

# ***Using Bits & Bytes in Early Cancer Detection***

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# Agenda

- Introduction
- Role of EHRs in early detection of cancer
- EHR tools
  - Registry
  - Alerts
  - Reminder letter
- U.S. scorecard
- Challenges
- Recommendations
- Conclusion

# *Health Services Advisory Group*



- Quality Improvement Organization for AZ and CA
- Founded in 1979 by Arizona doctors and nurses
- Dedicated to improving quality of care delivery and health outcomes through information, education, and assistance
- Partner with physicians, health plans, home health agencies, nursing homes, and hospitals

# ***CMS 9th Scope of Work***

- Promote care management processes for preventive services using EHR
- Assist practices in use of their EHR system to redesign care management
- Implement care management and patient self-management interventions
- Monitor statewide rates and disparities

# ***Electronic Health Record (EHR)***

An electronic record of health-related information for an individual that conforms to nationally recognized interoperability standards and that can be created, managed, and consulted by authorized clinicians and staff, across more than one health care organization.

# ***EHR as a Tool to Monitor and Encourage Preventive Services***

- Identify the population at risk.
- Utilize standard reports in the registry to track patients due for the preventive measures.
- Create reminder letters for preventive/follow-up care.
- Document patient preferences for communication medium.
- Establish a long term care plan of patients with high-priority conditions.
- Develop clinical summaries for patients.
- Exchange key clinical information.

# EHR Template

NextGen EMR: John Dokes - [06/26/2007 12:00 PM : "Master Im"]

File Edit Default View Tools Utilities Window Help

Main Office Barclay, Joseph MD

Patient: John Dokes Age: 47 DOB: 03/14/1960  
 Current Provider: Joseph Barclay MD Gender: Male Current Encounter: 06/26/2007

New patient  
 Established patient

Specialty: IM  
 Visit Type: Office Visit  
 Historian: self  
 Referring MD | PCP Info  
 Alerts Patient Service Info

Reason(s) for visit Brief Visit Chronic Problem List Add new problem

Reason(s) for visit	Brief Visit	Chronic Problem List	Add new problem
cough	FU	Chronic Problems	Code
headache	FU		
	FU		
	FU		
	FU		

Add to today's assessments ?

Vitals: Vital Signs Outside Normal Range Add New Vital Signs Expand Vital Signs

Date / Time	Temp F	Temp C	BP	Pulse	Rhythm	Respiration	HT In	HT Cm	WT Lb	WT Kg	Cont
06/26/2007 12:00 PM	96.4		130/90	80	regular	16	71.0		216.00		dress:

Medications No Medications Comment Allergies No Known Allergies Comment

Medication	Dose	Sig Codes	Start Date	Stop Date	Ingredient/Allergen	Brand Name
SIMVASTATN	10MG	1T PO QD	//	//		

Health Monitor: Set Health Maintenance Protocols Set Disease Management Protocols Tobacco User: yes no quit

Due:	Due:	Due:	Due:
Physical Exam //	Tetanus //	Eye Exam //	ALT/AST //
Lipid Panel 06/26/2007	PSA Test //	Foot Exam //	CPK //
Colonoscopy //		HgbA1C //	Urinalysis 06/26/2007
Sigmoidoscopy //		BMP Fasting //	Urine Micro //
FOBT x3 //		EKG 06/26/2007	TSH //
Influenza Vac //		Stress Test //	PFT //
Pneumo Vac //		Echocardiogram 06/26/2007	Chest X-ray //

