



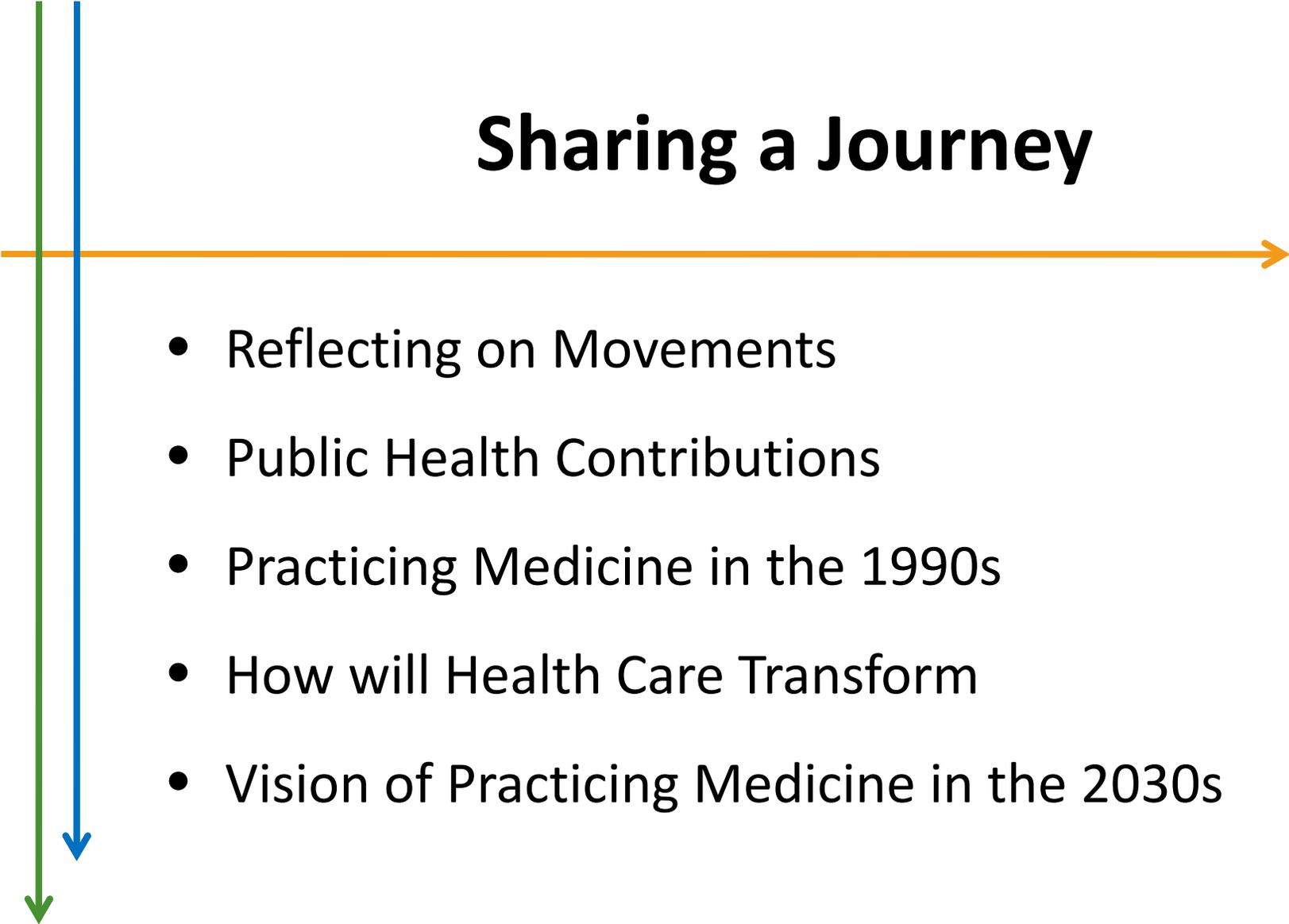
Transforming Health ... The Movement is Afoot

California eHealth Collaborative

April 5, 2011

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Sharing a Journey

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- Reflecting on Movements
 - Public Health Contributions
 - Practicing Medicine in the 1990s
 - How will Health Care Transform
 - Vision of Practicing Medicine in the 2030s



The eHealth Movement



- Over the decades California has transformed
 - Previous work prepared our readiness for the HITECH Act opportunities
 - California mobilized to develop plans and receive funding
 - Now eHealth is moving full-steam ahead
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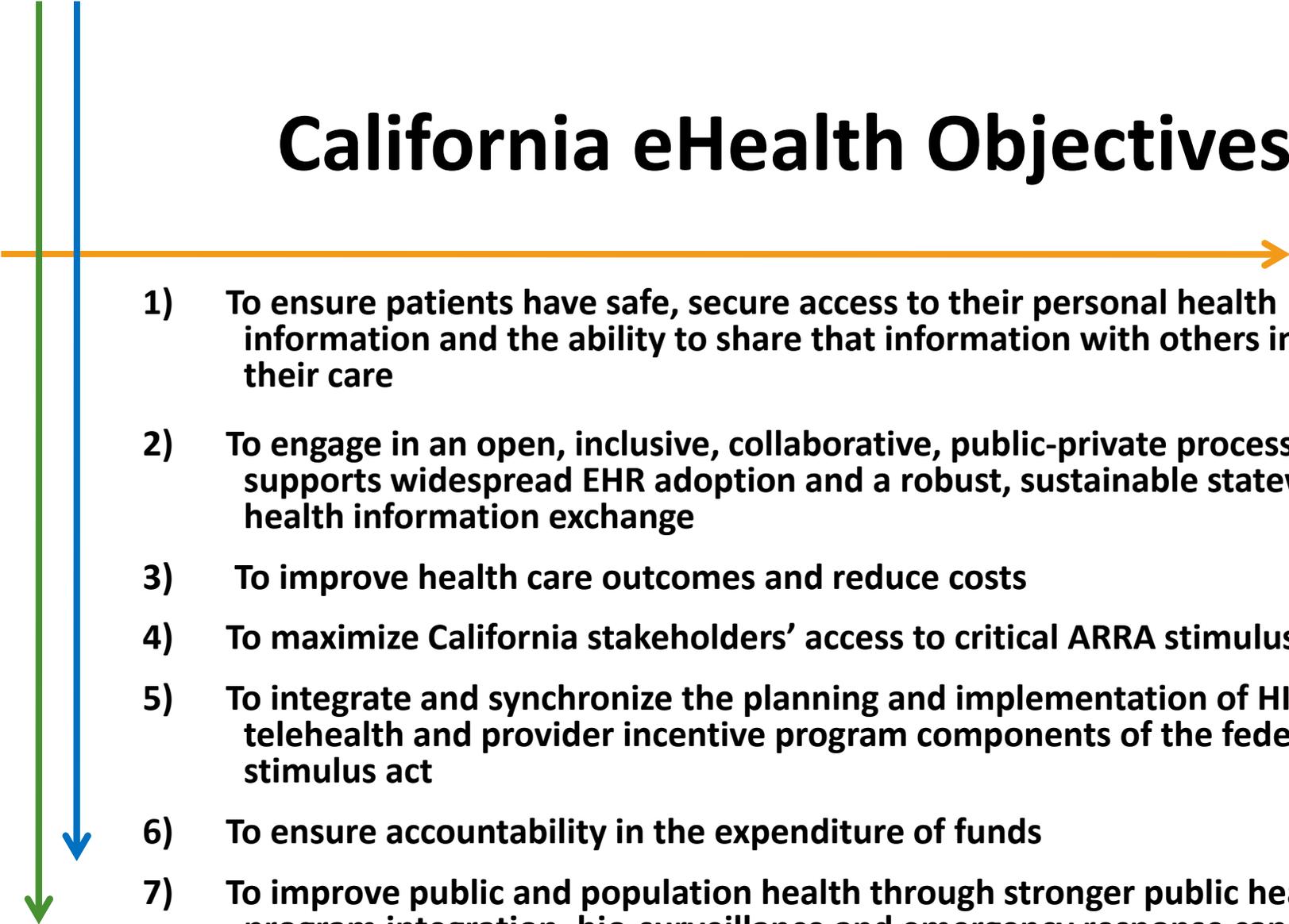


Purpose - California eHealth

To dramatically improve safe and secure patient and provider access to personal and population health information and decision-making processes, benefiting the health and wellbeing, safety, efficiency, and quality of care for all Californians.

