

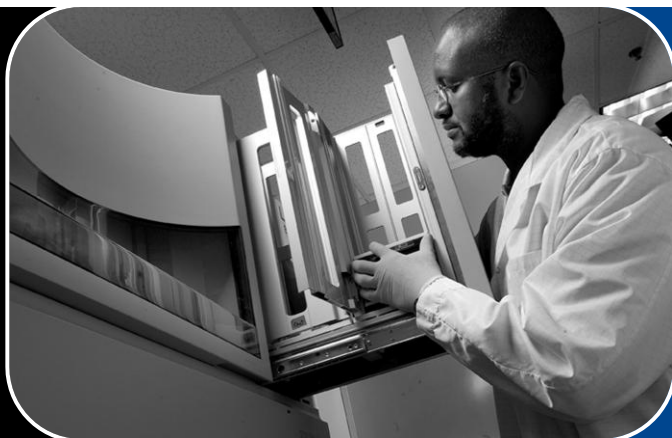


Institute for  
Learning



UNIVERSITY OF UTAH  
SCHOOL OF MEDICINE

Department of Pathology



# Lab Strategies

In an Era of Health Care Reform



**Brian Jackson, MD, MS**

Director Medical Informatics



**Joe Miles, MT(ASCP), MHS**

Sr. Consultant Outreach Development



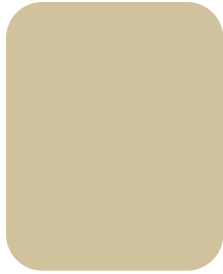
Institute for  
Learning



UNIVERSITY OF UTAH  
SCHOOL OF MEDICINE

Department of Pathology

# Agenda



A look back at healthcare reform

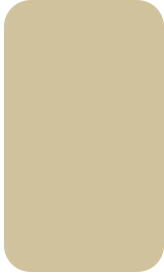
Healthcare reform today



Impact on labs

Lab opportunities

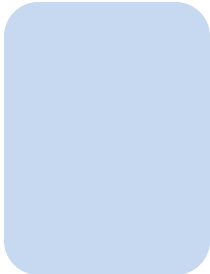
Strategies that create greater clinical value

