



The State HIE Program

June 2010

Christine Sakuda, Executive Director
Deane Neubauer, Lead Planner

Agenda

- Overview of the Hawai'i HIE
- Overview of the State HIE Planning Process
- HIE Readiness in Hawai'i
- Outcomes of the Strategic planning process
 - HIE, then & now handout
 - Outcomes of process to include domains
- Open discussion



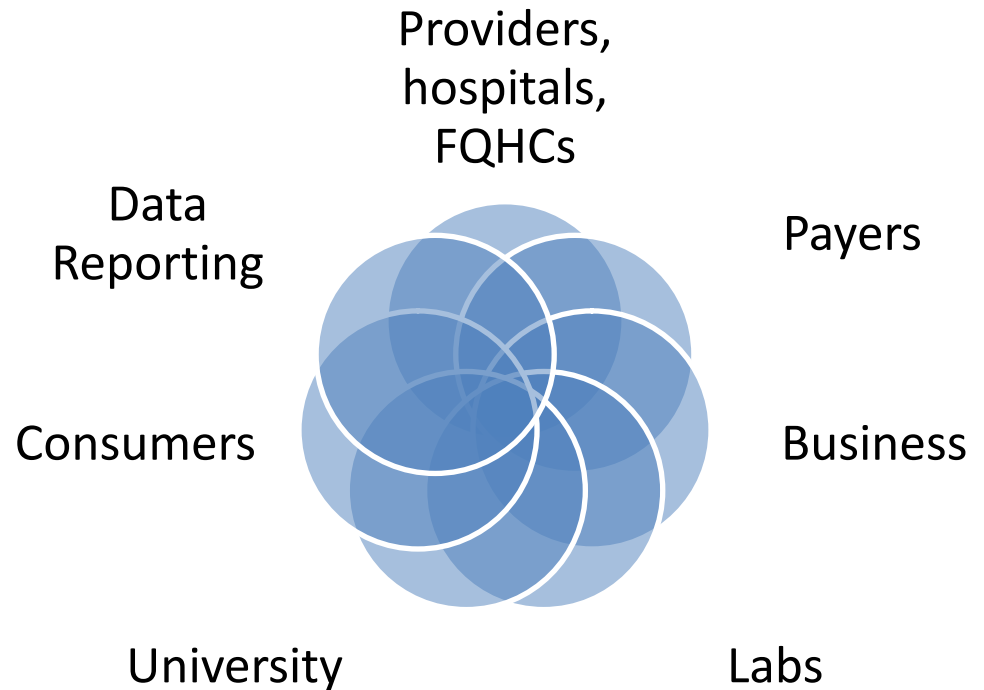
The Hawai'i Health Information Exchange

Mission

- To facilitate the exchange of health information that enables high quality and affordable health care statewide
- Core Values & Guiding Principles:
 - Inclusivity
 - Quality
 - Transparency
 - Privacy
 - Sustainability

What Is Hawai'i HIE?

- 21 member BoD
- Extensive HIT experience
- Broad community support
- A not-for-profit 501(c)(3)
- Became the State Designated Entity in Sept. 2009





Hawai'i HIE Board of Directors

- *Money Atwal* - CIO/CFO, HHSC East Region, Hilo Medical Center
- *Francis Chan* - CIO, Clinical Laboratories of Hawai'i, LLC
- *Jennifer Diesman* - Vice President, Hawai'i Medical Service Association
- *Susan Forbes* - DrPH, CEO, Hawai'i Health Information Corporation
- *Beth Giesting* - CEO, Hawai'i Primary Care Association
- *Bruce "Skip" Keane* - Community Member
- *Emmanuel Kintu* - Exec. Director, Kalihi Pālama Health Center
- *Janet Liang* - President, Kaiser Hawai'i
- *Wesley Lo* - CEO, Maui Memorial Medical Center
- *Roy Magnusson, M.D.* - Assoc. Dean, John A Burns School of Medicine
- *John McComas* - CEO, AlohaCare
- *Gary Okamoto, M.D.* Past President - Hawai'i Medical Association
- *Kevin Roberts* - President, Castle Medical Center
- *Steve Robertson* - Exec. Vice President, Hawai'i Pacific Health
- *David Saito, M.D.* - Officer, Hawai'i Independent Physician's Association
- *Barbara Kim Stanton* - Exec. Director, AARP
- *Jim Tollefson* - President/CEO, Chamber of Commerce
- *Lisa Wong* - Member, Society of Human Resource Managers
- *Raymond Yeung* - Vice President, Diagnostic Laboratory Services, Inc.
- *Jeffrey Yu, M.D.* - CTO, The Queen's Health Systems