Ready 06/26/2007

# Preventive Measures Record

Preventative Measures Record: Test2 Test2

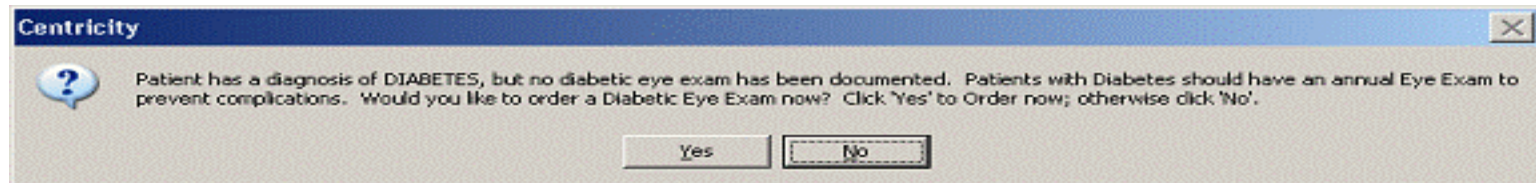
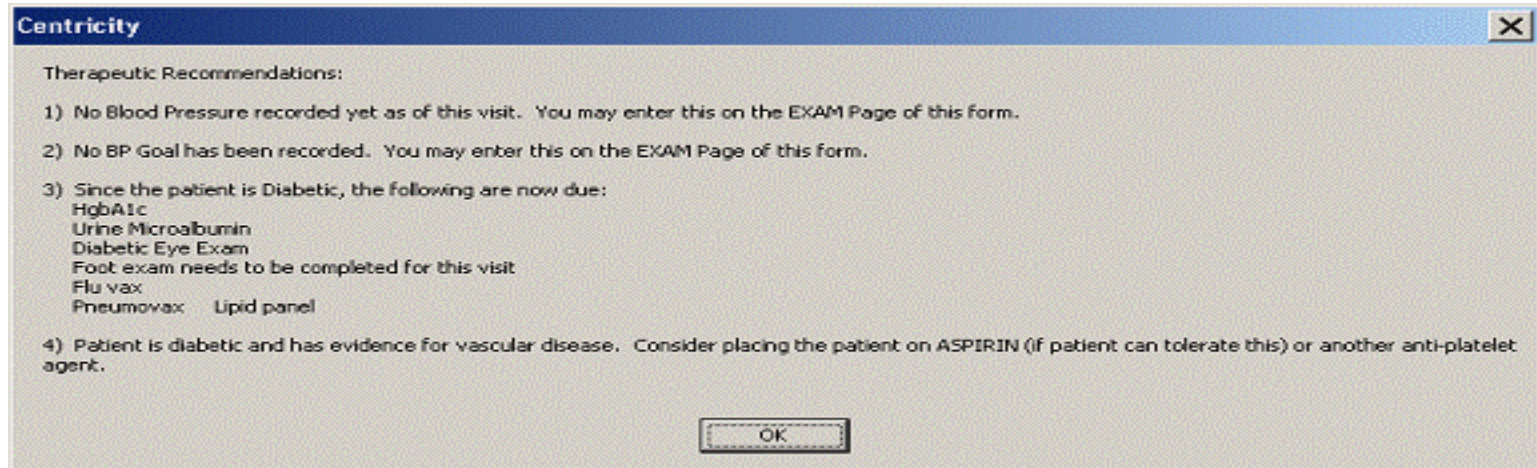
Labs  Test & Exams  Immunizations [o remove or edit recorded values click here](#) [Update Flowsheet](#)

