



*Web*MD[®] *Corporation*

Personal Health Records - An Overview
NCVHS Hearing
January 6, 2005

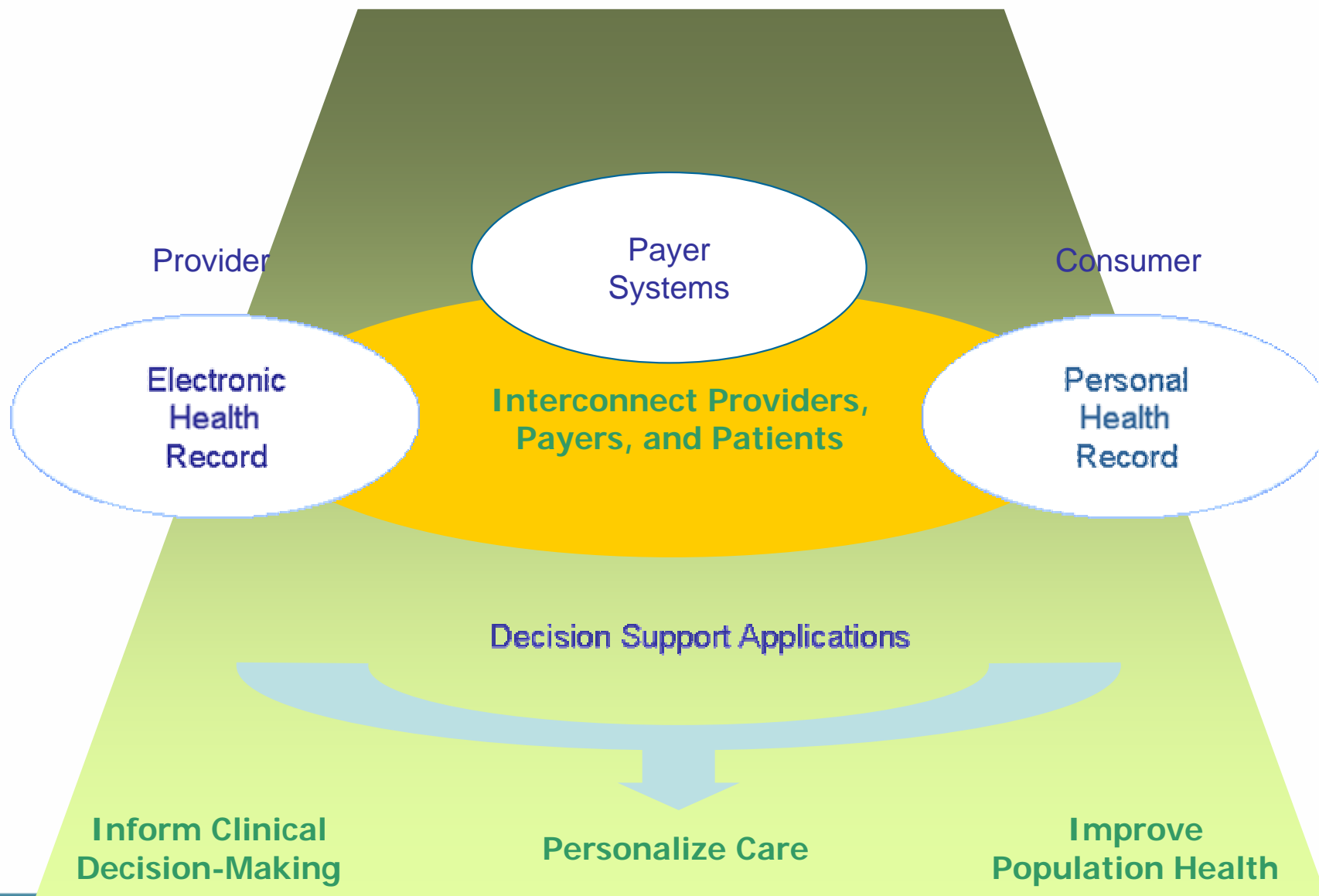
Philip Marshall MD, MPH
VP, Product Strategy



