Primary Care Information Project (PCIP)

Public Health's Role in Health Information Technology:
The New York City Model

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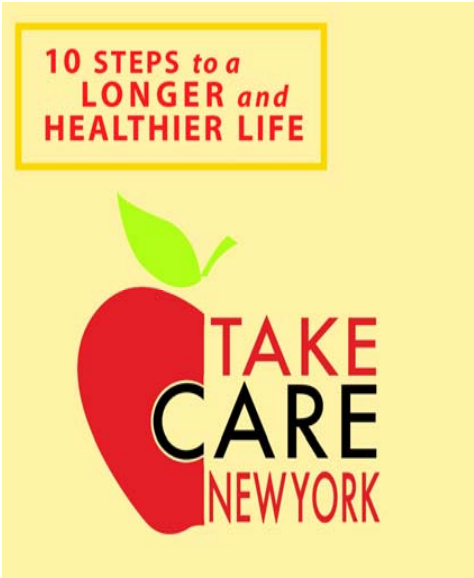
The Primary Care Information Project

- By bringing this health technology to New Yorkers, we are building a national model for a health care system that works, by preventing illness rather than merely treating people after they're already sick.
  - Mayor Michael Bloomberg 2/25/08

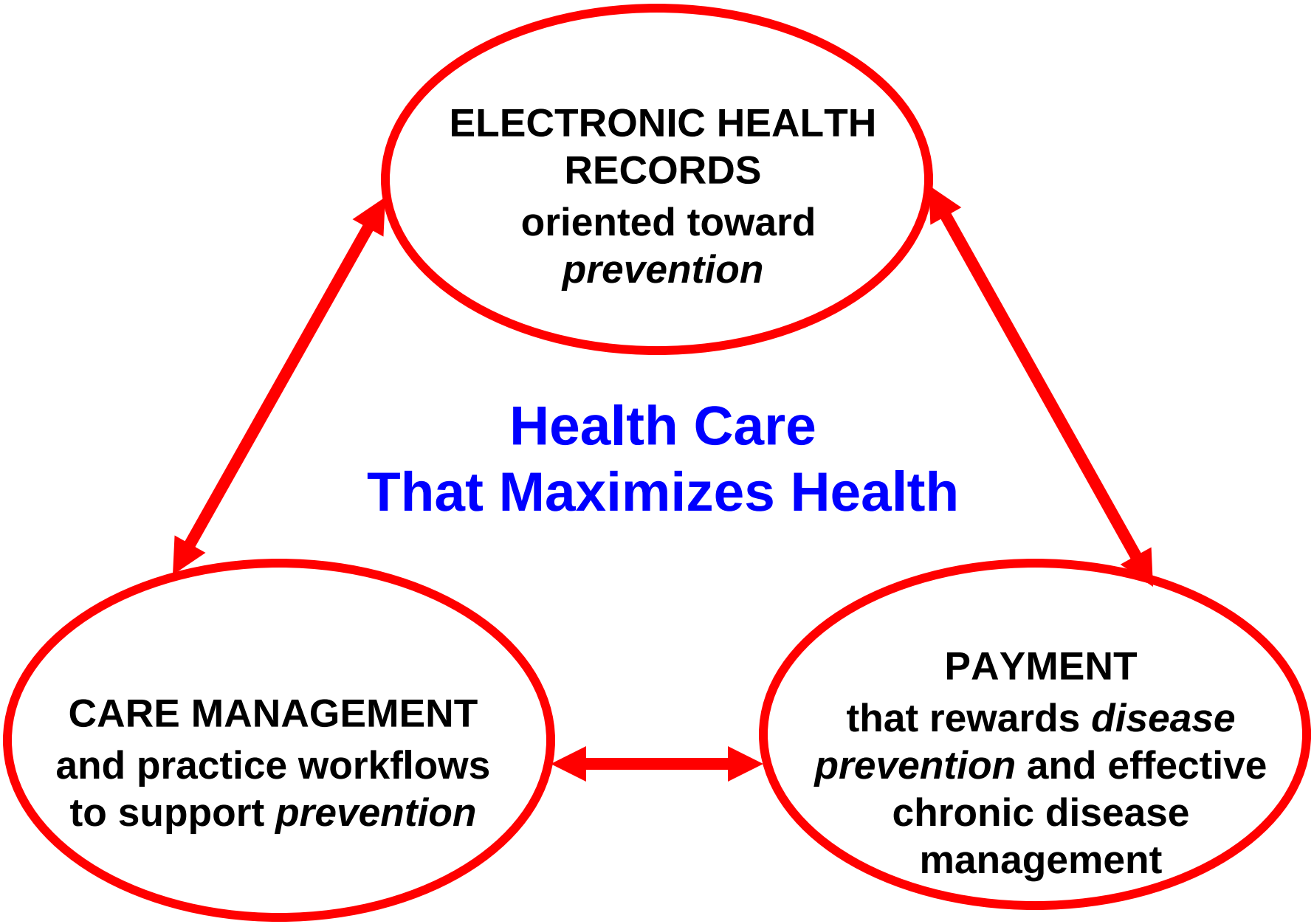
Government Role?

- Ensure that electronic health record systems address priority public health issues.
- Use economies of scale to support a myriad of factors that impact care management.
- Harmonize different funding streams to support quality improvement.
- Assist provider groups to optimize the EHR

Public Health Priorities



1. Have a Regular Doctor or Other Health Care Provider
2. Be Tobacco-Free
3. Keep Your Heart Healthy
4. Know Your HIV Status
5. Get Help for Depression
6. Live Free of Dependence on Alcohol and Drugs
7. Get Checked for Cancer
8. Get the Immunizations You Need
9. Make Your Home Safe and Healthy
10. Have a Healthy Baby