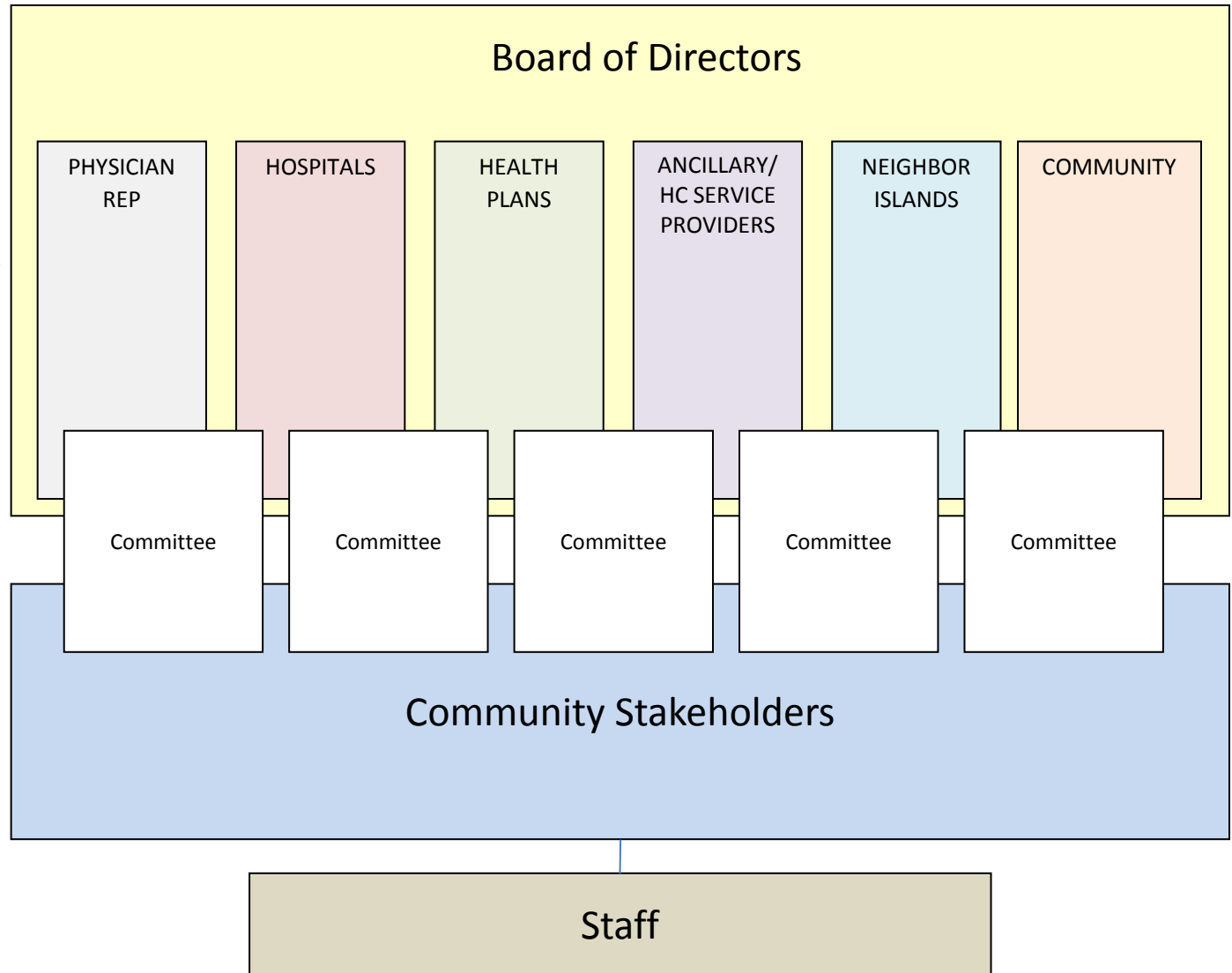
A Working Board

Governing Committees:

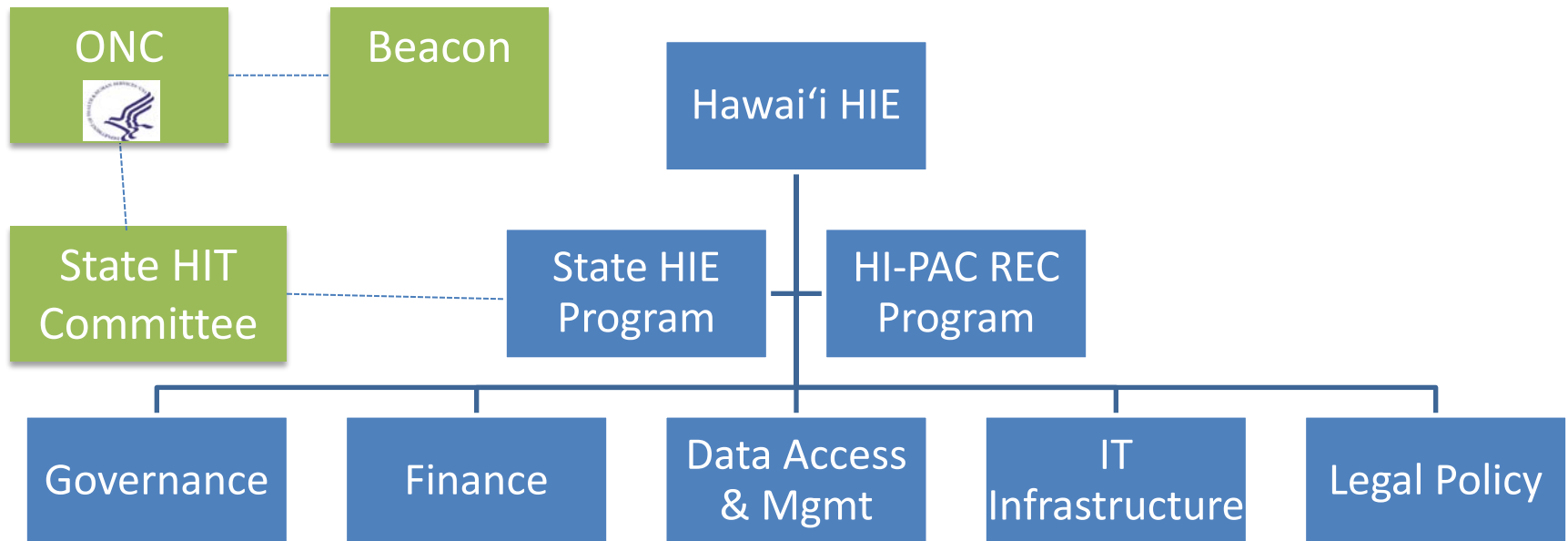
1. Governance – development of a governance model
2. Finance - development of a sustainable business model
3. Technical Infrastructure - development of the IT infrastructure
4. Data Management & Access - identification and agreement on the data elements
5. Legal / Policy - identification of legal barriers for privacy and security
6. Audit – 501(c)(3) compliance