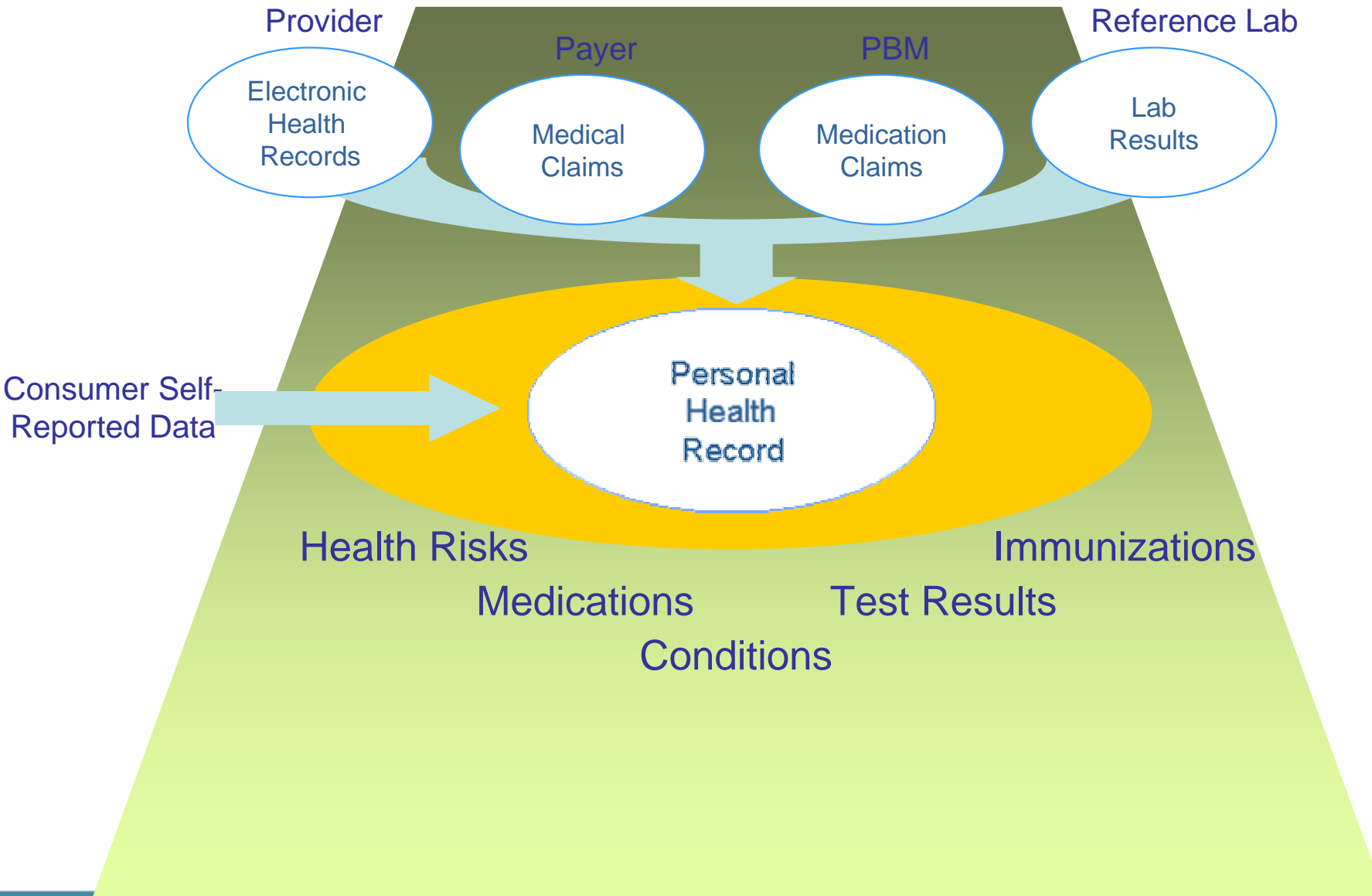
Presentation Summary

- Personal Health Records are beginning to play a critical role in the evolving landscape of consumer-centric health care
- Although EMR systems and a “National Health Information Infrastructure” will provide valuable data to PHRs in the future, self-reported, lab and claims data have already become the “life blood” of the WebMD consumer-centric PHR
- By making a longitudinal, portable profile available to consumers and care providers, PHRs can help facilitate better communication, higher quality care, and lower health care costs
- Today’s PHR at WebMD is already achieving many of the following goals:
 - Integrating self-reported and professional data including medical and medication claims to create a complete profile of health history and health status
 - Facilitating optimal benefits choices including HSA participation within employers and health plans specific to the individual’s health and financial status
 - Facilitating education around and optimal selection of treatment options
 - Facilitating targeted, personalized information and messages to consumers that can impact key health issues
 - Sharing essential health data with care providers
- An opportunity exists for a public-private collaboration whereby federal support for PHRs and related standards and private sector innovation can foster even greater PHR success