<http://www.ehealth.ca.gov>

California eHealth Objectives

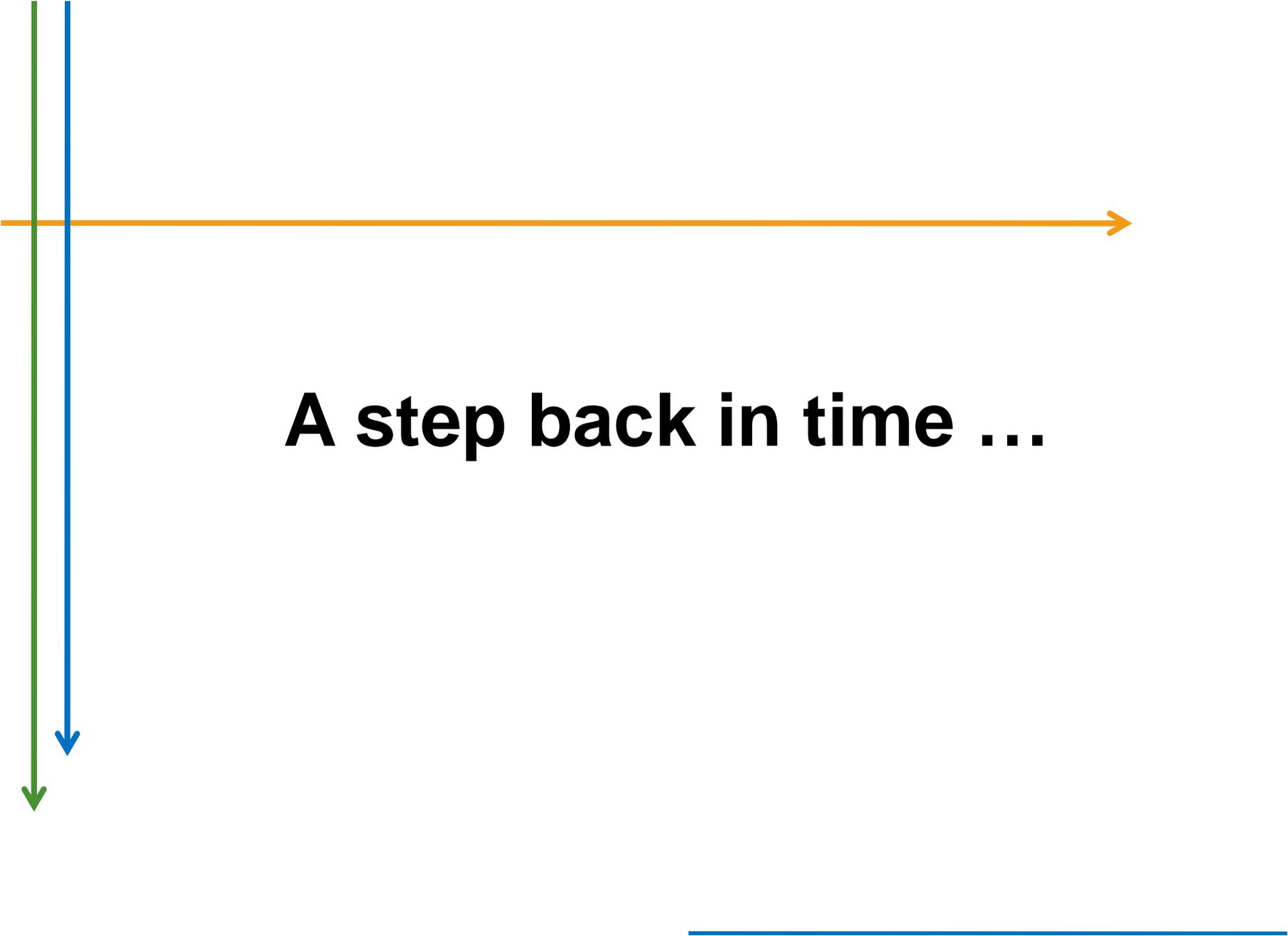
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- 1) To ensure patients have safe, secure access to their personal health information and the ability to share that information with others involved in their care
 - 2) To engage in an open, inclusive, collaborative, public-private process that supports widespread EHR adoption and a robust, sustainable statewide health information exchange
 - 3) To improve health care outcomes and reduce costs
 - 4) To maximize California stakeholders' access to critical ARRA stimulus funds
 - 5) To integrate and synchronize the planning and implementation of HIE, HIT, telehealth and provider incentive program components of the federal stimulus act
 - 6) To ensure accountability in the expenditure of funds
 - 7) To improve public and population health through stronger public health program integration, bio-surveillance and emergency response capabilities



eHealth in California

Diverse Resources to Support EHR Adoption and Improve Health

- CHHS HIT Coordinator (HIE Cooperative Agreement)
- California Office of Health Information Integrity (Cal OHII)
- Medicare EHR Incentive Program (CMS)
- Medi-Cal EHR Incentive Program (DHCS)
- Public Health (CDPH and Local Health Departments)
- Cal eConnect HIE Services
- Regional Extension Centers
 - Cal HIPSO
 - COREC
 - HITEC-LA
 - CA Rural Indian Health Board (CRIHB)
- Beacon – San Diego
- Health Workforce Initiative
- California Telehealth Network

A diagram consisting of three arrows and a text block. On the left side, there are two vertical arrows pointing downwards: a green one on the left and a blue one on the right. A horizontal orange arrow points to the right, crossing both vertical arrows. In the center of the page, the text "A step back in time ..." is written in a bold, black, sans-serif font. At the bottom right, there is a horizontal blue line.

A step back in time ...