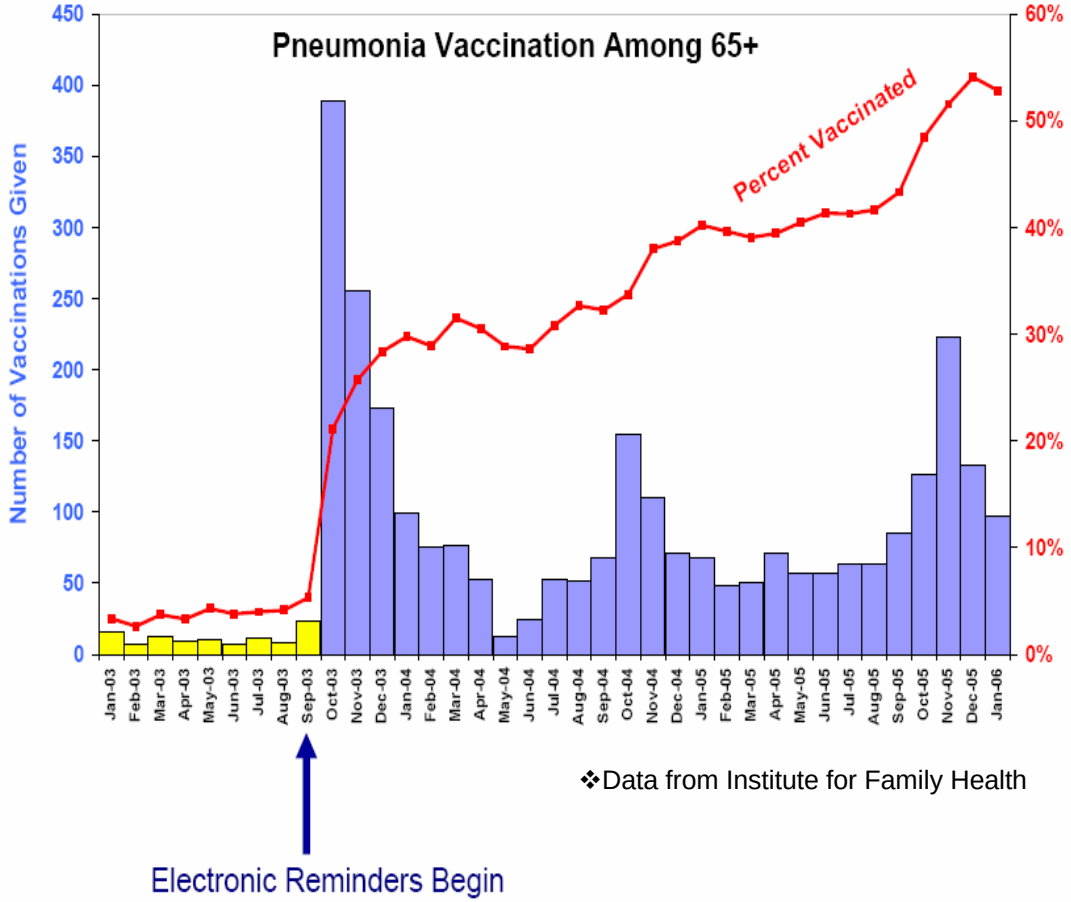


*Frieden TR, Mostashari F. JAMA. 2008 Feb 27;299(8):950-2.

The Power of a Prevention-Oriented EHR:

EHR System

Electronic Health Record Reminders Increase Preventive Services

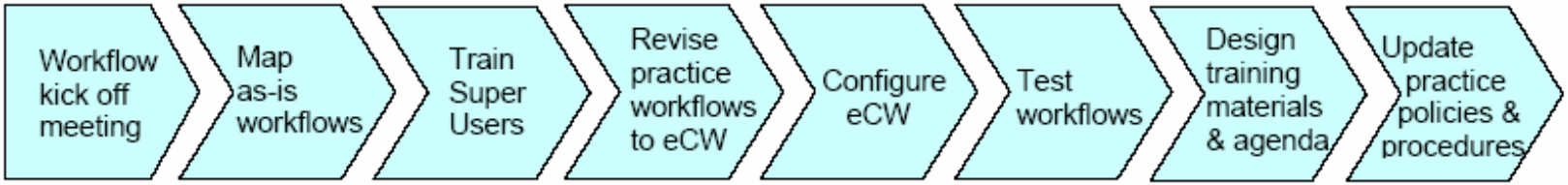


❖Data from Institute for Family Health

Implementation Support:
DOHMH Plan for Workflow Redesign

Workflow Plan

Redesigning workflows is an important process for redefining staff roles, designing practice-specific training materials, and configuring the EHR to fit the needs of your practice. The timeline for mapping workflows and configuring the database will begin shortly after your kick off call with eCW and continue through go live. The basic stages of workflow and configuration are:

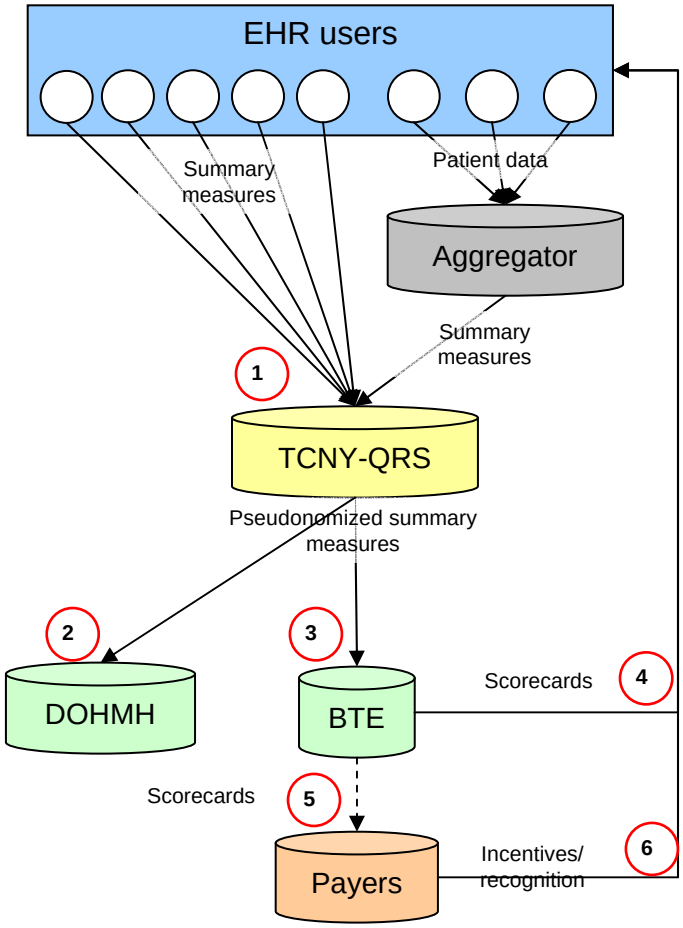


	Week 1	Weeks 2-3	Week 4	Weeks 5-6	Weeks 6-8	Weeks 9-10	Week 11-12	Post-golive
Goals	• Identify key practice staff who will need to be involved in the redesign process and set the workflow schedule	• Understand current high-level processes that will be impacted by the EHR. • Identify reports and other information that must be tracked in the EHR	• Learn basic functions, workflow, and reporting ability of eCW. • Understand how certain procedures are typically performed in eCW.	• Reassess high level processes and determine how they will be altered through the adoption of the EHR. • Identify how staff roles will change • Identify required points of configuration	• Configure the system to meet practice-specific operational and clinical policies and procedures • Load information into the EHR that will allow for successful billing and other transactions	• Ensure revised practice workflows can be successfully adapted to site-specific staffing and procedures. • Ensure that site hardware has been properly placed	• Provide staff with tools that can assist them in completing new tasks. • Plan training agenda with eCW and prepare practice-specific elements	• Ensure the practice's policy and procedures reflect the new EHR-enabled policies and procedures
Deliver-ables	• Workflow schedule defined. • Staff named for all required roles.	• As-is flowcharts for high-level processes • Examples of all key documents and reports that will need to be in the system	• Mapping of data elements from key reports/forms to existing data elements in eCW. • Staff post-training "hot seat" test results	• New eCW-enabled flowcharts • List of new staff EHR functions • List of specific configuration needed in the system	• Successful testing of the new EHR processes	• Sign off on adapted workflows and configuration by Process Owners	• "Cheat sheets" for specific processes • Final attendee lists for training sessions submitted to eCW	• Documentation codifying the EHR-enabled polices and procedures • New job descriptions for staff