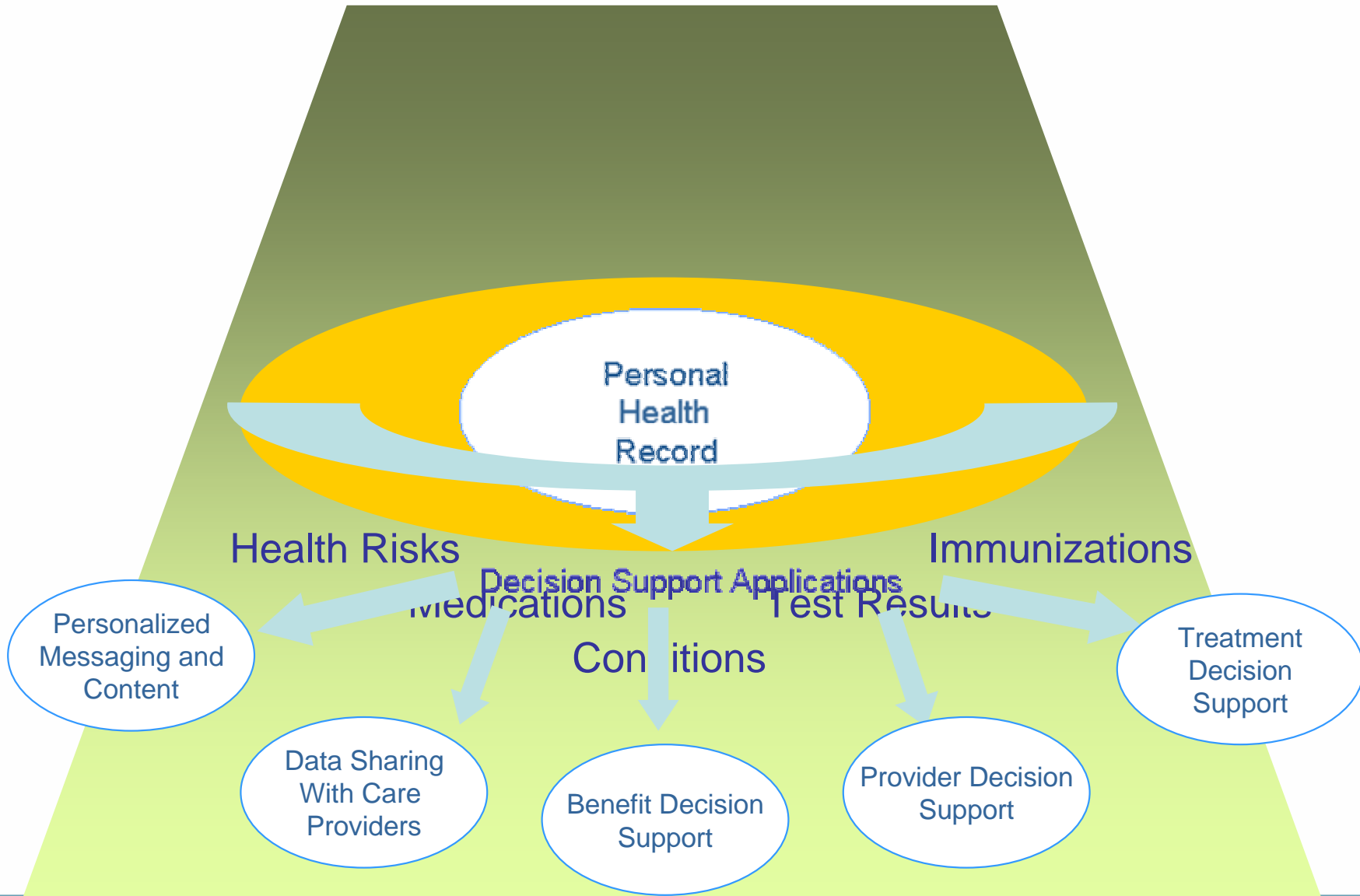
The PHR is an Important part of the WebMD Framework



The WebMD PHR is becoming the foundation of standardized data from multiple sources