Organizational Structure

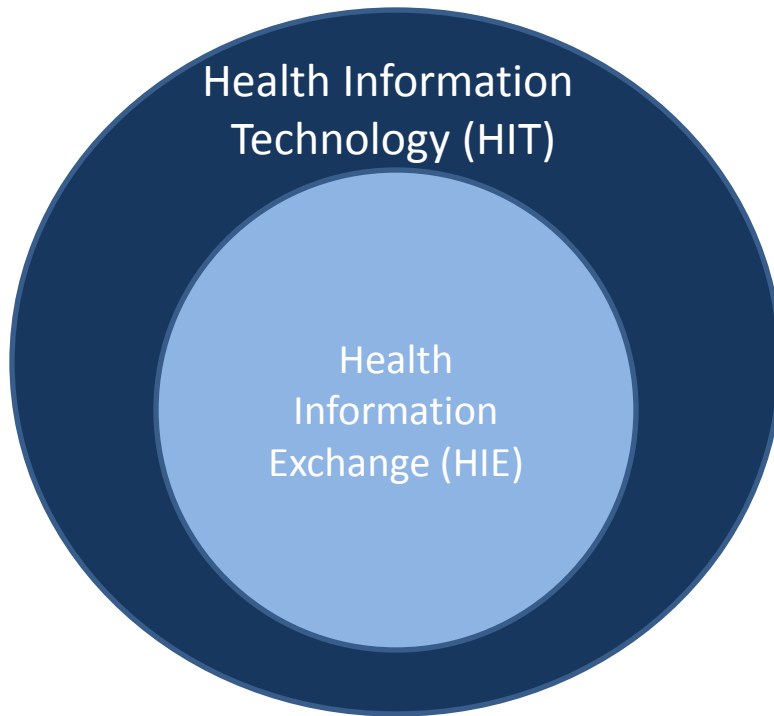
STATE Planning & Approval Council
DBEDT
DoH
DHS
DCCA
DAGS



Programmatic Organizational Chart



What Is Health Information Exchange?



