UPDATE: It Takes a Village to Achieve the Benefits of Electronic Health Records

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A great deal has been happening with health information technology (HIT) since my previous article in *Oregon's Future* Spring Forum, 2004. There continues to be great interest in using HIT to improve quality and safety and to reduce cost in healthcare but also a growing recognition that a coordinated effort is required, especially to overcome financial and other barriers to their use. It really will "take a village" to improve healthcare with HIT.

Probably the most significant recent event was the announcement at July's National Health Information Infrastructure (NHII) 2004 meeting of the "Decade of Health Information Technology" by Tommy Thompson, Cabinet member and Secretary of the Department of Health and Human Services. At this announcement, a plan for achieving the vision by David Brailer, MD, PhD, the National Healthcare Information Technology Coordinator, was released. The impetus for the plan came from President Bush's goal for universal use of electronic health records (EHRs) throughout the healthcare system.

The plan aims to bring the benefits of information technology to one of the last remaining industries that has not benefited from its fruits—the healthcare industry. To address the interrelated problems of variable quality of care, medical errors, and excessive costs, HIT has a prominent (though not sole) role in their solution.

The Brailer plan also puts the patient at the center per its subtitle, "Delivering Consumer-centric and Information-rich Healthcare." It calls for personal health records, which include data derived from the EHR that allow the patient to be empowered in their healthcare.

Other speakers at the meeting who voiced support for the plan included:

- Senate Majority Leader Bill Frist, MD
- CMMS Administrator Mark McClellan, MD
- NIH Director Elias Zerhouni, MD
- CDC Director Julie Gerberding, MD

The plan embraces many of the ideas that have been promoted surrounding the development of the NHII, including:

- Adoption of the EHR, including financial incentives such as preferential Medicare reimbursement, grants, and revolving loan funds.
- Development of health information exchanges that allow anytime, anywhere access to clinical information, with appropriate privacy and security across business boundaries.
- Empowerment of the consumer through access to personal health records, better information to inform choices about care, and advancement of telehealth.
- Improvement of population health through better surveillance and dissemination of public health information.

It should be noted that support for the use of HIT to improve quality, safety, and cost is a bipartisan issue. Sen John Kerry's vision for improving the healthcare system features the use of the HIT prominently. A recent article in the Washington Post Op Ed piece (August 25, 2004) by Sens. Bill Frist and Hilary Clinton restates the case for HIT, and former Rep. Newt Gingich and Rep. Patrick Kennedy have been appearing together promoting its adoption. The most outspoken Democrat in Congress supporting HIT is Rep. Patrick Kennedy, who has proposed legislation to devote more funds and coordinate federal efforts in this area.

It is widely agreed that one of the major impediments to implementing HIT is the financial disincentive for their use. In one presentation, Dr. Blackford Middleton of the Center for Information Technology Leadership (CITL, www.citl.org) presented results of his research showing that while there is a clear return on investment (ROI) from ambulatory EHRs only 11% of that return goes to those who would likely pay for such systems, namely physicians. Several speakers noted that at this time, there is not a business case for individual physician practices, especially small ones, to adopt EHRs, even though there is compelling evidence it would improve safety and savings for the healthcare system as a whole.

Some states and regions have been proactive in overcoming the impediments. Approaches taken include funding by those getting part of the ROI, such as insurers and laboratories, as well as grants and low-interest loans from state and private entities. Oregon still has a ways to go in moving on this issue, and the current state budget situation makes substantial commitment unlikely. However, the Oregon Health Information Infrastructure (OHII, www.ohii.org) group has been promoting the approach among stakeholders across the state.

As noted above, another major emphasis of the Brailer plan is health information exchange. The rationale behind exchange is that patients often get their healthcare across traditional business boundaries, yet it is virtually impossible to share records across such boundaries. Indeed, a patient may be the ben-

eficiary of a system having a great EHR, such as Kaiser Permanente, yet those records would be inaccessible if he or she became acutely ill elsewhere.

Dr. Middleton's center has also studied the value of health information exchange. Similar to EHRs, there is substantial ROI for society, yet there are huge investments required to obtain the return. Even worse, there is a significant "first mover" disadvantage. Clearly regions must collaborate across business boundaries to achieve the communal benefit that comes from exchange.