### Tests and Exams

*Date required for recording all observations*

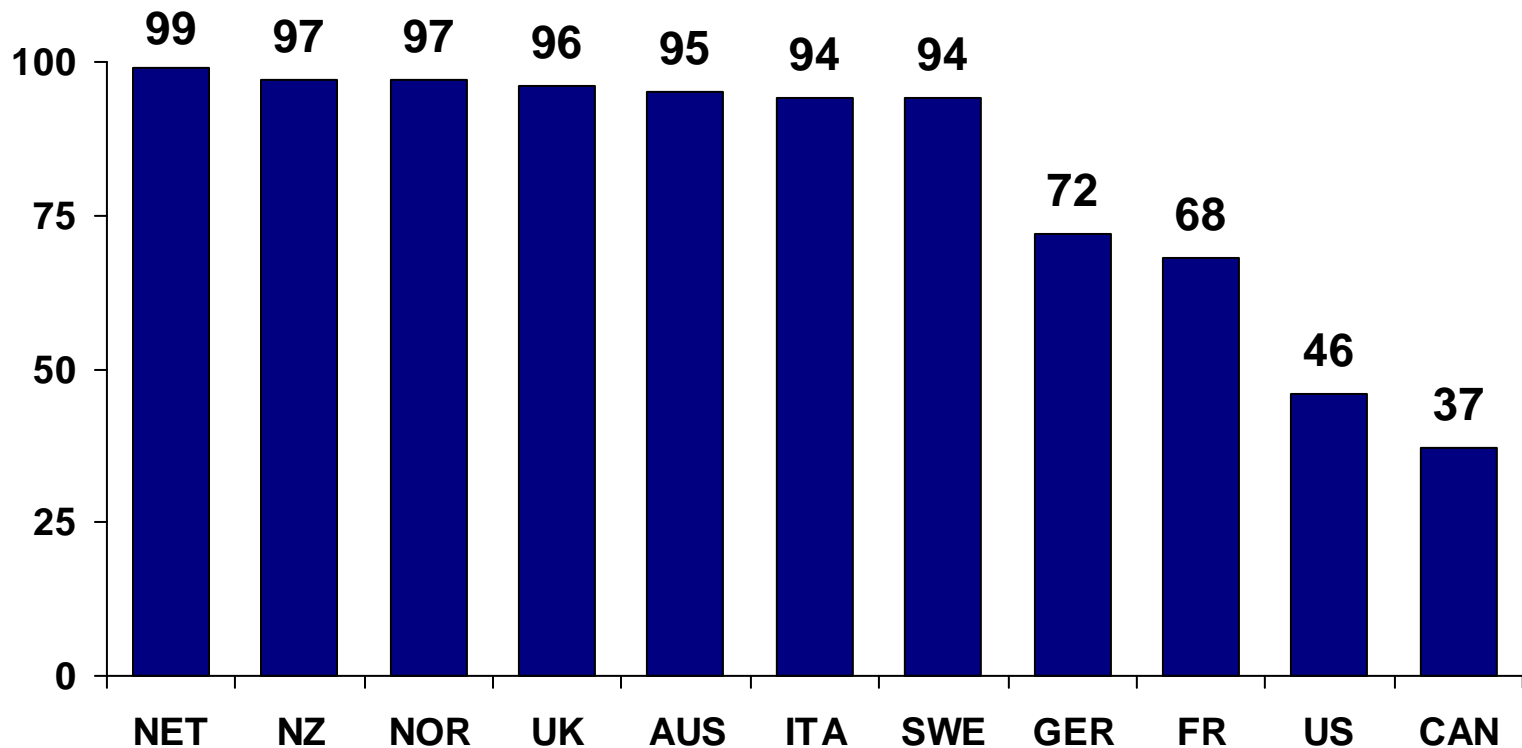
Last Hemocult: Negative (09/05/2009 4:34)	Hemocult: <input type="text"/>	Date: <input type="text"/>	<input type="button" value="Record Hemocult"/>
Last Colonoscopy: done (10/13/2010 2:43:05)	Colonoscopy: <input type="text"/>	Date: <input type="text"/>	<input type="button" value="Record Colonoscopy"/>
	Next Due Colonoscopy: <input type="text"/>		
Last Eye Exam: <input type="text"/>	Eye Exam: <input type="text"/>	Date: <input type="text"/>	<input type="button" value="Record Eye Exam"/>
Last DB Foot Exam: <input type="text"/>	DB Foot Exam: <input type="text"/>	Date: <input type="text"/>	<input type="button" value="Record DB foot Ex"/>
Last Dental Exam: Refused (02/01/2010 6:47)	Dental Exam: <input type="text"/>	Date: <input type="text"/>	<input type="button" value="Record Dental Exam"/>
Last Holter: <input type="text"/>	Holter: <input type="text"/>	Date: <input type="text"/>	<input type="button" value="Record Holter"/>
Last Bone Density: refused (02/01/2010 6:47)	Bone Density: <input type="text"/>	Date: <input type="text"/>	<input type="button" value="Record Bone Density"/>
Last EKG: Same (09/05/2009 4:34:25)	EKG: <input type="text"/>	Date: <input type="text"/>	<input type="button" value="Record EKG"/>
Last Carotid US: <input type="text"/>	Carotid US: <input type="text"/>	Date: <input type="text"/>	<input type="button" value="Record Carotid US"/>
Last Doppler: <input type="text"/>	Doppler: <input type="text"/>	Date: <input type="text"/>	<input type="button" value="Record Doppler"/>
Last Echo: <input type="text"/>	Echo: <input type="text"/>	Date: <input type="text"/>	<input type="button" value="Record Echo"/>
Last PT: <input type="text"/>	PT: <input type="text"/>	Date: <input type="text"/>	<input type="button" value="Record PT"/>
Last INR: 3 (05/20/2010 4:14:06 PM)	INR: <input type="text"/>	Date: <input type="text"/>	<input type="button" value="Record INR"/>
Last TSH: <input type="text"/>	TSH: <input type="text"/>	Date: <input type="text"/>	<input type="button" value="Record TSH"/>
Last Cardiac ST: <input type="text"/>	Cardiac ST: <input type="text"/>	Date: <input type="text"/>	<input type="button" value="Record Cardiac ST"/>
Last Uric Acid: <input type="text"/>	Uric Acid: <input type="text"/>	Date: <input type="text"/>	<input type="button" value="Record Uric Acid"/>