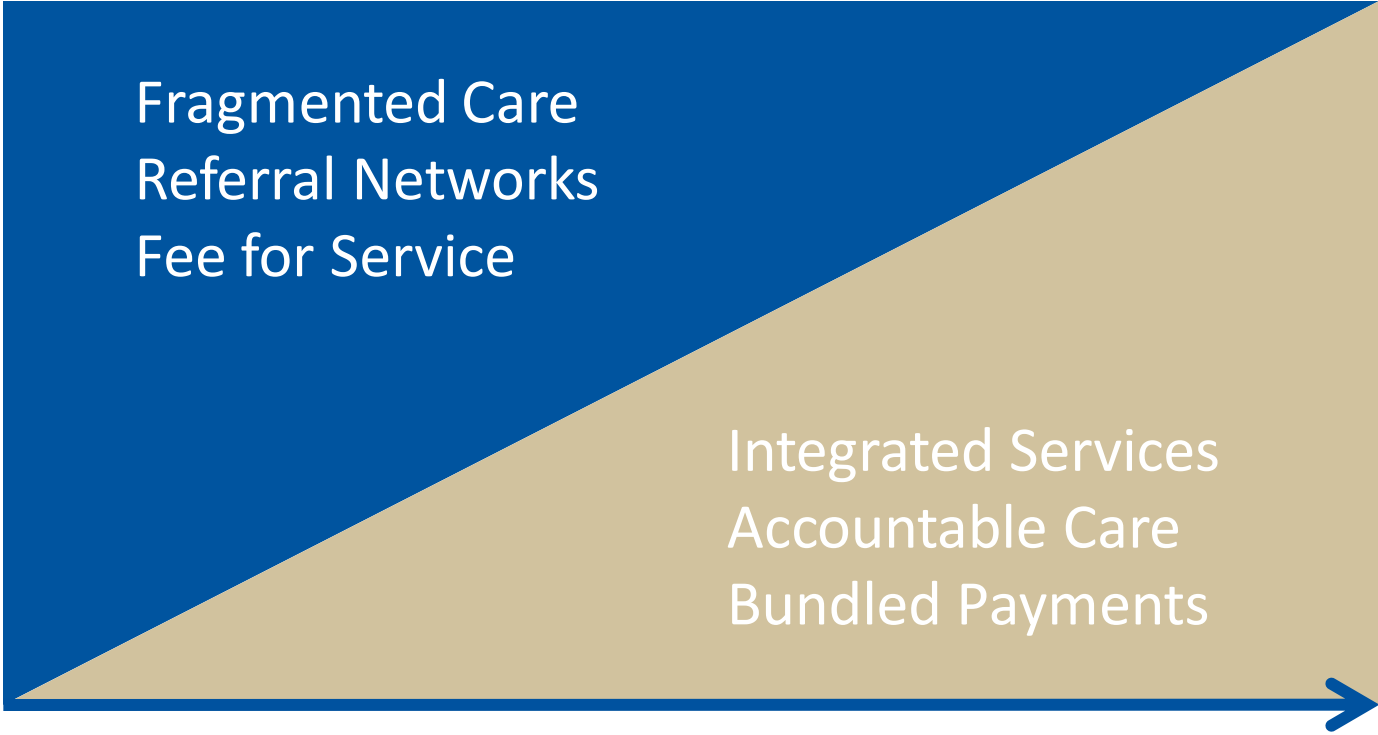


Fee For Service

Health Maintenance Organizations

Preferred Provider Organizations



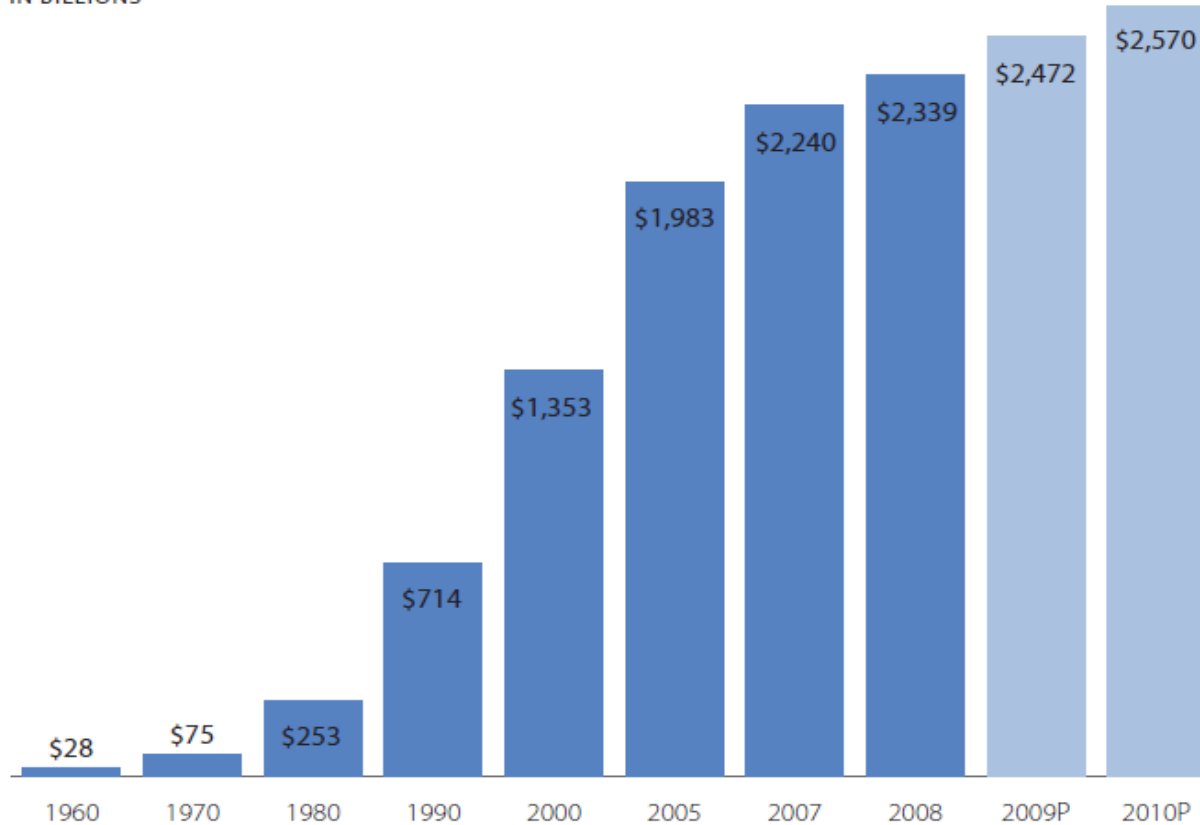


Fragmented Care  
Referral Networks  
Fee for Service

Integrated Services  
Accountable Care  
Bundled Payments

# National Health Spending, 1960–2010\*

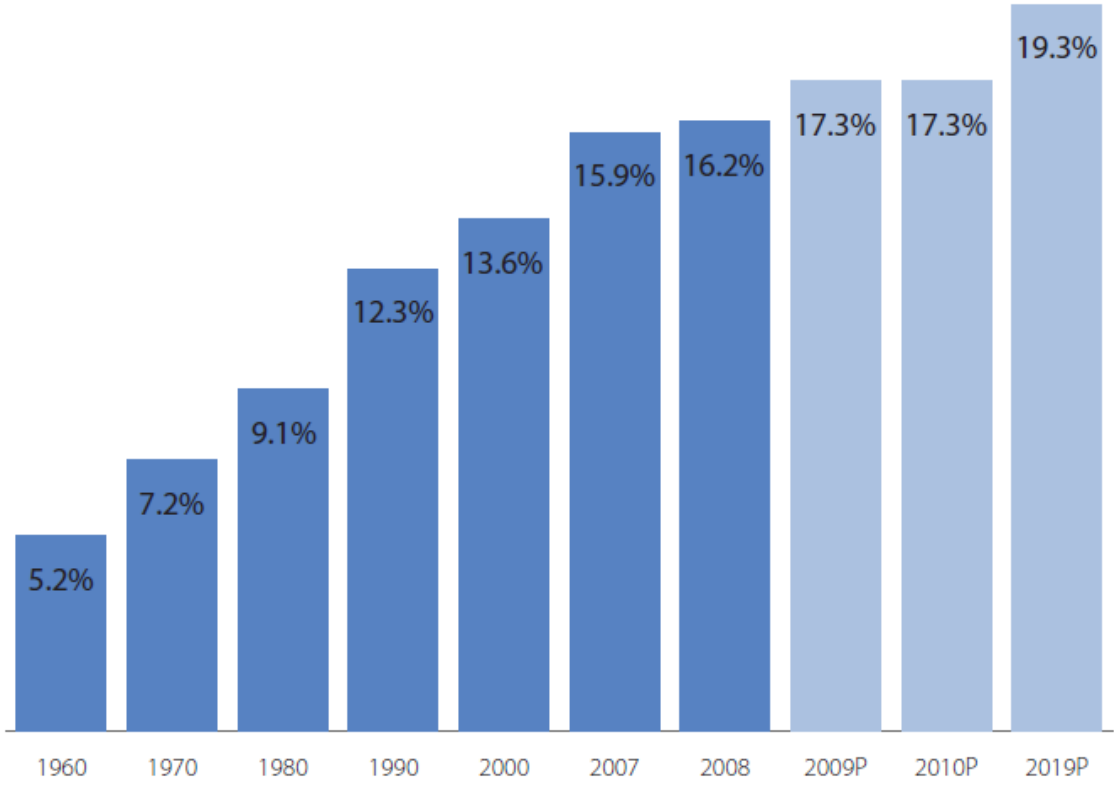
IN BILLIONS



\*Selected rather than continuous years of data shown prior to 2007. Years 2009 forward are CMS projections.

Source: Centers for Medicare and Medicaid Services (CMS), Office of the Actuary.

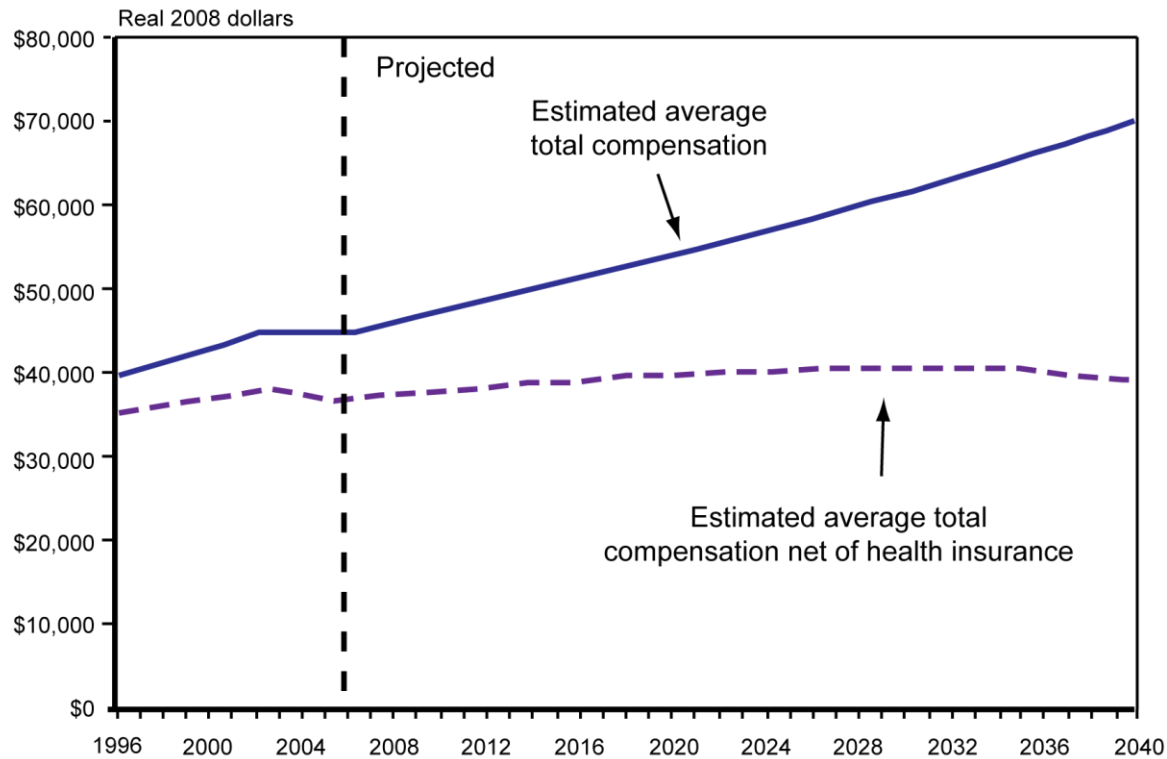
# National Health Spending as a Share of GDP, 1960–2019\*



\*Selected rather than continuous years of data shown prior to 2007. Years 2009 forward are CMS projections. The 2009 CMS projections reflect a 5.7 percent increase in health spending and a 1.1 percent decrease in GDP, expected to result in the largest one-year increase in history of health spending as a share of GDP; NHE's 2010 projected share of GDP reflects a 3.9 percent growth in NHE and 4.0 percent growth in GDP. The full projection period, 2009 to 2019, reflects CMS assumptions of an average annual increase of 4.4 percent in GDP and 6.1 percent in national health spending.

Source: Centers for Medicare and Medicaid Services (CMS), Office of the Actuary.

Figure 3: Projected Annual Total Compensation and Compensation Net of Health Insurance Premiums

