

# ***The Curious Case For Pulling Together The Laboratory Medicine Community***

**Lee H. Hilborne, MD, MPH, DLM(ASCP)  
Professor of Pathology and Laboratory Medicine, UCLA  
Southern California Medical Director, Quest Diagnostics  
Global Health, RAND Corporation  
Immediate Past President, ASCP**

**Clinical Laboratory Improvement Advisory Committee  
Atlanta, GA  
February 2009**

# *Outline For Presentation*

- **Lab medicine in the context of healthcare**
- **The whole is stronger than the sum of its parts**
- **Setting the vision**
- **Developing a strategic plan**
- **Making it happen**
- **Working through an example – does it work?**
- **Next steps**

# We're Here Because Quality and Safety Know No Boundaries

## 掛錯名牌開錯刀 嬰兒呱呱墜地亡 醫療疏失 豈止打錯針？ 檔案光怪陸離 聽來令人咋舌 防止悲劇上演 有賴每一個環結

【記者陳子嫻／台北報導】台北縣北城婦幼醫院發生護士替新生兒打錯針的重醫療疏失，歷年來台灣發生的醫療過失，光怪陸離，只不過很多零星的糾紛沒有公開而已。

例如產婦在醫院臨盆，竟無醫師接生，嬰兒墜地死亡；還有醫師誤將福馬林當成外用鹽水擦拭病患眼珠，導致失明等。

法界人士最近曾多次應邀到台北市為醫護人員演講，細數多起醫療過失，希望醫護人員堅守崗位，執行醫療過程的每一項細節都不能馬虎。

還有護士誤取石炭酸作為鹽水替病人灌腸，病人全身發麻，搶救無效死亡；護士誤將福馬林當成外用鹽水倒進紅內，醫師拿來替病人擦拭眼睛傷

回家自行注射，隨即昏迷、呼吸困難，施茂林說，大多數醫護人員在工作崗位上都兢兢業業，但仍不可避免會有疏忽時候，各醫院應仔細分析曾經發生過的案例，釐訂預防方法，別再讓類似的悲劇一再上演。

中榮民總醫院演講時，列舉多起醫療過失事件，例如醫護人員把劇毒的氫酸鹽混入外用藥內，替病人療傷；病人名牌被掛錯，工作人員推錯床而

對名牌而打錯對象；產婦即將生產，沒有醫師前來接生，嬰兒墜地死亡。

施茂林說，大多數醫護人員在工作崗位上都兢兢業業，但仍不可避免會有疏忽時候，各醫院應仔細分析曾經發生過的案例，釐訂預防方法，別再讓類似的悲劇一再上演。

## 醫療環境 擬列入醫院評鑑項目

### 衛署將建立定期考評機制 暫不會中止和北城健保合約

【記者魏忻忻／台北報導】北城婦幼醫院發生打錯針重大疏失，顯示醫院安全管控缺失，為避免類似事件再度發生，衛生署昨下午邀請醫界、藥界及護理界專家舉行緊急會議。衛生署代理署長涂醒哲會後指出，未來會將醫護人員在職訓練及醫療安全環境作業系統列入醫院評鑑項目，並建立定期不定時的醫院考評機制，定期追蹤。

療疏失檢討暨未來防範機制研商會議，北城醫院違反「衛生局、所及合約院所疫苗使用、管理作業規範」，北城醫院為新生兒注射疫苗。

至於是否中止健保合約，健保局表示，初步並未發現北城婦幼醫院有違反健保特約相關規定；且目前還有孕婦在該院待產，中止特約將影響民眾就醫權益，但健保局會特別查核，並

期換照制度，提高護理人員素質。昨天也與會的前衛生署副署長黃富源指出，事件發生後，大家都把新頭指向打錯針的護理人員，這樣太簡化問題，他認為醫療疏失，是整個醫院的管理流程有問題。涂醒哲也強調，為了營造安全的醫療作業環境，醫護人員有疏失，醫院院長也應負起責任，對於整個作業流程、作業環境，將建立管制機制。