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The Sanitary Reform Movement

Edwin Chadwick (1800–1890) - Britain

- 1832 - Chadwick appointed to the new Poor Law Commission. His industry in investigating the conditions under which the poor lived, as well as his "knowledge of law,... infinite capacity for taking pains over details, and his skill in marshalling the facts" (Marston 1925, p. 23) led him to exert steadily greater influence on British public policy in a variety of areas relating to public health.
 - His advocacy led to the 1836 act that established a registry for births & deaths, and to the 1848 Public Health Act establishing a central board of health.
 - He influenced legislation on factories, child labor, and water supplies. Served as secretary to the Poor Law Board, and as a member of the first board of health (1848–1852).
 - His sanitary philosophy, viewed the improvement of drainage, housing, and water supply as an essential national economic good, as it prevented the early deaths of working men. Often uncompromising in his belief in the value of government intervention to remedy unsanitary conditions.
 - Read more: <http://www.answers.com/topic/edwin-chadwick>
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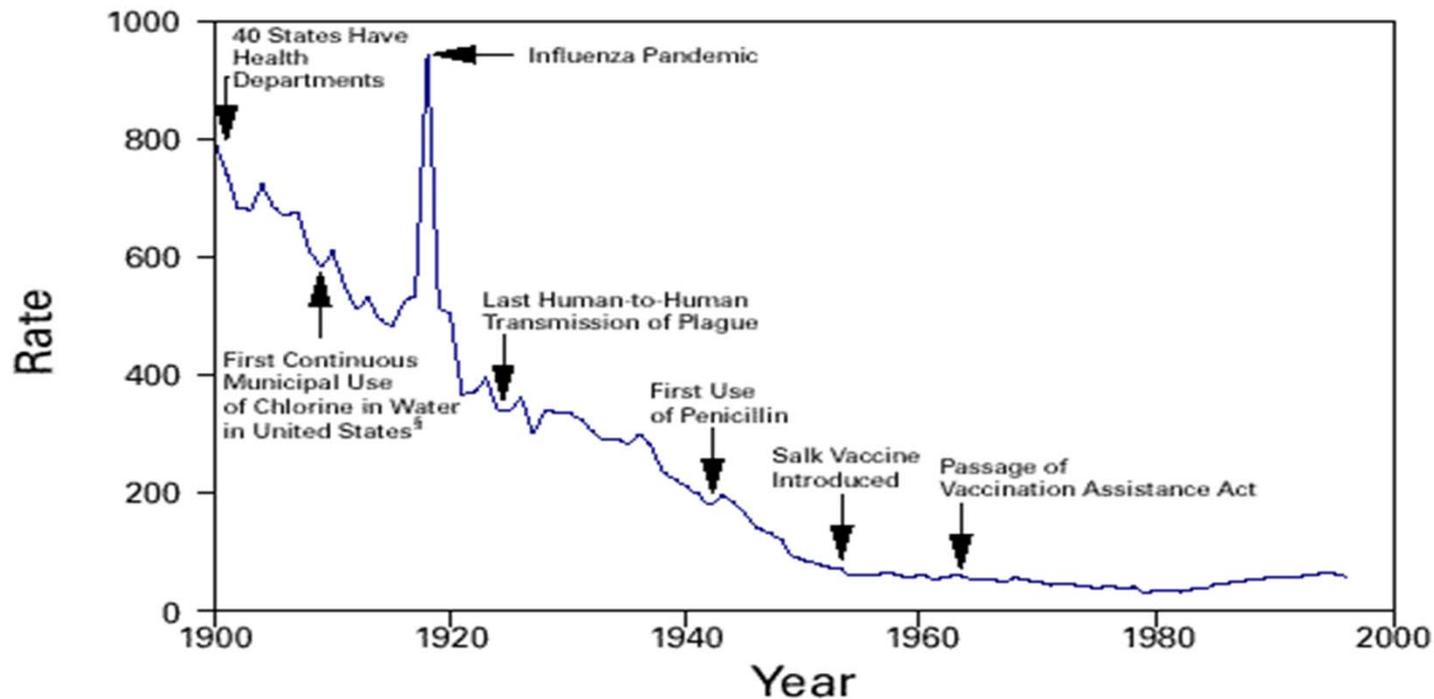
"Ten Great Public Health Achievements – United States, 1900-1999"

by the U.S. Centers for Disease Control and Prevention (CDC)

- Vaccination
 - Motor-vehicle safety
 - Safer workplaces
 - Control of infectious diseases
 - Decline in deaths from coronary heart disease and stroke
 - Safer and healthier foods
 - Healthier mothers and babies
 - Family planning
 - Fluoridation of drinking water
 - Recognition of tobacco use as a health hazard
-

Infectious Diseases Mortality

FIGURE 1. Crude death rate* for infectious diseases — United States, 1900–1996†



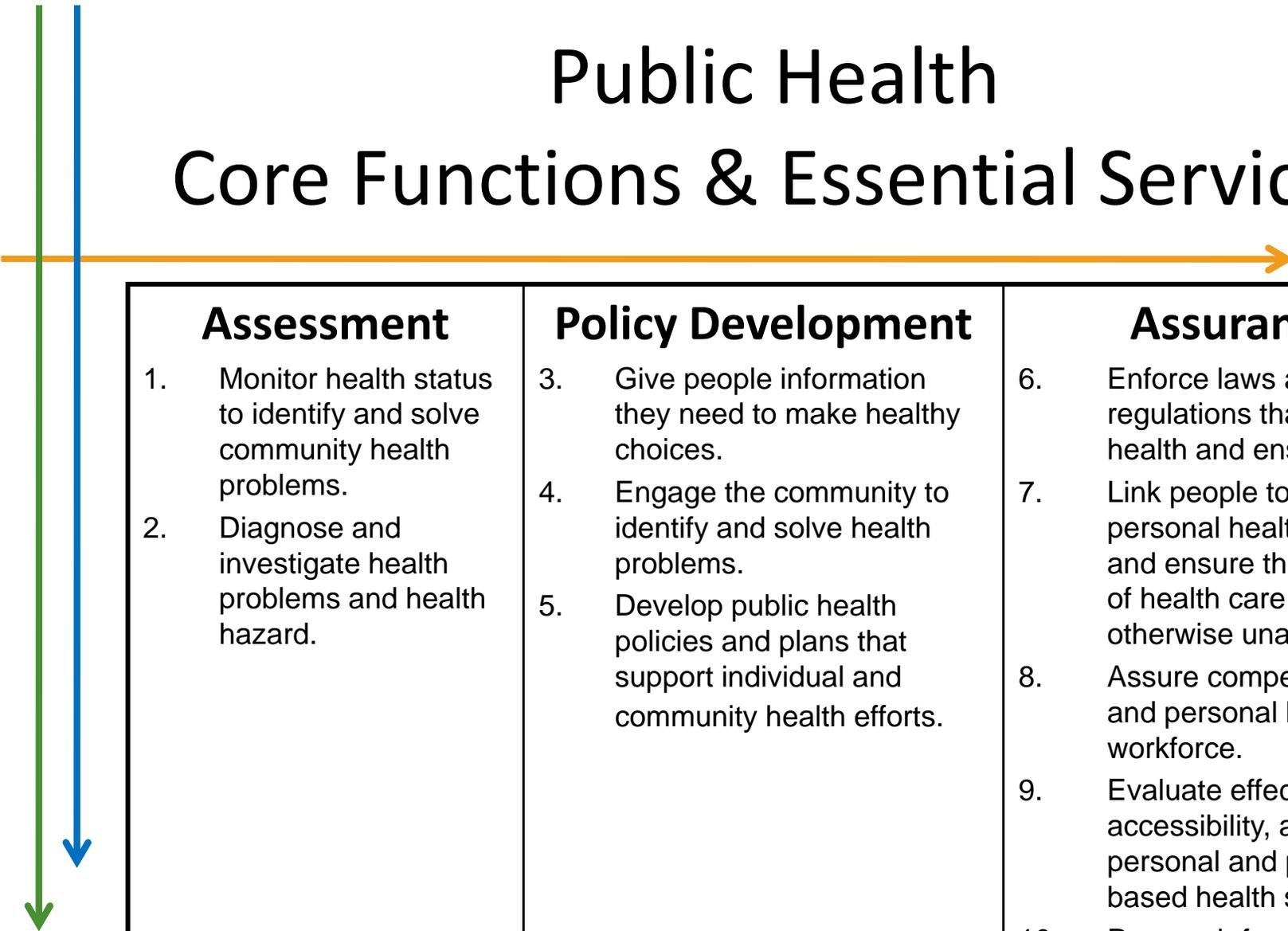
*Per 100,000 population per year.