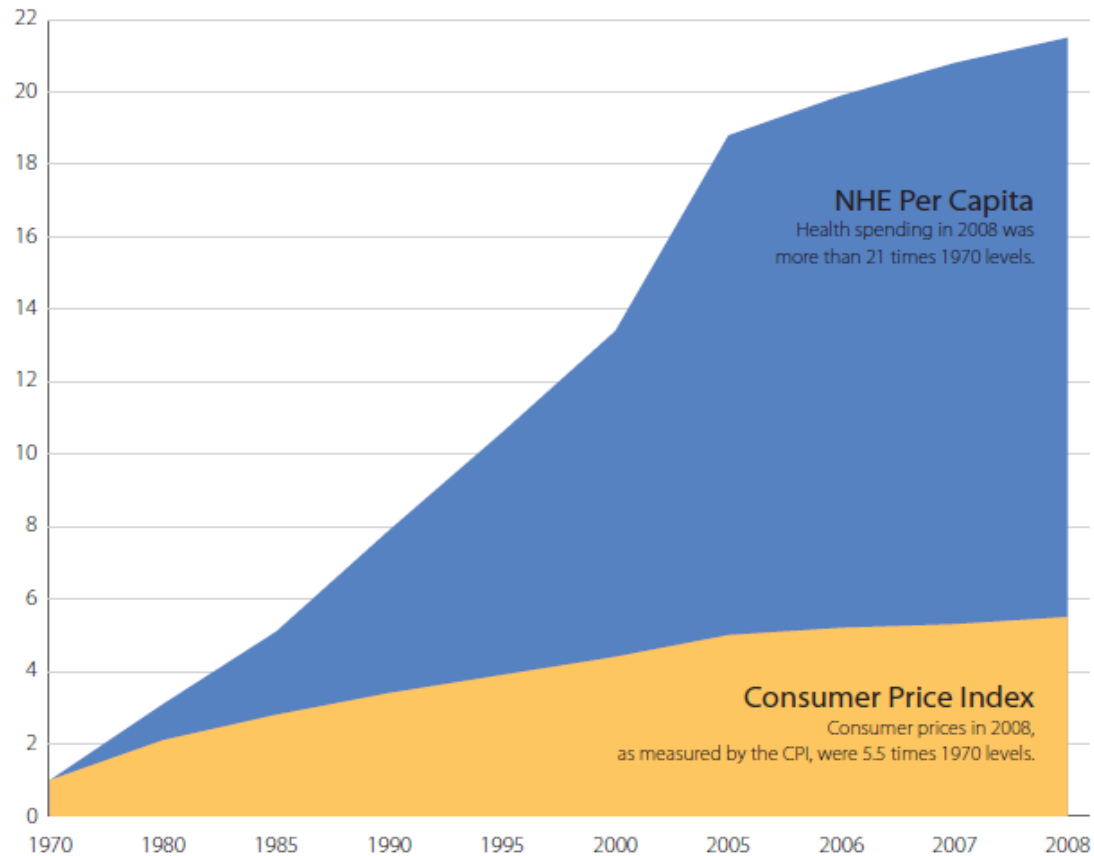


Source: CEA calculations.



# Cumulative Impact of Growth Rates, 1970–2008\*

TIMES MORE EXPENSIVE THAN IN 1970



\*Selected rather than continuous years of data shown prior to 2005.

Sources: Centers for Medicare and Medicaid Services (CMS), Office of the Actuary; Bureau of Labor Statistics (CPI-U, U.S. city average, annual figures).



Access



Quality



Cost

## Model

## Current Examples

Integrated delivery systems/networks (IDN)



Geisinger Health System

Kaiser Permanente

Veterans Health Admin

Fairview Health System

Multispecialty group practices



Cleveland Clinic

Mayo Clinic

Billings Clinic

Virginia Mason Clinic

Physician-hospital organizations (PHO)



Catholic Healthcare – Summit Medical Group

Intermountain Health Care

Kettering Health Network

Methodist/LeBonheur Healthcare – HealthChoice

Independent practice associations (IPA)



Atrius Health

Hill Physicians Group

Monarch HealthCare

Virtual physicians organizations



Community Care of North Carolina

North Dakota Cooperative Network

Quality Health Network of Colorado

# Key Characteristics

Engagement of primary care physicians and effective specialty referrals

Practice medicine according to scientific and evidence-based protocols

Coordination of care within and throughout the health system

Share electronic medical records and performance data

Commitment to control costs and reduce waste and inefficiencies

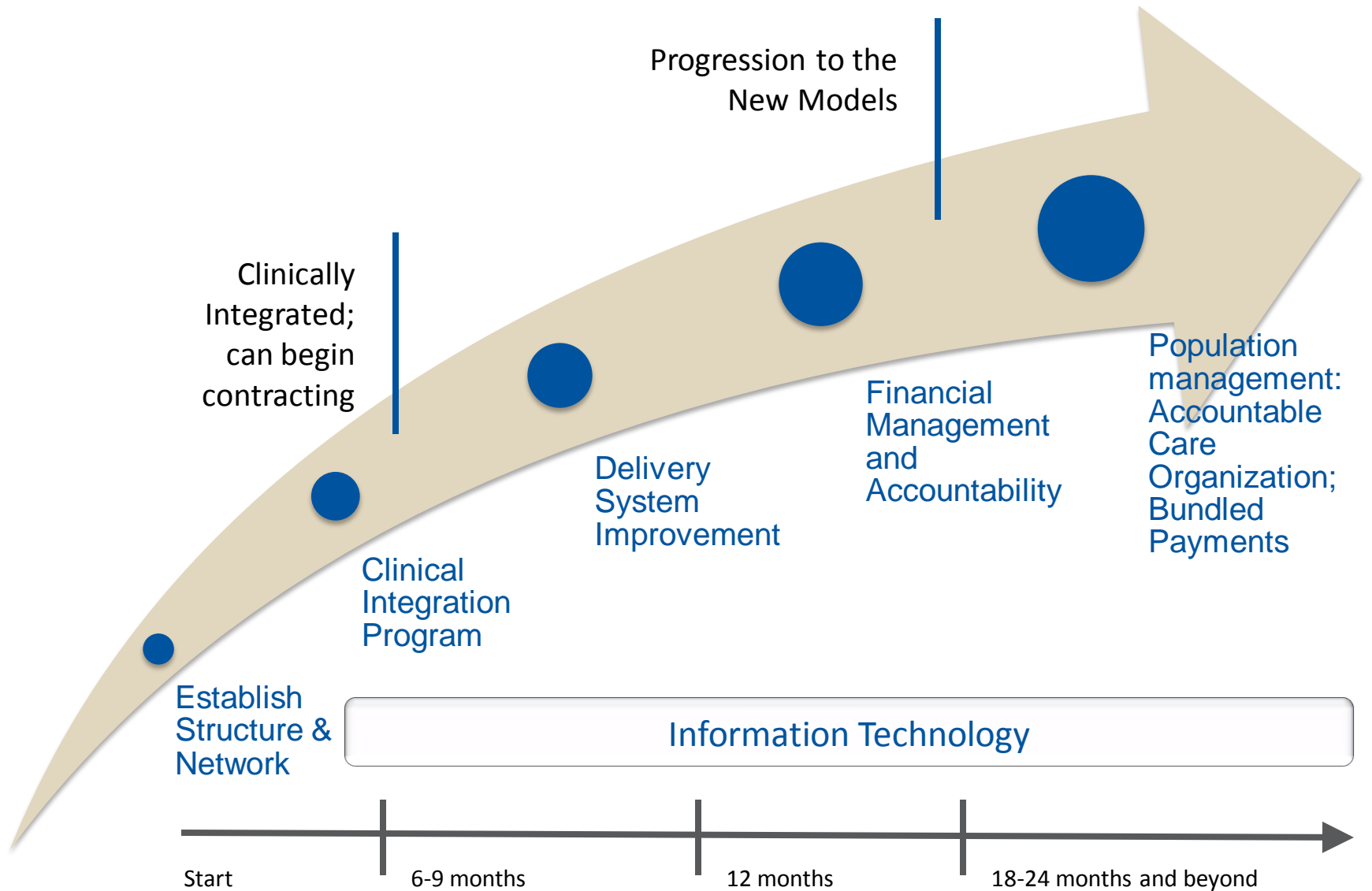
Alignment of financial incentives for all constituents

