Innovation and Challenges for Integrated Medicine in the Era of Managed Care

November 19th, 2013
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The Era of Universal Health Care
Challenges

- Increasing demand for justification and transparency

- Increasing number of rules & regulations

- Resources are becoming scarce; health care is (believed to be) too expensive (Europe ~ 12% of GDP, USA ~ 18% of GDP)

- Non-practice duties are rising, taking away from patient care involvement
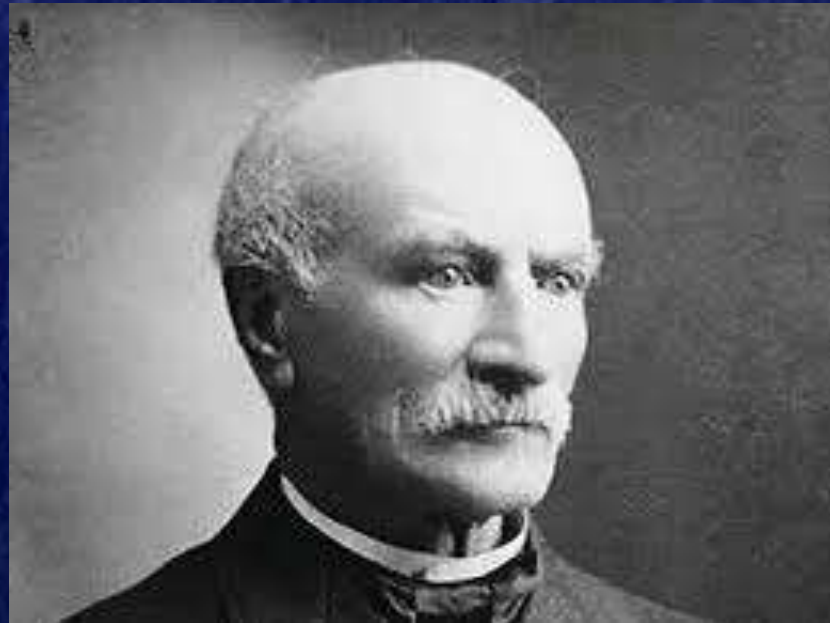
System Balance
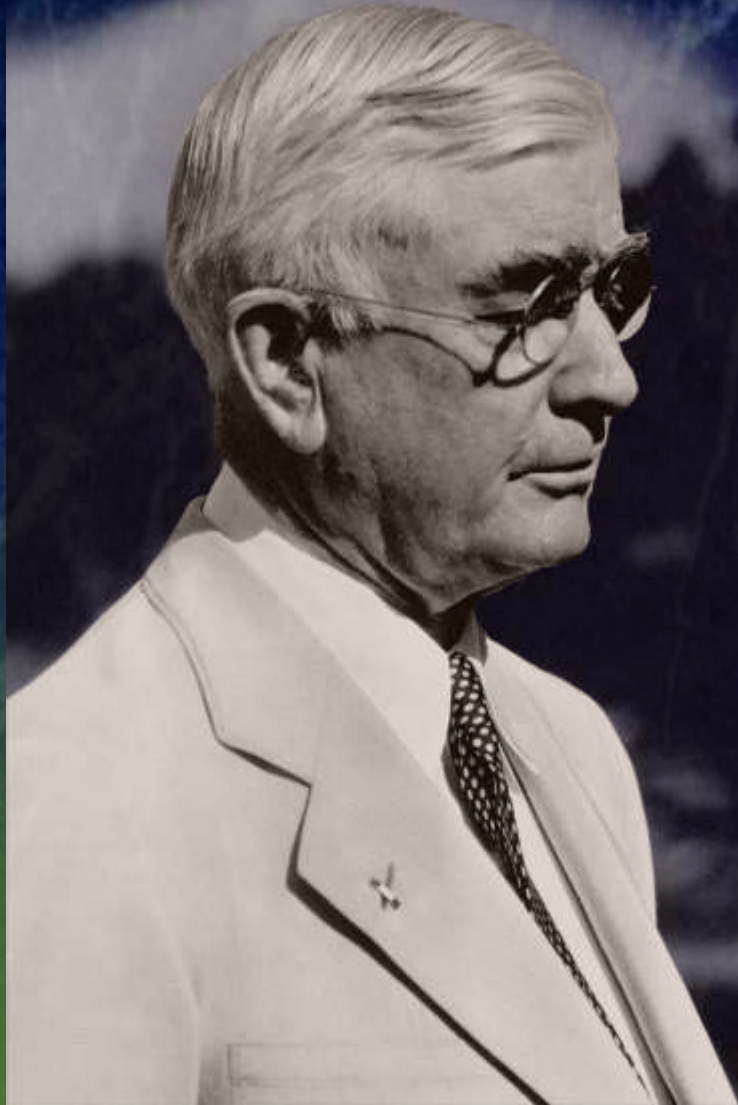## No action without a reaction!
The 'Dilution' of Quality

The Power of Teamwork

The Power of Teamwork

"If we are satisfied, we are lost"

William J. Mayo, MD
1935

MAYO CLINIC

The needs of the patient

**COME
FIRST!**

The Good Old Days

The Good Old Days

- **Advantages**
  - Personal relation
  - MD comes to home
  - Accessible

- **Disadvantages**
  - Single source of expertise
  - Works in isolation
  - Impossible for 24/7 coverage

Modern Medicine

Modern Multispecialty Medicine

- **Advantages**
  - Resource availability
  - Team work
  - Round the clock coverage

- **Disadvantages**
  - Impersonal
  - Inconvenient for patients
  - Inaccessible

Our **MISSION** *Statement*

"Inspire **hope** and contribute to **health** and **well-being**" by providing the **best care** to **every patient** through **integrated** clinical practice, education and research

