health disparities, and significant human and economic costs associated with chronic diseases.

The field of health information technology (HIT) offers one avenue by which to help alleviate the burden of chronic disease in the state, but **HIT by itself is not enough.**

Through partnerships with the WV Bureau for Public Health, the West Virginia University Office of Health Services Research collaborates in a dynamic way with community health centers and free clinics to facilitating improvements in care. The approach centers on **clinical information systems support, data support** and **evidence-based education** to facilitate sustainable systems change and quality improvement.



Number of Patients Tracked, by Quarter



Meaningful Use

- Stage 1 comprised of 25 documentation criteria, including:
 - CPOE
 - Drug-drug, drug-allergy, drug-formulary checks
 - Active problem list
 - e-Prescribing
 - Active medication list
 - Active allergy list
 - Patient demographics
 - Vital signs
 - Smoking status
 - Lab results as structured data
 - List of patients by condition
 - Report to CMS
 - Patient reminders for preventive/follow-up care
 - Clinical decision support rules
 - Electronic check of insurance eligibility + electronic claims submission
 - Provide patients with their health info upon request
 - Provide clinical summaries of visits to patients
 - Health information exchange
 - Meds reconciliation
 - Protect security and confidentiality

Better Information for Better Care: CSC Point of View

CSC

UPDATE ON MEANINGFUL USE



Overview of Proposed Changes and Clarifications to Meaningful Use

A proposed rule for meaningful use incentives was released on December 30, 2009. The basic shape of the meaningful use incentives is unchanged, but there are some new details and clarifications:

- In the first qualifying year, only three months of meaningful use is required to qualify for incentive payments.
- Except for 2010, in the first qualifying year the incentives will be based on meeting Stage 1 criteria.
- There will be criteria to measure use of all the capabilities for meaningful use (not just selected measures or quality reporting).
- In 2010, all meaningful use will be by attestation; in 2012 in addition to attestation, quality data will be required to be submitted electronically.
- Hospital-based physicians will be determined by place of service (POS) codes; individual hospitals will be distinguished by CCN codes.

Introduction

The HITECH provisions of the American Recovery and Reinvestment Act of 2009 provide billions of dollars in incentives for the adoption and use of Health Information Technology (HIT) by Medicare and Medicaid providers over the next ten years.

To receive the financial incentives, eligible professionals and hospitals must achieve "Meaningful Use" of an electronic health record (EHR). On December 30, 2009 the Centers for Medicare & Medicaid Services (CMS) released an advanced copy of a notice of proposed rulemaking defining the requirements for meaningful use, the measures and the details of how eligible providers and hospitals will be paid the incentive dollars. The requirements are substantially the same as those approved by the Office of the National Coordinator (ONC) policy committee in July of 2009. Meaningful use requirements are still grouped into three stages but the designations are no longer tied to dates (2011, 2013 and 2015): In Stage 1, the focus is on capturing data, in Stage 2 on reporting health information and tracking key clinical conditions, and in Stage 3 on improving performance and health outcomes. The notice of proposed rulemaking released on December 30 details only Stage 1 requirements, but provides some commentary on what will be included in Stage 2. The rules are available at <http://www.fda.gov/oc/2009/12/30/meaningful-use-2009.pdf>

One major change in the recently released proposed rule is that hospitals and providers would be able to qualify for their first payment using Stage 1 criteria up until 2010. In the first payment year only 3 months of meaningful use needs to be demonstrated to receive incentive payments, while in future years meaningful use must be demonstrated for the entire year. To get the maximum Medicare payments, eligible providers need to qualify by CY 2012 and hospitals by FY 2013. Both physicians and hospitals also need to meet Stage 2 criteria by 2015 to avoid Medicare penalties. Physicians who provide more than 50 percent of their care in a hospital inpatient, hospital outpatient or ED (point of service codes 21, 22, and 23) are not eligible for incentives. Eligible hospitals are defined by their unique CMS Certification Number (CCN or OSCAR codes). More details related to qualification and payments are provided in the companion white paper [Update on Incentives](#).