A number of other initiatives are moving the process forward:

- Several HIT associations, most notably the American Health Information Association and the Healthcare Information Management Systems Society, are working together to develop an EHR accreditation process that will help those who purchase them make more informed decisions.
- Several medical societies, including the American Medical Association and the American College of Physicians, have banded together to form the Physicians EHR Coalition (PEHRC) to assist physicians with EHR implementation.

However, since most progress in HIT requires legislation, and we are in the midst of an election year, there is unlikely to be much movement before 2005. Clearly the bipartisan momentum will resume at that time, and hopefully next year will bring substantial progress.

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Healthcare Glossary

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BlueCross BlueShield
BlueCross BlueShield health plans are independent health insurance companies organized on a state or regional basis that must meet certain obligations to license the brand from the national BlueCross and BlueShield Association. BlueCross began as hospital insurance during the depression when hospitals started collecting prepayments for services. Prepayment plans for physician services started a little later and eventually became known as BlueShield plans. They were permitted in many states only if physicians ran the plan. Later, during wartime wage controls, employers paid these prepayments to attract workers. In 1954 congress wrote into the IRS code an exemption for employer payments for healthcare. This launched our **employer-based health insurance system**. The distinction between BlueCross plans and BlueShield plans is a historic footnote since all the Blues plans today cover both hospital and physician services. Traditionally Blues plans were not-for-profit and were viewed as performing almost a public service of insurance. In 1994, the BlueCross BlueShield Association voted to allow the formation of for-profit Blues plans. The Blues plans currently cover about 85 million Americans. *(Also see Paul Starr: The Social Transformation of American Medicine. Basic Books, 1982)*

Capitation
Payment to a delivery organization of a set fee usually prorated as per member per month. For this fee, the delivery organization is expected to provide the patient with all the healthcare services required over the course of the year. Capitation reached its peak during the managed care boom of the 1990s and was meant to create incentives for providers to focus on prevention of illness and encourage delivery of the most effective and efficient care. However, since capitated payments were not traditionally adjusted for the health status of the individual patient, critics claim that capitation created incentives to either under-treat or avoid sicker people. **Kaiser** Health Plan is the nation's largest health plan operating a capitated payment plan for its integrated group practice.

Co-insurance
The percentage of healthcare expenses paid for by the policyholder, with the remainder paid by the insurer. For example, a policy with 20% co-insurance means that the policyholder will pay 20% of incurred expenses (after the deductible is met) until annual maximum is reached.

Consumer-driven Health Plan
Health plans that use combinations of health spending or savings accounts—including **Flexible Spending Accounts (FSA)**, **Health Reimbursement Accounts (HRA)**, **Medical Savings Accounts (MSA)**—**cost-sharing** such as **co-pays**, and access to information about price and quality to stimulate consumer understanding of the value of healthcare services. Consumer-driven health plans emerged in response to the double-digit **medical inflation** of the early 2000s. This inflation was due in part to insurance products that placed no financial responsibility on the consumer. Critics of consumer-directed health plans claim that the high deductibles may decrease the use of effective healthcare and financially penalize patients with chronic conditions.

Co-pay
A set amount paid by the policyholder for a defined service, such as a co-pay of $15 paid by the patient for each office visit.

Cost-sharing
When a policyholder pays some amount for care received. Three common forms of cost-sharing include **deductible**, **co-insurance**, and **co-pays**. The purpose of cost sharing is to place some financial barrier on the use of insured services to prevent the unrestrained consumption of services. Critics of cost sharing claim that these methods are not **evidence based**.

Cost-shifting
The process of providers raising prices to one set of healthcare payers to offset the lower payments from another set of payers. Typically, cost-shifting refers to providers raising their prices to private sector customers in response to lower payment from public insurers. For example, since Medicare and Medicaid payments are less than 50% of what pri-

vate insurers pay, providers shift costs to the private sector, (some estimates of the shift being valued at $6 billion annually). Government policies directed at controlling inflation in one sector, say Medicare, may directly stimulate inflation in the private sector. The other side of cost shifting that is often forgotten is that medical inflation, stimulated by the lack of market controls in the private sector, handcuffs public sector insurers operating on fixed budgets: they are forced to either reduce payment to providers, drop people from their roles, or request more funding through higher taxes. *(see Michael A. Morrisey, "Cost-Shifting: New Myths, Old Confusion, and Enduring Reality," in* Health Affairs *Web Exclusive, October 8, 2003)*

Deductible
The predefined amount of expenses that the policyholder must pay before the insurance starts paying expenses. A policy with a $1,000 deductible means that the policyholder pays the first $1,000 of expenses in a given year and insurance pays the amount above $1,000.