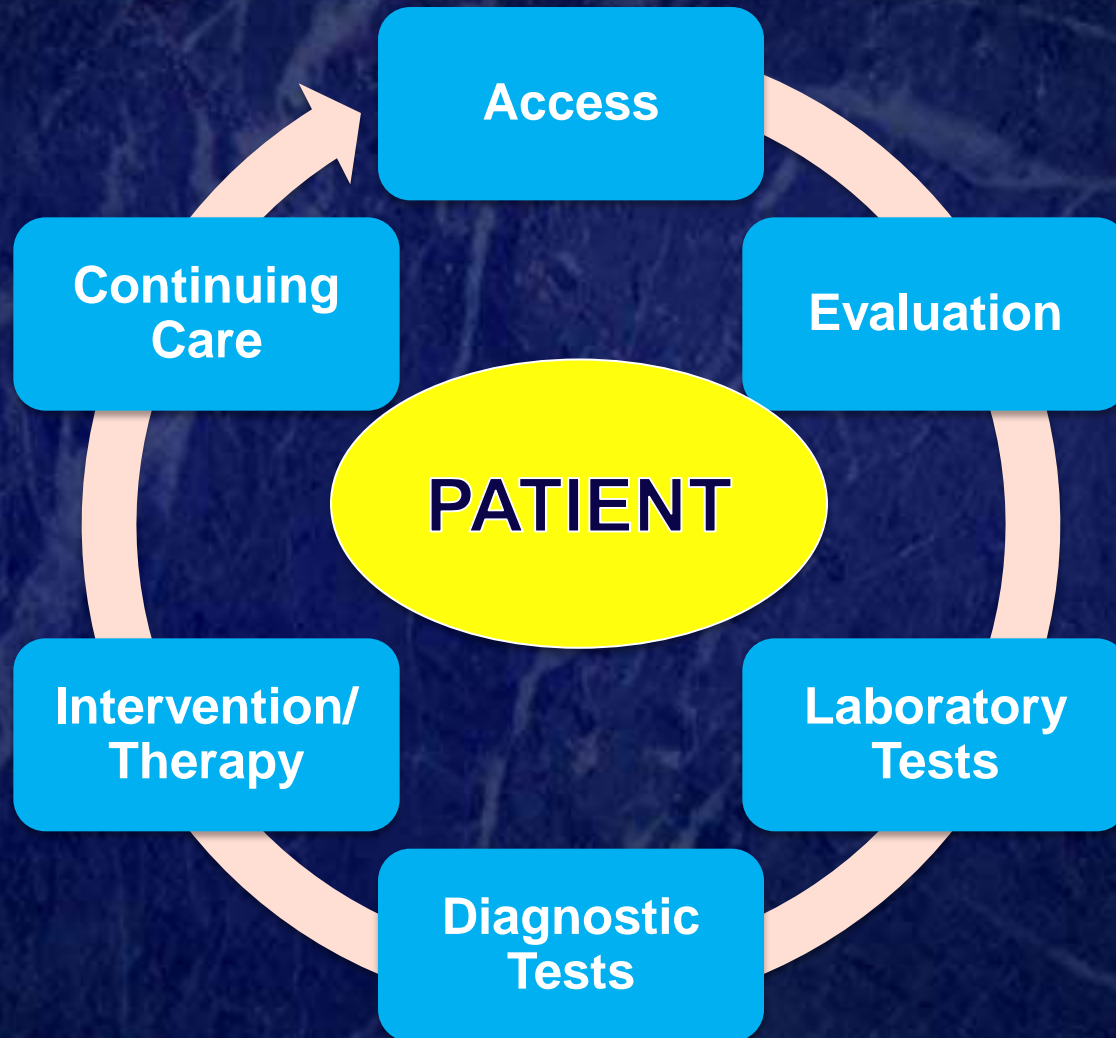# *Our* CORE BUSINESS

Statement

Create, connect and apply integrated knowledge to deliver the best health care, health guidance and health information

Integrated Health Care
What does it really mean from the patient's perspective?

- **Easy access to health care**

- **Unhurried examination, comprehensive AND focused**

- **Appropriate supportive testing**

- **Seamless integration from entry to departure**

- **Continuous support after health care visit**

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INTEGRATED CARE – PATIENT PERSPECTIVE