Industry Impact

The financial incentives in the stimulus bill provide a landmark opportunity for eligible organizations and professionals who desire a fully integrated EHR but struggle with funding and with barriers to sharing information effectively. We believe that there are four key requirements to achieve the right outcomes from an EHR:

1. Setting the right EHR goals
2. Purchasing the right EHR product
3. The right implementation of the EHR
4. The right use of the EHR by caregivers

Update on Meaningful Use | 1

Meaningful Use

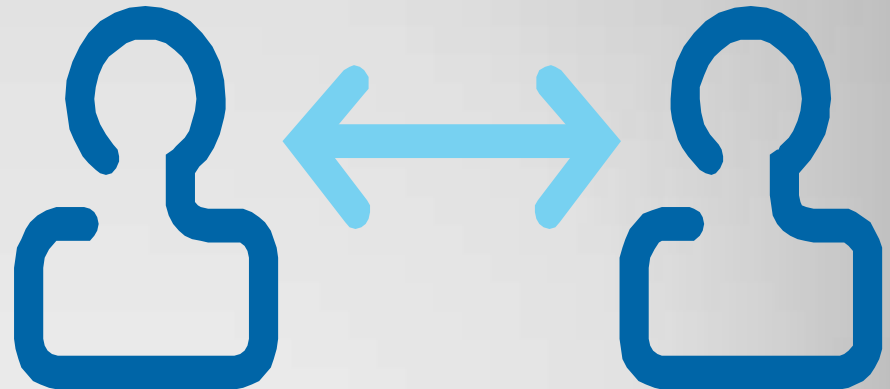
- But, what's the meaning of meaningful use?
 - Improved outcomes
 - Improved healthcare quality

****Using data to drive improvement****



Meaningful Use

- What's really required, then, for meaningful use?
 - Sound, reliable data
 - Proper training and support
 - Systems for communicating (peer to peer)
 - Data Collection and Data Quality (Insights into Success)



Barriers to Data Collection

Design

- Poorly designed systems
- Data not recorded in a reportable format

Training

- Inadequate training
- Insufficient time to learn

Change

- Organizational change
- Workflow redesign

Buy-In

- Lack of expectation of the benefits of data collection

Perspective

- It's the healthcare professionals that are critical – not just the EMR

Solutions to Data Collection

Procedures

- Select measures with the end in mind
- Specify operational definitions
- Build a data map

Test & Revise

- Test the plan and revise as appropriate

Leadership

- In-house leadership (not just provider champion) in helping to maximize use of the CIS

Data Quality

- Data quality is an outcome, dependent on a variety of factors



Perspective on Moving Forward

- We're not starting from scratch
 - Clinics+OHSR: 6+ years of registry use for outcomes reporting
 - 4,075 CIS support contacts from 01/01/2006 to present
 - Health Disparities Collaborative / Planned Care Model
 - Health Improvement Consultants
- Sites have a history of using data to drive quality improvement initiatives
 - Lessons learned along the way
- Many meaningful use criteria reflect capacities/skills you have already developed