†Adapted from Armstrong GL, Conn LA, Pinner RW. Trends in infectious disease mortality in the United States during the 20th century. *JAMA* 1999;281:61–6.

‡American Water Works Association. Water chlorination principles and practices: AWWA manual M20. Denver, Colorado: American Water Works Association, 1973.

Public Health

Core Functions & Essential Services



Assessment	Policy Development	Assurance
<ol style="list-style-type: none">1. Monitor health status to identify and solve community health problems.2. Diagnose and investigate health problems and health hazard.	<ol style="list-style-type: none">3. Give people information they need to make healthy choices.4. Engage the community to identify and solve health problems.5. Develop public health policies and plans that support individual and community health efforts.	<ol style="list-style-type: none">6. Enforce laws and regulations that protect health and ensure safety7. Link people to needed personal health services and ensure the provisions of health care when otherwise unavailable.8. Assure competent public and personal health care workforce.9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services.10. Research for new insights and innovate solutions to health problems.

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A Vital Record Basis ... Electronic Death Registration

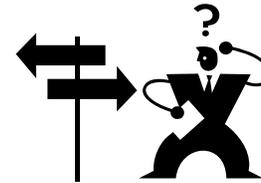
- Granular data capture
- Pre-determined data lists
- Validation Steps
- Role-Based Permissions
- Audit Trails
- Usage and Performance Measures

Deaths now registered at the State in under two weeks
– **The New Norm** (previously 3+ months)

Personal Experience

A Decade Ago in Virginia ...

- Paper-Based Health Record
(Paper CCD / Patient Summary)



- Partial EHR
(Electronic Lab, Electronic Meds,
Electronic Appointments, Referrals,
and Radiology)



- Full EHR
(Electronic Ordering, Dictation Notes, Historical Views,
Decision Support)

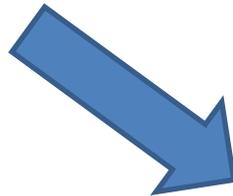


Practical Concerns for eHealth

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Business process changes

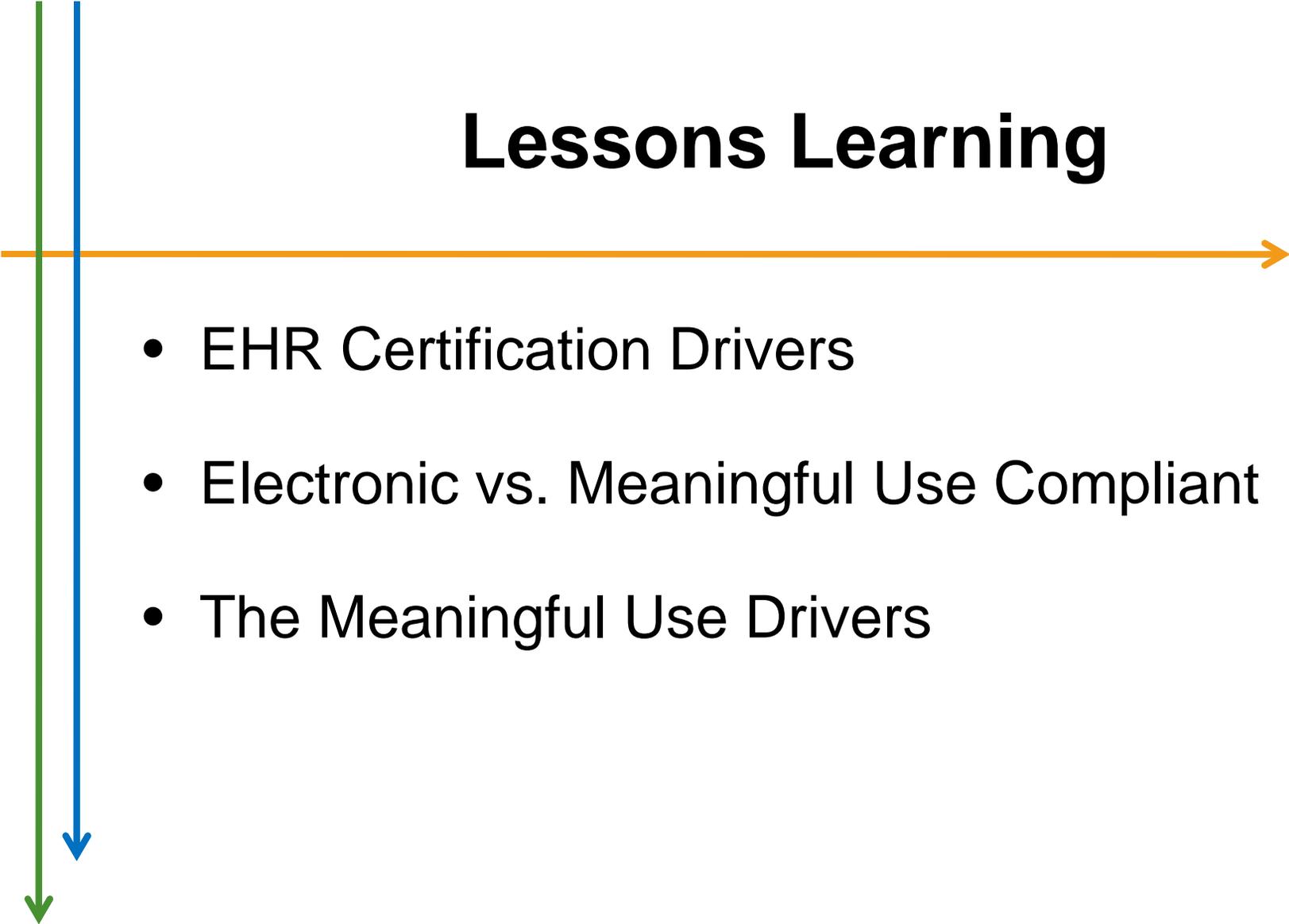
- Collection
- Usage
- Delivery



Risk assessments

- Access
 - Transmission
 - Consequences
-

Lessons Learning

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- EHR Certification Drivers
 - Electronic vs. Meaningful Use Compliant
 - The Meaningful Use Drivers
-

EHR Certification Drivers

- Collection Standards (queriable lists)
- Coding Standards (SNOMED, LOINC, ICD-9)
- Transport Standards (HL7)
- HL7 – LOINC – SNOMED – ICD-9 – CVX – ...
- Continuity of Care Document

Electronic vs. MU Compliant

- Not the same
- Current Public Health Capacity
- eHealth in Public Health

Meaningful Use Stages

The diagram illustrates the progression of meaningful use stages. A large light blue arrow points from left to right, representing the progression. Three stages are marked with red dots: Stage 1 at the bottom left, Stage 2 in the middle, and Stage 3 at the top right. A green arrow points down from the top left, and a blue arrow points down from the top left towards Stage 1. A blue horizontal line is at the top, and a blue horizontal line is at the bottom. Vertical dashed lines separate the stages.