Access

Evaluation

Laboratory Tests

Diagnostic Tests

Intervention/ Therapy

Continuing Care

PATIENT

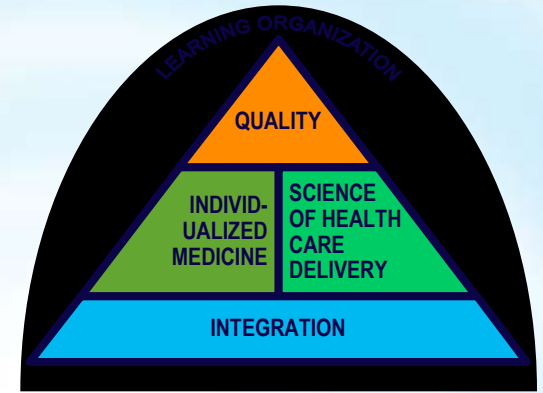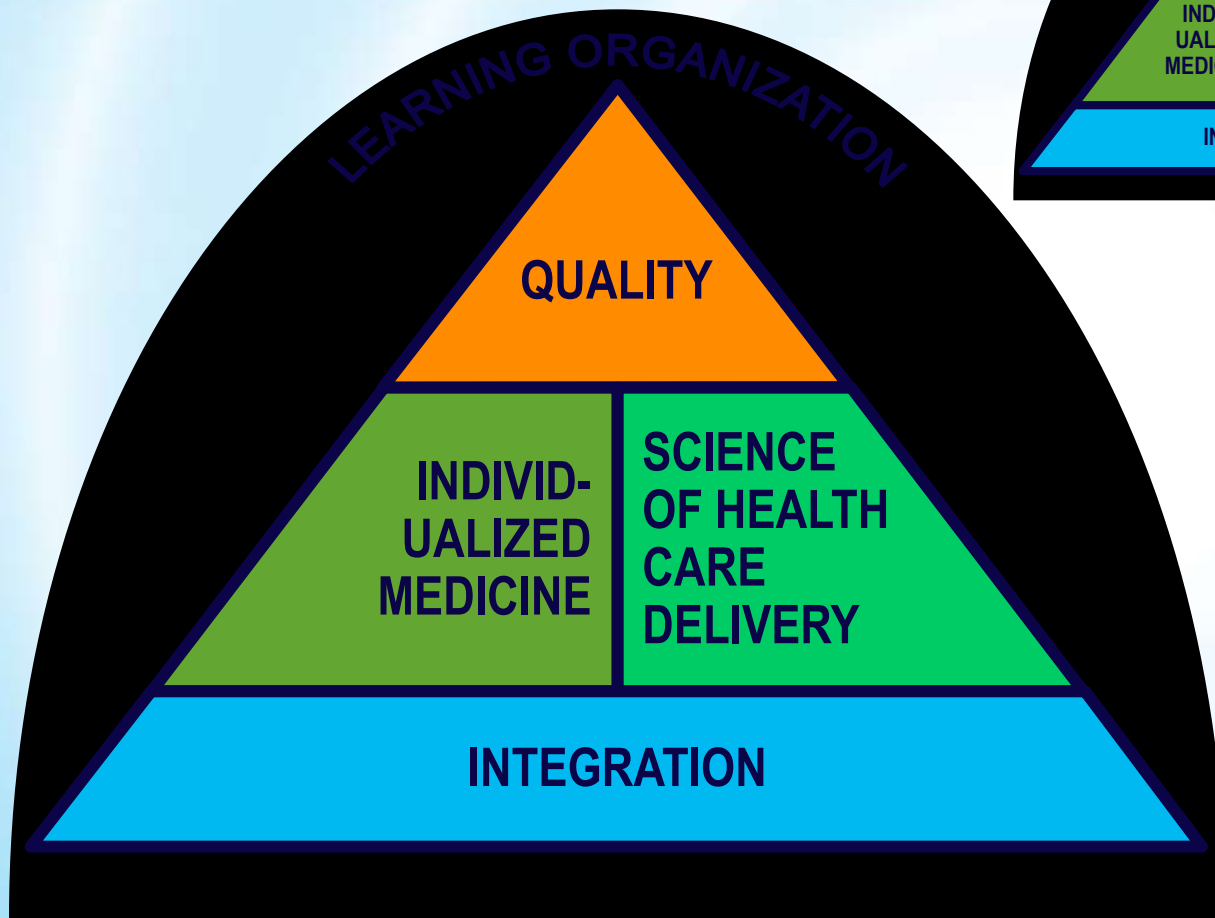MAYO CLINIC

Integrate Health Care
Provider Perspective - Patient Care

- Collegial, cooperative, staff teamwork with true multi-specialty integration

- An unhurried examination with time to listen to the patient

- Physicians taking personal responsibility for directing patient care over time in a partnership with the local physician

- Highest quality care provided with compassion and trust

- Respect for the patient, family and the patient's local physician

- Evaluation with timely, efficient assessment and treatment

- Availability of the most advanced, innovative diagnostic and therapeutic technology and techniques

Integrated Health Care
Provider Perspective - Environment

- Highest quality staff mentored in the culture of the institution and valued for their contributions

- Valued professional allied-health staff with a strong work ethic, special expertise and devotion to the institution

- A scholarly environment of research and education

- Physician leadership

- Integrated medical record with common support services for all outpatients and inpatients

- Professional compensation that allows a focus on quality, not quantity

- Unique professional dress, decorum and facilities
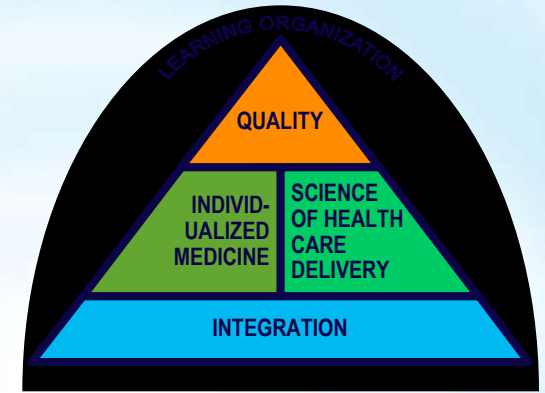
Open vs. Closed Data
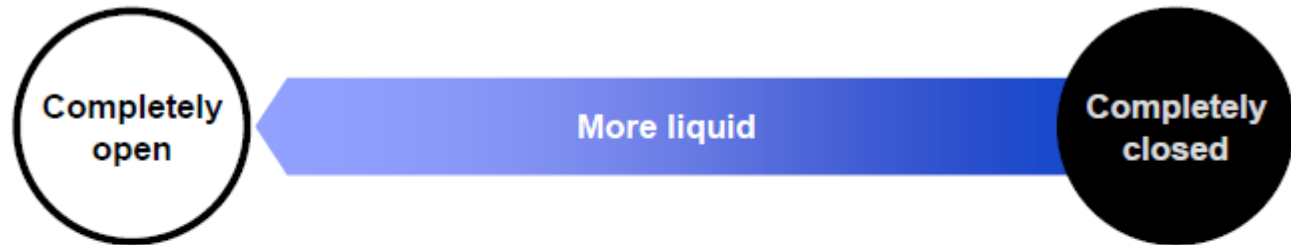
	Completely open	More liquid	Completely closed
Degree of access	Everyone has access		Access to data is to a subset of individuals or organizations
Machine readability	Available in formats that can be easily retrieved and processed by computers		Data in formats not easily retrieved and processed by computers
Cost	No cost to obtain		Offered only at a significant fee
Rights	Unlimited rights to reuse and redistribute data		Re-use, republishing, or distribution of data is forbidden