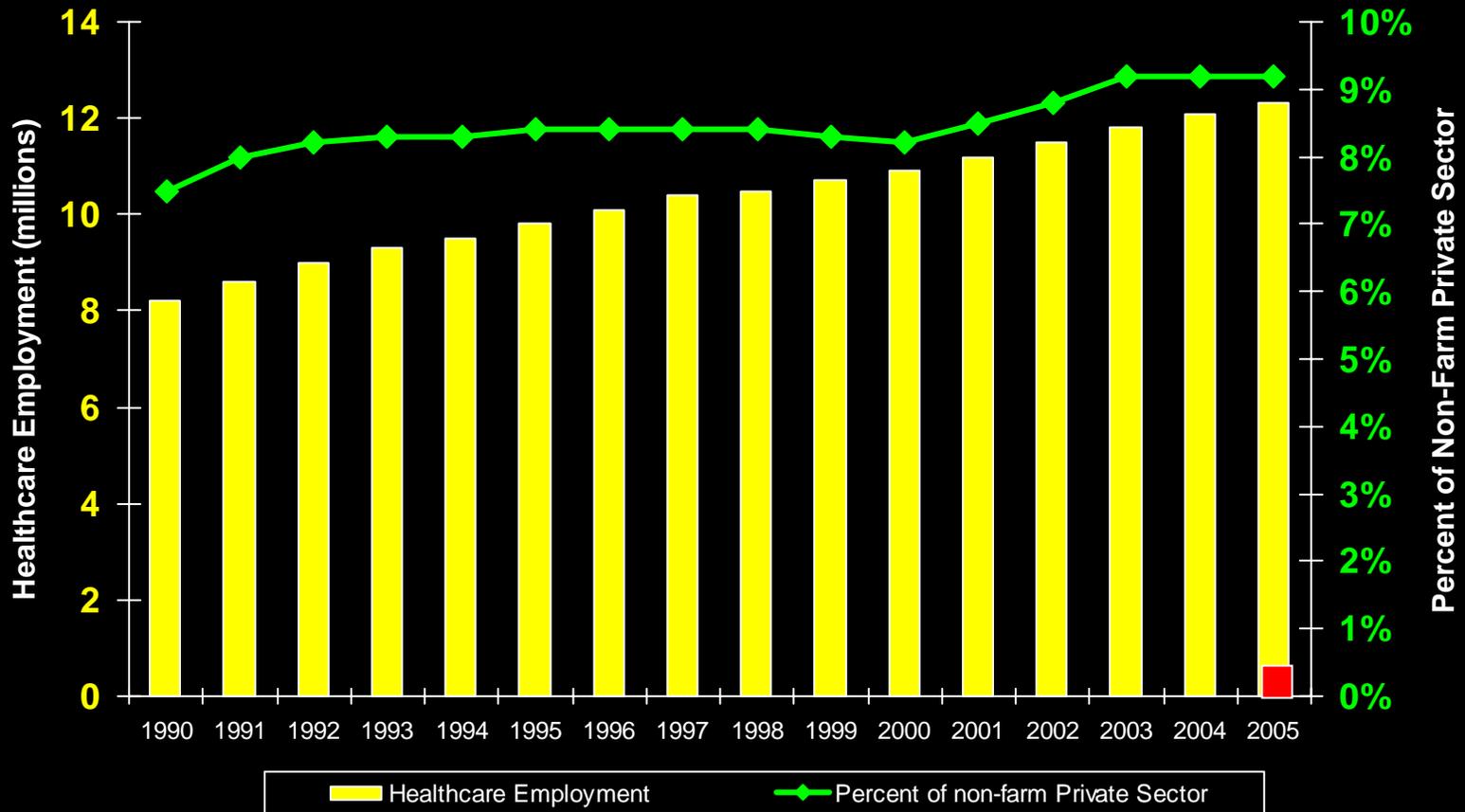
衛生署昨天舉行「北城婦幼醫院醫

院為新生兒注射疫苗。

及打錯針的黃姓護士進行心理輔導。

中華醫藥護理師護士公會全聯會理事長斯曾珍麗昨天代表護理界向社會道歉，她說正確給藥是執行護理業務時，再重申的要求，這次誤打藥劑的行為，是護理人員必須承擔的責任。

# Although We Are Just A Small Part of Healthcare



■ Approximate lab personnel

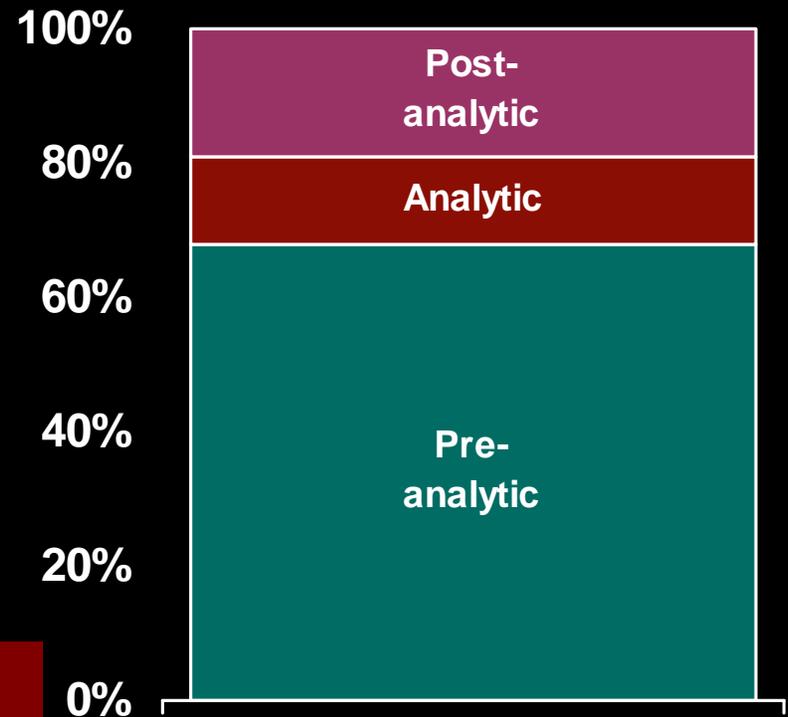
# ***Laboratory diagnostics are among the most critical components when clinicians care for patients***

- **Important in >70% of clinical decisions**
- **Comprise only 2-3% of healthcare expenses (US, Medicare)**
- **Consider 24 common clinical outpatient conditions with explicit evidence for a specific course of evaluation or treatment**
- **In how many of these common conditions are laboratory tests part of the diagnosis or monitoring?**
  - **Involved in Diagnosis: 50%**
  - **Involved in Treatment Monitoring: 38%**
  - **Involved in Diagnosis or Treatment: 63%**
- **No other specialty touches so many clinical situations that impact patients**