Stage 1

- ePrescribing
- Lab results into EHRs
- Send clinical summary to providers and patient
- Public health reporting
- Quality reporting (2012)

Stage 2

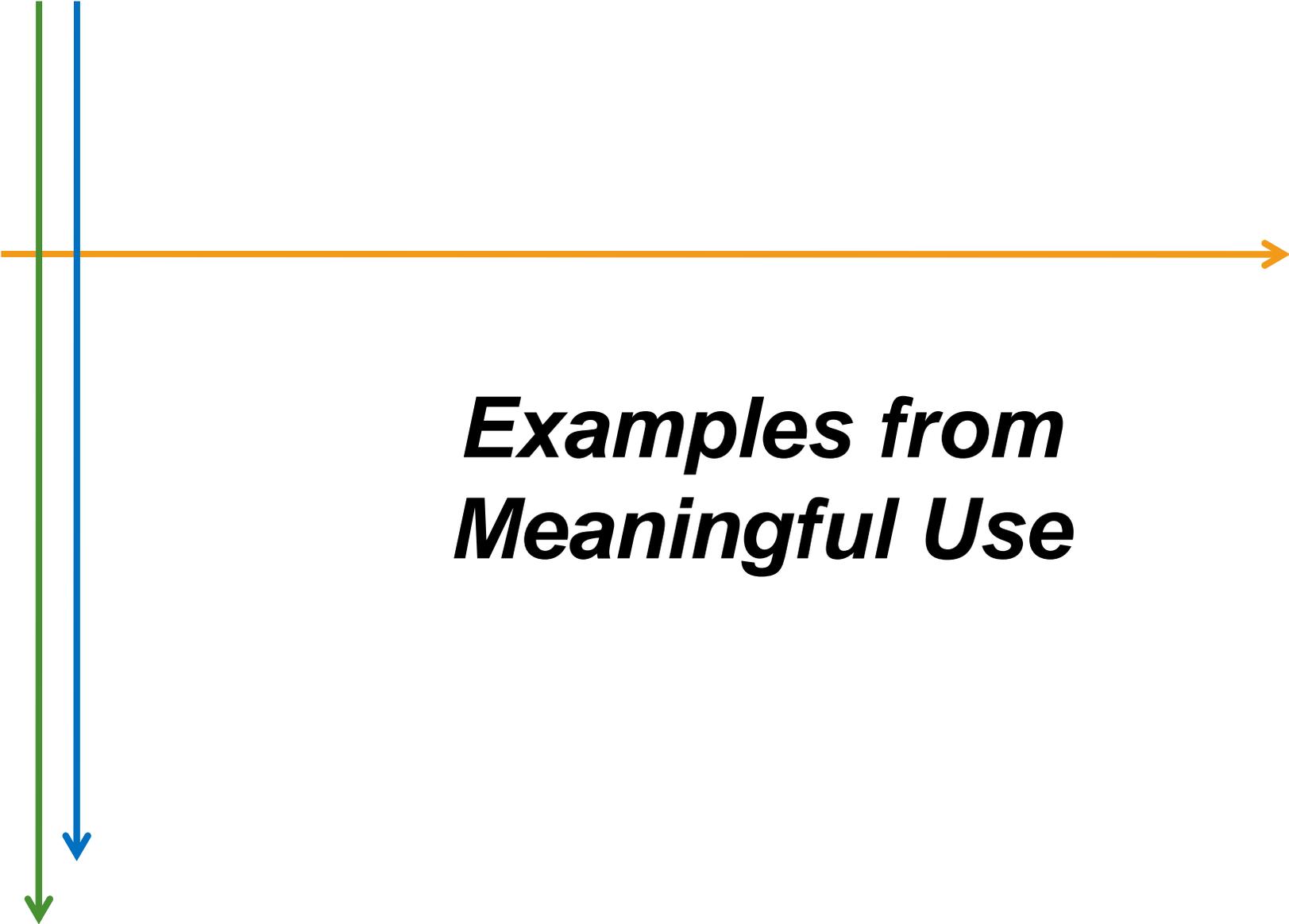
Proposed

- Patient PHR access
- ePrescribing refills
- Electronic summary record
- Receive health alerts
- Immunization information

Stage 3

Proposed

- Access comprehensive patient data
- Automated real-time surveillance



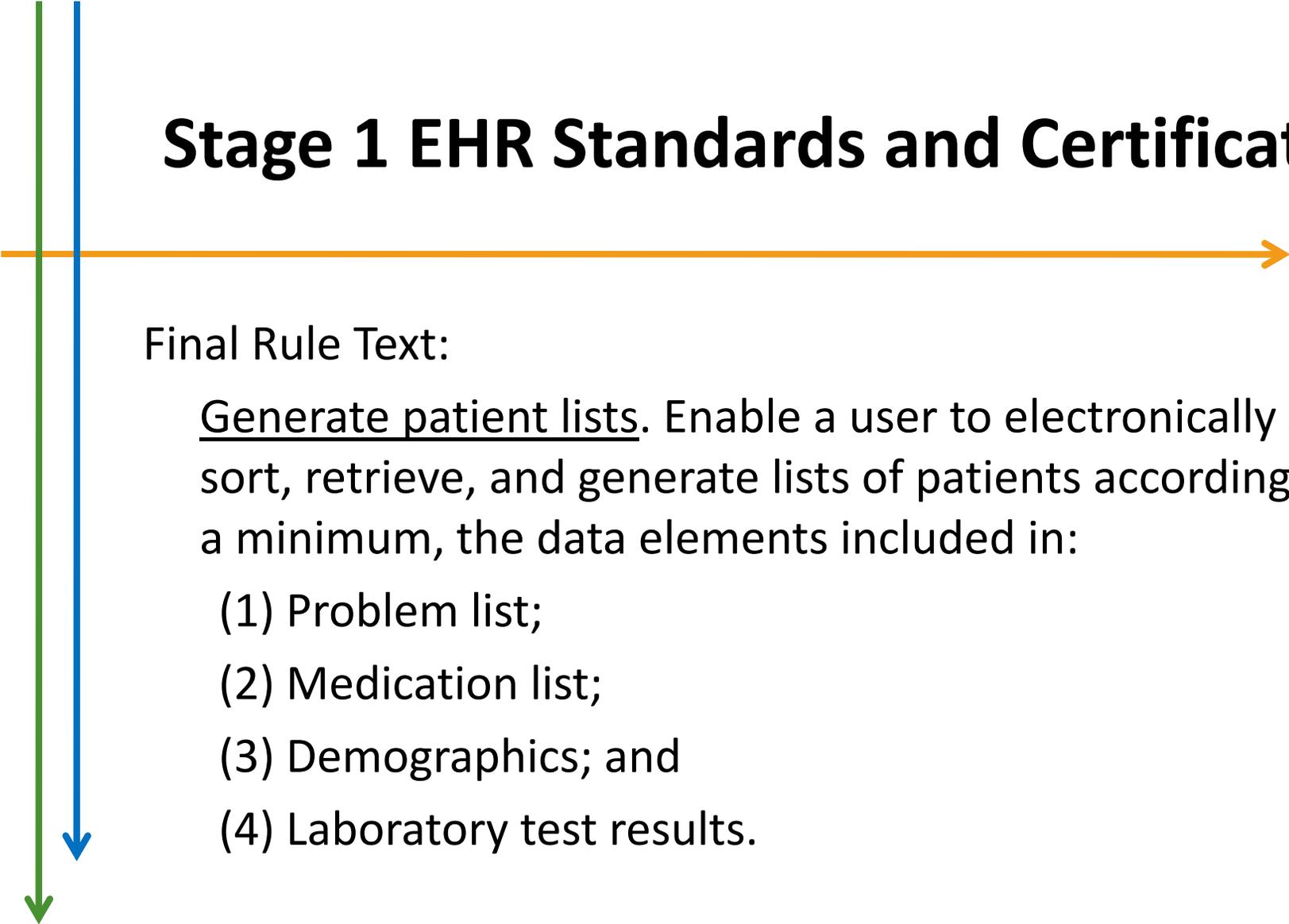
***Examples from
Meaningful Use***

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Lists of Patients by Specific Conditions

Objective: Generate lists of patients by specific conditions to use for quality improvement, reduction of disparities, research, or outreach.

