**Written Testimony – Meaningful Use – NCVHS committee hearings**
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**Personal Background – I've trained and worked as both an Engineer and Physician, I'm a Bone Cancer Survivor treated at the NIH as a teenager and currently sit on the NIH Clinical Center Patient Advisory Council. As well I have been a care giver for aging parents.** By the way, as an example of context and to personify it, at this point, my personal health record of what's important from 30 years ago and 8 inches of manila folders: An x-ray, an Adriamycin dose, a radiation dose and an ejection fraction. **For Meaningful HIT adoption and use, Information, rather than data is key…**

**Currently, I am an Entrepreneur who runs a company called DocSite that for a number of years has offered internet native interoperable population registries and point-of-care decision support systems that work in paper or electronic offices and demonstrably improve care in a 3 to 6 month timeframe.**

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**In 2008 DocSite became a clinical data submitter for the CMS PQRI program and successfully put 2300 physicians through the program.**

**We and our physician users found PQRI offered a simple, low risk way to start engaging with meaningful use of HIT – while getting paid for it.**

**(Further PQRI details in Appendix 1, including reality of how long it takes to set up a new measurement and data submission system as well as payment mechanism at CMS)**

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## Goal of meaningful use and HIT adoption = Better care that's easier (and more reliable) to deliver in an efficient manner.

Adoption of EHRs will happen easily as they Save time and Improve care or as folks get paid to use them – so, they will likely get adopted in 2010 – My question is will those that get adopted for ARRA improve care or entrench current practices?

**Background - Finances in the small practice (details in Appendix 2)**

> **Net is $140K loss for implementation of a legacy EMR in the small physician office over 5 years (assumes 10% Productivity loss, $40K for EMR and $6K/yr maintenance and $44K Stimulus): or $28K financial loss / yr over 5 years AFTER the stimulus payment – with first year loss = $36K.**

**Truly – To date, a Legacy EMR/EHR system buying decision offers the small practice the choice of "sending the kid to college or get an EMR/EHR" – to date, the kids have been winning (for good reason). If the implementation is not done well, or the physician chooses the wrong system then the choice becomes stay afloat or go out of business.**

**Doctors to date, then have been saavy consumers, rather than technical luddites. In 2009, it is impossible to make the statement to physicians that adopting HIT makes good business and clinical sense. Hopefully healthcare reform and evolution of systems, in large part spurred by ARRA stimulus funds will mean that in 2010 the Statement that adopting HIT makes good business and clinical sense will ring true. The definitions from this committee of "certified EHR" and "Meaningful Use" (see appendix 4) will be the Key Drivers of the effectiveness of HIT adoption in the US over the next 5 years.**

**In Addition to the financial reality, Implementation of Legacy EMRs (even CCHIT certified) is not synonymous with improved care at a better cost (or even improved care alone).**

Farzad Mostashari, in previous testimony to Congress on November 1, 2007, summed it up well; he said that CCHIT certified system generally lacked 4 criteria that improved care – 1) collecting structured data; 2) creating of Patient Lists; 3) reporting Population Performance and 4) Offering decision support alerts for best practices at the point of care.

In NCVHS testimony on 4/28/09, he re-iterated that effectiveness for use in practice is very different from an EMR getting through a "certification scenario" – in short, current certification does not ensure a legacy EMR/EHR system can be used in a meaningful way to improve care.

The NRC report Representative Johnson referenced in her NCVHS testimony (Jan 2009 NRC report) and academic articles suggest we're just not there yet with certification details and implementation –

In short, we've not emphasized what is known to improve care.

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**The good news is that ARRA language for Qualified Electronic Health Record and Meaningful Use does emphasize what is known to improve care. (see Appendix 4 for details of the language in the bill)**

Kawamoto, Lobach, others published a great article in the BMJ 2005 about what works to improve care.. Bottom line: Decision support within workflow…

> Experience at DocSite confirms the Kawamoto et al findings. **(See Appendix 5 for Details of Success with Registries with Decision support in paper and electronic practices)**

## Suggested Criteria / Definition of Meaningful use:

**Meaningful Use**: Electronic interoperability within the local health community for patient care (e-prescribing, transitions of care and/or referrals) and reporting quality to groups (such as CMS PQRI). (with e-prescribing, solves elements 1-3 of "ARRA Meaningful use" language and elements of "qualified records" – (see appendix 4)