The PHR Enables *Smart* Consumer Decisions



The PHR is Gaining Market Momentum

- The Current Market Status of the WebMD PHR
 - Approximately 15 Million people have access to WebMD's PHR through their employer's or health plan's website
 - Over 20 million unique visitors to webmd.com each month provide an opportunity to offer even greater PHR access
- PHRs can Integrate Self Reported and Professional Data
 - Six professional data feeds are enabled today, including claims and lab data
 - Over 20 data feeds are planned for 2005
- PHRs are driving valuable services
 - Personalization of health and benefit information
 - Benefit decision support
 - Treatment decision support
 - Targeted clinical messages
- The WebMD PHR is Poised for Future Success
 - Greater data gathering/sharing through CCR with multiple EMR systems
 - Greater data portability through leading ID/authentication solutions

Benefits of a PHR to Consumers

- Ensures that a private, portable, longitudinal health record is available across the continuum of patient care, making essential health data available wherever, whenever it is needed
- Enables a common profile to drive secure, targeted and personalized information and services, leading to higher consumer engagement, satisfaction, and ultimately positive behavior change
- Within an employer or payer-specific environment, the PHR facilitates optimal plan selection and Health Savings Account participation



Benefits of the PHR to Payers and Employers

- Provides a centralized health and benefits profile for employees and members, resulting in:
 - Increased consumer engagement and awareness of their health
 - Improved decisions around benefits, treatments and providers
- Enables profile-based targeted messaging that addresses key health issues
- Increases the value of aggregate data reporting
- Enables essential health data to be available at the point of care and encourages conversations with care providers
 - Improving Quality
 - Lowering Costs



PHR Examples

Current Medication List Management



Information is organized into convenient summaries:

- Medications
- Conditions
- Allergies
- Surgeries
- Immunizations
- Test Results
- Visits

My Medications Review - Microsoft Internet Explorer

Address: https://www.webmdhealth.com/recc

HealthLink

liva18 Tester family members | settings search

Home My Healthcare Costs Medication Center Condition Centers Health Tools

Health Record

Visits Conditions Medications Allergies Surgeries Immunizations Tests Coverage Basics

add medication check interactions Health Record summary how to

Current Medications	Date	Frequency
Click on an item to edit, delete or view related information.		
ZANTAC 150MG TABLET (2 entries)	06/25/2004	
PROZAC 20MG PULVULE (2 entries)	06/25/2004	
GLUCOPHAGE 1000MG TABLET	06/15/2004	every morning
Viox 50MG Tablet	02/12/2004	
GINKGO BILOBA 40MG CAP	02/11/2003	every morning

Past Medications Date Frequency

The information provided in this tool may not be completely up-to-date or reflective of your particular health status, and this information should not be used as a substitute for medical advice from a physician. For additional information, [click here](#).