# *Opportunities exist to improve service in all three phases of the total testing process*

- **Pre-analytic**
- **Analytic**
- **Post-analytic**
  
- **But most opportunities exist outside the analytic phase**

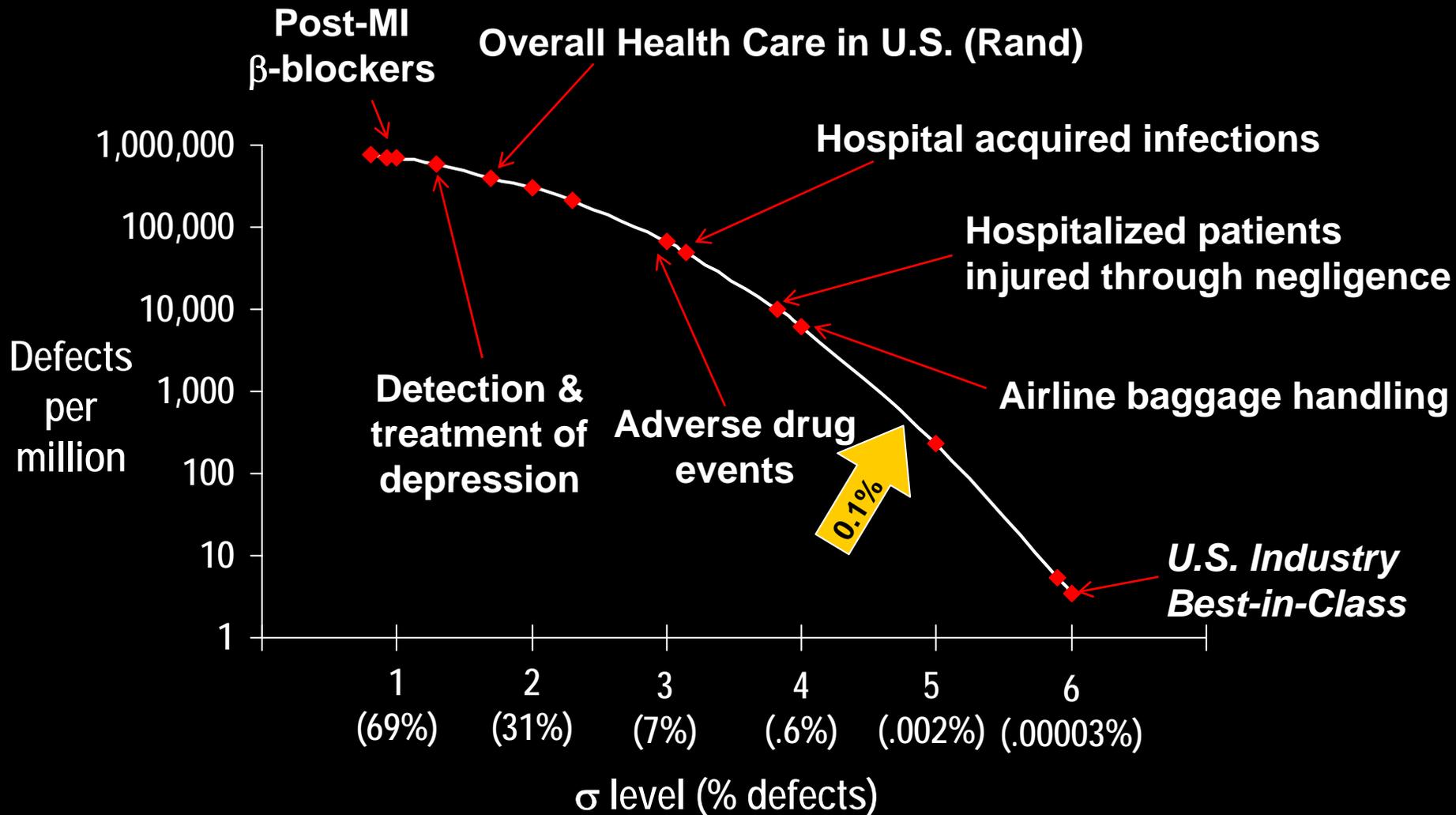
