

National HIT Collaborative for the Underserved

Congressional Briefing

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My name is Neil Calman and I am a family physician from New York. I co-founded and still run a 25 year old community health center network in the Bronx, Manhattan and the Mid-Hudson Valley of New York State comprised of 26 separate practice locations including 16 full-time health centers, 3 dental practices, 2 school health programs, and 9 sites which serve New York City's homeless population.

In addition to service delivery, we are actively involved in recruiting underrepresented minority students into the health professions by serving as the New York City Regional office of our Statewide Area Health Education Centers Program (or AHEC). Our sites train dozens of social workers, medical students, family practice residents and even the faculty and administration of programs in the area. We also have developed and operate 2 family medicine residency programs which produce 14 new family physicians every year – trained, in and for, practice in underserved communities.

The Institute's research arm is supported by grants from the NIH, the CDC and many other public and private entities for the study of health disparities, including the very important issue of how health information technology can help reduce and even eliminate those disparities in health outcomes that plaque our society.

It is in this context that 7 years ago we implemented the Epic System - a sophisticated electronic medical record and practice management system across our network. There were many other ways we could have spent the \$2 million it cost us for purchasing and implementing the system but as I stand before you today I can tell you that nothing we could have spent that money on could have saved as many lives, or led to the number and extent of improvements in the health of our patients that has resulted from this decision.

At a **societal level**, the cost of \$30 per patient for the purchase and implementation of an EHR is a small price to pay for the safety and quality improvement that was achieved.

At the level of a health center organization, I am thrilled that the President and the Congress have realized that while savings accrue to society as a whole – and to insurers who save money when people stay healthier – the expenses all accrue to the health care providers who need to pay for acquiring and maintaining and constantly upgrading their EHR systems. Connecting the dollars to support those who are bearing the burden of these costs is truly a breath of fresh air. I want to thank all of you in this room who had a hand in making this happen. You have done a good thing for all Americans – and – as I will explain to you - especially for those who have been traditionally medically underserved.

I would like to give you a “taste” of the many ways EHRs are of critical importance in community health centers and in caring for the underserved – so that as this work progresses you will have the tools to understand how critical this is and to make sure the funds are used wisely.

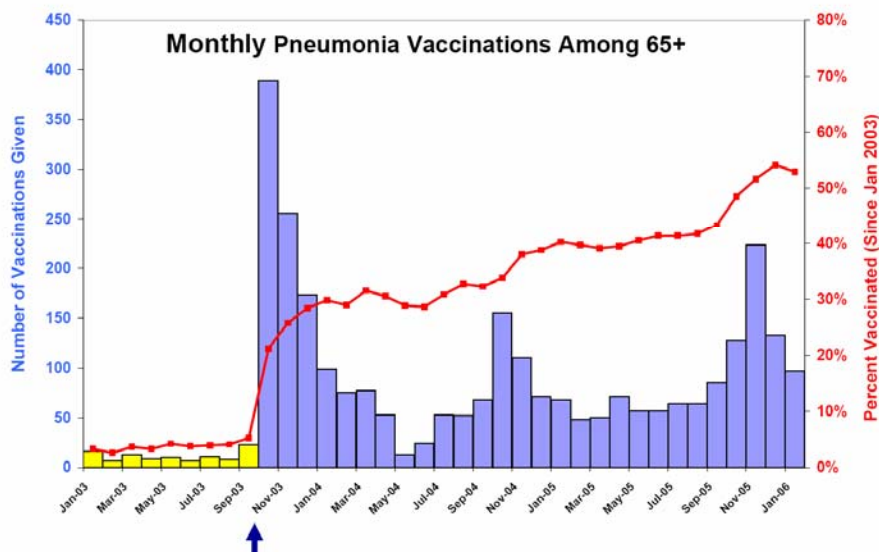
Preventing Pneumonia with Pneumococcal Vaccination

Electronic record systems allow health centers to measure the quality of care we are delivering. This is critical as so many of our patients have multiple, chronic problems and as a result of poverty, and often a lack of insurance, the treatment of those problems is extremely challenging.

The EHR records every order, test, immunization, result and note that relates to a given patient. Shortly after putting in the EHR we read a study which estimated that less than one-third of all people over 65 in the United States had received a potentially life-saving vaccination against pneumonia. Pneumonia in the elderly is a serious problem causing many unnecessary and expensive episodes of illness, hospitalization and death. We ran a report of our own patients and discovered that we were giving only 19 pneumonia vaccines per month which seemed very low for the size of our population of patients. This is information we never had before the EHR.