Measure: Generate at least one report listing patients of the EP or eligible hospital with a specific condition.

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Stage 1 EHR Standards and Certification

Final Rule Text:

Generate patient lists. Enable a user to electronically select, sort, retrieve, and generate lists of patients according to, at a minimum, the data elements included in:

- (1) Problem list;
 - (2) Medication list;
 - (3) Demographics; and
 - (4) Laboratory test results.
-

Public Health Objectives



- Capability to submit electronic data to **immunization registries** of Immunization Information Systems and actual submission in accordance with applicable law and practice.
 - Capability to submit electronic data on **reportable** (as required by state or local law) **lab results** to public health agencies and actual submission in accordance with applicable law and practice.
 - Capability to submit electronic **syndromic surveillance** data to public health agencies and actual transmission according to applicable law and practice.
- 



Understanding Health in New Ways

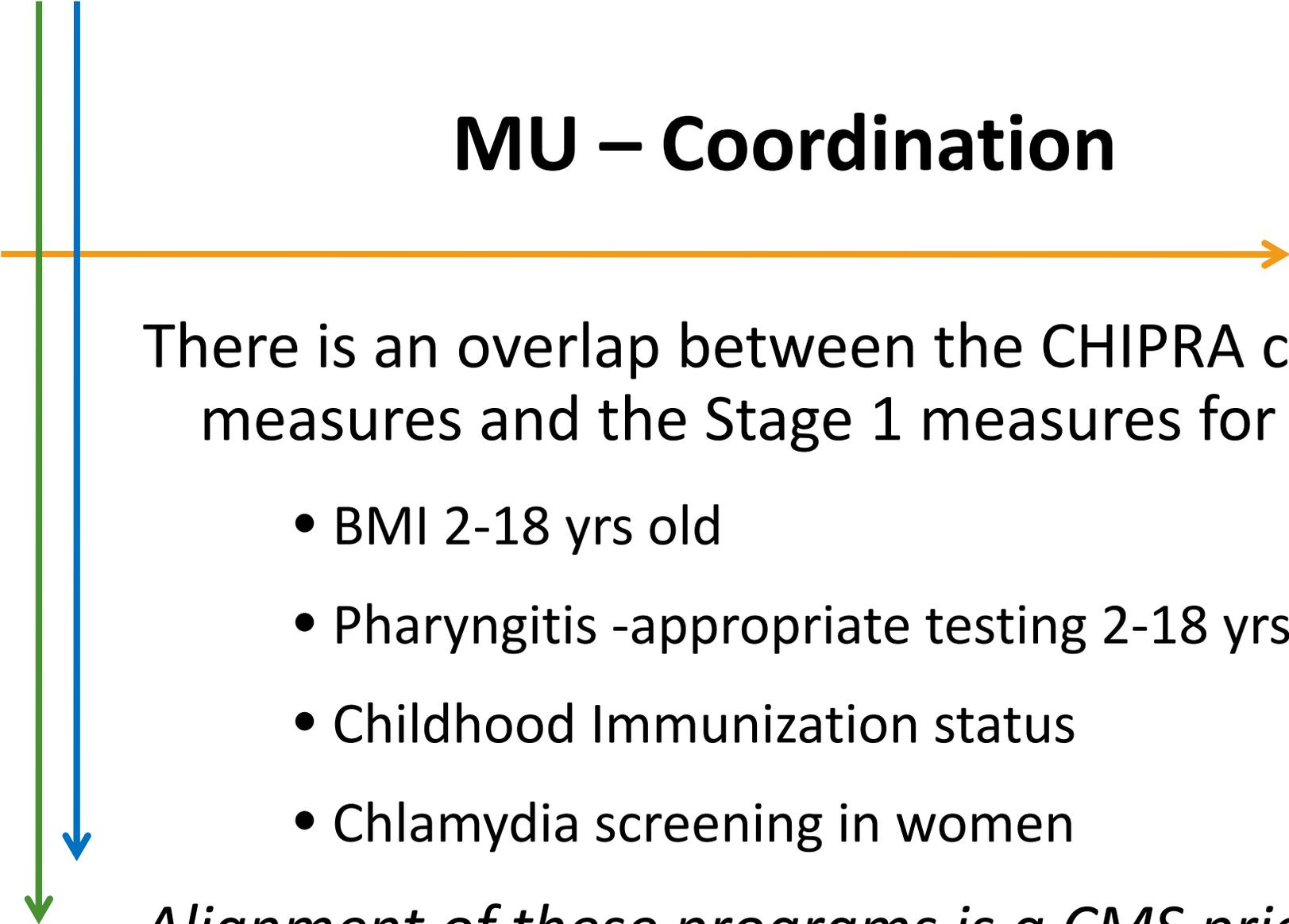
- Record demographics
 - preferred language
 - gender
 - race
 - ethnicity
 - date of birth
 - Maintain an up-to-date problem list of current and active diagnoses
-

Understanding Health in New Ways



- Record and chart changes in vital signs:
 - Height
 - Weight
 - Blood pressure
 - Calculate and display BMI
 - Plot and display growth charts for children 2-20 years, including BMI
 - Record smoking status for patients 13 years old or older
-