**Certification of Qualified Records -** Core elements - Evidence-based, those that are known to improve care: 1) Point-of-care decision support / alerts; 2) patient lists; 3) performance measurements 4) Team communication

**Give the market breathing room for innovation. Web systems, mashups of health exchanges and office products along with personal health records will dramatically change what's available to the office in the next few years for interoperable care improvement systems.**

### Emphasize ability / use, rather than acquisition of a system.

**Result: Availability of interoperable data that immediately improves care, and begins to set the stage for Accountable Care Organizations for Payment (Hospital w/ provider linkages - Elliott Fischer confirmed ACOs will be physicians around hospitals). Functions needed within accountable care organizations:**

- **Patient level data (improves care)**
- **Population level data (improves quality, allows ACO payment)**

---------END OF WRITTEN TESTIMONY. APPENDICES FOLLOW ----------

# Appendix 1

## PQRI as an example for the speed with which CMS Regulators and the Vendor Community can move in the quality improvement space.

**Physicians who submitted clinical data for PQRI did the following in 2008: they asked 30 patients a set of age-sex questions. They received a performance report on how they were doing in their practice for the 30 questions and they could see a list of patients who were not current with treatment to guidelines. They accomplished this in 2-3 days with 2-3 hours of effort, with almost no practice risk. On average, they will receive a check from CMS for about $1500 - $2000 for the effort. It cost them a few hundred dollars to accomplish the task.**

Last year, Docsite submitted clinical data for performance measurement and payment for 2300 providers the CMS PQRI program as a certified registry vendor. This year along with continuing as a registry vendor, we agreed to participate in the CMS PQRI - EHR test clinical transaction submission.

Timing – changes can happen quickly: PQRI example. Evolution of PQRI: Claims (2007), Registry (2008), EHR (2009). Details for Registry Data submission for 2008 for PQRI:

From Law creation to Closing on data collection = 12 months.

December 31, 2007: Medicare law change, included statement that CMS must accept clinical data for PQRI payment from physicians.

April 2008 - 4 months in – CMS published specific vendor criteria for inclusion in the program and method to apply for participation.

August 2008 - 8 months in – CMS published a list of about 30 certified vendors and shared it with the physician community as well as published it on its website.

Dec 31, 2008 – 12 months for when the law was enacted - Data collection ended for PQRI registry submission.

Feb, 2009 – First opportunity for registry vendors to submit data to CMS on behalf of their clients who participated in PQRI.

March 31, 2009 – Last day of submission for Registry Data to CMS. About 12,000 physicians submitted data via Registries in 2008.

DocSite sent 2300 physicians went through the PQRI process in 2008. The providers will get about $4,000,000 payment.

It took “paper practices” 2 – 3 hours to collect, record and submit data – typically done across 2 days. Those physicians with existing data (about 1200 of the 2300 submitted through DocSite) had to do nothing extra to get paid, as the existing data was mined for the clinical results, then submitted to CMS on behalf of the physicians. Either way, PQRI was a great way to start engaging with meaningful use of HIT.

# Appendix 2

## Legacy EMR adoption and Financial Reality in the small practice in 2009

**Small practice financial reality:**

Implementation of an EMR, looked at 12 weeks out gets measured as success if a practice is back to 80% - 90% pre-EMR productivity – What does that mean financially in take home $ to the practice? ***In the first year, it drops take home pay for the small practice physician from $120K to $56K in real $ when one takes into account productivity loss + cost of the HIT system.***

> **Today a 10-20% productivity hit in the small office = 20% to 40% of take home pay for small practice (due to 50% +/- practice overhead). Add in the cost of system and implementation – estimated at $40K / physician – means: Current realistic take home = $120K/yr for primary care becomes in best case $96K (-20% with 10% productivity loss due to 50% overhead) - $40K (cost of EMR and installation) --- First year take home drops from $120K to $56K (Minus $64K) in real $ (Likely made up by longer hours, adjunct procedures – eg Lasers, etc to make up the practice $).**