So we programmed the computer to put up an alert that appears across the screen whenever a patient over the age of 65 or one who has one or more high-risk chronic diseases – comes in for any reason - and does not have a pneumonia vaccine recorded in his or her electronic record. In the first month we gave 396 doses of vaccine.

Electronic Health Record Reminders Increase Preventive Services



Stalling Kidney Failure from Diabetes

At a hospital meeting I was approached by a nephrologist (a kidney specialist) who consults and sees many of our kidney patients. He mentioned to me that he thought he could help our diabetic patients who were experiencing kidney failure delay or even prevent their need to go on dialysis through more aggressive medication and dietary treatment if they were referred earlier in the course of their disease.

We ran a report of those patients who had not yet seen a nephrologists and who had creatinine (a measure of kidney function) levels in their blood of over 1.8. The report yielded 32 patients and messages were sent through the system to the providers to prompt them to send their patients for a consultation. Almost all patients were seen within a short period of time. We then put in an alert that any time a lab value of more than 1.8 comes back on a creatinine test, the computer should check if the patient has been sent and seen by a nephrologist and if not to flag the doctor to order a consultation. The last time we ran the report to see how many patients had not been sent yet the number was 3.

Complex technology – simple answers – incredible dollars saved to the health care system!

Protecting Patients Against Medication Disasters

Medications are one of the most powerful tools I have to treat my patients' acute and chronic illnesses. They are also the most likely way I might injure one of my patients.

The EHR helps protect patients against medication errors by not allowing inappropriate doses of medications, by automatically checking for interactions between medications, and by alerting providers if the medications they are prescribing may be contraindicated because of prior allergic reaction to the same or a similar medication. Reducing medication errors has been proven to reduce health care costs. Society saves money. Patients save being harmed from inappropriate prescriptions.

But there is more to the medication story ...

New research is being produced every day – research that helps physicians determine the best course of medication therapy for their patients. There are also new studies documenting serious side effects of medications that are commonly used. With an electronic health record, we can make sure that patients have the most up-to-date information about their medications and the medical problems they may be experiencing.

Just two years ago a report came out that showed that women taking Ace-inhibitors – a very common medication used for high blood pressure and also used to protect the kidneys in people with diabetes – caused serious heart and lung birth defects in 7% of all women who took them in the first trimester of pregnancy. This was an astounding finding – one that made the lead article in the New England Journal of Medicine and one that we know might have serious implications for our patients. We ran a report the

morning the article was published and found out that 232 women of child-bearing age in our practices were on this medication. What could we do to save them the trauma of giving birth to a child with serious birth defects?

We sent a list to each of the primary care providers who work for us, telling them which of their patients were at risk and informing them of this new research. We also sent letters out to all 232 patients – informing them of this new research and letting them know that should they plan a pregnancy – they should speak with their providers about changing their medication. Should they inadvertently become pregnant they needed to call their provider right away to discuss their medication options.

What impact did that have? We calculated that approximately half 130 of those women would likely have become pregnant sometime in the next 5 years. That means that our EHR potentially saved the birth of 9 children in our health center network alone – that might have been born with serious birth defects. This outreach could not have been possible without EHRs.

Getting Access to Health Information Before We Are All Connected

You have, I am sure, heard of the National vision of having all of our health information available to us and the physicians we choose – anywhere, anytime we need it. The United States is still a very long way from all of us having all of our information digitally stored in computers and even further away from having all of those computers connected and able to speak to one another. Yet my patients are already very close to having access to their health information when and where they need it – now!

A short time ago a patient of mine with diabetes and heart disease started hearing voices in the room in the single occupancy hotel where she has lived for the past 2 years – awaiting permanent housing after being homeless for months. I have been caring for her for more than 5 years.

I am sure you don't need a powerful imagination to envision what would have happened to her if she had shown up in an emergency room in the City. Formerly homeless, black, obese, female – the odds were against her getting optimal care. But she was not alone. She called my cell phone before leaving for the hospital and described her symptoms. Knowing her for years I could not imagine that the problem was psychiatric in nature but thought, instead, that it could be due to some imbalance in her metabolism.