Examples of Meaningful Use

- Patient demographics

chart_number	last_name	first_name	dob	sex	ethnicity	primary_language	insurance
654987321	Newest	Patient	01/01/1956	M	Multiracial	English	None
987876765	Everything	Patient	12/21/1961	M	Black	English	Commercial
000-000-000	Not-A-Visit	Patient	01/16/1964	F	Black	English	Commercial
875-465-983	At Risk	Patient	01/01/1950	M	Multiracial	English	Commercial
754-685-321	Mining Related	Patient	02/15/1962	M	Hispanic	Spanish	Commercial
000-000-000	Not-A-Visit	Patient	01/16/1964	F	Black	English	Commercial
111-777-888	Sample	Patient	01/05/1940	F	White	English	Commercial
123234345	DM Only	Patient	10/11/1924	F	Multiracial	Spanish	Commercial
234-345-234	No HbA1c	Patient	08/27/1960	M	White	English	Commercial
152-615-267	Sample	Patient	03/07/1945	F	White	English	Medicaid
000-111-222	New BLCF	Patient	01/12/1953	F	White	English	Medicare
1010101010	NoData	Patient	09/14/1901	M	White	English	Medicare
213-243-465	Asthma	Patient	01/02/1955	F	White	English	Medicare
234-567-890	Sample	Patient	01/15/1944	F	White	English	Medicare
567-890-123	Sample	Patient	01/17/1950	M	Black	English	Medicare
333-222-111	APH	Patient	02/05/1941	M	Black	English	Medicare
000-111-222	Asthma	Patient	03/07/2000	F	White	English	Medicare
543-210-675	Asthma	Patient	04/04/1984	F	Am Indian	English	Medicare
123-345-123	Non-Occupational	Patient	01/02/1948	M	Black	English	Medicare
222-33-4444	BlackLungMiner	Patient	01/19/1956	F	Multiracial	Spanish	Medicare
234-345-456	Other-Occupational	Patient	01/01/1970	F	Native Hawaiian	English	Medicare
549-567-618	Black Lung	Patient	01/06/1934	M	White	English	Medicare
456-123-789	Cardiovascular	Patient	01/01/1950	M	White	English	Medicare
123-456-789	APH	Patient	01/06/1975	F	White	English	None

Examples of Meaningful Use

- Vital signs

clinic_code	chart_num	visit_date	type_visit	bp_diastolic	bp_systolic	weight	height	waist_circ
1	123234345	5/12/2009	o	87	142	120	64	35
1	213-243-465	3/20/2007	o	87	132	169	65	37
1	213-243-465	6/4/2007	o	80	130	170	65	37
1	213-243-465	9/8/2007	o	87	132	167	65	37
1	213-243-465	12/20/2007	o	85	132	165	65	37
1	213-243-465	1/6/2008	o	87	130	180	65	37
1	213-243-465	4/24/2008	o	65	130	157	65	37
1	213-243-465	5/14/2008	o	84	140	169	65	37
1	213-243-465	7/24/2008	o	78	130	153	65	34
1	213-243-465	8/8/2008	o	76	132	155	65	37
1	213-243-465	1/8/2009	o	70	132	165	64	37
1	213-243-465	3/5/2009	o	78	128	158	65	37
1	213-243-465	5/12/2009	o	65	134	154	65	37
1	213-243-465	8/4/2009	o	84	154	157	65	37
1	213-243-465	8/21/2009	o	89	135	158	65	37
1	213-243-465	1/5/2010	o	78	130	157	65	37
1	234-567-890	3/9/2007	o	80	130	197	65	41
1	234-567-890	8/16/2007	o	79	140	195	65	41
1	234-567-890	9/26/2007	o	81	133	197	65	41
1	234-567-890	11/12/2007	o	84	135	190	65	41
1	234-567-890	1/2/2008	o	80	130	187	65	41
1	234-567-890	6/5/2008	o	70	134	198	65	41
1	234-567-890	9/30/2008	o	84	125	190	65	41
1	234-567-890	12/5/2008	o	90	138	198	65	41
1	234-567-890	3/18/2009	o	80	130	198	65	41
1	234-567-890	3/27/2009	o	84	132	195	65	41
1	234-567-890	4/1/2009	o	74	132	189	65	41

Examples of Meaningful Use

- Patient lists, by condition

QRY_ListPatientWithCondition

clinic_code	chart_num	last_name	first_name	address1	address2	city	state	zip
1	987876765	Asthma 1	Patient	Address Line 1	Address Line 2	City	WV	26555
1	123234345	Asthma 2	Patient	Address Line 1	Address Line 2	City	WV	26555
1	213-243-465	Asthma 3	Patient	Address Line 1	Address Line 2	City	WV	26501
1	152-615-267	Asthma 4	Patient	Address Line 1	Address Line 2	City	WV	26506
1	456-123-789	Asthma 5	Patient	Address Line 1	Address Line 2	City	WV	26506
1	234-567-890	Asthma 6	Patient	Address Line 1	Address Line 2	City	WV	26501