Diagnosis Related Groups (DRG)
Diagnosis related groups is a method of paying hospitals. Introduced by Medicare in the 1980s, DRGs have been adopted by many insurers. DRGs work by organizing all possible medical conditions in groups that represent the spectrum of clinical conditions. The hospital is then paid a fixed fee for a patient with a particular DRG. The DRG payment covers just facility costs and not professional services, as opposed to **fee-for-condition** which covers both types of costs. DRGs place the hospital at risk for the length of stay and the resources consumed during a hospitalization. Under DRGs the hospital has the incentive to shorten the hospital stay and limit the use of excessive resources.

Employer-based Health Insurance System
During the Depression, some employers offered health benefits to circumvent wage controls. The IRS later formally approved exclusion from taxation of employer-paid health insurance premiums. This tax treatment led to the development of an employer-based health insurance system in the U.S., the only one in the world. The health insurance premium tax exclusion is the single largest tax exclusion in Oregon's budget.

Evidence-based Medicine (EBM)
The practice of basing clinical decisions on the best independent, systematic research applicable. EBM requires knowing and applying the findings from the most relevant research, as opposed to making decisions based only on personal experience, conventional wisdom, and intuition. EBM can apply to the setting of cost sharing such as **co-pays**, diagnosis, prescribing drugs, and determining other treatments.

Fee-for-Condition
A fixed, lump-sum payment for delivering all the products and services required to diagnose and treat a particular condition. Fee-for-condition creates incentives at the condition level for providers to most effectively and efficiently prevent, diagnose, or treat conditions. Since fee-for-condition payment encompasses both **professional** and **facility** services—including physician, hospital, outpatient, home care, etc.—incentives exist for the delivery organization to assess the cost and effectiveness of care throughout the course of the condition (**DRG**s only cover facility costs). Purchasers, insurers and providers in Oregon are evaluating fee-for-condition. *(See David Sanders interview in this issue including comments by Rajiv Sharma).*

Fee-for-Service
Payment to a healthcare provider for an individual task, such as an office visit, an operation, or a single x-ray. It is the most common payment method for medical care today in the United States. Fee-for-service can increase the delivery of the individual tasks leading to unnecessary or excessive care and interventions.

Flexible Spending Account (FSA)
A personal account used for medical expenses. It is owned by the employee and typically funded by the employee. These funds may then be spent on only qualified medical expenses as defined by the IRS code section 213(d). FSAs are subject to the "use it or lose it" provision, meaning the employee loses funds not spent by the end of the year. The FSA may be used with any type of health insurance plan.

Global Budget
A method of cost control in which a specific healthcare service area (such as a state) or entity (such as a hospital) receives an annual budget that serves as a fixed cap on spending. The area or entity operating under a global budget must provide all the appropriate services required to a defined population while remaining within its budget. Global budgets are most frequently encountered in healthcare systems outside the United States. For example, in France *(see article on international systems)* public hospitals are reimbursed by the government via a global budget based on annual expected hospital utilization.

Health Information Technology (HIT)
The computerized infrastructure used for managing healthcare data. Healthcare is often singled out as an industry that has not taken advantage of the computer revolution. Most medical records remain in paper format, making it very expensive to store and retrieve information and leading to wasteful care and possibly dangerous errors. Many healthcare experts believe that widespread adoption of HIT, such as electronic medical records, will reduce the cost of medical care by enhancing **transparency** and preventing mistakes that lead to poor medical outcomes. *(Please see "Anywhere, Anytime Medical Records" by William Hersh in the Spring 2004 Issue of* Oregon's Future *as well as Hersh's update on HIT in this issue)*

Health Reimbursement Account (HRA)
A cash account whose funds may be used tax-free for qualified medical expenses. However, unlike the HSA, only an employer can contribute to an HRA and the employer owns the funds in the HRA. Only employees are eligible for HRAs and if the employee leaves the employer the funds revert to the employer.