It was late at night and from my home computer I accessed her list of chronic problems, medications, her last EKG and other diagnostic tests she had and faxed them to the emergency room. The information was in the hands of the ER doctors before my patient even arrived there. They made the correct diagnosis and treated her appropriately by comparing their information to mine and realizing that her lab values had changed dramatically. My patient was treated correctly. A costly hospitalization was avoided. And all of this possible now!

Just three months ago we opened up a patient portal into our EHR – enabling patients to have access themselves – or give a hospital or specialist access - to view major parts of their own medical record online – 24 hours a day. Over 1600 of our patients have already signed on to this service and over 1200 are already active users. The future is now!

Protecting the Health of the Public

Every day, anonymous data on the patients being cared for in our center is electronically transmitted to the New York City Department of Health where it is processed through their syndromic surveillance system to identify if there is any evidence of new disease outbreaks in the community or bioterrorism events.

Community health centers are a vital component of the public health system and serve those folks in our country who experience the worst health and are often the first to experience the adverse impact of diseases in the community.

Enabling our public health partners to access information on the conditions we are seeing among our patients gives them a head start on addressing any disease outbreaks in the community.....another benefit that could not be achieved without health information technology.

In Conclusion

You may ask why would a community health center network like ours spend over \$2 million dollars to install a sophisticated computer system like this in our network and over a million dollars a year to maintain it and use the information it generates?

I can say as I stand before you today that nothing we could have done would have benefited more people in as many ways as the EHR has and nothing would have saved our community and society more pain – more unnecessary bad health outcomes – or more money. Avoiding errors in treatment, targeting preventive measures that patients need, helping us recall patients in need of follow-up, identifying patients needing special services – the EHR allows us to truly manage the 72,000 patients we care for in our network in ways that would otherwise be unachievable.

We have hired new staff now - to reach out to our patients in need of assistance in managing their own health care needs,those of low literacy,those whose multiple chronic conditions in the context of a life in poverty,those whose medical problems are so complex that it makes it nearly impossible for them to organize and manage their own health care needs.

The EHR can identify every patient in our practices who is missing needed preventive interventions – or who is not receiving some needed treatment for their chronic illness. Before the EHR, I wrote prescriptions but couldn't track if people were taking their medications. I ordered tests but unless my patient returned for results, never knew if they had them done and often did not receive the reports. I sent people for specialist

consultations and for over half of these consultations where a report was never received by me I never knew if my patients were able to get an appointment or went for their appointment. So now I know. But knowledge gained through the HER is only the beginning of the story...

All this information comes with a moral obligation to do something to help bring the patients we know need services back in to our centers for treatment. We send them letters. We have full-time dedicated staff that makes phone calls, day and night, to try to make appointments for patients who are in need of additional services. We send social workers to help patients get to their appointments when needed and arrange transportation for them. The more we learn about how difficult it is for our patients to get the care they need, the greater our obligation becomes to expand our efforts.

The cost to us in dollars spent is great. Giving better care costs us – the health center - more money. To say it simply - the true value of EHRs in improving care requires an ongoing investment of resources – not just in the technology – but more importantly in the staff needed to put this information to work.

Every pneumonia prevented in an elderly person is a saved emergency room visit, saved x-rays and often saved hospitalizations.

Delaying kidney failure in someone with diabetes saves millions on dialysis and allows that person to stay working or caring for their family.

Avoiding medical errors and enhancing preventive activities saves people unnecessary hardship and saves money in many multiples of the cost of an EHR.

So today for me is a celebration of sorts – our Nation has made a statement that it is prepared to INVEST – invest in the implementation and the ongoing support of health information technology in our centers. I say INVEST because each dollar spent will create new jobs – not just in technology but in the outreach staff of the centers and offices around the country that will use the information to improve the health of Americans.

And in community health centers – the model that I have worked in my entire professional career – America's investment in health information technology will serve those people in America with some the most complex medical, psychiatric and social problems. Unlike with other technologies where our patients are often last to benefit, EHRs are one technology they need the most.

If we are serious about correcting the disparities in health outcomes experienced by people of color, the uninsured and other folks with special needs we need this investment in information technology in our health centers. The benefits will be paid back many times over in real dollars saved in our health care system and our entire society will be healthier as a result. Thanks for your time - and for all that you have done to bring critical financial resources to this important endeavor.

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