Focused attention on the management of chronic illnesses

Deliver care in ambulatory settings wherever possible

Patient-centered culture at all levels

# Clinical Integration: Paving the Path to Accountable Care



**HITECH**



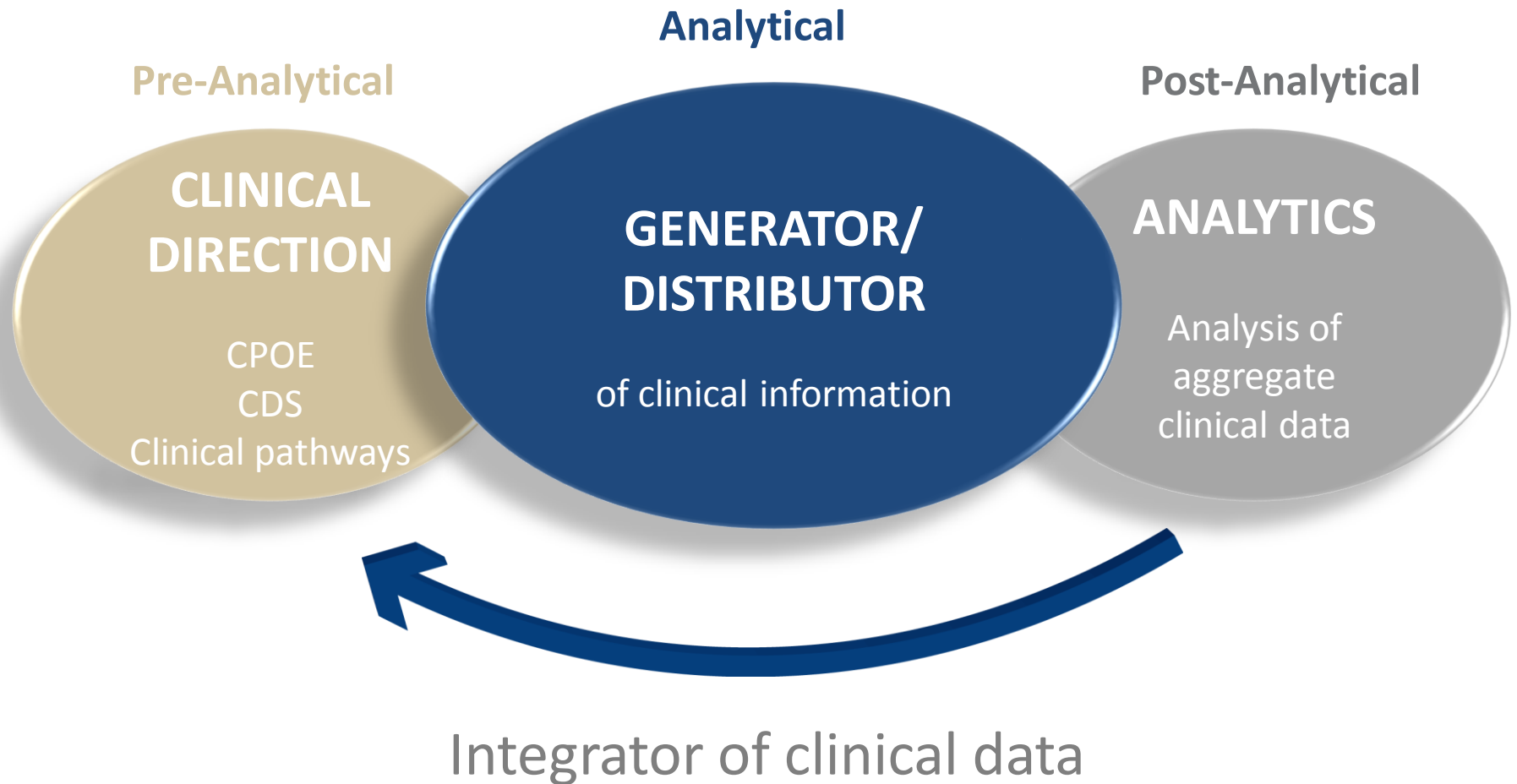
Interoperability, Meaningful Use, CDS

**PPACA**

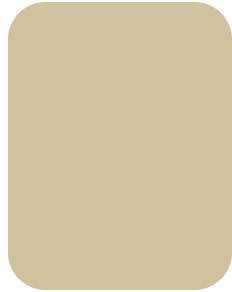


Health Insurance Exchanges, MLR, ACO

# Lab Opportunities



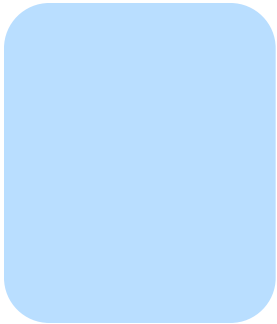
# Strategies to Strengthen Labs



➔ Watch the Competition

➔ Tell the Story of Your Lab's Value

➔ Develop Outreach







➔ Build Connectivity

➔ Lean Processes

➔ Create Cost Effectiveness



- ➔ Understand the Big Picture
- ➔ Engage pathologists
- ➔ Develop Utilization Management Tools

# Brian Jackson, MD, MS

*Medical Director, Medical Informatics*

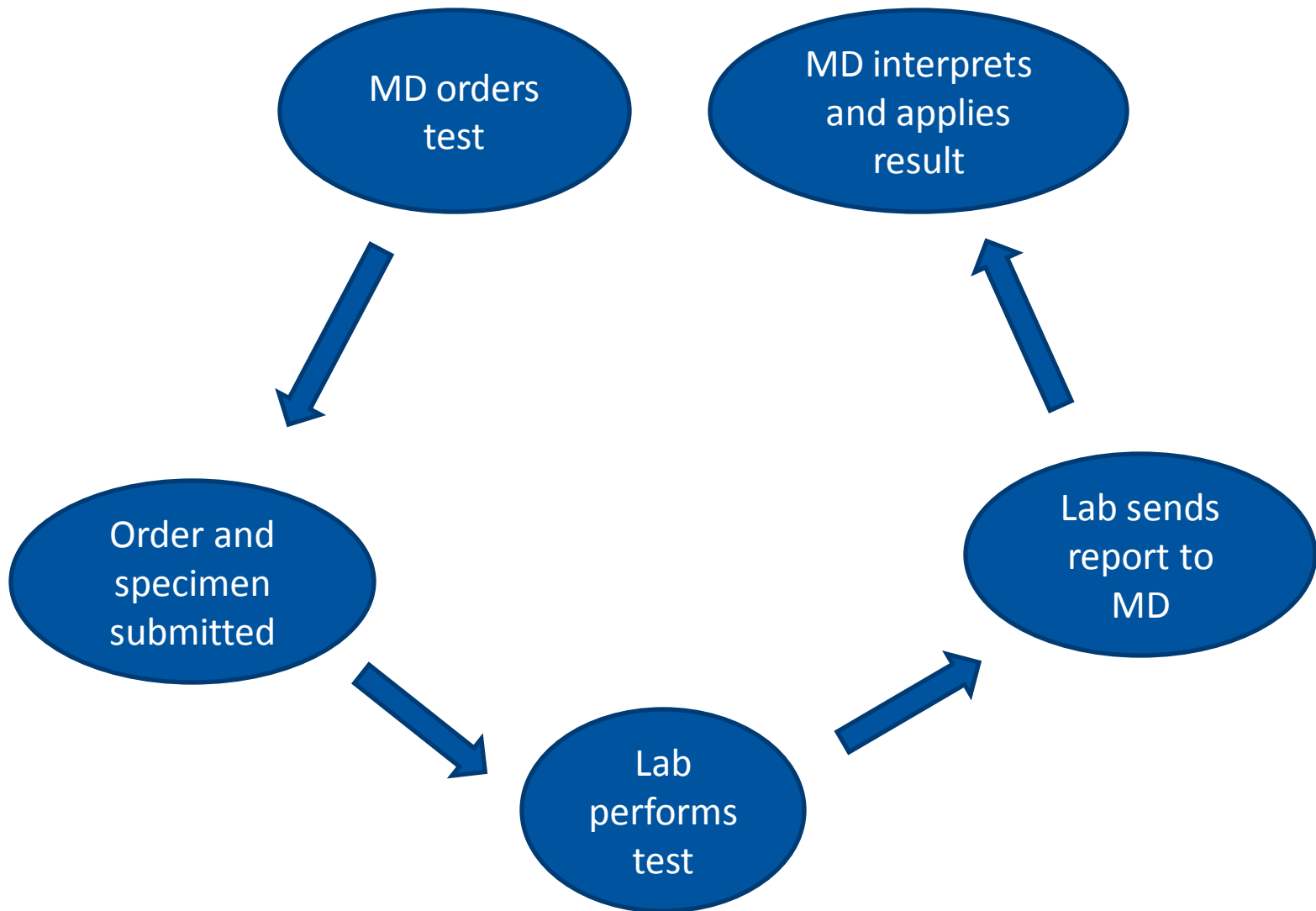
## Lab Strategies to Create Clinical Value