# Protocols



# Doctors Use Electronic Patient Medical Records\*

Percent

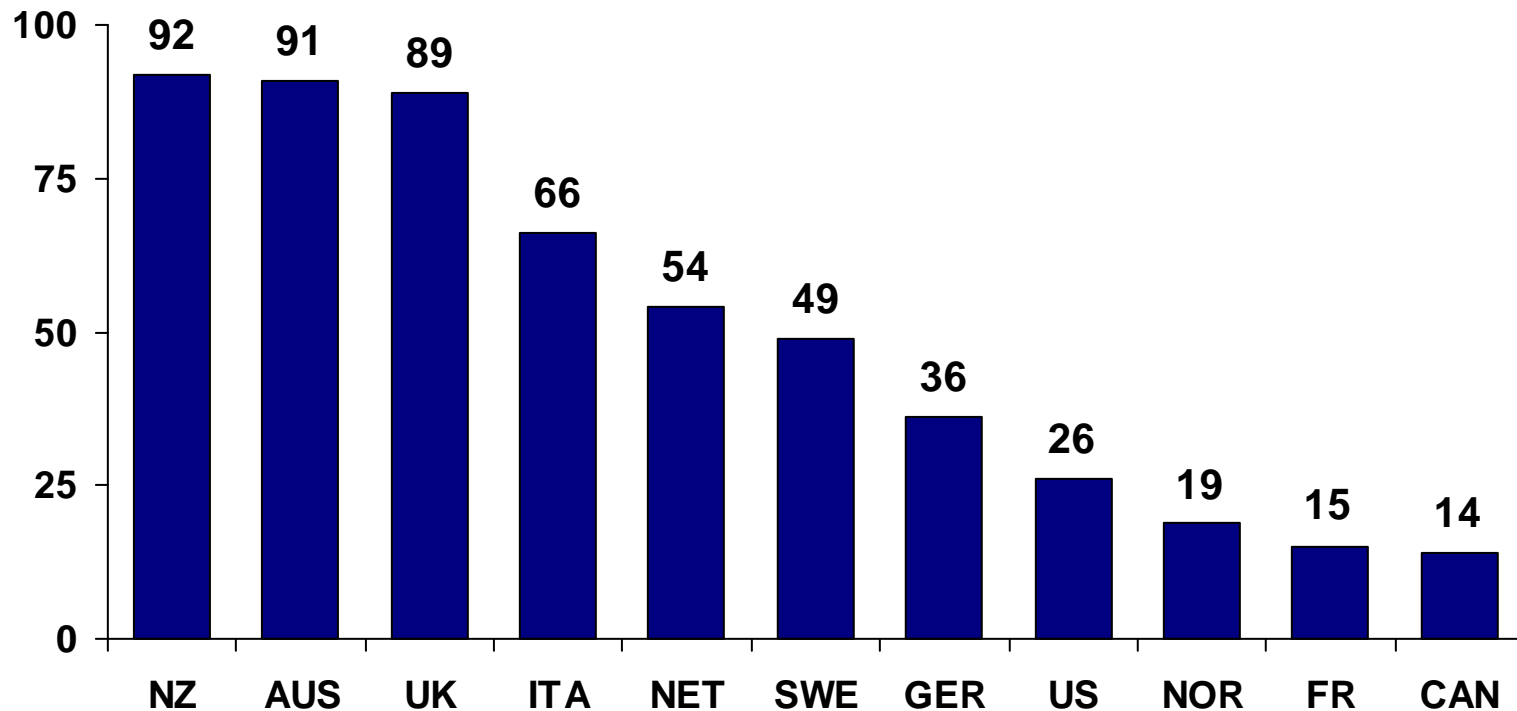


\* Not including billing systems.

Source: 2009 Commonwealth Fund International Health