SOURCE: McKinsey Global Institute analysis

Relationship of Data Sets

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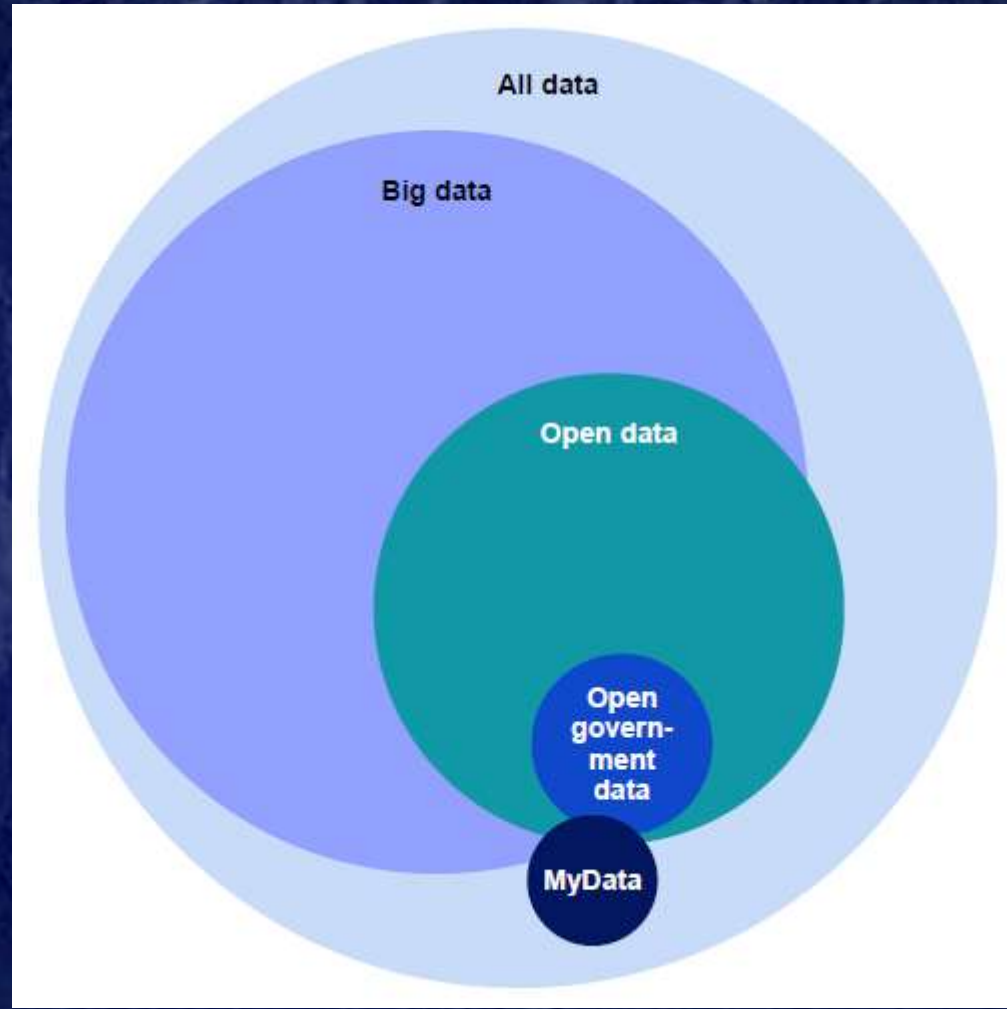
Benefits of Open Data
Savings of $300 – 450 Million in HC in US alone

$ billion

Education	890–1,180
Transportation	720–920
Consumer products	520–1,470
Electricity	340–580
Oil and gas	240–510
Five domains	**2,710–4,660**
Health care[1]	300–450
Consumer finance	210–280
Total	**3,220–5,390**

Values represent examples of open data potential, not comprehensive sizing of potential value across sectors

1 Includes US values only.
NOTE: Numbers may not sum due to rounding.
SOURCE: McKinsey Global Institute analysis

Benefits (and risks) of Open Data

- **Economic potential (est. $ 3 Trillion)**
- **Increase Big Data analytics**
- **Consumer benefits through transparency**
- **Increased productivity, new services**
- **Loss of confidentiality, reputation, control**
- **Central role of government, oversight**
- **Liquidity of data**

"The people who are crazy enough to think they can change the world are the ones who do. "
 Steve Jobs, 1997, Apple campaign

"The people who are crazy enough to think they can become the best hospital in the world, are the ones who will accomplish that."
 Thomas Behrenbeck 2013, Eka Hospital

Here

There

Her
e

Ther
e

Everywh
ere

Evolution of Healthcare Delivery

House call

Hospital

Specialized

Individualized

On-line where
ever you are

Immediate Access to World-Class Specialists Who Know Me

Me

Me

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How Does It Work?