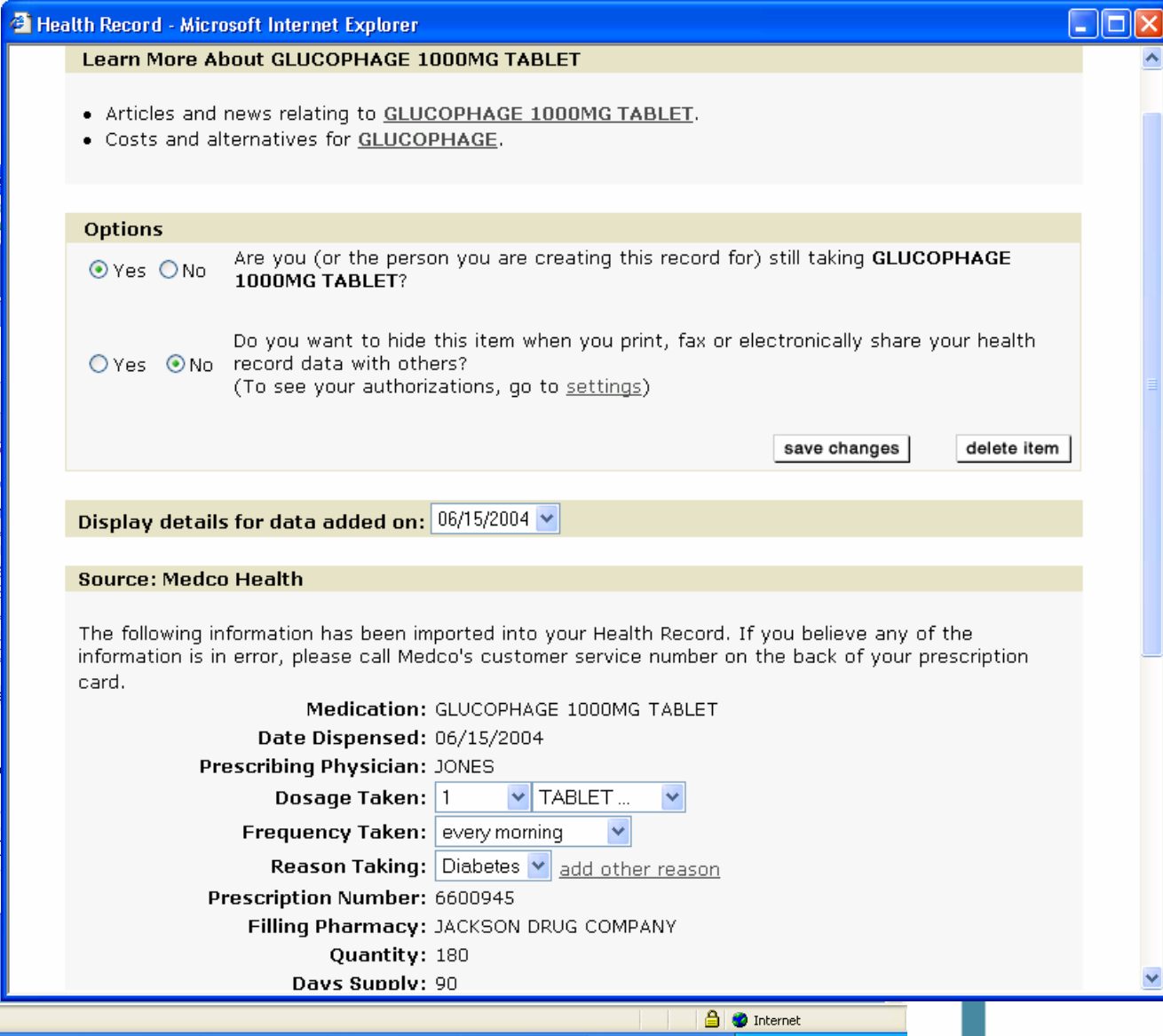
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Medication Details

Detailed views enable consumers to:

- Determine whether the item is current
- Hide sensitive information from viewing by others
- Link to related articles and products, and
- Review data imported from 3rd parties.





Visit Summaries

Visit information summarizes data relating to inpatient, outpatient and doctor's office visits.

A summary of an inpatient visit from medical claims data are shown in this example.

Health Manager Visits - Microsoft Internet Explorer

File Edit View Favorites Tools Help Links

My Health, Powered by WebMD

Empire BlueCross BlueShield

Empire Member Home Page Empire Health Line FAQs

My Health Home | Health A-Z | Assess My Health | Record My Health | Improve My Health

Matt Robinett family members settings log out Search go!

Health Record

Visits Conditions Medications Allergies Surgeries Immunizations Tests Coverage Basics

prepare for a visit Health Record summary how to

Reason	Date	Provider	Visit Type
Skin Infection	09/30/2004	Brad Bowman	Hospitalization

Click on an item to edit, delete, and view related information.

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Local intranet

Trackers

Self-reported or home medical device data is tracked over time to provide insight into important trends. Data imported from an implanted blood sugar monitor is shown in this example.





Health Record Summary for Communication with Physicians and EMR Systems

A Health Record Summary is available for printing, faxing or electronically sharing with health care providers.

Health Record Summary for Philip Marshall

Important Information about this Health Record Summary

The information in this document reflects the information in this patient's WebMD Personal Health Record sponsored by <<client name>>. The patient controls his/her own Personal Health Record. WebMD and <<client name>> do not represent the accuracy or completeness of this information.