Record: 1 of 6 | No Filter | Search

Examples of Meaningful Use

- Smoking status

clinic_code	ChartNumber	LastName	FirstName	DOB	Smke Asmt
1	152-615-267	Asthma 4	Patient	03/07/1945	
1	456-123-789	Asthma 5	Patient	01/01/1950	
1	987876765	Asthma 1	Patient	12/21/1961	02/15/10 (Previous)
1	123234345	Asthma 2	Patient	10/11/1924	06/01/10 (Current)
1	213-243-465	Asthma 3	Patient	01/02/1955	06/01/10 (Current)
1	234-567-890	Asthma 6	Patient	01/15/1944	08/16/09 (Current)

Examples of Meaningful Use

- Lab results as structured data

Imported Laboratory Results, by Patient

Chart Number	clinic code	Last Name	First Name	DOB	Date	Lab	Result
111-777-888							
	2	Editest	Test	01/01/1956	1/4/2010	ha1c	7.6
	2	Editest	Test	01/01/1956	1/4/2010	alcr	16.5
	2	Editest	Test	01/01/1956	1/4/2010	ldl	123
	2	Editest	Test	01/01/1956	1/4/2010	hdl	39
	2	Editest	Test	01/01/1956	1/4/2010	trig	352
	2	Editest	Test	01/01/1956	1/4/2010	chol	330
	2	Editest	Test	01/01/1956	1/4/2010	alt	62
	2	Editest	Test	01/01/1956	1/4/2010	AST	45
	2	Editest	Test	01/01/1956	1/4/2010	Potas	4.6
	2	Editest	Test	01/01/1956	1/4/2010	GFR	>60
	2	Editest	Test	01/01/1956	1/4/2010	crea	0.8
	2	Editest	Test	01/01/1956	1/4/2010	BUN	18
	2	Editest	Test	01/01/1956	1/4/2010	glucose	203

Examples of Meaningful Use

- Patient reminders (Office visit)
 - Letters and/or call lists



Demo Health Center

123 Highway Road,
Cityville, WV 26555

Phone (304) 555-5555

Fax: (304) 777-7777

June 01, 2010

Mr. NewPatient NoData
Address Line 1, Address Line 2
City, WV 26555

Dear Mr. NoData,

This is to remind you that you are due for an office visit . It is important to see your doctor regularly. The date of your last visit was 2/19/2009.

As you know, regular office visits can help in the diagnosis, prevention, and prompt treatment of health problems.

To make an appointment, please call Demo Health Center at (304) 555-5555. If you have been visiting another doctor, please call to let us know so that we can update our records.

We hope that you will take this opportunity to take care of your health. Our staff is dedicated to helping you with the management of your health care

Examples of Meaningful Use

- Patient reminders (HbA1c)
 - Letters and/or call lists



Demo Health Center

123 Highway Road,
Cityville, WV 26555

Phone (304) 555-5555

Fax: (304) 777-7777

June 01, 2010

Ms. Patient Sample
Address Line 1, Address Line 2
City, WV 26501

Dear Ms. Sample,

We would like to remind you that your HbA1c is due. It is important to have this test regularly. The date of your last HbA1c was 3/18/2009 with a value of 7.0%. (Values should ideally be 7.0 or below).

The HbA1c helps to show how well your blood sugar has been in control over the last several months. As you know, high blood sugar can cause many complications, including blindness and foot numbness, and current recommendations for the treatment of diabetes include a regular HbA1c test.

To make an appointment for your HbA1c, please call Demo Health Center at (304) 555-5555. You may come in for lab tests at any time. We also ask that if you have had an HbA1c elsewhere, please call to let us know so that we can update our records.