**Where do errors occur?**



(Plebani, 1997)

**Laboratorian's Comfort Zone**

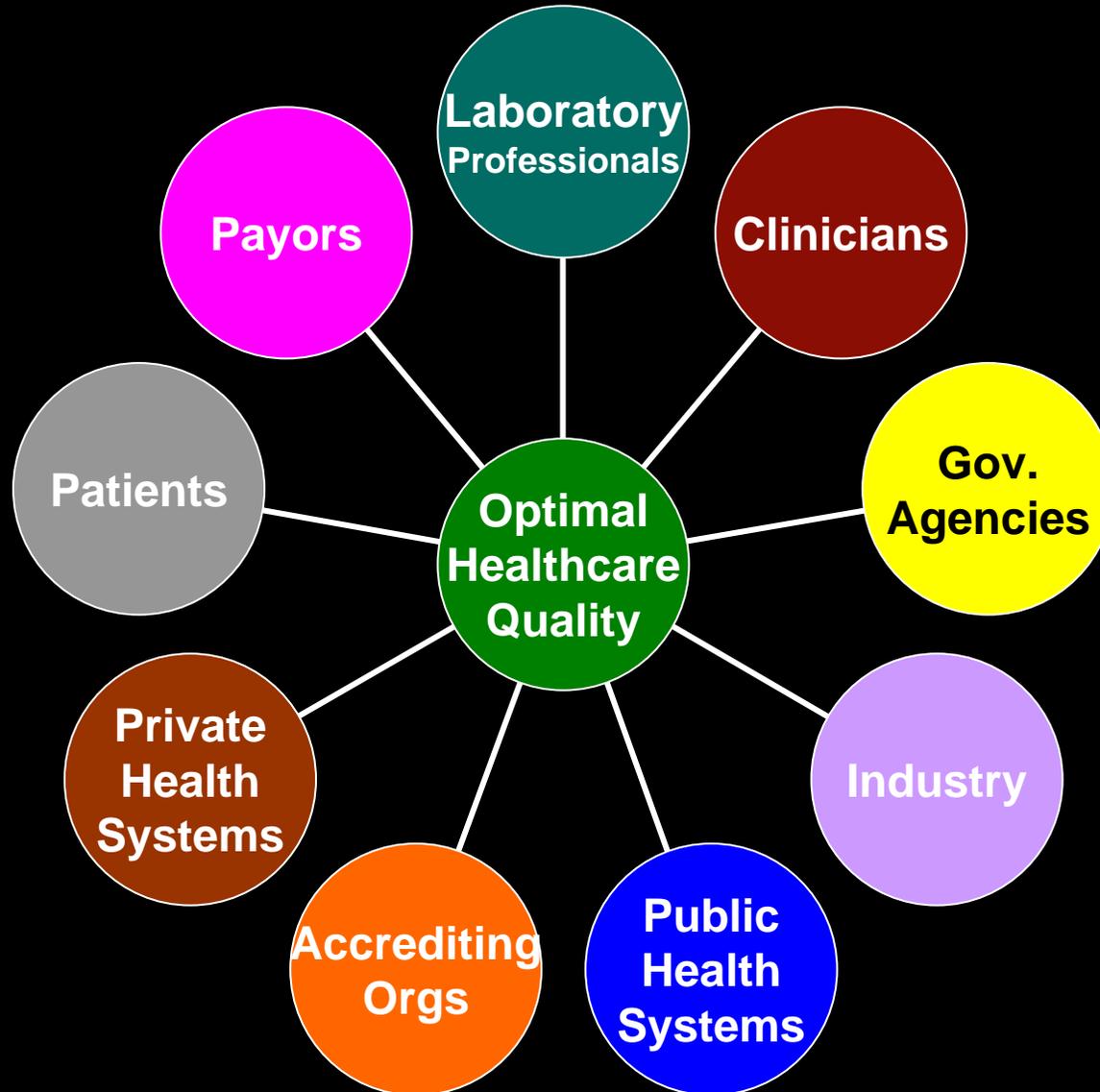
# Existing Studies: Laboratory Medicine Appears Good Relative To Others, But What Do We Really Know?