Policy Survey of Primary Care Physicians.

# Practices with Advanced Electronic Health Information Capacity

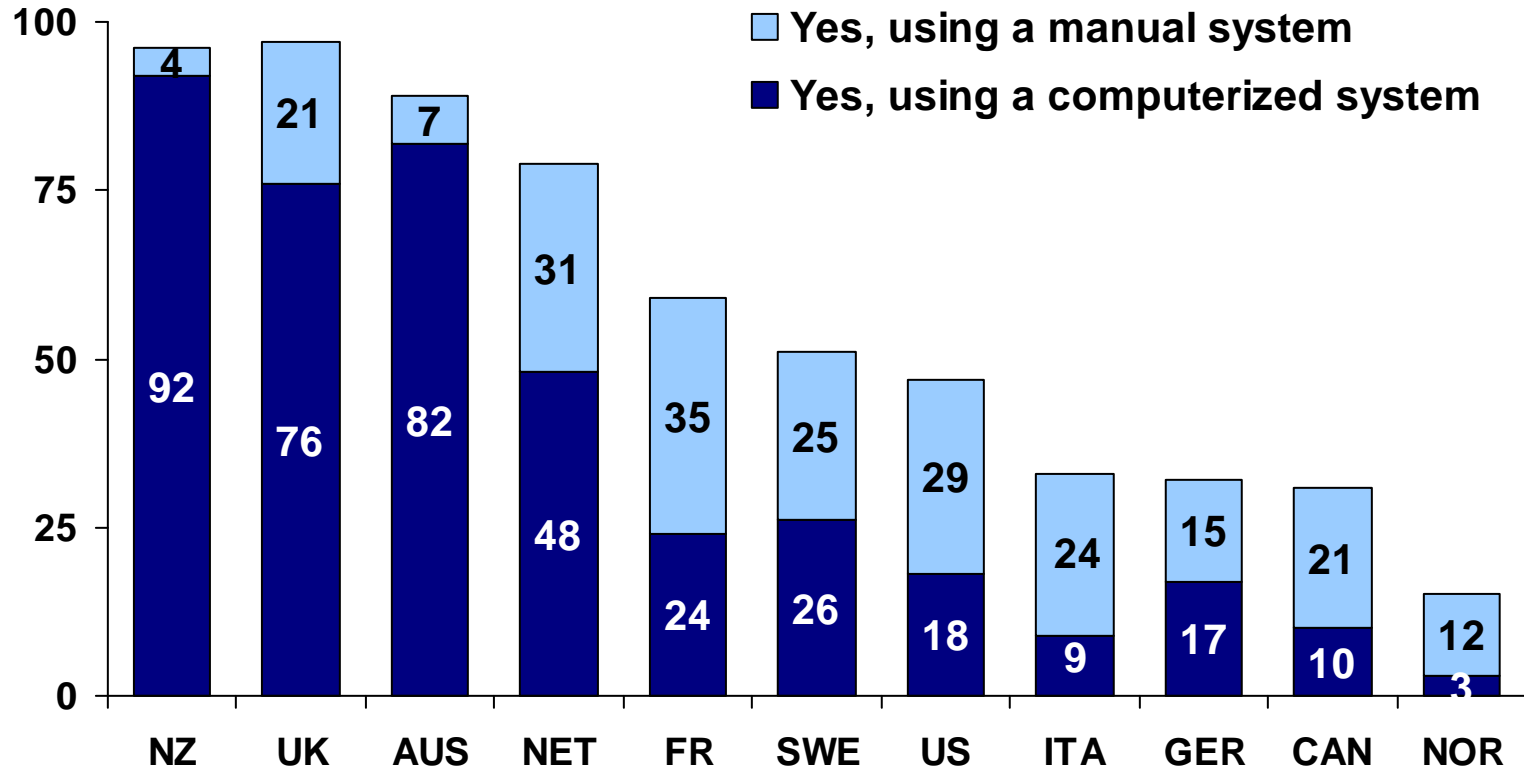
Percent reporting at least 9 of 14 clinical IT functions\*