**So what does the math look like across 5 years?**

> **Ongoing productivity cost = $24K/yr down (remember, this is the number for a 10% decrease in productivity and lots of places end up with worse numbers) x 4 yrs = Negative $96K from productivity hit during maintenance years 2-5.**
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> **So cost = $64K first year (40K for system and 24K for decreased productivity) + $30K per year for years 2-5 ($24K productivity + $6K maintenance and support) =**

***$184K total cost to the practice for 5 years to implement HIT ($64K for system, $120K for productivity loss)***

**Stimulus $ = $44K for 5 years ($18K + $12K + $8K + $4K + $2K)**

**Net then is $140K loss for implementation of a legacy EMR in the small physician office over 5 years: or $28K / yr.**

**Truly – the choice is send the kid to college or get an EMR – If the implementation is done really well. Not done well, or wrong system chosen then the choice may be stay afloat or go out of business.**

**Additionally, Legacy EMRs (even CCHIT certified) are not synonymous with improved care at a better cost (or even improved care alone).**

# Appendix 3

## Change needed to move to a healthcare system that delivers better care

**Patient level:** guidelines with care needs (patient specific plan of care, based on guidelines, local environment and patient desires)– and communication between and among care givers about the plan as it evolves.

**Population level:** Lists of patients falling outside of desired range (quality, timing of interactions, etc). and Performance reporting.

**System –** leveraging information for better and easier care, while offering a reliable way to measure and evaluate (and pay for) what is getting done.

**Issues –** Communication, Care and Office Change are hard (moving to prospective long term tracking / management of patients with chronic diseases and with preventive care needs – means changing how the office operates).

**Levers – Spots to focus efforts: High $, High Care Risk and Lower #'s of Patients –** Transitions (community to/from hospital); Referrals (Primary care – specialist); Therapy changes (Medication reconciliation, etc)

# Appendix 4

## Recovery Act Language on Certifiable Qualified EHR and Meaningful use

Certified EHR technology must certify qualified records that include:

QUALIFIED ELECTRONIC HEALTH RECORD- The term `qualified electronic health record' means an electronic record of health-related information on an individual that—

(A) includes patient demographic and clinical health information, such as medical history and problem lists; and

(B) has the capacity—

(i) to provide clinical decision support;
(ii) to support physician order entry;
(iii) to capture and query information relevant to health care quality; and
(iv) to exchange electronic health information with, and integrate such information from other sources.

## Meaningful EHR user --

(i) Meaningful use of certified ehr technology – includes - use of electronic prescribing as determined to be appropriate by the Secretary.

(ii) Information exchange.-- connected in a manner that Provides for the electronic exchange of health information to improve the quality of health care,such as promoting care coordination.

(iii) Reporting on measures using ehr.-- submits information on such clinical quality measures and such other measures as selected by the Secretary under subparagraph. The Secretary shall seek to improve the use of electronic health records and health care quality over time by requiring more stringent measures of meaningful use selected under this paragraph.

# Appendix 5

## DocSite effectiveness examples with detail

Getting decision support within clinical workflow can improve care quickly (less than 7 months for what took intermountain 7 years to accomplish on Diabetes improvement) and stepwise implementation works (starting with 10 practices without interoperability doing improvement work in 2004 evolved to a statewide initiative for improvement in Vermont)

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Improvement can happen quickly –

- What took 7 years at Intermountain – took less than 7 months at Presbyterian in New Mexico in 2005 using Docsite - 26% to 12% poor or missing A1c – the healthplan group AHIP published that this decreased admissions by 25% for Medicare patients at Presby.

Stepwise improvement works –

-In Vermont in 2003, 10 Vermont primary care practices, without interoperability moved from 42% to 57% good control in 6 months – this has evolved to the Vermont Blueprint for Health. DocSite supports the initiative with Registry, Decision support and Clinical Data Repository for Performance Reporting and Creating Outreach and Recall Patient Lists.

- Physicians can participate even if they never touch a computer.
- They had access to the data at the point of care.
- They had lists of patients and performance metrics.

Includes Registry and Decision support in paper or electronic offices. Costs less than $100 / month / physician. It’s web-based, software as a service, so does not require the office to maintain a server. It doesn’t slow down care.

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