# *Outline For Presentation*

- Lab medicine in the context of healthcare
- The whole is stronger than the sum of its parts
- Setting the vision
- Developing a strategic plan
- Making it happen
- Working through an example – does it work?
- Next steps

# *We Have The Greatest Impact When We Work Together*



# ***And What We Want To Achieve Is Ambitious***

- **Focus on laboratory services for all laboratory types (e.g., clinical, public health) to ensure appropriate use of tests and services and enhance patient safety**
- **Promote collaboration among laboratory medicine stakeholders**
- **Supplement research and educational programs provided by other organizations**
- **Establish and disseminate laboratory medicine evidence-based practices to providers and users**

# *Outline For Presentation*

- **Lab medicine in the context of healthcare**
- **The whole is stronger than the sum of its parts**
- **Setting the vision**
- **Developing a strategic plan**
- **Making it happen**
- **Working through an example – does it work?**
- **Next steps**

# *The Vision For The Future*

- **Maximize laboratory medicine's contribution to optimal healthcare quality**

# *Outline For Presentation*

- **Lab medicine in the context of healthcare**
- **The whole is stronger than the sum of its parts**
- **Setting the vision**
- **Developing a strategic plan**
- **Making it happen**
- **Working through an example – does it work?**
- **Next steps**

## ***If We Don't Know Where We Are Going, How Will We Know When We Arrive?***

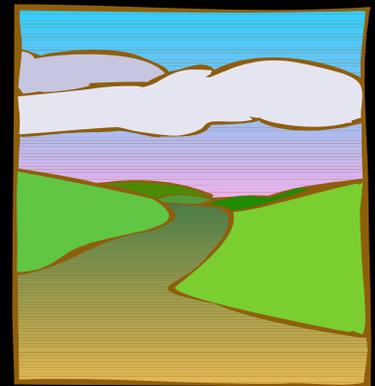
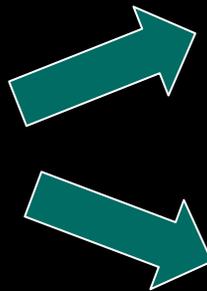
- **We've conceptualized a roadmap as a framework for the strategic plan**
  - **Where do we need to be (the vision)?**
  - **Where are we now?**
  - **What do we need to get there (gaps)?**
  - **How do we together fill the gaps?**
- **The workgroup envisions the roadmap in two primary dimensions**
  - **The destinations (where we need to go)**
  - **The roads (how we get there)**

# *This Is Big Stuff, We Need Smart People*

- So CDC organized the “roadmap” workgroup to provide initial guidance
- Julie Taylor already introduced them ☺ but here they are again:
- **Members, including co-chairs**
  - John Ball
  - Raj Behal
  - Nancy Elder
  - Kim Hetsko
  - **Lee Hilborne**
  - Karen Linscott
  - Janet Marchibroda
  - Mary Nix
  - Alan Simon
  - Ana Stankovic
  - **Elizabeth Wagar**
- **CDC Staff**
  - Joe Boone
  - Devery Howerton
  - Leslie McDonald
  - Anne Pollock
  - Angela Ragin-Wilson
  - Julie Taylor
- **Altarum Staff**
  - Fabian D’Souza
  - Jim Lee
  - Dana Loughrey
  - Megan Shaheen