I have a health question

- I Call "My Personal On-Line Health Expert"

My question is answered, OR I choose home exam under the direction of on-line world-class emergency specialist

- Eka GP connects with world-class emergency specialist

My question is answered, OR I am directed to the next level of care with specific recommendations to expedite my care

- World-class emergency specialist connects with additional specialists as needed

Me

Structure of Telemedicine
Hub and Spoke
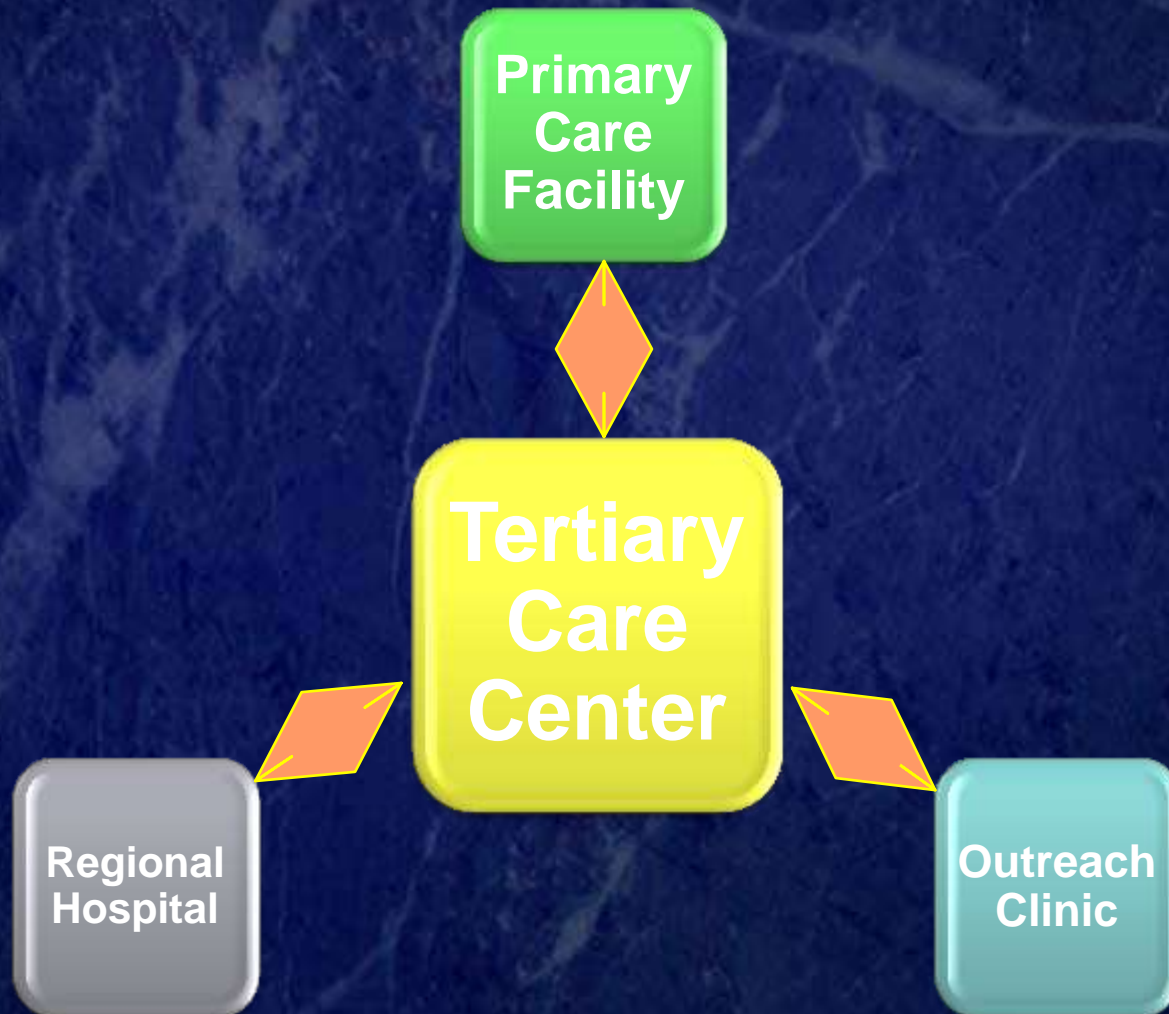
Structure of Telemedicine Network Model