MU – Coordination

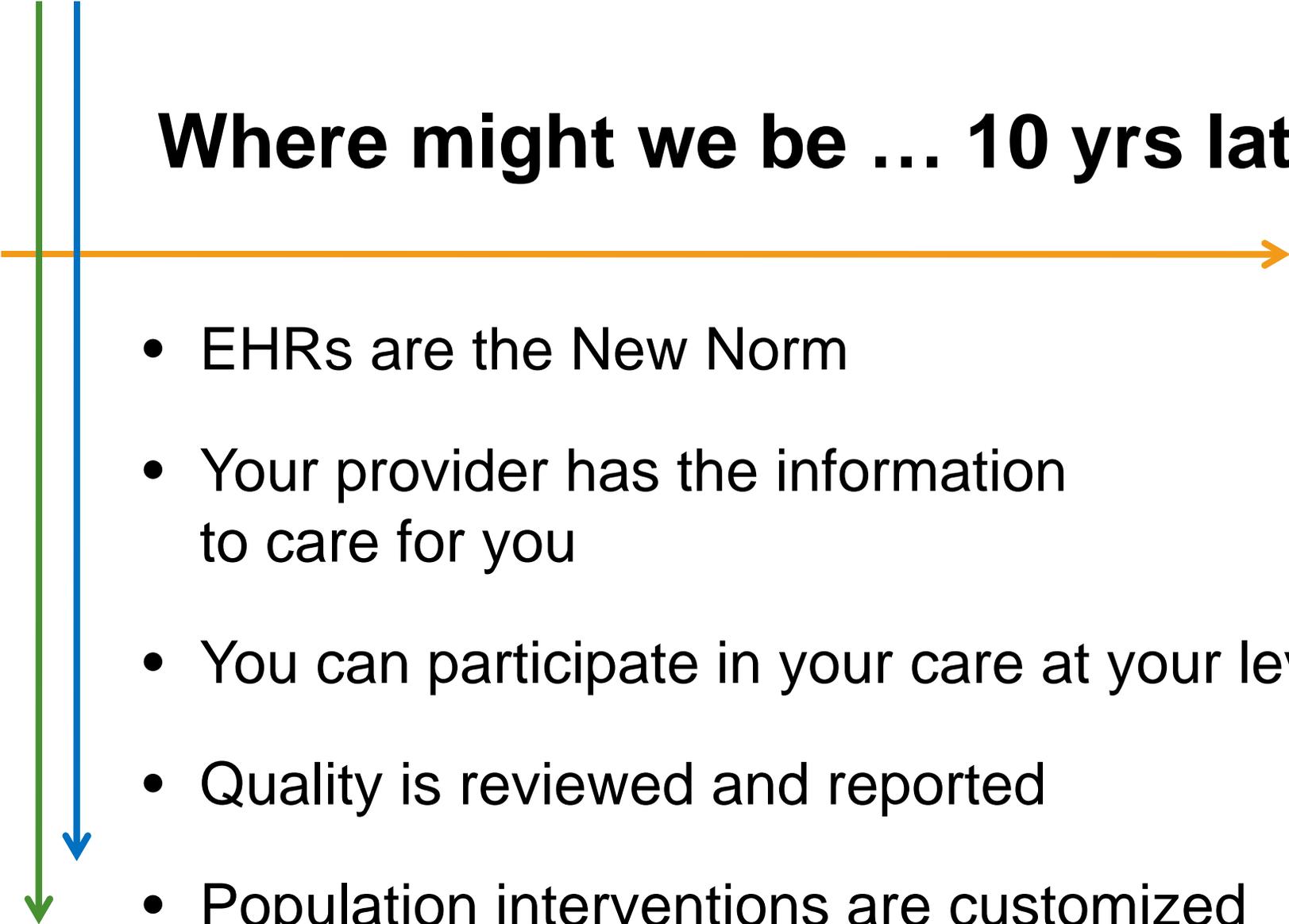


There is an overlap between the CHIPRA core measures and the Stage 1 measures for MU.

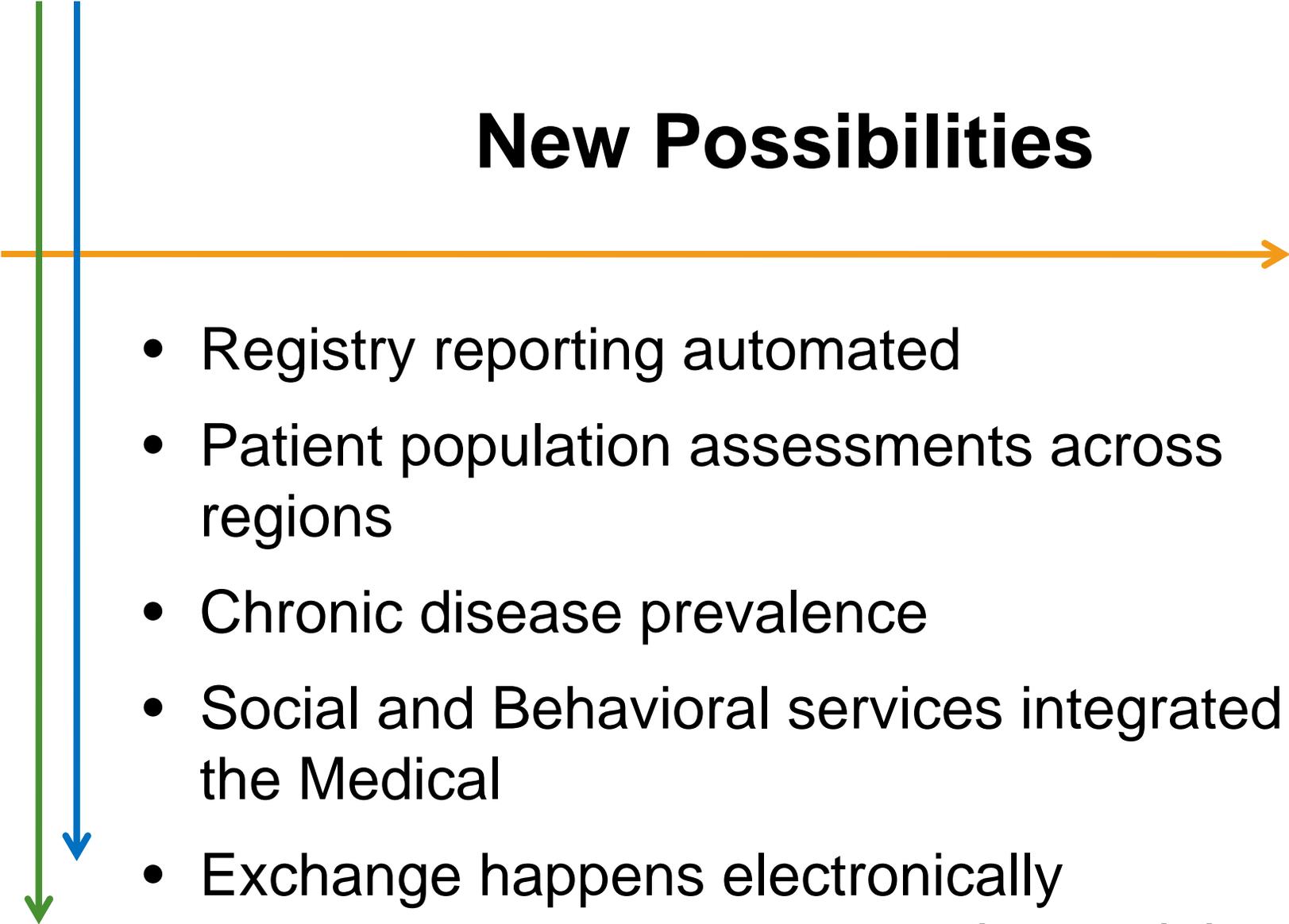
- BMI 2-18 yrs old
- Pharyngitis -appropriate testing 2-18 yrs old
- Childhood Immunization status
- Chlamydia screening in women