# *The Initial Order of Business*

- **Confirm the vision**
  - The group refined and reaffirmed the vision
- **Determine where we need to go**
  - It's got to be the first step
  - Both the roads to get there and an assessment of where we are depend on where we are going



# *To maximize laboratory medicine's contribution to optimal healthcare quality...*

- Let's not reinvent the wheel
- Smart people already defined where we want to be for quality
- The Institute of Medicine identified the six quality domains
  - Safe
  - Effective
  - Patient-centered
  - Timely
  - Efficient
  - Equitable



# ***Subgroups Provided Initial Thoughts To Better Define The IOM Domains In A Laboratory Context***

- **Safe**
  - Fully integrate lab results into patient care
  - Laboratory testing actually helps patients and does not cause harm
- **Effective**
  - Evidence-based decision making guides the use and selection of laboratory tests
  - Laboratory results are appropriately interpreted to guide patient care through effective decision making

# ***Subgroups Provided Initial Thoughts To Better Define The IOM Domains In A Laboratory Context***

- **Patient Centered**
  - **Laboratory services reflect patient preferences, needs and values**
  - **Patient values incorporated into the interpretation of laboratory findings**
  - **Laboratory tests, facilities, information, and resources are designed with the primary focus on the patient**
- **Timely**
  - **Results reach providers (and patients) at or before when they are needed**
  - **Laboratory “outputs” are effective “inputs” to subsequent patient care processes**

# ***Subgroups Provided Initial Thoughts To Better Define The IOM Domains In A Laboratory Context***

- **Efficient**
  - **Waste of laboratory services and resources (e.g., repeat testing, redundant services, ineffective use of technology) does not exist**
  - **Billing and reimbursement schemes facilitate, rather than discourage, appropriate testing**
- **Equitable**
  - **All patients have equal access to appropriate and necessary laboratory services**