External Tertiary Care Facility

Academic Center

Training Programs

Government Hospital

Teaching Hospital

Knowledge Exchange

Trial Participation

Clinical Research Facility

Subspecialty Facility

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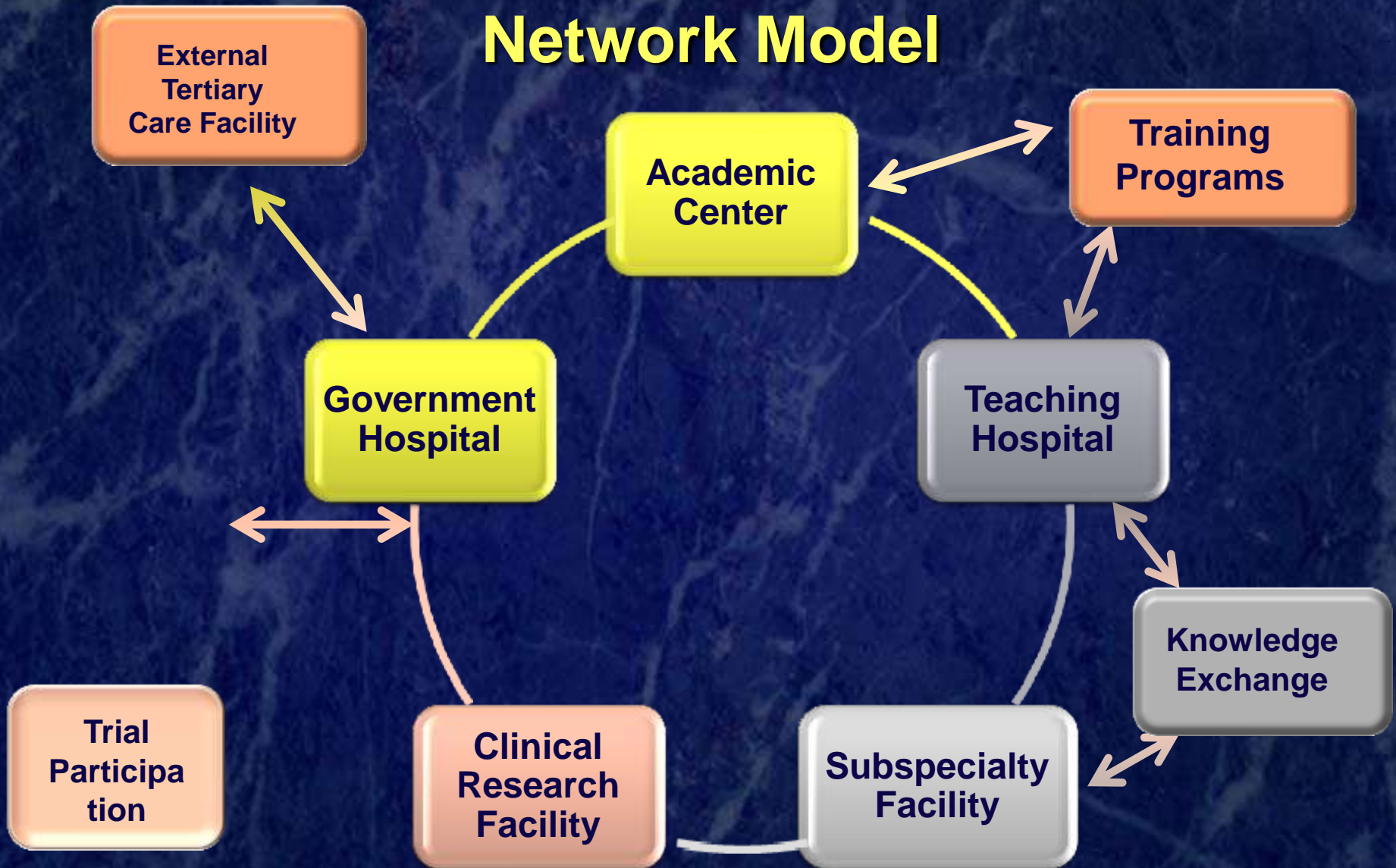
Medical Silos vs. Disease Orientation

Accessed Nov. 2013 from UniversalPartners.com

Medical Silos

From: Med. Emergent Associates, accessed Nov. 2013

Disease Oriented Medicine

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Disease Oriented Integrated Medicine
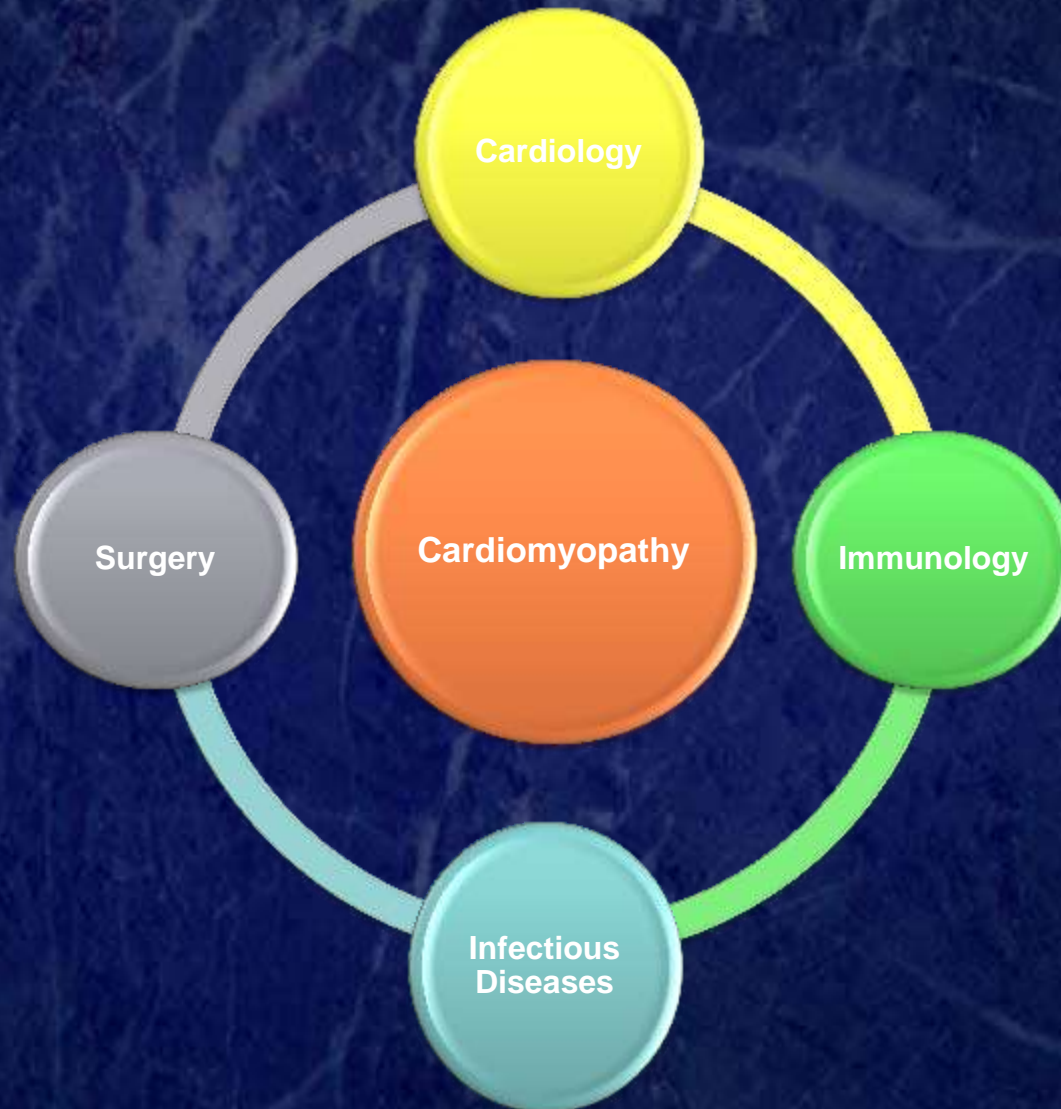
The Need for Interconnections