PCIP Care Management and Implementation Support

- Support for information technology infrastructure
  - DOHMH group purchasing of equipment for 10 CHCs and 50 small practices
- Assistance with workflow analysis
  - As-is and EHR-enabled workflow assessments
- EHR vendor support
  - Basic project management, data migration, on-site training, interfaces etc.
- Support for billing
  - On-site consultants and group trainings
- On-going quality improvement assistance
  - On-site assistance in developing care management programs
- NCQA Medical Home Certification
  - Tied to EHR system adoption/successful utilization

Citywide Quality Reporting System: Draft Approach for P4P



(1) EHR users collect patient data and transmit summary measures in a standardized, pseudonymized format to the TCNY-QRS (Note: An Aggregator will be required to standardize measures for some EHR users)

(2) NYC DOHMH uses pseudonymized measures for population surveillance

(3) Bridges to Excellence (BTE) uses pseudonymized measures to assess performance of participating physicians

(4) EHR users receive scorecard from BTE and review results for practice QI. IPRO will provide quality improvement and auditing services

(5) VOLUNTARY: EHR users authorize BTE to pass performance assessment to contracted payers.

(6) Payers recognize/send incentives to EHR users that qualify based on P4P benchmarks

The following storyline illustrates the TCNY Clinical Decision Support System in action

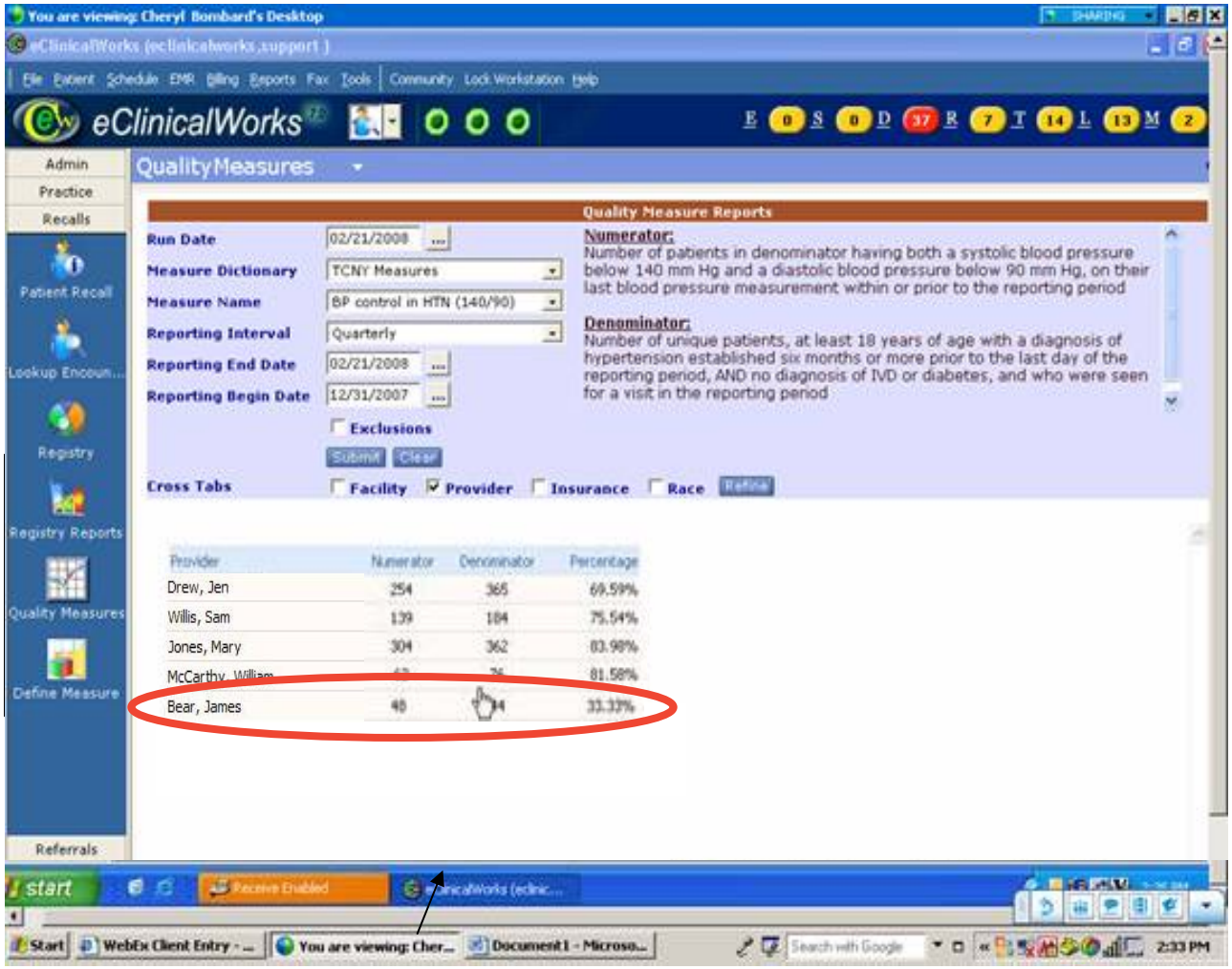
Jane Doe, a 48 year-old woman is cared for by her family practitioner, Dr. James Bear.

8 Key Features of the TCNY Build

1. **MEASURE REPORTS**
   Side-by-side provider comparisons of performance on quality measures
2. **ENHANCED REGISTRY**
   Identifies patients by structured data (e.g., diagnoses, drugs, labs, demographics)
3. **AUTOMATIC VISUAL ALERTS**
   Highlights abnormal vitals
4. **CDSS**
   Automatically displays preventive service alerts that are suppressed when addressed
5. **QUICK ORDERS**
   One-click ordering of recommended preventive services
6. **COMPREHENSIVE ORDER SETS**
   Displays best practice recommendations (e.g., for meds, labs, patient education)
7. **eMedNY**
   With patient consent, displays 90-day history of all Rxs filled by Medicaid patients
8. **CIR and School Health**
   Sends information to City Immunization Registry and generates school health forms

1. Measure Reports	2. Enhanced Registry	3. Automatic Visual Alerts	4. CDSS
5. Quick Orders	6. Comprehensive Order Sets	7. eMedNY	8. CIR and School Health

Dr. Bear wants to find out how he is performing compared to other physicians in his practice in controlling high blood pressure for his patients.



Using the **QUALITY MEASURE REPORTS FUNCTION,** Dr. Bear is inspired by the performance of his peers in managing the blood pressure (BP) of their hypertensive patients; only one-third of his hypertensive patients have achieved good BP control.