***To Consider Potential “Roads”  
Starting With A Framework HHS Is Already Using***

**Prioritization and Implementation Avenue**

**Research Boulevard**

**Information Systems and Technology Hwy**

**Incentives and Oversight Drive**

**Outreach and Messaging Parkway**

# *And Make Sure That They Help Us Reach The Vision*



**Maximize laboratory medicine's  
contribution to optimal healthcare quality**

# *And Overlay The Destinations*

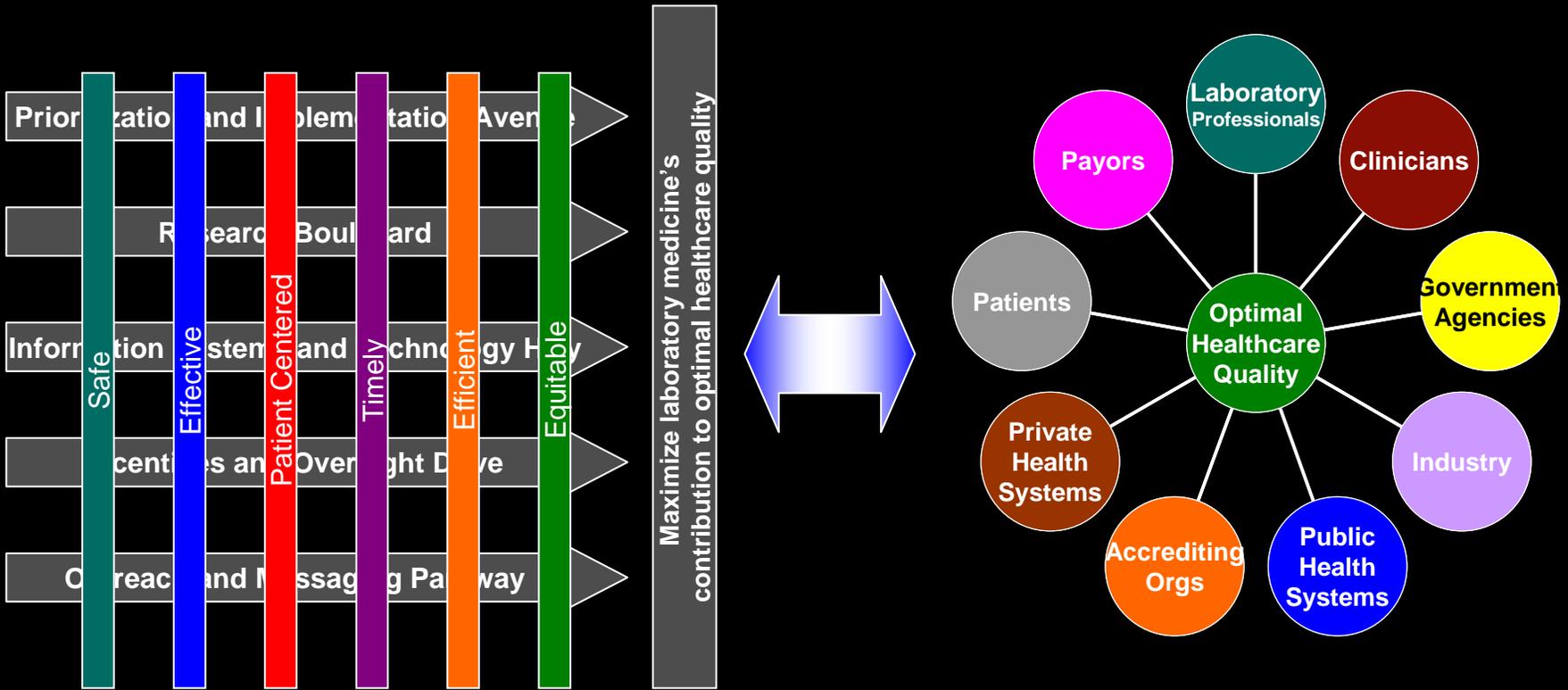


**Maximize laboratory medicine's contribution to optimal healthcare quality**

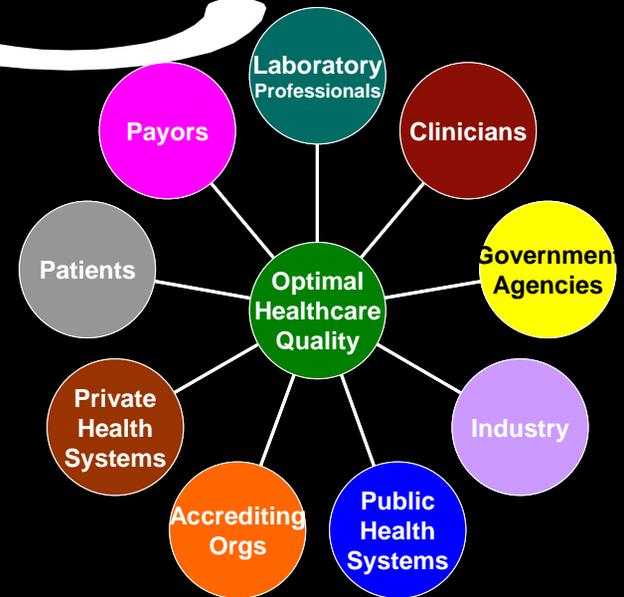
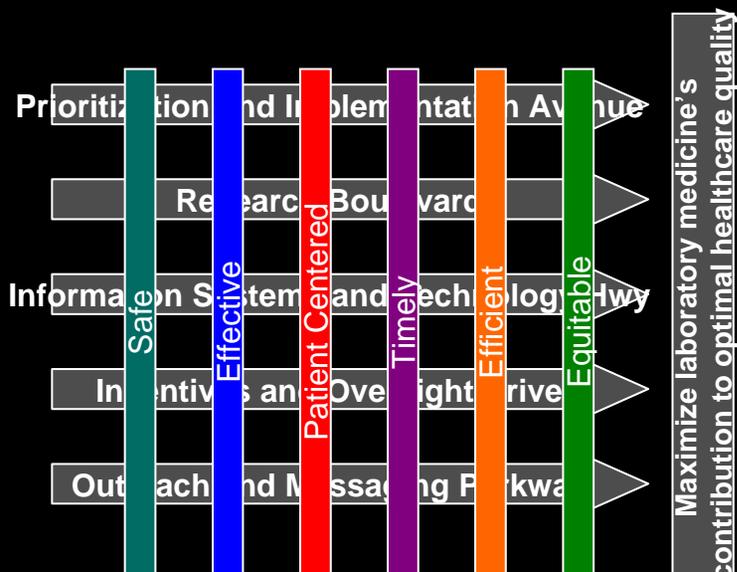
# *Outline For Presentation*