Skywalk Gonda-Eisenberg Building Mayo Clinic

Advantages of Integration

- Multiple specialites can be accessed without delay

- Knowledge transfer is expedited

- Expertise in different fields is maintained without duplication in adjacent fields

- Patient is focus of diagnostic and therapeutic procedures

Modern Medicine

Diffusion of Best Practices
Background

- **Diffusion of knowledge and best practice models in medicine is measured in DECADES rather than MONTHS**

- **Diffusion is difficult in disparate multi-specialty group**

- **Diffusion is even more difficult if these groups are not affiliated with hospitals**

Diffusion of Best Practices
Four Phases

1.Discovery

2.Alignment

3.Managed Diffusion

4.Measurement of outcomes

Diffusion of Best Practices
Favorable Circumstances

- **Large institutions**

- **Mature institutions**

- **Functionally differentiated organisations**

- **Specialized institutions with professional knowledge**

Diffusion of Knowledge
Definition

"Process by which innovations – ideas, knowledge or processes – are communicated among the members of a social system such as a health care organization"
Rogers, EM Diff. of Innovations; 5th ed. NYFP, 2003

Diffusion of Best Practices
Process Change

"Managed diffusion to spontaneously
Natural adoption without efforts to
push best practices to all sites as a
'push' them into practice"
natural way of the work process"

Øvretveit, J: Essential Issues for HC Leaders, JC Resource 2007;1-24

Dilling, JA: JCJQPS; 2013, Vol39(4); 167-76

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Dissemination of Best Practices
Key Elements for "Managed" Diffusion

- **Proper Leadership**

- **Top Management Involvement**

- **Harnessing opinion leaders' influence**

- **Development of formal dissemination process**

- **Creation of the appropriate system antecedent for innovation (e.g., IT, organizational structure**

Diffusion of Best Practices
Critical Enablers

- **Culture of the organization**

- **Engineering the diffusion process**

- **Infrastructure/system support**

Enablers of Best Practices CULTURAL Acceptance

- **Standardized practice as the most patient-centered practice**

- **Standard work as the steady-state foundation for improvement & innovation**

- **Psychologically 'safe' work environment**

- **Enterprise network that engenders intra/intersite trust**

- **"Boundaryless" approach**

Diffusion of Best Practices Engineering Models

Model	Description	Pro	Con
Internal Collaboration	Independent teams @ each site	Inexpensive, little planning or structure	Slow diffusion. Inconsistent results
Noah's Ark Model	Enterprise team to discover & diffuse BP	Builds trust & relationships; broad input	Cumbersome; expensive, slow to diffuse
Alpha-Beta Model	Single site team defines BP	Efficient, expedient proof of concept	'Top-down' appr. Limits site partic.
Adopt external practices	Seek EB BP from external group	Expedient, broad base of research	Local adaptation, credibility?, diffus.?
Grassroots	Discovery at one site with nat. diff.	Relationships, experience,	No single std, practice, slow, variable implement

Implementation of Best Practice
Systems Engineering Support

- **Staffing, facility and work-flow analyses**

- **Human Factors and Usability Studies**

- **Technology support**

- **Outcomes/impact evaluation**

- **Process reengineering**

- **Workload modeling**

Diffusion of Best Practice Toolkit

- **Flow charts**

- **Check lists**

- **Control charts**

Best Practices – Flow Chart

Best Practices - Checklist

Sponsoring Body

Ensures defined requirements, readiness, and enterprise acceptance are in place prior to launching diffusion efforts. Prioritizes, commissions, staffs, resources, and provides oversight to diffusion projects.

Diffusion Readiness
- ☐ Verify Best Practice successful in at least one Mayo Clinic site
- ☐ Confirm Best Practice vetted in the appropriate sites that will implement the change
- ☐ Provide goal and aim statement
- ☐ Ensure metrics are attainable in a sustainable manner
- ☐ Define the key principles for the project—what aspects of the practice need to stay in place and where can variation be allowed
- ☐ Allocate budget as needed
- ☐ Assign Champion, Administrative, and Physician Leader(s)
- ☐ Communicate upcoming diffusion to organization

Diffusion Oversight
- ☐ Perform reviews and grant approval to initiate, plan, execute, and close
- ☐ Approve local adaptations/customization
- ☐ Remove barriers

Enterprise Diffusion Manager

Oversees the roll-out, coordinates resources, and tracks status. Local diffusion resources are considered part of the Diffusion Team.

- ☐ Verify Best Practice in standard format
- ☐ Confirm diffusion readiness
- ☐ Complete Diffusion Project Charter; gain approval to plan and execute
- ☐ Coordinate diffusion budget allocation and resourcing
- ☐ Complete stakeholder analysis
- ☐ Develop and manage Project Plan
  - o Develop and implement Change Management Plan
  - o Develop and implement Communication Plan: communicate early and often
  - o Establish and monitor Diffusion Project timeline
- ☐ Submit status updates
- ☐ Close and archive project

Diffusion Team

Enables the implementation at the local areas/sites

- ☐ Define and complete infrastructure elements—for example, AskMayoExpert, forms, IT changes (for example, decision support rules), order sets, public affairs/communication
- ☐ Complete readiness assessment and stakeholder analysis
- ☐ Create local project plan
- ☐ Identify key messages and messengers ("elevator speech")
- ☐ Establish education and training plans
- ☐ Coordinate implementation plan with go-live support
- ☐ Provide status updates
- ☐ Develop self-assessment tool for the work units
- ☐ Conduct on-site audits, if necessary
- ☐ Monitor implementation and sustainment metrics