To retrieve this patient's Health Record information through your Electronic Health Record on the web at www.webmd.com, use the unique access code: **j784**

Personal Information: Name: Philip Marshall Date of Birth: 04/05/1968 Gender: Male Blood Type: AB +	Emergency Contact: Name: Marci Relationship: Phone: 503-555-5555
Contact Information: Phone: 503-222-1515 Cell Phone: 503-555-4545 Address: 22700 NW Gillihan Rd Portland, OR 97231	Emergency Contact: Name: Marci Relationship: Phone: 503-555-5555

Physician Information	Insurance Information
Primary Care Physician: Name: Dr. Brad Bowman Phone: 503-555-6767 Fax: 503-666-5656 Address: 4545 Atlanta Terrace Atlanta, GA 98765	Primary Insurance: Name: Empire Policy #: JWE Group ID: We Phone: 444-555-5555 Address: 3456 Lakeshore New York, NY 98765
	Medication Benefit: Name: Medco Policy #: 456-789 Group ID: We Phone: 444-555-5555 Address: 3456 Lakeshore Trenton, NJ 98765

Current Conditions	Past Conditions
Diabetes Mellitus Type 1 Date Diagnosed: 04/05/1987 Diagnosing Provider: Dr. Paul Greenhouse Last Updated Date: 05/06/2004 Information Source: Empire BCBS	Tinnitus Date Diagnosed: 04/05/1987 Diagnosing Provider: Dr. Paul Greenhouse Last Updated Date: 05/06/2004 Information Source: EMR Data
Hearing Loss Date Diagnosed: 04/05/1987 Diagnosing Provider: Dr. Paul Greenhouse Last Updated Date: 05/06/2004 Information Source: Empire BCBS	
GERD Date Diagnosed: 04/05/1994 Diagnosing Provider: Dr. Paul Greenhouse Last Updated Date: 05/06/2004 Information Source: Empire BCBS	

Current Medications	
Nexium First Prescribed: 04/05/1987 Prescribing Provider: Dr. Paul Greenhouse Last Updated Date: 05/06/2004 Information Source: Claims Data Number of Refills: 7	Codeine Date Discovered: 04/05/1987 Reaction: Upset Stomach Severity: Mild Last Updated Date: 05/06/2004 Information Source: Self-Reported
Lexipro First Prescribed: 04/05/1998 Prescribing Provider: Dr. Paul Greenhouse Last Updated Date: 05/06/2004 Information Source: Empire BCBS Number of Refills: 7	

Immunizations	Surgeries
Influenza Date Administered: 04/05/2004 Treating Provider: Dr. Paul Greenhouse Last Updated Date: 05/06/2004 Information Source: Claims Data	Total Hip Replacement Date Performed: 04/05/1987 Information Source: Empire BCBS
Tetanus Booster Date Administered: 04/05/2004 Treating Provider: Dr. Paul Greenhouse Last Updated Date: 05/06/2004 Information Source: Empire BCBS	



PHR-Driven Services

Personalization

As part of the user's Master Health Profile, health record data drives site personalization and targeted messaging

The screenshot shows a personalized WebMD user interface. At the top, there are navigation tabs: Home, My Health Plan, Health Benefits, Condition Centers, and Living Healthy. Below this is a 'Message Center' with a notification: 'You have 1 new message'. The 'My Benefits' section offers options like 'Make a Decision', 'Compare my Plan Options', 'Compare Drug Alternatives', and 'Find a Doctor'. The 'My Plan' section lists 'Account Status', 'Benefit Selections', 'Plan Description', 'Top 10 FAQs', 'Contact Us', and 'Forms'. The 'Take Action' section includes 'Assess My Health', 'Improve My Health', and 'My Records'. A 'Drug Interaction Checker' and 'WebMD Newsletters' section are also present. The main content area features a 'My Health Guide' with recommendations based on the user's health profile, a 'My Account' summary, and a 'Rewards' section. The 'My Health Guide' section includes a 'Getting Started' section with links to learn more about a smoking cessation program, visit a skin health center, ask a doctor about Type 2 Diabetes, understand allergies, and understand depression. It also has a 'News for You' section with an article about household cleaners and asthma. The 'My Account' section shows an HSA Account Contribution of \$1300, Account Disbursements of \$530, and an Account Balance of \$770. The 'Rewards' section shows the user has 149 points.

My Health Guide

Recommendations based on your health profile:

Getting Started

- Learn more about the [BlueCross of California smoking cessation program](#)

We've helped thousands of California smokers kick the habit. Click here about enrolling in our award-winning program.

- Visit [The Skin Health Center](#)
- [10 Questions to Ask Your Doctor - Type 2 Diabetes](#)
- [Understanding Allergies -- the Basics](#)
- [Understanding Depression -- the Basics](#)

News for You

[Common Household Cleaners Can Trigger Asthma](#)

Two new Australian studies show that many common household cleaners and appliances give off fumes, which can potentially increase the risk of developing asthma in children.