- **Lab medicine in the context of healthcare**
- **The whole is stronger than the sum of its parts**
- **Setting the vision**
- **Developing a strategic plan**
- **Making it happen**
- **Working through an example – does it work?**
- **Next steps**

# *If This Roadmap Framework Is Right, How Do We Engage All Stakeholders To Make It Happen?*



# We Need An Infrastructure To Facilitate and Engage Stakeholders



# *Institute for Laboratory Medicine (ILM) Is The Umbrella Organization*

- Establish and sustain an interdisciplinary public/private partnership to **maximize laboratory medicine's contribution to optimal healthcare quality**
- Promote improvements in laboratory testing and services to benefit the health of the public
- Support research for and use of evidence-based laboratory practices that lead to improvements in patient outcomes
- Improve and sustain communication among providers, users, payers, developers and regulators of laboratory tests and services
- Disseminate information on laboratory practices, quality improvement and quality management systems
- Facilitate educational materials and research on laboratory services and practices of interest to a broad cross-section of the health care community

# ***The Roadmap Provides The Framework For The ILM***

- **The Roadmap Workgroup concludes with this framework**
  - **The vision, destinations and the roads**
- **We recommend using the framework to**
  - **Create the ILM**
  - **“Market” the concept to stakeholders**
    - **Create the business case for the ILM**
  - **Guide identification of potential ILM leaders**
  - **Serve as a “straw man” for ILM leaders to establish priorities and initiatives**
    - **Put specifics on the destinations**
    - **Identify missing roads and bridges**
  - **Propose a sustainable structure to engage, retain, and reward participants**

# *Outline For Presentation*

- **Lab medicine in the context of healthcare**
- **The whole is stronger than the sum of its parts**
- **Setting the vision**
- **Developing a strategic plan**
- **Making it happen**
- **Working through an example – does it work?**
- **Next steps**

## ***Laboratory People Are Concrete Let's Take A Specific Example***

- **From the CDC Delphi project (more on this later)**
  - **Priority 15 of 18: Evaluate how test reporting failures (e.g., lost reports, incorrect reports) affect patient outcomes**
- **Pick a concrete destination**
  - **Reduce incorrect reports by 50% over 5 years**
  - **Destinations: Safe, Timely, Efficient**
- **Determine where we are**
  - **What is an incorrect report?**
  - **How many incorrect reports are there?**

# *Which Roads Lead To A 50% Reduction in Incorrect Reports In 5 Years?*

- **Research Boulevard**
  - What is an incorrect report?
  - How many incorrect reports are there?
- **Information Systems and Technology Avenue**
  - How do we standardize data definitions, collection and reporting?
- **Incentives and Oversight Drive**
  - The business case for incorrect report reduction
  - Incorporation into practice and accreditation
- **Outreach and Messaging Parkway**
  - Develop champions throughout laboratory medicine
  - Best practices communication strategies
- **Prioritization and Implementation Road**
  - Ongoing refinement: definitions, metrics, systems, guidance
  - Monitor progress toward the destination

# *Do We Have It All?*

- **Have we defined all the needed roads?**
- **Are any roads in need of repair?**
- **Do any of them lead us off a cliff?**
- **Do we need any bridges on the roads we've defined?**

# ***Once We Have The Roads And The Destinations We Need The Horse and Carts***

- **Here are some things the Roadmap Workgroup discussed**
  - **Engage process control experts to evaluate the efficiency and effectiveness of laboratory participation in the delivery system**
  - **Collect information on optimal models that have successfully integrated the laboratory into the healthcare system**
  - **Break down barriers to patient testing, including assuring affordability is not a barrier to patient testing**
  - **Provide equal access for appropriate laboratory services**
  - **Use information technology to link test ordering, results and interpretation**
  - **Develop programs to support a mobile diversified workforce**
  - **Enable rather than prohibit flexibility and encourage innovation**
  - **Facilitate patient centered testing (home testing, POCT)**
- **Are any carts on the road blocking traffic?**

# *Outline For Presentation*

- **Lab medicine in the context of healthcare**
- **The whole is stronger than the sum of its parts**
- **Setting the vision**
- **Developing a strategic plan**
- **Making it happen**
- **Working through an example – does it work?**
- **Next steps**

# *Next Steps*

- **Review CLIAC input with the Workgroup**
- **Refine roadmap components**
  - **Vision**
  - **Destinations**
  - **Roads**
  - **Carts and horses**
- **Share the vision and strategy with the laboratory medicine community and other potential stakeholders**