\* Count of 14 functions includes: electronic medical record; electronic prescribing and ordering of tests; electronic access test results, Rx alerts, clinical notes; computerized system for tracking lab tests, guidelines, alerts to provide patients with test results, preventive/follow-up care reminders; and computerized list of patients by diagnosis, medications, due for tests or preventive care.

# Practice Routinely Sends Patients Reminders for Preventive or Follow-Up Care

Percent



Percentages may not sum to totals because of rounding.

Source: 2009 Commonwealth Fund International Health Policy Survey of Primary Care Physicians.

# Overall Ranking

Exhibit ES-1. Overall Ranking

Country Rankings	
	1.00-2.33
	2.34-4.66
	4.67-7.00



	AUS	CAN	GER	NETH	NZ	UK	US
<b>OVERALL RANKING (2010)</b>	3	6	4	1	5	2	7
<b>Quality Care</b>	4	7	5	2	1	3	6
Effective Care	2	7	6	3	5	1	4
Safe Care	6	5	3	1	4	2	7
Coordinated Care	4	5	7	2	1	3	6
Patient-Centered Care	2	5	3	6	1	7	4
<b>Access</b>	6.5	5	3	1	4	2	6.5
Cost-Related Problem	6	3.5	3.5	2	5	1	7
Timeliness of Care	6	7	2	1	3	4	5
<b>Efficiency</b>	2	6	5	3	4	1	7
<b>Equity</b>	4	5	3	1	6	2	7
<b>Long, Healthy, Productive Lives</b>	1	2	3	4	5	6	7
<b>Health Expenditures/Capita, 2007</b>	\$3,357	\$3,895	\$3,588	\$3,837*	\$2,454	\$2,992	\$7,290

Note: \* Estimate. Expenditures shown in \$US PPP (purchasing power parity).  
 Source: Calculated by The Commonwealth Fund based on 2007 International Health Policy Survey; 2008 International Health Policy Survey of Sicker Adults; 2009 International Health Policy Survey of Primary Care Physicians; Commonwealth Fund Commission on a High Performance Health System National Scorecard; and Organization for Economic Cooperation and Development, OECD Health Data, 2009 (Paris: OECD, Nov. 2009).

# ***Barriers to EHR Monitoring of Preventive Services***

- Lack of data integrity
- Lack of policies and procedures
- Lack of EHR training
- Practice modifying EHRs
- Ethnic patient population with language barrier
- High medical staff turnover
- Scanning reports vs. data entry in health maintenance tables

# ***Recommendations***

- Provide information, education, and resources
- Use personal health records
- Patient Portal: Improve communication with patients and increase their access to care
- Initiate employee health surveys at workplace

# Conclusion

- Health reform encourages shared responsibility and reduced financial risk.
- Health information technology makes participatory medicine possible.
- The goal is to increase patient satisfaction, enhance safety, reduce costs, and improve care.
- A functional EHRs an essential component to meet these goals.

# ***Contact Information***

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*Over 1 million drug-related injuries occur every year in health care settings.  
The Institute of Medicine estimates that at least a quarter of these  
injuries are preventable.*

**To find out how to prevent medication errors, go to  
<http://www.hsag.com/azproviders/drugsafety.aspx>.**



[www.hsag.com](http://www.hsag.com)

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**Publication No. AZ-9SOW-6.3-021011-01**