Questioning Coral Calcium Claims

Is coral calcium any better than other forms of calcium, or is it better left at the bottom of the ocean?

- [See Full Article](#)

Work Life Programs

- [Work Life Programs](#)

My Account

HSA Account Contribution (YTD)	\$1300
Account Disbursements	\$530
Account Balance	\$770

[View claims](#) [benefit details](#)

Rewards

You have **149 points.**

Benefits Selection

Medication and medical data from claims can help the user better anticipate their health care utilization, their costs, and lead them to the right health plan, FSA contribution, and even HSA contribution.

WebMD Personal Health Manager
 PHILIP MARSHALL | family members | settings | log out

Home | Health Benefits | Condition Centers | Living Healthy

CostCompare™
 Get Started | Out Of Pocket | Potential Tax Savings | Final Report
 Medical | Prescriptions | Report Overview | Report Details

Total Out-of-Pocket Estimate for Medical Services
 CostCompare estimates your annual costs in the plans you have selected to compare. [Skip CostCompare](#)

Next year, my family may need...
 Adjust the numbers to what you anticipate for next year. Or, click '**national average**' below to set these numbers to a national average. You can make estimates for your entire family by clicking the '**Myself**', '**My Spouse**' and '**My Dependents**' tabs below.

[What is National Average?](#)

Service Category	In Network	Out-of-Network
Preventive Care Visits	0	0
Doctor Visits	2	0
Specialist Visits	3	2
Hospital Outpatient Visits	2	1
ER Visits	1	0
Hospital Inpatient Visits	0	1
Mental Health/Substance Abuse Visits	0	0
Pregnancy	0	0

You Pay (annual estimate)

EPO	\$5,445
PPO Gold	\$4,426
PPO Silver	\$4,681

[Cost Without Insurance:](#) \$9,079

Drug Costs and Alternatives



Medications in the Health Record that are self-reported or imported from 3rd parties link directly to WebMD's DrugCompare product to facilitate appropriate drug switching. Generic alternatives are shown in this example.

DrugCompare™ - Microsoft Internet Explorer

DrugCompare™ close

Step 1: Select the medications you would like to compare:

DrugCompare™ for **GLUCOPHAGE** Plan: EMC Rx

Select ↓	Medication (Most commonly prescribed strength)	Type Info	EMC Total cost (30-day supply)		Your Cost (30-day supply) <small>Note: Prices below estimate how much you pay per 30-day supply. Home delivery prescriptions are available in up-to 90-day supplies.</small>		Notes
			Retail Info	Retail Info	Home Delivery Info		
<input type="checkbox"/>	GLUCOPHAGE 500 MG TABLET	Non-preferred Brand	\$47.41	\$40.00	\$18.33 (54% savings)		
<input type="checkbox"/>	METFORMIN HCL 500 MG TABLET	Generic Equivalent	\$23.80	\$10.00	\$5.00 (50% savings)		
Alternatives in the same medication class							
<input type="checkbox"/>	METFORMIN HCL ER 500 MG TAB	Generic	\$41.39	\$10.00	\$5.00 (50% savings)		
<input type="checkbox"/>	GLUCOPHAGE XR 500 MG TAB SA	Non-preferred Brand	\$48.20	\$40.00	\$18.33 (54% savings)		
<input type="checkbox"/>	RIOMET 500 MG/5 ML SOLUTION	Non-preferred Brand	\$19.49	\$19.49	\$15.88 (19% savings)		

DISCLAIMER AND RELEASE OF LIABILITY - PLEASE READ CAREFULLY

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new comparison next >

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Targeted, Secure Messaging

The user's Health Record information can be used to deliver targeted, secure communication to members. A drug recall notice, targeted to users on the medication, is shown in this example.

The image shows a screenshot of a Microsoft Internet Explorer browser window displaying the WebMD HealthLink website. The website's navigation menu includes 'Home', 'My Health', 'My Messages', 'Drug Comparisons', 'Rx Alternatives & Costs', 'Take Action', 'Compare My Benefits', 'Assess My Health', 'Improve My Health', 'My Records', and 'Hospital Quality'. A red box highlights the 'My Messages' section, which displays the notification: 'You have 1 new message!'. A red arrow points from this notification to a separate window titled 'Messaging - Microsoft Internet Explorer'. This window shows a message with the following content:

Subject: NEWS ALERT: Arthritis Drug Vioxx Pulled Off Market
Date: 9/30/2004 2:30 PM

Dear Liva18,

Based upon information in your Personal Health Record, it appears that you may be taking a form of the popular medication Vioxx (Rofecoxib). A recent study by the U.S. Food and Drug Administration (FDA) suggested patients taking Vioxx for longer than 18 months faced a 50 percent greater risk of heart attacks and sudden cardiac death than those taking alternative therapies. If you are taking Vioxx, please discuss therapeutic options with your physician.