# Lab Strategies to Create Clinical Value

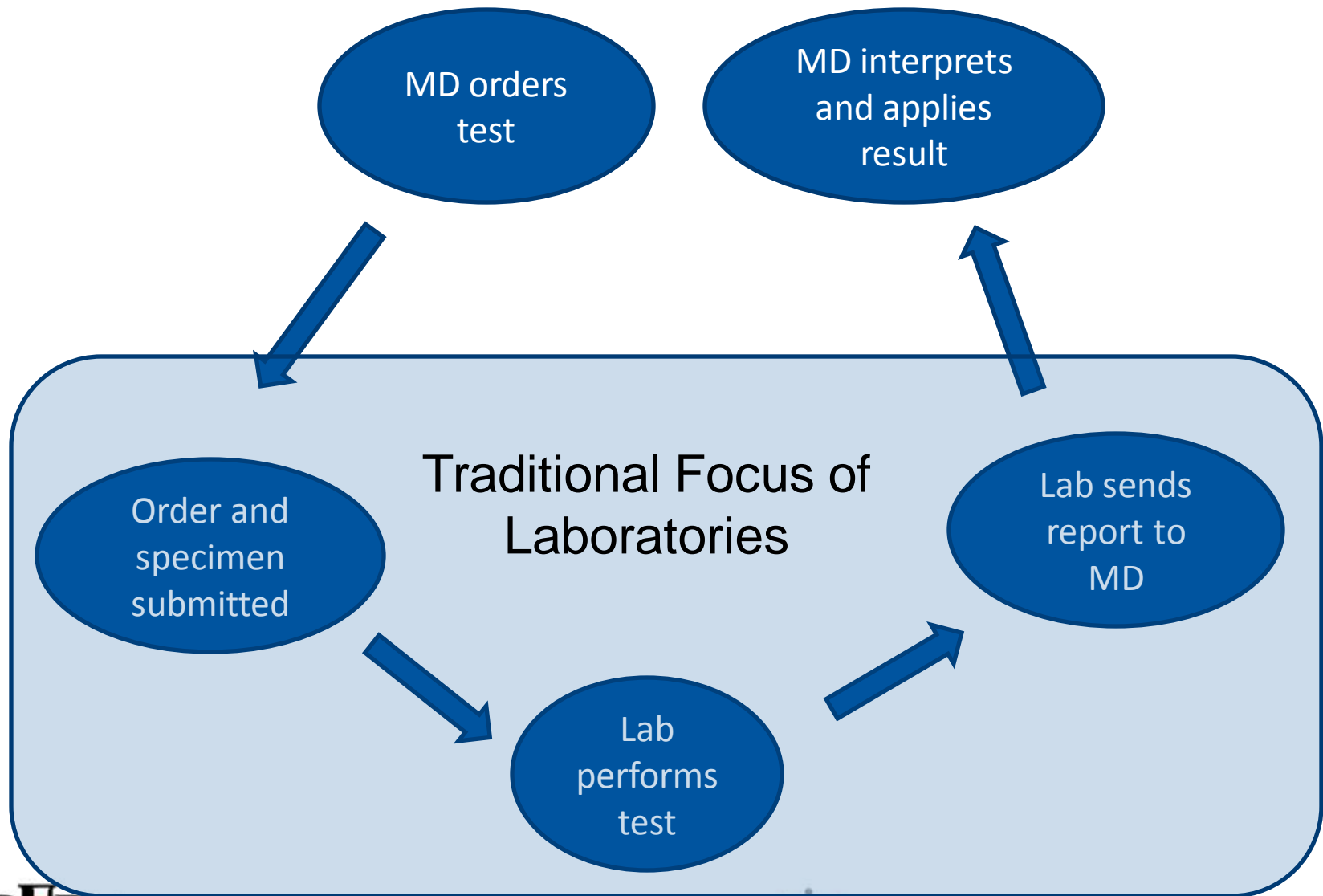
- “But we’re already creating clinical value!”
  - How we can and need to do better
- Lessons from other disciplines
  - Bookselling
  - Digital music
  - Pharmacy
- Bringing it all together
  - Clinical leadership
  - Analytics
  - Decision support