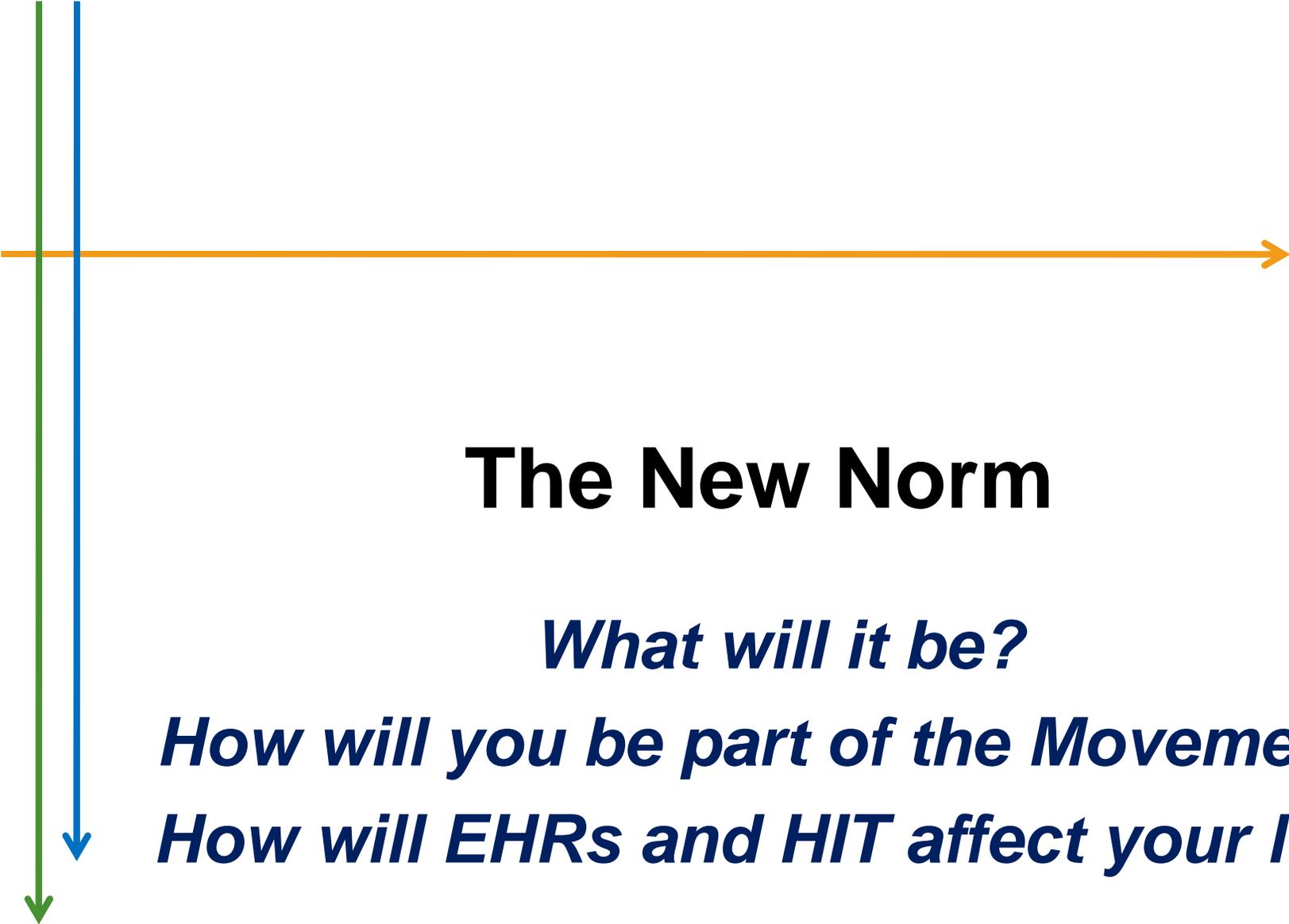
Alignment of these programs is a CMS priority.

Where might we be ... 10 yrs later?

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- A decorative graphic consisting of a vertical green arrow pointing down on the left, a vertical blue arrow pointing down on the right, and a horizontal orange arrow pointing right across the top. The vertical arrows are positioned to the left of the main text area, and the horizontal arrow is positioned above the main text area.
- EHRs are the New Norm
 - Your provider has the information to care for you
 - You can participate in your care at your level
 - Quality is reviewed and reported
 - Population interventions are customized
-

New Possibilities

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- A decorative graphic on the left side of the slide consists of a vertical green arrow pointing downwards, a vertical blue arrow pointing downwards, and a horizontal orange arrow pointing to the right. The horizontal arrow is positioned above the list of bullet points.
- Registry reporting automated
 - Patient population assessments across regions
 - Chronic disease prevalence
 - Social and Behavioral services integrated with the Medical
 - Exchange happens electronically
... beyond the fax
-

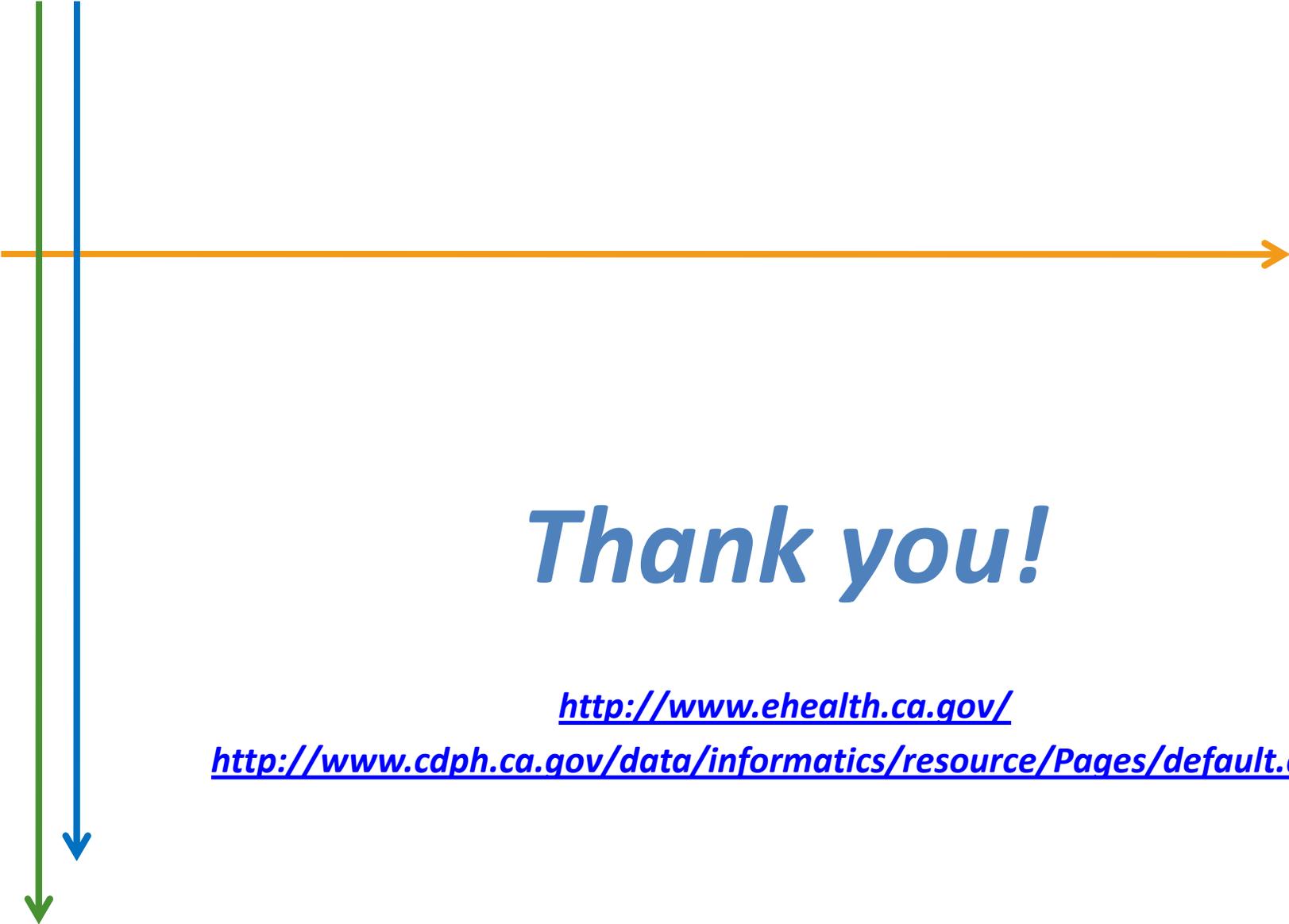


The New Norm

What will it be?

How will you be part of the Movement?

How will EHRs and HIT affect your life?



Thank you!

<http://www.ehealth.ca.gov/>

<http://www.cdph.ca.gov/data/informatics/resource/Pages/default.aspx>