To learn more about the study and its findings, [click here](#).
To view the FDA press release, [click here](#).

To update the information in your Health Record, [click here](#).

Your Partner in Health.

The bottom of the screenshot shows the WebMD logo and various links such as '[Copyright]', '[Policies]', '[Medical Review]', and '[Feedback]'. There are also sections for 'Compare Your Health To Peers With Health Risk Assessment', 'Stop Smoking - Get Support To Quit Smoking', 'Check Your Cardiovascular Profile', 'Your Guide to Heart Failure', 'Abnormal Heart Rhythm', and 'News for You' with the headline 'Avoiding triggers for sudden heart failure'. A sidebar on the right features an advertisement for 'Herbs, Vitamins, and More for Diabetes'.



Poised for Future Success

Connectivity
Portability

A New Generation of PHRs



Health Record - Microsoft Internet Explorer

File Edit View Favorites Tools Help

WebMD Personal Health Manager

John Smith family_members | settings | log_out

My Message Center
2 New messages

Files for John Smith

My Health Care Visits (14)
My Medications (4)
My Allergies (1)
My Health Risks (4)
My Test Results (8)
Track My Health (3)
My Surgeries
My Immunizations (4)

Attachments

EXGs
Radiology Images (3)

Forms

Advanced Directives

Basic Information

Family Members

John Smith
Sally Smith
Joan Smith
Sandy Smith

Access & Preferences

Dr. Thomas Jones
Dr. Theresa Hoffman
Dr. Jay Grosfield
Add care professional(s)

My Unique Code

XRP838-10NY
[Change/disable my code](#)

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Communicate

- [Gather my health records from my doctor's office](#)
- [Send my health records](#)
- [Send my health records access code to my doctor](#)
- [Upload my data from my home devices](#)
- [Print my health records](#)
- [Export my health records to a portable device \(approved devices\)](#)

Take Action

- [Prepare for an up-coming visit with a care provider](#)
- [Manage my share-able health record summary](#)
- [Change or disable the access code used by doctors to access my health record](#)
- [Create my emergency wallet card](#)

Find Out

- [Who has been accessing my health records](#)
- [What data has been loaded into my health record:](#)
 - [From my pharmacy](#)
 - [From my doctor's office](#)
 - [From my health plan](#)
- [How to control my health records](#)
- [How to get smart feedback from my health record](#)

My Unique Code

XRP838-10NY
[Change/disable my code](#)



Current Challenges

- Uncertainties around whether HIPAA allows, enables, or even *requires* payers and providers to make personally-identifiable data available to the consumer using a PHR
- Technical and business complexities for health plans, employers and other entities in making claims data, laboratory data and other clinical data available for use within the Personal Health Record
- The lack of standards and incentives for EMR-PHR data exchange
- The nascent demand by consumers to take an active role in managing their essential health data to ensure that accurate and up-to-date information is available for themselves and for care providers



Public and Private Sector Collaboration

Support the PHR as an essential part of the Health Information Technology Framework by encouraging entities such as employers and payers to offer a private, portable, standards-based and interconnected PHRs as a central part of their consumer-facing health and benefits management strategy.



Requests of Policy-Makers

- Continue to support the universal provider identifier
- Support the CCR standard for information exchange between PHRs and EHRs
- Support standards for common data fields stored and shared between PHRs and EHRs
- Continue to support SNOMED CT as a common reference terminology standard and as part of the NLM's UMLS Metathesaurus.
- Support the creation of a set of “Best Practices” for information security
- Support government employees and CMS beneficiaries being among the first to benefit from this new technology



Conclusions

- Personal Health Records are beginning to play a critical role in the evolving landscape of consumer-centric health care
- Although EMR systems and a “National Health Information Infrastructure” will provide valuable data to PHRs in the future, self-reported, lab and claims data have already become the “life blood” of the WebMD consumer-centric PHR
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