Clinical Value {  
Accurate Dx & mgmt  
Minimize total cost of care

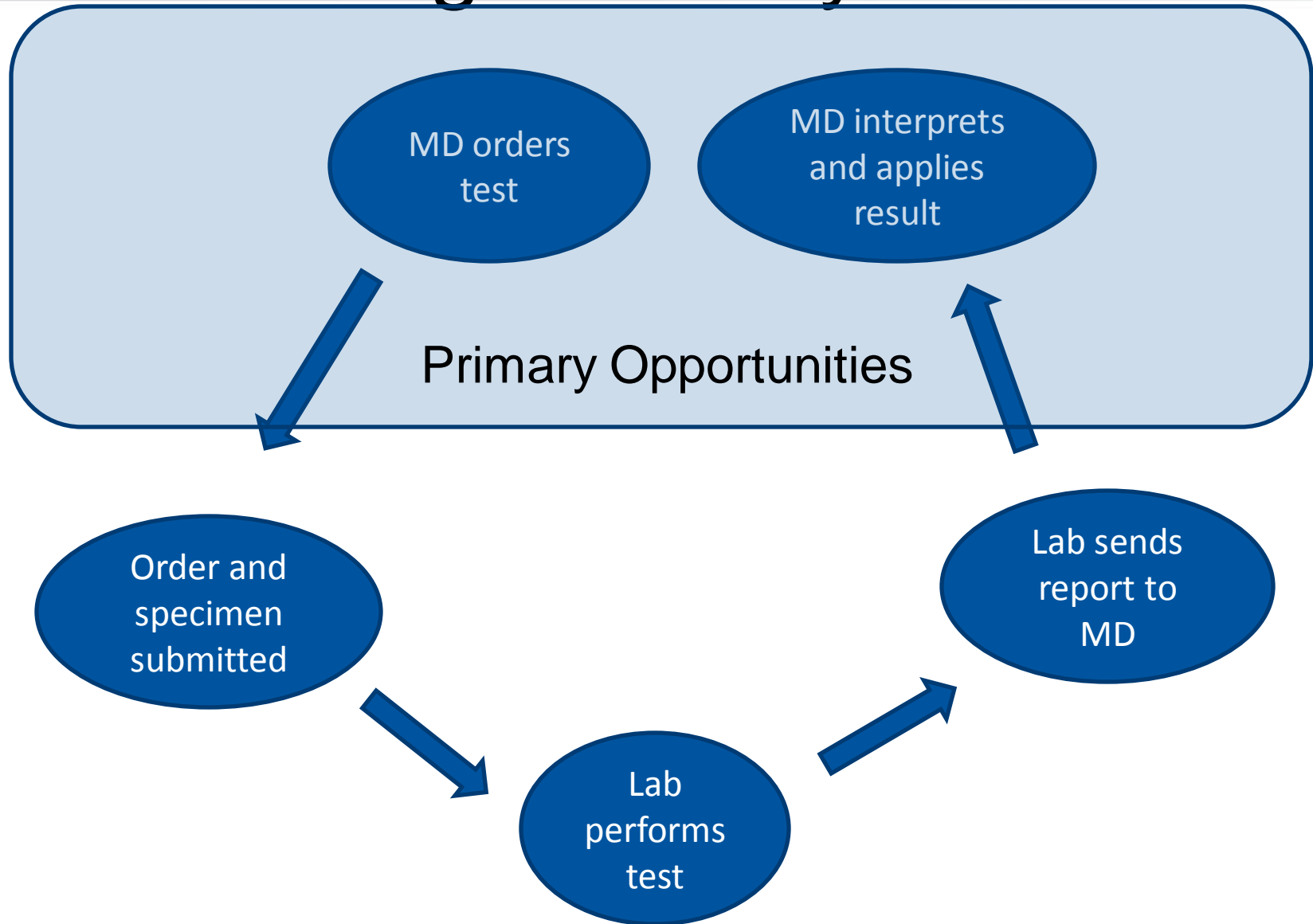
# Diagnostic Cycle



# Diagnostic Cycle



# Diagnostic Cycle





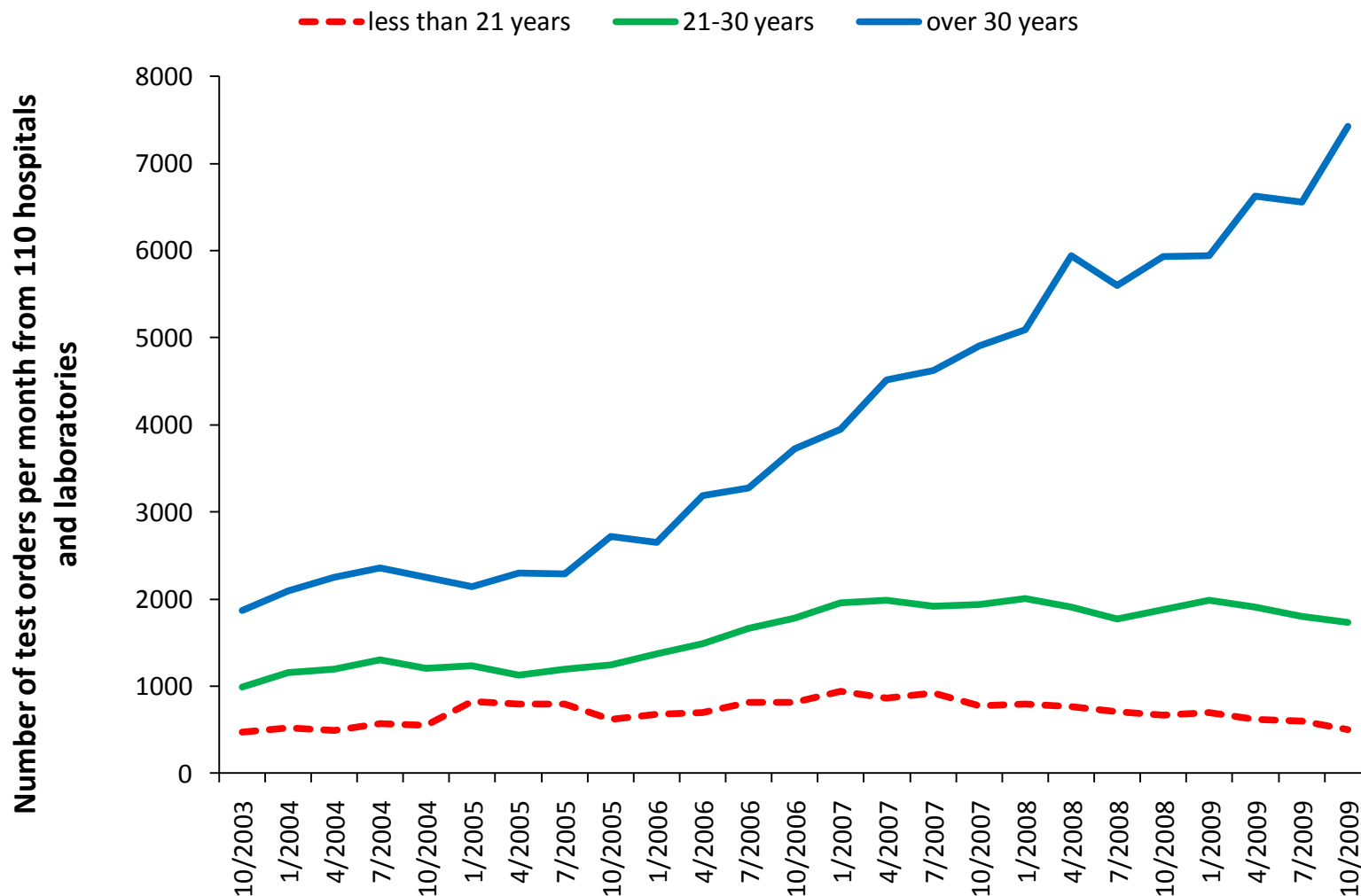
# How Effectively do Doctors Use Laboratory Tests?

- HPV as a prototypical example

# HPV Guideline from ASCCP

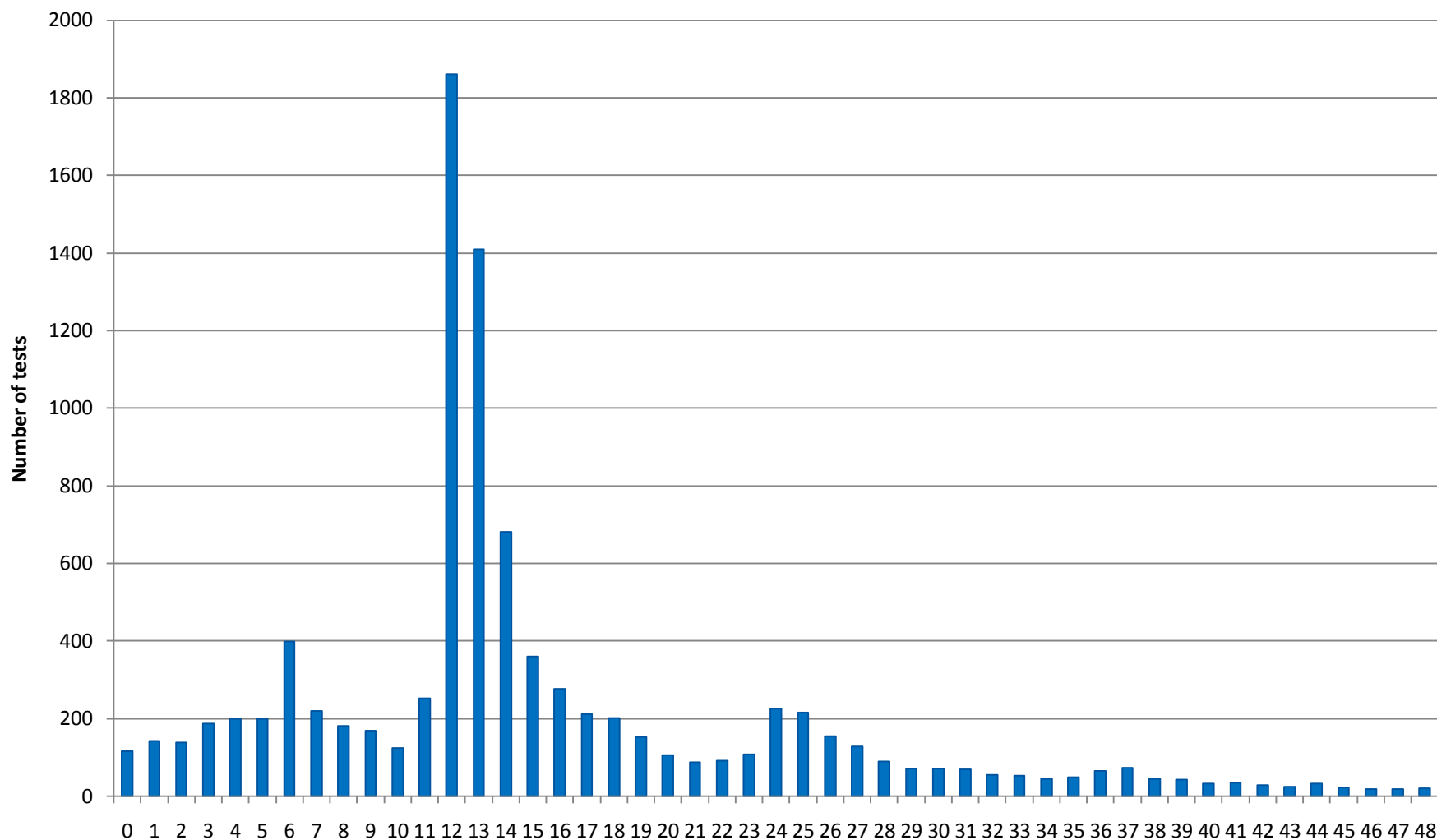
- Women under 21
  - HPV testing is contraindicated
- Women 21 to 30
  - HPV testing should not be used in primary screening
  - HPV testing may be used for evaluating certain cervical lesions (ASC-US)
- Women over 30
  - HPV testing may be used for evaluating cervical lesions and for screening
  - If HPV and cytology negative only screen every 3 years