Health Savings Account (HSA)
A cash account whose funds may be used tax-free for spending on qualified medical expenses. Any employee or individual may use an HSA. The individual owns the account so the funds are portable if the employee leaves the employer. Employers, employees and even family members may contribute to the account. Funds contributed to the account are not subject to income tax and unused funds roll over to the following year. HSAs are only available in conjunction with a high deductible health insurance product defined as a deductible of at least $1,000 for an individual or $2,000 for a family. The maximum contribution to an HSA is the lesser of either 100% of the insurance product's deductible or $2,600 for an individual or $5,150 for a family (these figures are adjusted annually). No contributions are permitted once an individual is Medicare eligible. A penalty of income tax +10% is charged to the individual if funds are used for expenses other than qualified healthcare expenses and premiums as defined by the IRS code section 213(d). HSA balances cannot be rolled into IRAs. *(Please see "Six Questions Every One Should Ask about Health System Reform" at the Galen Institute Web Site)*

Kaiser
Kaiser-Permanente is a prepaid group practice. The medical groups receive a **capitated** payment from the Kaiser Health Plan. Kaiser pays its physicians a salary and it organizes its physicians and hospitals to emphasize integration and coordination of care. It centralizes certain specialty services and emphasizes primary care and prevention. In theory this organization should enable Kaiser to leverage its integrated infrastructure to deliver greater value to its health plan members.

Medical Inflation
The rate of change in the prices for medical care. Often medical inflation is compared to general inflation. Between the spring of 2003 and the spring of 2004, the cost of providing healthcare for employees rose 11.2 percent and wages increased 2.2 percent. (See: New York Times, September 10, 2004). On average, since 1950, medical prices have grown at 1.8 percentage points faster each year than general inflation. This means that over 50 years, medical inflation averages 2.5 times the rate of the general consumer price index *(See Phelps CE: Health Economics, 3rd Edition, Addison Wesley; 2002). Evidence indicates that higher healthcare prices in the United States are the major contributor to our much greater per capita spending on healthcare compared with other nations.*

Out-of-pocket Healthcare Expenses
Medical expenses an insured person must pay out of his own funds. Out-of-pocket expenses include the costs of **deductibles**, **co-insurance** and **copayments**. Since the 1920s out of pocket expenses for medical care have fallen from 85 percent of total cost to 15 percent. *(Please see Rajiv Sharma's "How the Health Care Market Differs from other Markets")* Because of the introduction of **consumer-directed health plans** with higher **deductibles** and **co-insurance**, out-of-pocket expenses are now expected to grow over the next decade. However, since total healthcare spending is projected to grow even faster, out-of-pocket expenses as a portion of total healthcare expenses will fall from 14% in 2002 to 12.9% by 2012. *(See: Heffler S, Smith S,*

Keehan S, Clemens MK, Won G, Zezza M. Health spending projections for 2002-2012. Health Aff (Millwood). 2003 Jan-Jun; Suppl:W3-54-65).

Over-insurance
When a health insurance policy covers the costs of care in excess of what an individual would normally be willing to buy if the individual had to pay for the services **out-of-pocket.** What constitutes over-insurance varies depending on an individual's state of health, income and personal tastes. Typically with over-insurance individuals pay close to zero for medical care. This changes the individual's behavior leading to increased consumption of medical services. Over-insurance explains why there have been no natural market controls on the rise in prices for new technology and expensive drugs. Managed care was the ultimate over-insurance since it provided "first dollar coverage." In early managed care, the patient paid a minimal **copay** of $5.00 for doctor visits without **deductibles** or **co-insurance**. The patient was fully insured from the "first dollar" of medical expenses including coverage for predictable expenses like annual preventive care. This removed the usual consumer behaviors of assessing value based on cost and quality and led to expectations of unlimited coverage at no cost. The Oregon Health Plan and other health systems have tried to deal with the consequences of over-insurance by various forms of rationing, such as limiting the choice of drugs to the least costly adequate drug for a condition. Over-insurance, **fee-for service,** and lack of **transparency** are all factors that drive up the cost of all healthcare. *(See the classic article on the topic: Pauly MV: "The economics of moral hazard: comment." The American Economic Review; 1968: 58(3): 531-7).*

Pooling
The aggregation of all the potential insured members into a single entity (a pool). This is in contrast to having multiple, smaller segments which each receive a separate insurance rate and are administered separately. The advantages of pooling are felt to be three fold: 1) administrative savings —a single large pool is less expensive to administer that multiple small groups, if everyone in the single pool uses the same processes, products, methods. 2) Purchasing power—a large pool may be able to obtain better insurance rates than many small groups buying separately 3) The single pool can enable community rating, which is a single premium for all members of the pool, irrespective of health status. This is an advantage for people in the smaller groups who would have faced higher than average premiums. But for those who would have faced lower than average premiums in the original groups, pooling could mean an increase in premiums as they are now lumped together with higher cost individuals. Oregon Senate Bill 6 introduced in May 2003 proposed the creation of a mandatory statewide pool for school employee health benefits. With this proposal, all school employees in the state would be in one pool that would source insurance product options and negotiate benefit options for all the employees. Senate Bill 6 did not pass.