1. Measure Reports	**2. Enhanced Registry**	3. Automatic Visual Alerts	4. CDSS
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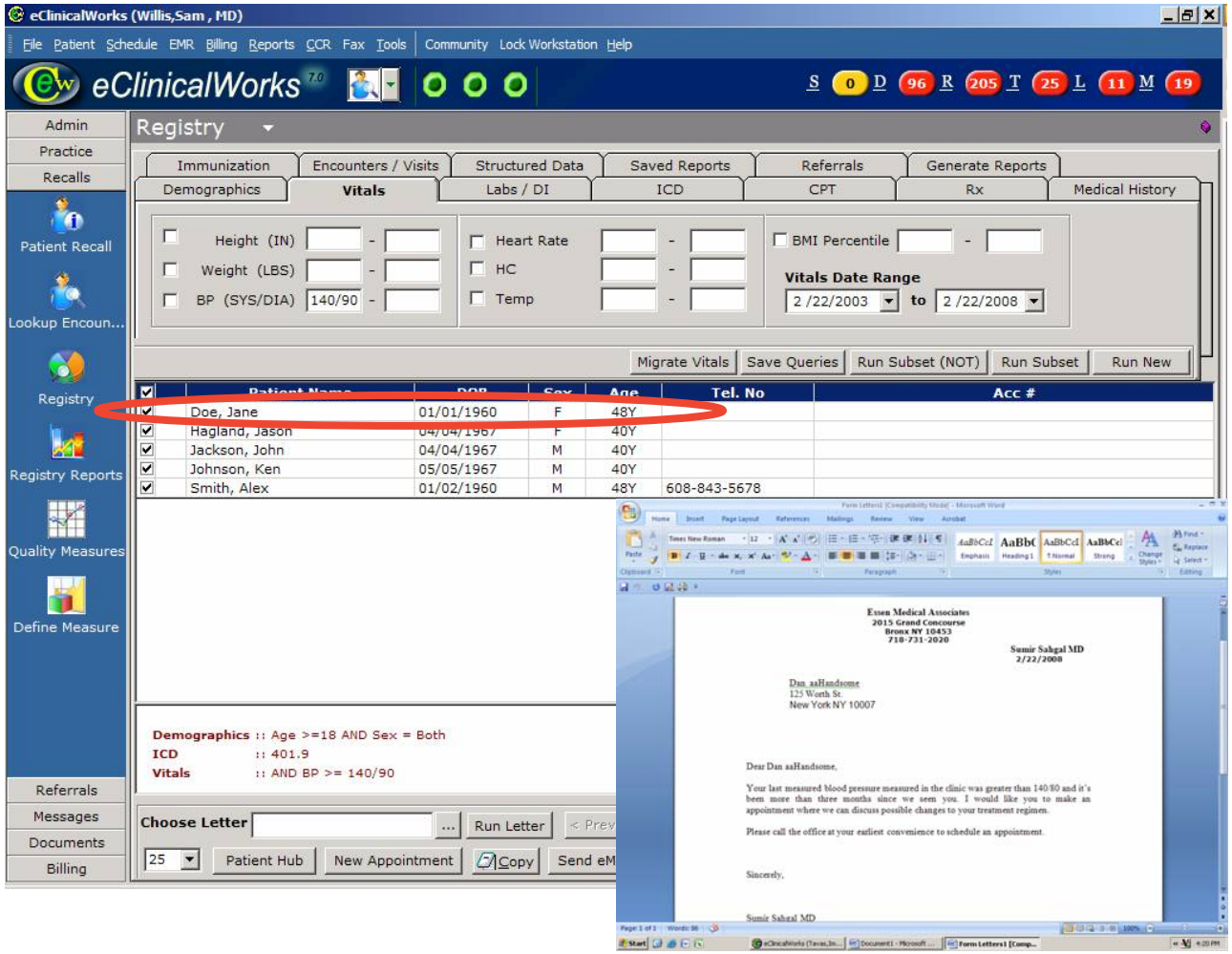
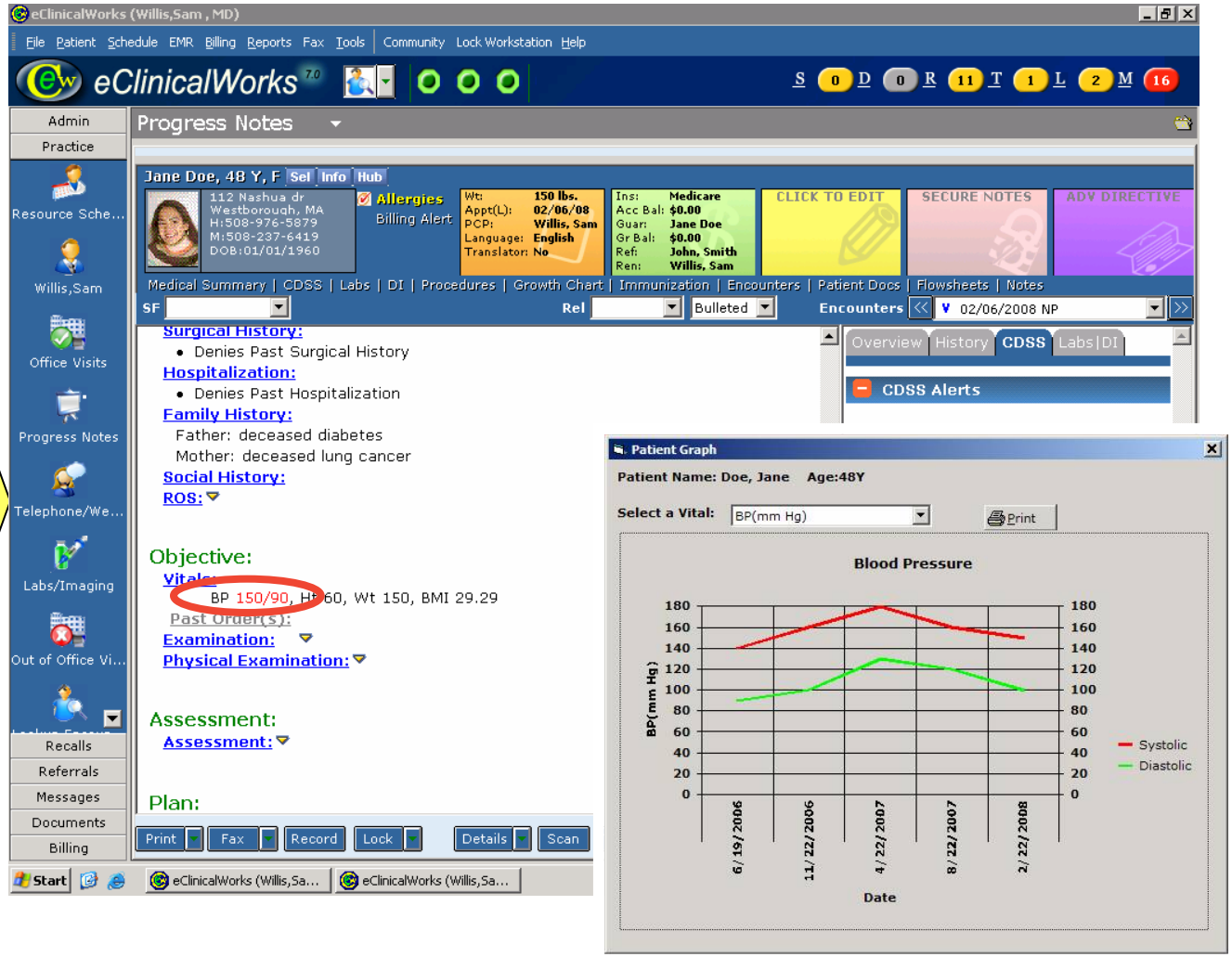
Dr. Bear wants to improve his score on BP control and queries the EHR to identify patients with poorly controlled hypertension