# HPV Order Volumes by Age (National sample)



Source: Shirts and Jackson, J Pathology Informatics

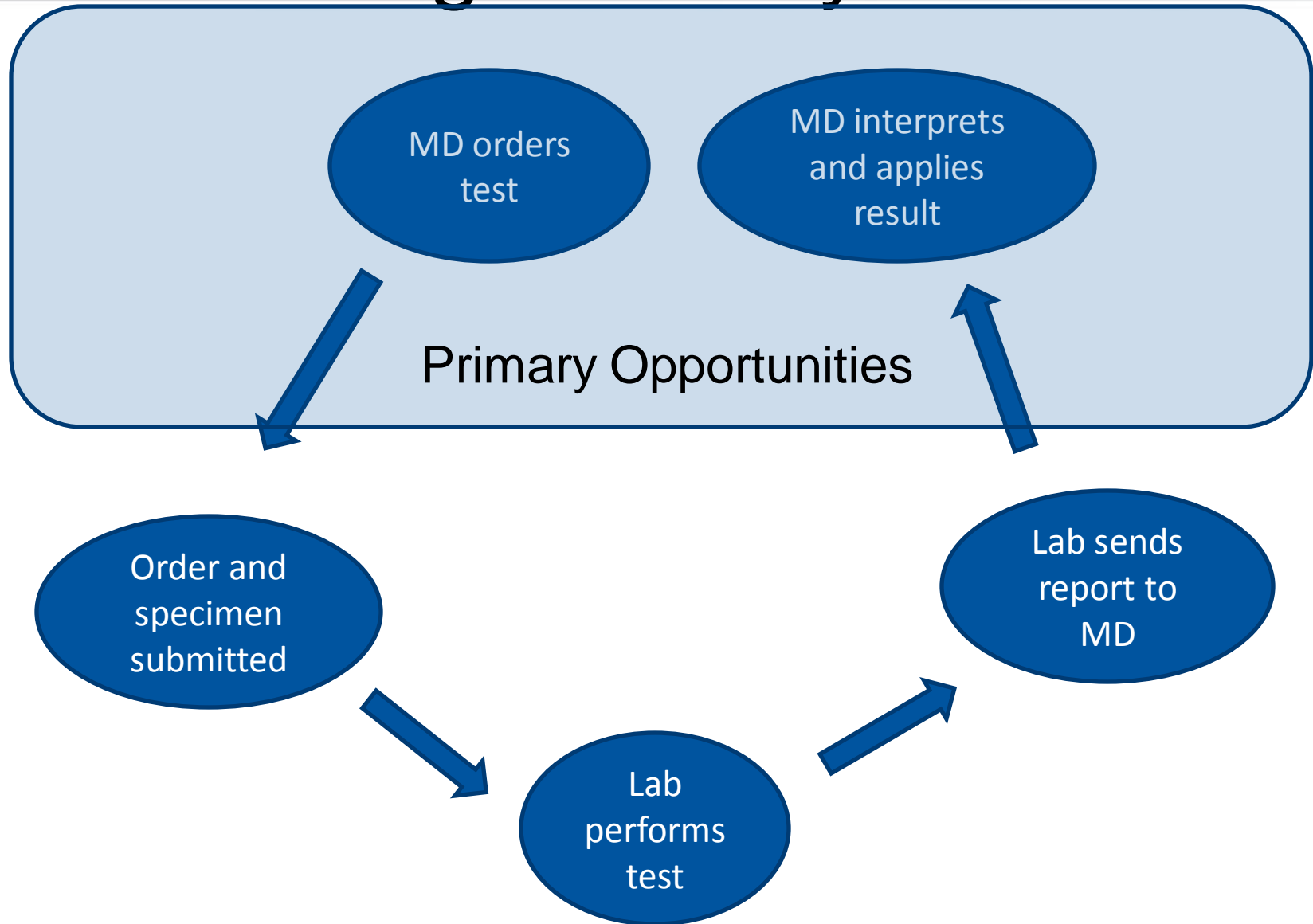
# Time to Repeat HPV Test following Negative Test



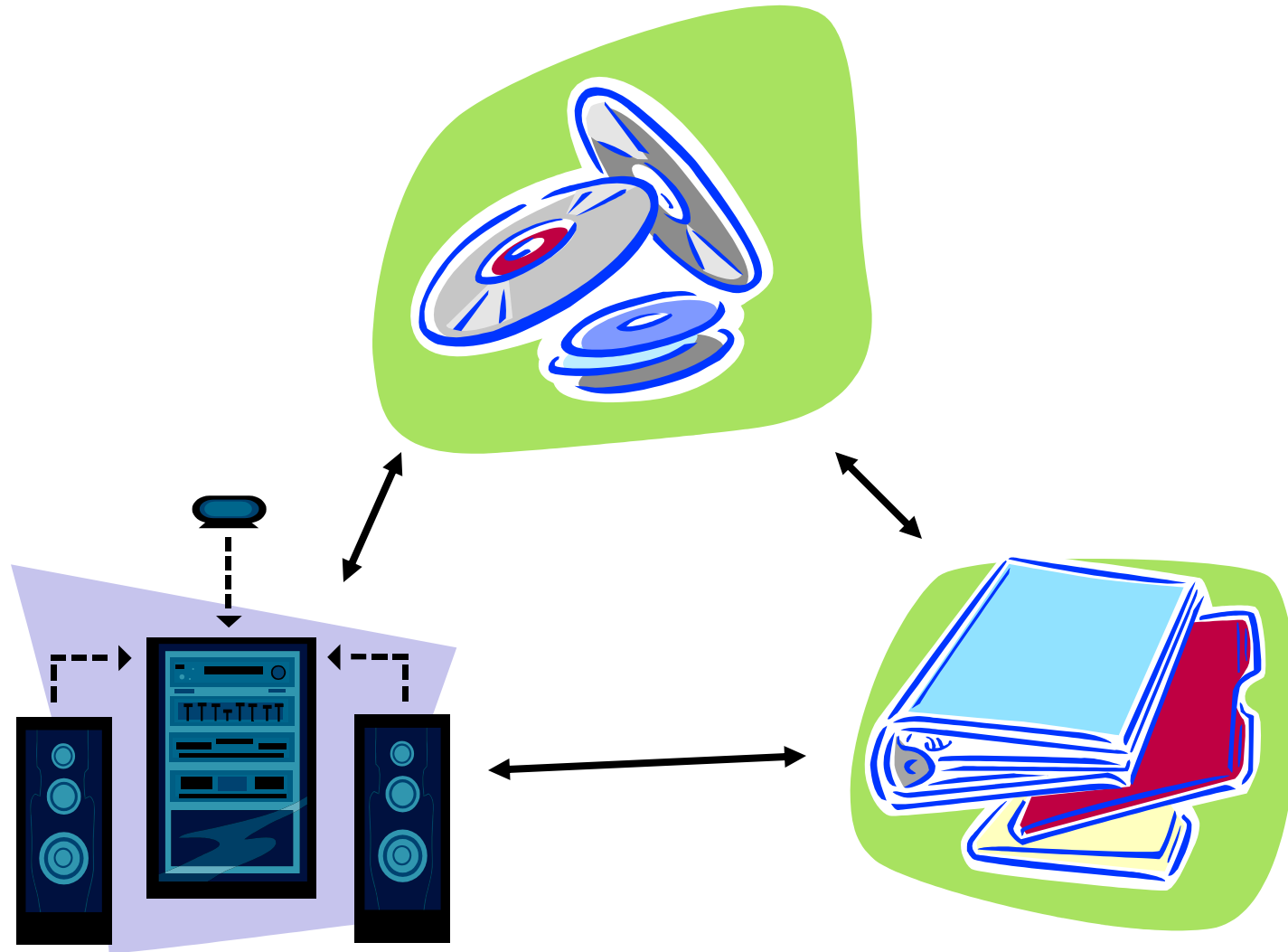
# HPV, Back-of-Envelope Modeling

Strategy	Annual Cost (Rough estimate)
Annual Pap alone	\$150/year
Annual Pap w/HPV	\$250/year
Pap w/HPV, 3-year intervals	\$83/year

# Diagnostic Cycle



# Example: Music Retailing



# Music Retailing Today

The screenshot displays the iTunes application window. At the top, the menu bar includes File, Edit, View, Controls, Store, Advanced, and Help. The main window features a yellow search bar with the Apple logo and a search icon. Below the search bar is a control panel with play/pause, stop, and next buttons, along with a volume slider. The interface is divided into several sections:

- LIBRARY:** A list of music tracks with columns for Name, Time, Artist, Album, and Genre. Track 110, "Appalachian Spring, concert suite" by Aaron Copland, is highlighted.
- STORE:** A section for purchasing music, including "iTunes Store" and "Downloads".
- PLAYLISTS:** A list of playlists, with "Classical" selected.
- Genius Sidebar:** A sidebar showing recommendations for Aaron Copland, including "Also By This Artist" and "Top Albums".

An inset image shows a black iPod with a white earphone jack, displaying the album cover for "Appalachian Spring" on its screen.