Professional vs. Facility bills
Refers to the separate bills patients receive from each physician (professional) and from the hospital, office, or nursing home (facility) for the health services provided.

Provider Payment
The method by which providers—including physicians and hospitals—are paid for rendering services. Payment methodologies for providers span a continuum from payment for an individual task to payment for delivering all the care for an individual over a specified time period. Please see **Capitation, DRG, Fee-for-Condition and Fee-for-Service**. Understanding how payment is made to the individuals and organizations delivering healthcare provides critical insight into behaviors and consequences of changes in the system.

Rationing
Economists use the word rationing to define any process used to allocate scarce goods or services. In healthcare, rationing takes on negative connotations by suggesting processes or policies resulting in the deliberate withholding of potentially beneficial care, usually because it is too expensive. Rationing may occur implicitly, through budgets or market pricing pressures that require that tradeoffs be made between competing objectives. The United State healthcare system is often described as a system that uses price rationing to define how utilization of some services is limited based on an individual's ability to pay for the care. In contrast, the British system *(see description of British system in this issue)*, in which all care is free, uses queuing to ration services: longer waiting times for elective procedures limit access to and utilization of those potentially beneficial treatments for some people who decide to forgo the treatment because of the wait. The most famous rationing system is the Oregon Health Plan, Oregon's version of Medicaid. The Oregon Health Plan school of thought was to keep Medicaid coverage for an expanded segment of the population and deal with budget constraints by withholding coverage for the least important medical conditions rather than dropping people from access to all coverage - as was the traditional response to budget deficits. *(For thorough explanations and implications of rationing see: Schroeder SA: "Rationing medical care—a comparative perspective." N Engl J Med. 1994 Oct 20;331(16):1089-91; and Asch DA and Ubel PA. "Rationing by any other name." N Engl J Med. 1997 Jun 5;336(23):1668-71)*

Single Payer
An approach to healthcare financing which establishes a single fund, usually a government-based fund, from which all healthcare services—including physician, hospital, pharmaceutical, laboratory, etc.—are paid for a defined population. This is in sharp distinction to our current system of multiple payers that include private insurers, employers, and the government. The philosophy of single payer systems is to control healthcare costs and administrative costs by aggregating purchasing power and simplifying administration with a single benefit design and fee schedule. The prototypical single payer system is the Canadian healthcare system.

Single Purchaser
An approach to financing health insurance in which multiple purchasers (employers) come together and pool their employees for the purchase of health insurance. Single purchasers take advantage of **pooling** to reduce administrative costs and spread risk over a larger population. Unlike a **single payer system**, the single purchaser utilizes private sector insurers to provide the health insurance. Single purchasers can take many forms such as the Pacific Business Group on Health which organizes a buying group of 12,000 small businesses in California to purchase health insurance.

Third-party Payer
Any public or private entity (e.g. an insurance company) that pays for medical expenses on behalf of a designated recipient. The entity is a third-party, distinguishing it from the beneficiary of care and the provider of care.

Transparency
Unencumbered, public access to healthcare price and quality information. The push for complete transparency is founded on the idea that inflation is restrained and quality is improved when buyers and sellers have equal access to information. In contrast, **fee-for-service** obscures price and quality information. According to the Institute of Medicine, for the healthcare market to become transparent it "…should make information available to patients and their families that allow them to make informed decisions when selecting a health plan, hospital, or clinical practice, or when choosing among alternative treatments." Specific proposals for improving transparency include **fee-for-condition** provider payment, systems for reporting medical errors that are protected from the tort system, and publication of physician experience by medical condition and procedure.

Uninsured
a person who lacks health insurance coverage and therefore pays out-of-pocket for any and all healthcare, uses no healthcare, or receives free emergency room care.

Universal Healthcare
The concept of providing health insurance or health services to all citizens or all residents. Universal healthcare usually implies that no individual would be denied insurance or health services because of health status, income, or employment status.