We hope that you will take this opportunity to take care of your health. Our

Examples of Meaningful Use

- Clinical summaries
 - Stoplight letters



Demo Health Center

123 Highway Road,
Cityville, WV 26555

Phone (304) 555-5555

Fax: (304) 777-7777

June 01, 2010

Mr. Patient Cardiovascular
Address Line 1, Address Line 2
City, WV 26506

Dear Mr. Cardiovascular,

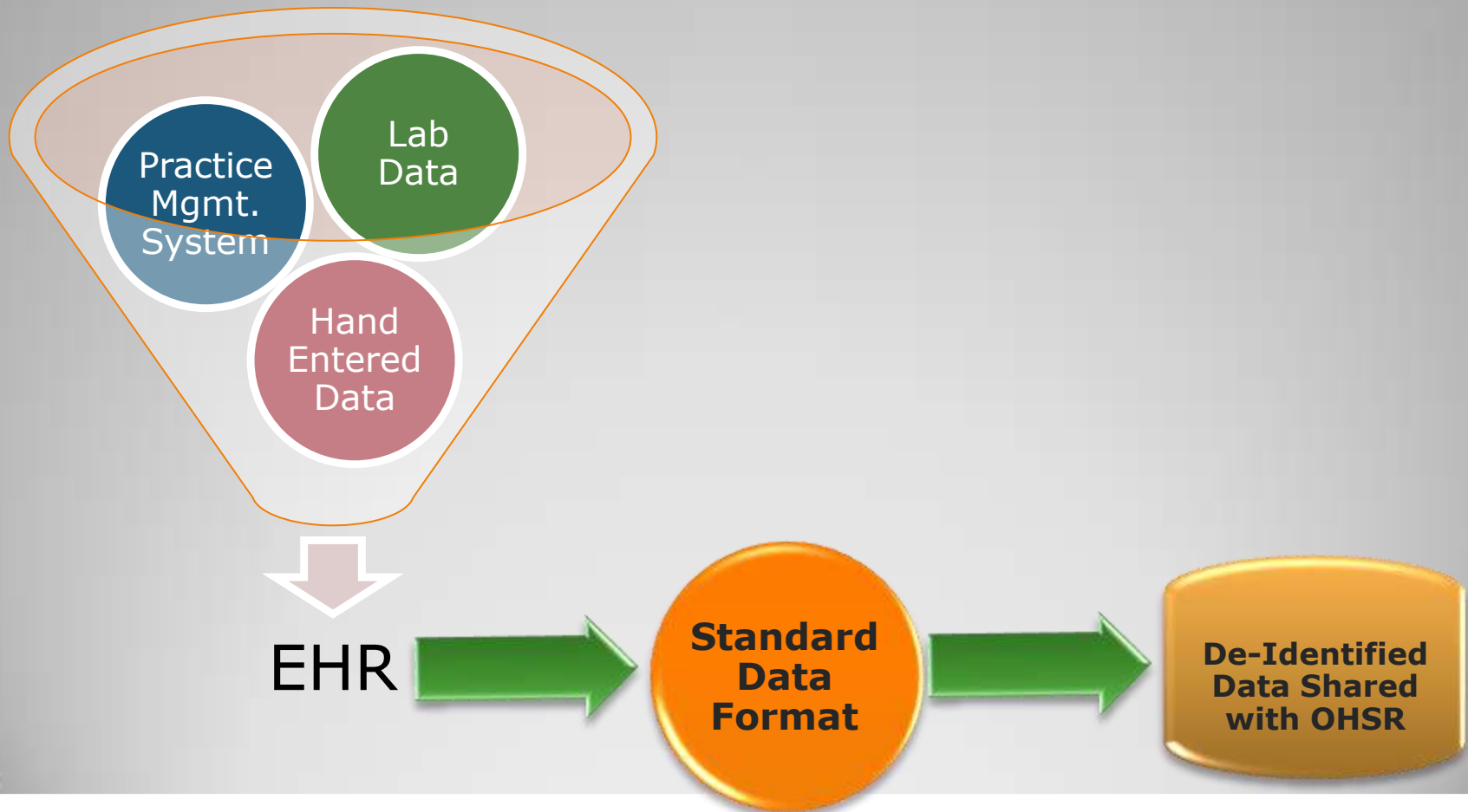
This letter is to inform you of your most recent lab and service results:

		Current		Goal	Previous
HDL or "Healthy" Cholesterol	8/21/2009	52	●	More than 40 mg/dL	8/10/2006 40
Blood Pressure	8/31/2009	129/75	●	Less than 130/80	8/26/2009 145/80
Body Mass Index (BMI)	8/31/2009	32.44	●	Less than 25	8/26/2009 32.44
LDL or "Bad" Cholesterol	8/21/2009	105	●	Less than 70 to 100 mg/dL	8/10/2006 125
Total Cholesterol	8/21/2009	222	●	Less than 200 mg/dL	8/10/2006 210

Your health is important to us. Our goal is to keep you healthy so that you can live a long life with diabetes. Your doctor will be receiving a copy of this report. Please make an appointment with your doctor to review this report.

Examples of Meaningful Use

- Health information exchange



Examples of Meaningful Use (2015)

- Outcomes Reporting
 - WV Health Information Institute outcomes:
 - Diabetes
 - Adult Preventive Care
 - Obesity
 - Asthma
 - Smoking Prevalence
- Achieved by exporting data from EMR to registry
 - Functional interoperability

WVHII Clinical Process and Outcomes Measures

Clinic: All Active Patients

Reporting Period: 5/22/2009 to 5/21/2010

Unless otherwise specified, measures included in this report are based on the above reporting period. Measures comparing specific laboratory values are based on the number of patients meeting the reporting criteria and receiving those labs.

Total Patient Count: 11 Print Date: 05/21/2010

DIABETES			
Denom	Numer	Percent	
4			Number of patients 18-75 with type 1 or type 2 diabetes
4	2	50.0%	Patients 18-75 with type 1 or type 2 diabetes with at least one HbA1c test
2	0	0.0%	Patients 18-75 with type 1 or type 2 diabetes whose most recent HbA1c is >9
4	1	25.0%	Patients 18-75 with type 1 or type 2 diabetes with a dilated eye exam
1			Number of patients 18-75 with type 1 or type 2 diabetes with a LDL value
1	0	0.0%	Patients 18-75 with type 1 or type 2 diabetes with a LDL value < 100
1			Number of patients 18-75 with type 1 or type 2 diabetes with blood pressure taken
1	1	100.0%	Patients 18-75 with type 1 or type 2 diabetes with blood pressure <140/90

PREVENTIVE CARE			
Denom	Numer	Percent	
8			Number of patients 50 years of age and older
8	0	0.0%	Patients 50 years of age and older with an influenza vaccine
3			Number of patients 65 years of age and older
3	1	33.3%	Patients 65 years of age and older with a pneumococcal vaccination
4			Number of female patients 40-69 years of age
4	0	0.0%	Female patients 40-69 years of age who have had a mammogram (last 2 years)
2			Number of female patients 21-64 years of age (without recorded hysterectomy)
2	0	0.0%	Female patients 21-64 who have had a PAP test (last 2 years)
6			Number of patients 50-80 years of age
6	1	16.7%	Patients 50-80 who had appropriate screening for colorectal cancer in the measurement year: (Colonoscopy within last 10 years; Double Contrast Barium Enema within the last 5 years; FOBT within the last 12 months; Flexible Sigmoidoscopy within the last 5 years)

OTHER			
Denom	Numer	Percent	
3			Number of adults 18 years or older who are smokers
3	1	33.3%	Adults 18 years or older who are smokers and who have been advised to quit or received tobacco cessation counseling within the last year
9			Number of adults 18-75 years of age
9	5	55.6%	Adults 18-75 years of age with a documented BMI
1			Number of patients 5-56 years of age with persistent asthma
1	1	100.0%	Patients 5-56 with persistent asthma who have received a prescription for long-term control of their asthma

Report generated from COEMS

Closing Thoughts



- ❖ “Heedless adoption of HIT could actually make things worse, and digitizing incomplete and poorly organized health information and poorly designed health delivery processes will fail to lay the foundation for more substantial health care improvements.”
- David Hunt, MD, FACS, Chief Medical Officer and Acting Director, Office of the National Coordinator for Health Information Technology

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