Using the **ENHANCED REGISTRY FUNCTION,** Dr. Bear identifies five patients with high blood pressure who do not have an appointment scheduled, and reaches out to each patient; he generates a letter scheduling a follow-up visit with patient Jane Doe.

1. Measure Reports	2. Enhanced Registry	**3. Automatic Visual Alerts**	4. CDSS
5. Quick Orders	6. Comprehensive Order Sets	7. eMedNY	8. CIR and School Health

- Jane Doe receives the letter and makes a f/u appointment
- During the visit, Dr. Bear's assistant takes her history and vitals
- Jane mentions that she has had a few weeks of excessive thirst and fatigue



Jane's blood pressure is elevated (150/90) and highlighted in red by the **AUTOMATIC VISUAL ALERT FUNCTION**. Dr. Bear can trend her BP over time.

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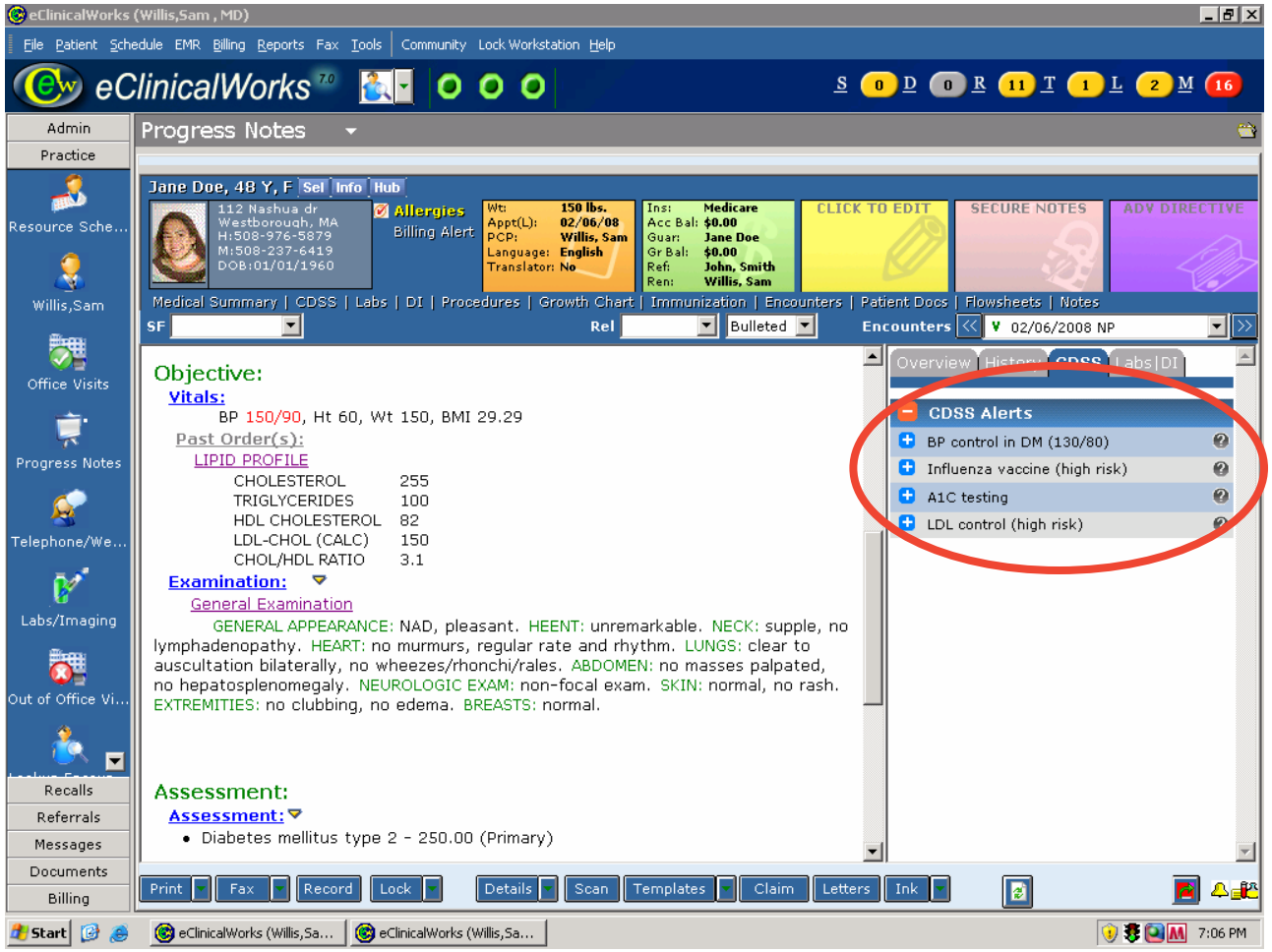
- Based on Jane's chief complaint of excessive thirst, Dr. Bear performs a fingerstick test and confirms his suspicion that Jane has diabetes
- Dr. Bear enters a diagnosis of diabetes into the EHR



Based on Jane's new diagnosis of diabetes, the **CLINICAL DECISION SUPPORT FUNCTION** identifies four preventive care services that should be performed. This list of services is automatically populated in the CDSS panel.