Name	Time	Artist	Album	Genre
Jacta Cogitatum Tuum. Gradual (...)	3:34	Benedictine Monks of...	Chant	Classica
Verbum Caro Factum Est. Respon...	4:05	Benedictine Monks of...	Chant	Classica
Genuit Puerpera Regem. Antiphon...	2:57	Benedictine Monks of...	Chant	Classica
Occuli Omnium. Gradual (Modo VII)	3:22	Benedictine Monks of...	Chant	Classica
Ave Mundi Spes Maria. Sequenza ...	4:19	Benedictine Monks of...	Chant	Classica
Kyrie Fons Bonitatis. Trope (Modo...	4:00	Benedictine Monks of...	Chant	Classica
Veni Sancte Spiritus. Sequenza (M...	2:42	Benedictine Monks of...	Chant	Classica
Hosanna Filio David. Antiphonal (...)	0:42	Benedictine Monks of...	Chant	Classica
Appalachian Spring, concert suite	25:03	Aaron Copland	Copland: Appalac...	Classica
Billy the Kid... orchestral suite from	3:19	Aaron Copland	Copland: Appalachia...	Classica



# Example: Book Retailing

Amazon.com: Tietz Textbook of Clinical Chemistry and Molecular Diagnostics (TIETZ TEXTBOOK OF C - Windows Internet Explorer

http://www.amazon.com/Textbook-Chemistry-Molecular-Diagnostics-CHEMISTRY/dp/0721601898/ref=sr\_1\_4?ie=UTF8&s=wikipedia compact disk

Microsoft Outlook Web Access Amazon.com: Tietz Textb...



**Tietz Textbook of Clinical Chemistry and Molecular Diagnostics (TIETZ TEXTBOOK OF CLINICAL CHEMISTRY (BURTIS)) (Hardcover)**  
by [Carl A. Burtis](#) (Author), [Edward R. Ashwood](#) (Author), [David E. Bruns](#) (Author)  
No customer reviews yet. [Be the first.](#)

Quantity: 1

[Add to Shopping Cart](#)

or

[Sign in](#) to turn on 1-Click ordering.

or

[Add to Cart with FREE Two-Day Shipping](#)

Amazon Prime Free Trial required. Sign up when you check out. [Learn More](#)

**More Buying Choices**

[22 used & new](#) from \$199.98

Have one to sell? [Sell yours here](#)

[Add to Wish List](#)

[Add to Shopping List](#)

[Add to Wedding Registry](#)

[Add to Baby Registry](#)

[Share with Friends](#)

List Price: ~~\$257.00~~

Price: **\$205.60** & this item ships for **FREE with Super Saver Shipping.** [Details](#)

You Save: **\$51.40 (20%)**

**In Stock.**

Ships from and sold by **Amazon.com**. Gift-wrap available.

Only 5 left in stock--order soon (more on the way).

**Want it delivered Tuesday, February 3?** Order it in the next 18 hours and 9 minutes, and choose **One-Day Shipping** at checkout. [Details](#)

[17 new](#) from \$201.60   [5 used](#) from \$199.98

**Also Available in:** List Price: Our Price: Other Offers:

[Hardcover](#) (Import)   [Order it used!](#)

**Special Shipping Information:** This item normally requires a shipping charge, but is eligible for FREE Super Saver Shipping today.

**Frequently Bought Together**



Price For All Three: **\$365.62**

[Add all three to Cart](#)

# Pharmacy

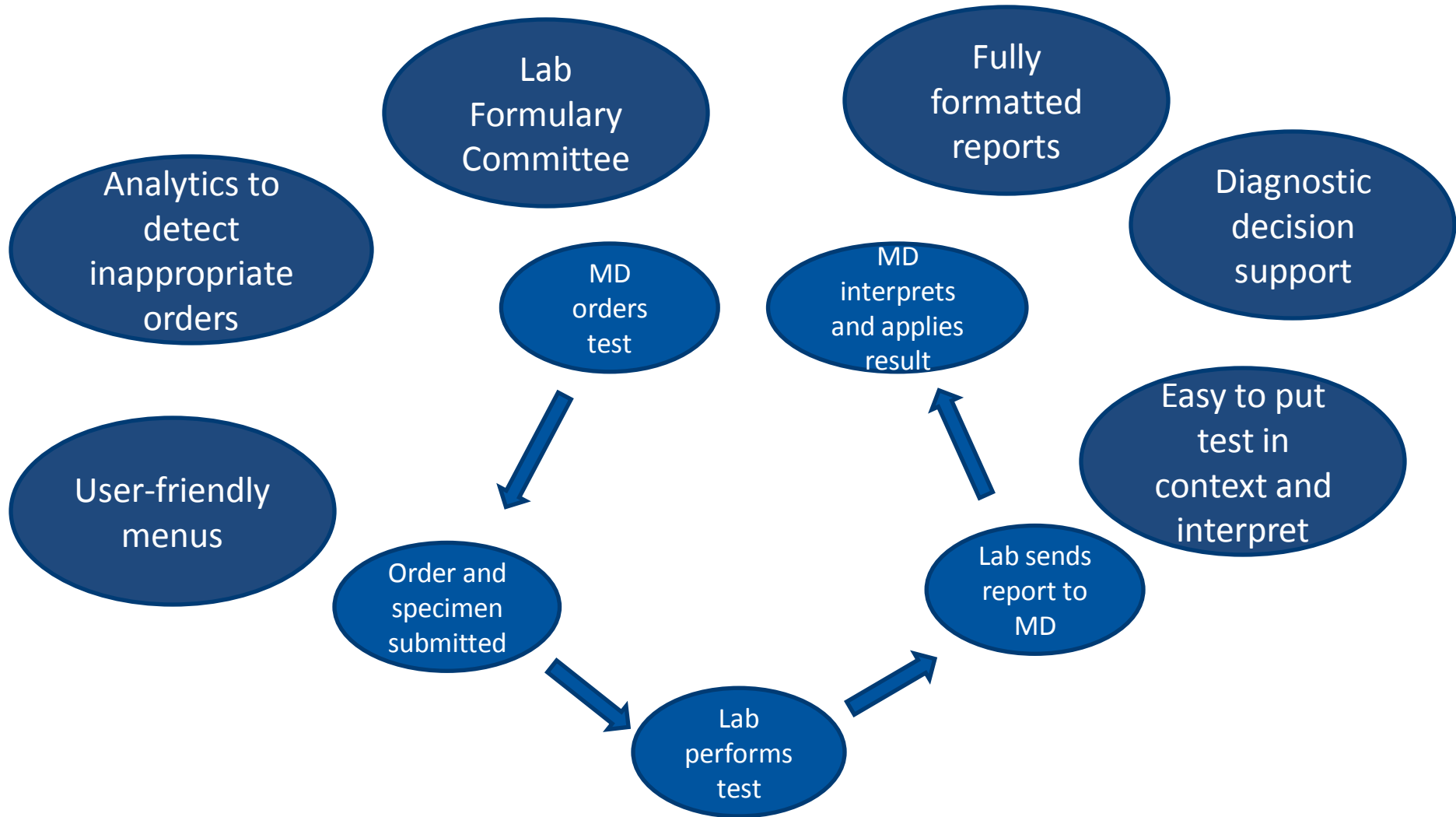
## 1980's

- Factory mindset
- Receive orders, process and distribute meds

## 2000's and beyond

- Professional mindset
- Active clinical role
- Oversee formularies
- Optimize individual med management
- Educate clinicians

# Diagnostic Cycle



# How Labs Can Add Clinical Value

- Clinical leadership
- Analytics
- Decision support

# Clinical Leadership

- “Laboratory Formulary” Committees
- Visible Clinical Pathologists

# Analytics

- Need to understand your doctors' ordering practices
- Compare to:
  - Peers
  - National/local guidelines

# Decision Support

- Doctors have questions about lab tests.
- Are we making it easy for them to get the answers?

## Test Interpretation

### Clostridium difficile Toxins (A & B) by EIA 0065146

---

#### Ordering guidance:

No longer recommended for evaluation of *C. difficile*; PCR is preferred test.

#### Qualifiers:

*C. difficile* produces two toxins – A (enterotoxin) and B (cytotoxin). This EIA detects both toxins, but is less sensitive (70-90%) than the recommended PCR. False-negative results are common.

#### Results:

RESULT	INTERPRETATION
POSITIVE	Evidence of <i>C. difficile</i> infection.
NEGATIVE	No evidence of <i>C. difficile</i> infection.

#### Additional information:

- [Clostridium difficile](#)
- [Clostridium difficile-Associated Disease \(CDAD\) Testing Algorithm](#)

#### Links

- ▶ [Clostridium difficile](#)
- ▶ [Clostridium difficile-Associated Disease \(CDAD\) Testing Algorithm](#)



# Summary

- In an ACO world,
  - Clinical Value = Best Dx at Low \$
  - Become clinical enterprise, not order-filling factory
  - Need to integrate across the end user (physician) experience