Operational Owners/Work Units

Implement and monitor the daily usage of the Best Practice

- ☐ Communicate changes and impact to staff/local areas
- ☐ Implement the Best Practice
- ☐ Act as a liaison with the implementation team to identify and address barriers
- ☐ Operationalize, reinforce, and monitor the adoption of the Best Practice

Information Technology Liaison

Helps define, coordinate and insure implementation of IT system updates

- ☐ Understand the expectations (system requirements) and specific system(s) impacted
- ☐ Facilitate review, approval, and prioritization processes of work by appropriate oversight group (ESOC of portfolio owners for EMR applications and other systems; other groups for system enhancements)
- ☐ Facilitate communication between the project and impacted application teams, including:
  - o Prioritization and allocation of resources for the project
  - o Estimated date of availability
  - o Work completion confirmation

Infrastructure Support (for example, Public Affairs, AME, Finance, Patient Education)

Updates infrastructure to enable roll-out and maintenance of Best Practice

- ☐ Understand the Best Practice infrastructure needs for education and knowledge management
- ☐ Ensure resources allocated for the project
- ☐ Coordinate and obtain necessary approvals for the project within the infrastructure domain
- ☐ Prioritize and resource the project
- ☐ Test infrastructure changes to verify proper functioning
- ☐ Confirm work completed and meets needs

Best Practice Owner

Provides ongoing knowledge expertise and serves as the "go-to" resource

- ☐ Review Best Practice on a routine basis for effectiveness and continuous improvement
- ☐ Review literature on a periodic basis for Best Practice updates
- ☐ Communicate recommendations for Best Practice improvement to MCCPC/Specialty Council
- ☐ Update Best Practice, Care Process Model, policies, and education as needed

Measurement Coordinator

Provides support for the Best Practice/Diffusion Project newly authorized charter by assisting with planning for the key metrics

- ☐ Review research, prior performance, or baseline data to advise the team on key metrics and a measurement plan
- ☐ Work with Diffusion Team to establish applicable infrastructure to support measurements for the short- and long-term needs of the diffusion project
- ☐ Organize and coordinate data collection efforts in alignment with the accepted Measurement Plan
- ☐ Provide support for data analysis and application to the new practice method or process
- ☐ Establish timely and accurate reports for team members
- ☐ Collaborate on the process for ongoing measurement and hand-off with Best Practice owner
- ☐ Incorporate education or training related to ongoing measurement and key metrics for vital stakeholders
- ☐ Establish timelines for periodic metric review with Best Practice owner with ongoing measurement and updating

Best Practice – Control Chart (Status Tracker)

Diffusion Status Tracker	Enterprise Diffusion Readiness Status	Implementation		MCA	MCF	MCR	MCHS
		Planned Start	Expected Finish				
2010 Continuation							
Central Venous Catheter				★	★	★	★
RN Bedside Handoff (SHARE Rounds)				★	★	★	★
HAI - C. Difficile				★	★	★	★
2011 Quality Tier 1							
Obstructive Sleep Apnea - Dr. Gali		2010	Q1 2012	■	■	■	■
VTE - Prophylaxis - Dr. Morgenthaler		Q1 2011	Q4 2011	■	■	★	■
Sepsis Bundle (AME) - Dan Bidinger	A	Q3 2011	Q4 2011				
CAUTI - Dr. Orenstein		Q1 2011	Q2 2012	■	★	■	■
30 Day Readmissions - Dr. Dawson	B	Q3 2011	Q4 2012				
Intubation - Dr. Diedrich	B	Q3 2011	Q2 2012				
Recognition of the Deteriorating Pt Simulation - Dr. Zimmerman		Q1 2012	Q4 2012				
2011 Quality Tier 2 - Potential Diffusion							
HAI - MRSA		N/A	N/A	✚	✚	✚	✚
Chronic Disease/Care Management Outpatient		N/A	N/A	✚	✚	✚	✚
Diamond Depression		N/A	N/A	✚	✚	✚	✚
2011 Manage to Reimbursement							
Blood Utilization - CV Surgery	C	Q1 2012	Q4 2012	▽	▽	▽	▽
CVS - 20	A	Q1 2012	Q4 2012	▽	▽	▽	▽
RED		Q3 2012	Q3 2013	NA	▽	▽	▽
Transplant - Kidney		Q3 2012	Q3 2013	▽	▽	▽	NA
Urology		Q3 2011	Q3 2013	▽	▽	▽	▽
Cancer		TBD	TBD	TBD	TBD	TBD	TBD

★ Completed	■ On Target	◆ Underway, but behind schedule	◯ High risk of not meeting plan	▽ Planned diffusion	✚ Potential diffusion

A - Ready   B - Planning Underway   C - Significant Gaps

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Best Practices – Diffusion
Keys to Success

- **Leadership**

- **Value Creation Team**

- **Diffusion Action**

- **Operational Implementation**

- **BP Review and Maintenance**
  - **Process Compliance**
  - **Outcomes metrics**

Integrated Care
Summary

- **Is always patient centered**

- **Leads to a higher quality level of care**

- **Combines expertise not just among physicians but across the entire spectrum of the patient's health care experience**

- **Is more efficient and in the end more cost-effective**

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The Era of Managed Care
Conclusion

- **Health care will be increasingly transparent with pressure from several venues to provide outcomes data across a wide range of procedures and disease entities**

- **This will result in benchmarking, and the establishment of guidelines to provide a standard of medicine**

- **Incorporation of new technologies is a must to accommodate the ever accelerating changes**

Terima kasih untuk kehadiran dan perhatian Anda!