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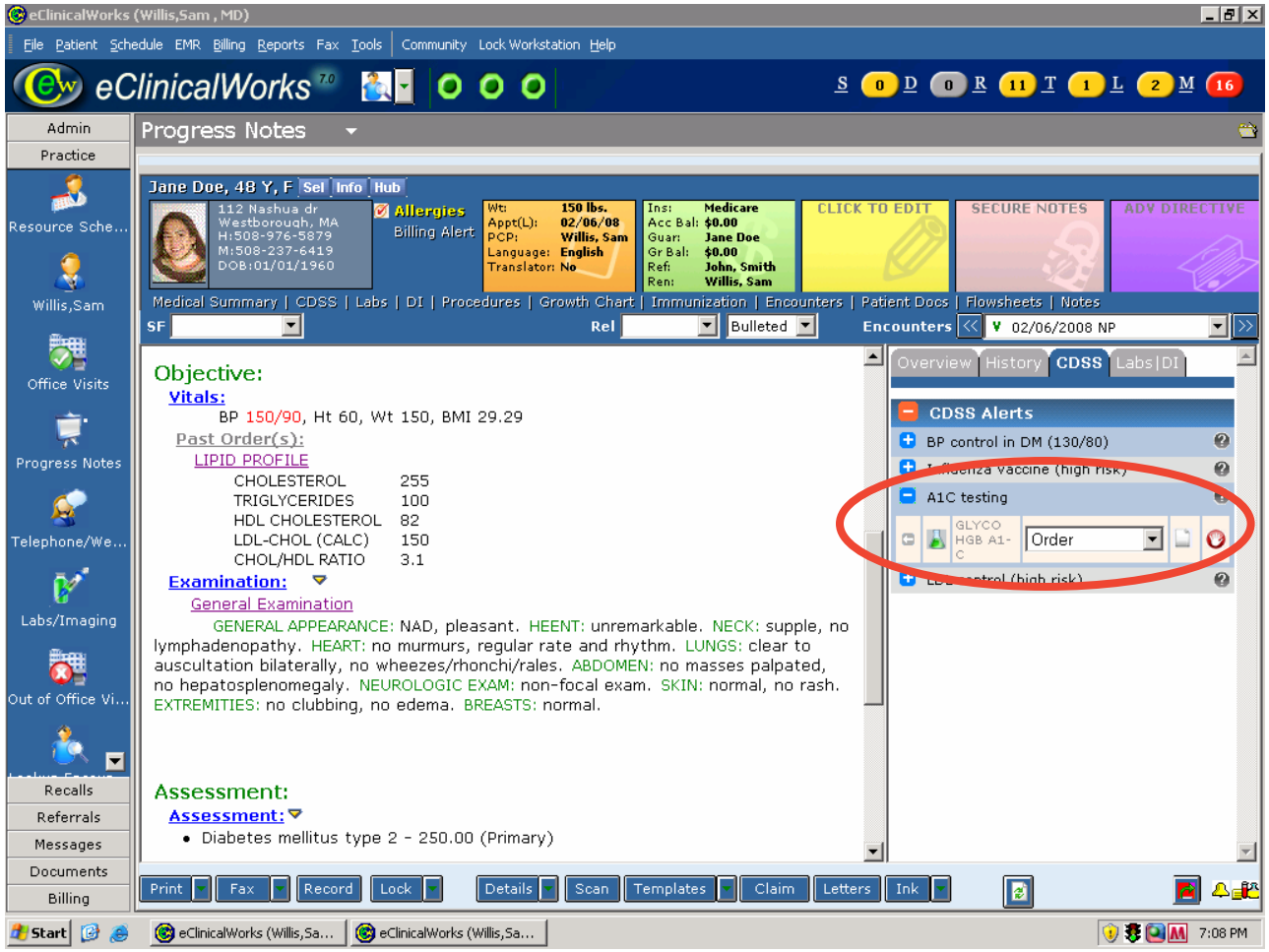
Dr. Bear agrees that these tests are appropriate and should be performed



Dr. Bear uses the **QUICK ORDER FUNCTION** to order an HbA1C test for Jane, as well as a flu vaccine; the alerts disappear from the panel once they are ordered. Dr. Bear may also choose to suppress alerts, if he deems them unnecessary.

1. Measure Reports	2. Enhanced Registry	3. Automatic Visual Alerts	4. CDSS
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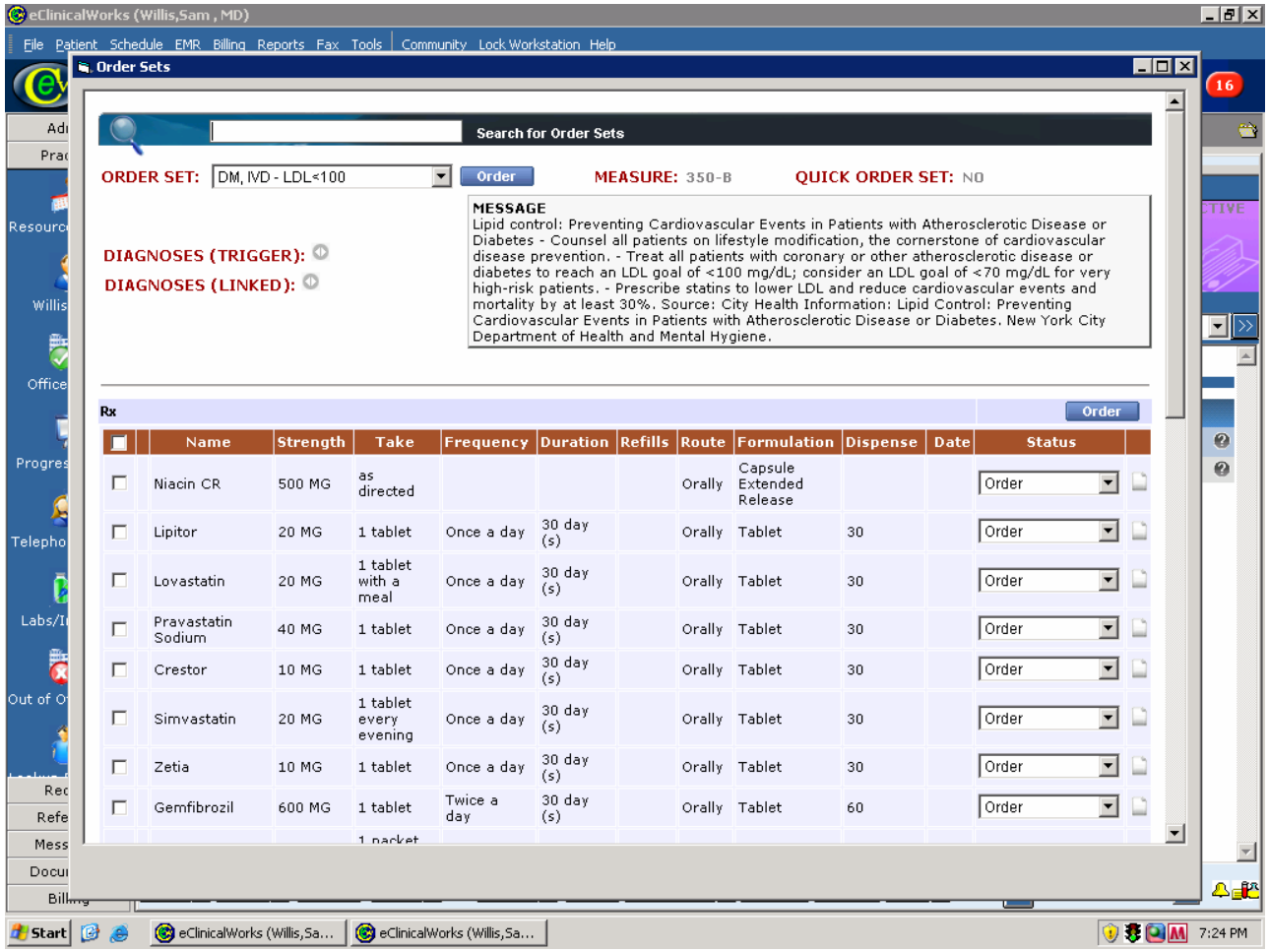
Dr. Bear also selects the “LDL control (high risk)” alert, which displays the order set for high LDL levels



The 1st part of the **COMPREHENSIVE ORDER SET** displays a selected list of recommended medications (brand & generic) for lipid control.

1. Measure Reports	2. Enhanced Registry	3. Automatic Visual Alerts	4. CDSS
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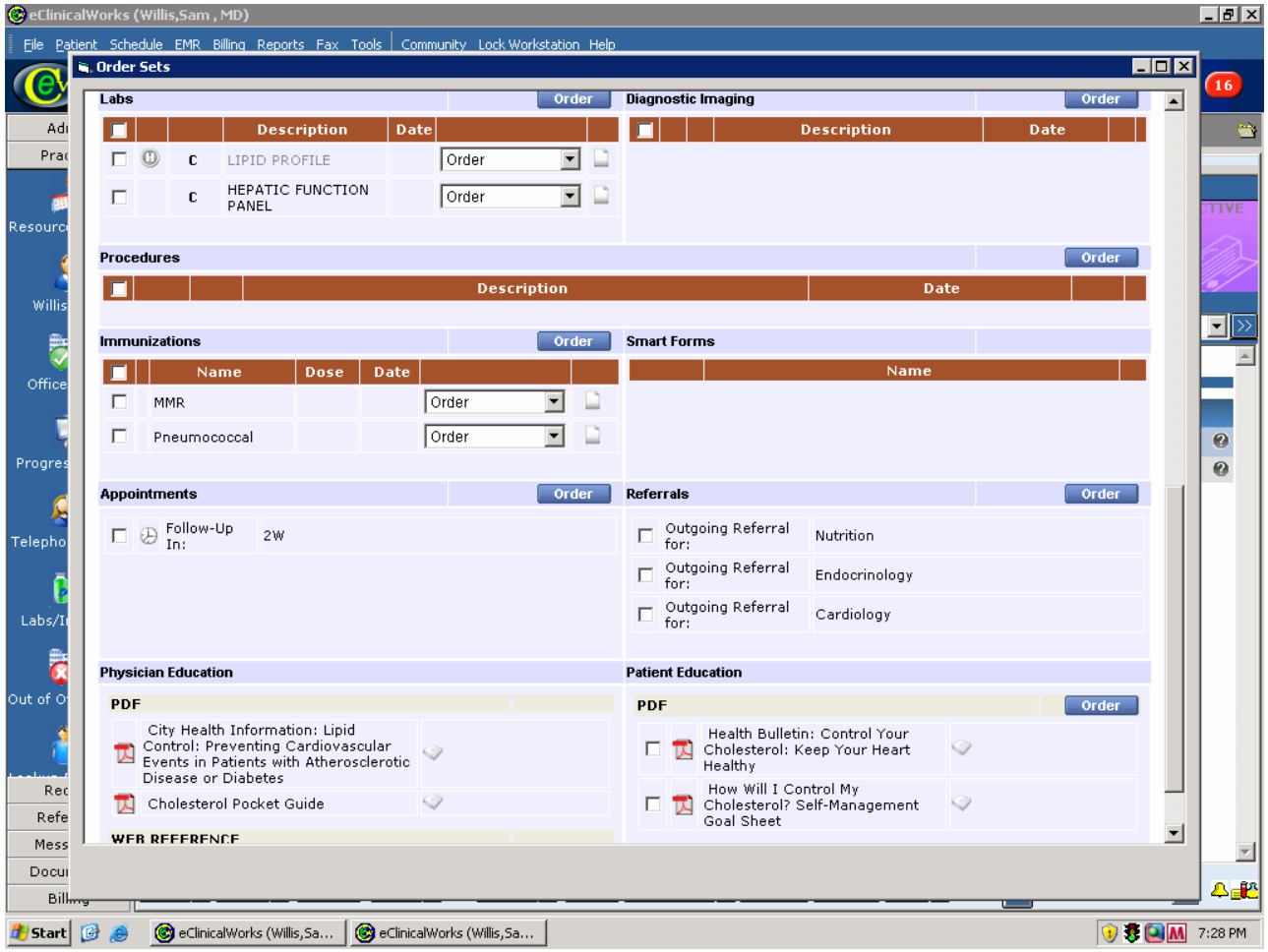
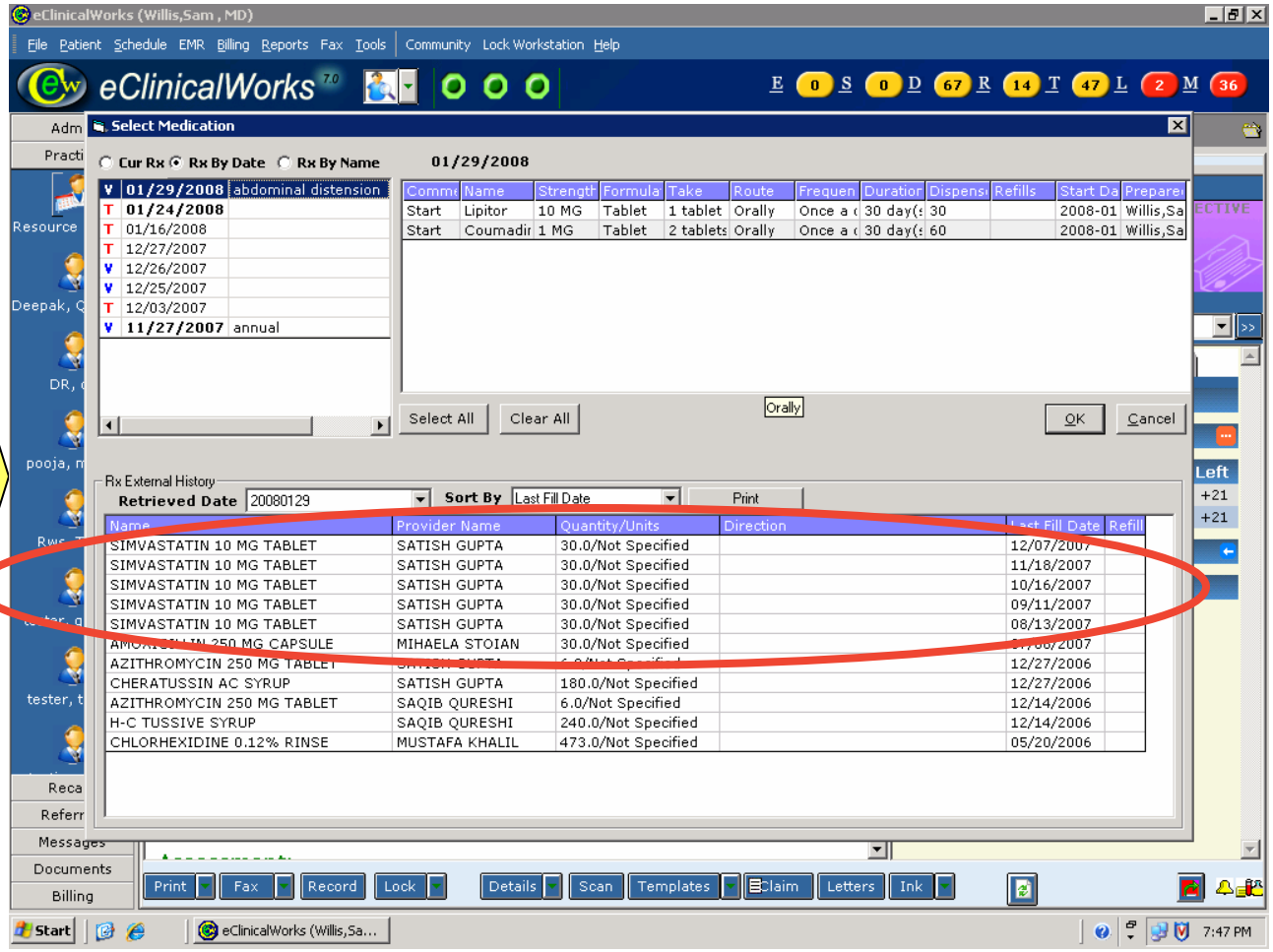
Dr. Bear views other order sets for high LDL levels



The 2nd part of the **COMPREHENSIVE ORDER SET** displays a selection of recommended labs, immunizations, follow-up appointments, referrals as well as printable physician and patient education materials.

1. Measure Reports	2. Enhanced Registry	3. Automatic Visual Alerts	4. CDSS
5. Quick Orders	6. Comprehensive Order Sets	**7. eMedNY**	8. CIR and School Health

- Dr. Bear wonders if he should change Jane's medication regimen to better control her lipids and wants know what medications have been filled by her in the past 90 days
- Jane has signed a consent form to give the provider access to her medication history



Since Jane is a Medicaid patient, Dr. Bear can use the **eMedNY FUNCTION** to view her 90-day medication history. He notices that Jane has not filled her lipid medication (simvastatin) for the past three months; she admits that she has stopped taking them because she wondered if her tiredness might have been due to these pills.

1. Measure Reports	2. Enhanced Registry	3. Automatic Visual Alerts	4. CDSS
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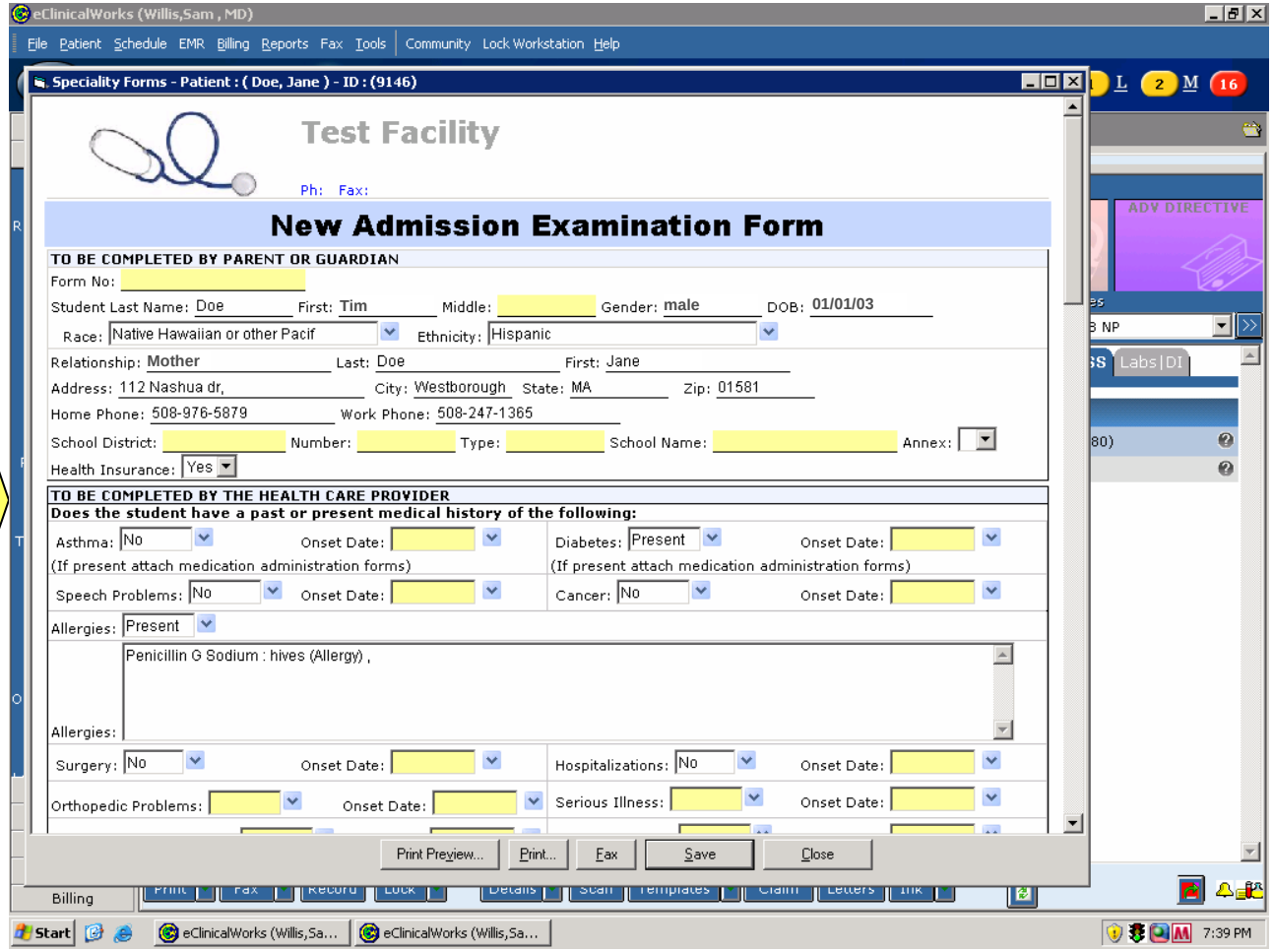
- While she's there, Jane asks Dr. Bear for a school health form for her 5 year-old (Tim) who is entering day care.
- Dr. Bear generates a preloaded NYC School Health form populated with Tim's information for Jane to take with her.



Tim's information has already been automatically uploaded to the **CITYWIDE IMMUNIZATION REGISTRY**. The CIR will maintain a complete record of Tim's immunizations which can be accessed by other providers as needed.