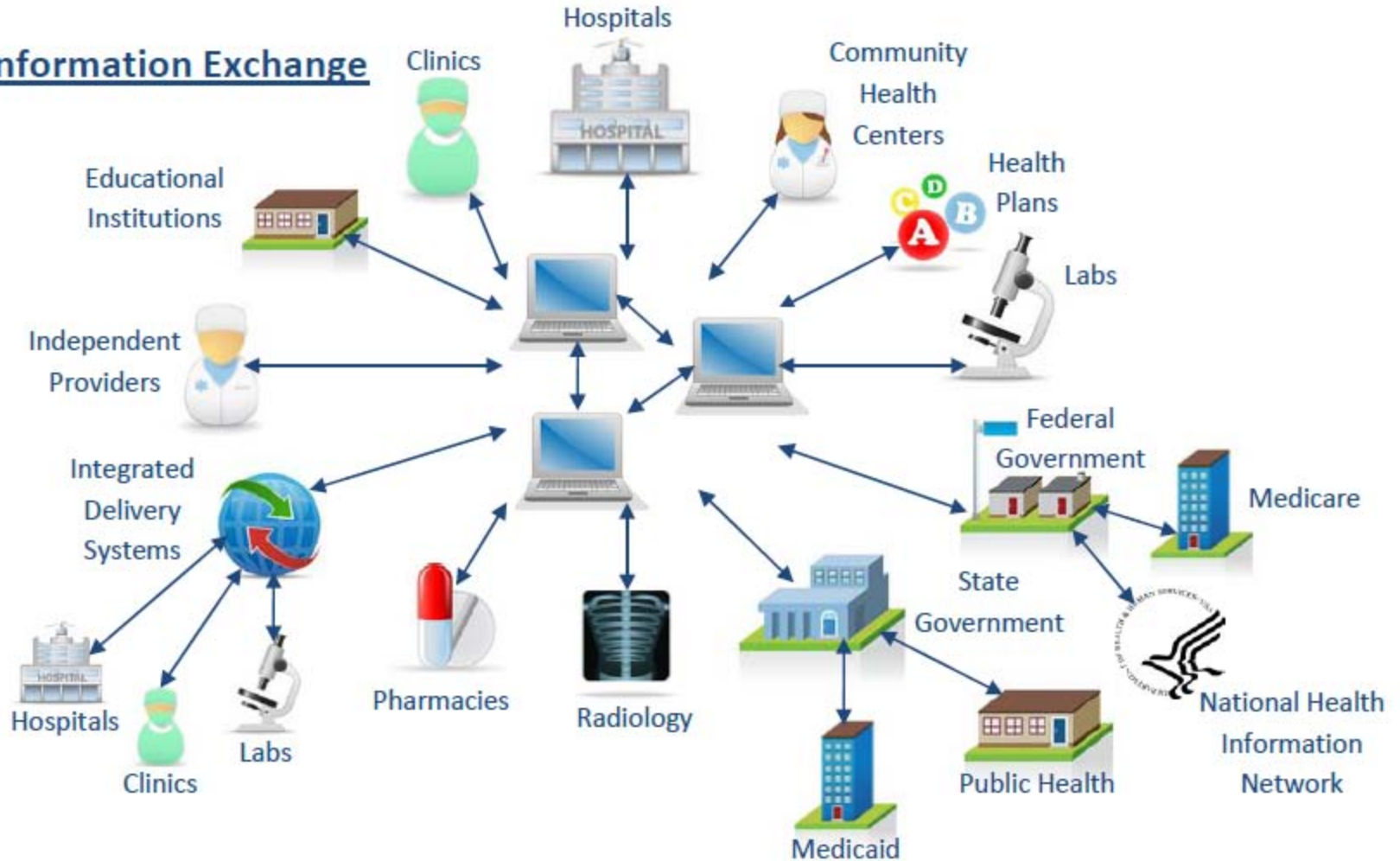
Outcomes

- Improved health care quality
- Better control of cost
- Improved health outcomes
- Improved efficiency
- Advanced value of health Information
- Informs health care public policy

HIT: Infrastructure and data that help automate health care processes

HIE: Part of HIT that enables interoperability between systems and organizations

Health Information Exchange





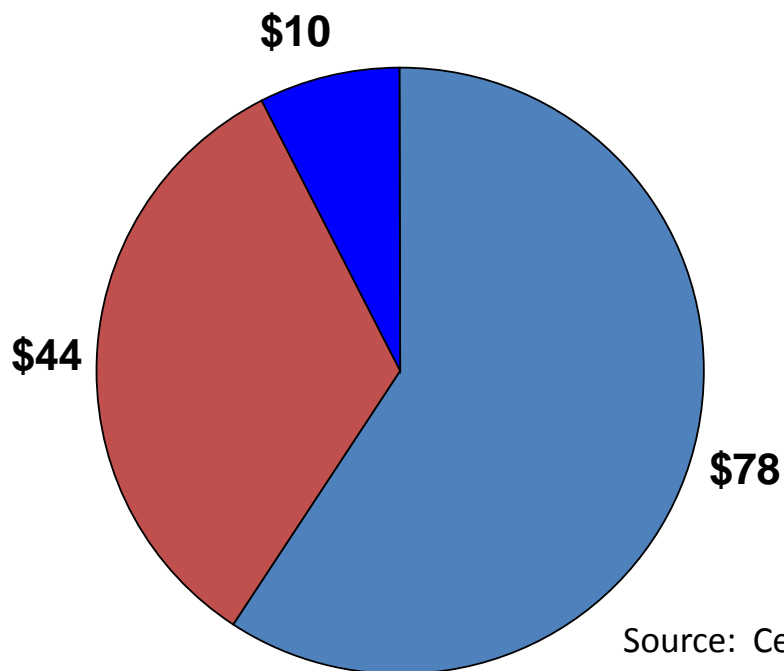
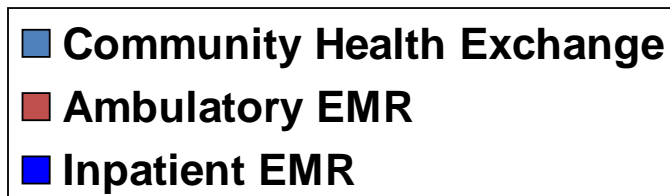
Recognized Barriers to HIE Usage

- Clinical information that is relevant to care
- Ease of access
- Data entry
- Cost
- Security and confidentiality
- Liability issues

Key Customer: Physicians

Where Will the Savings Come From?

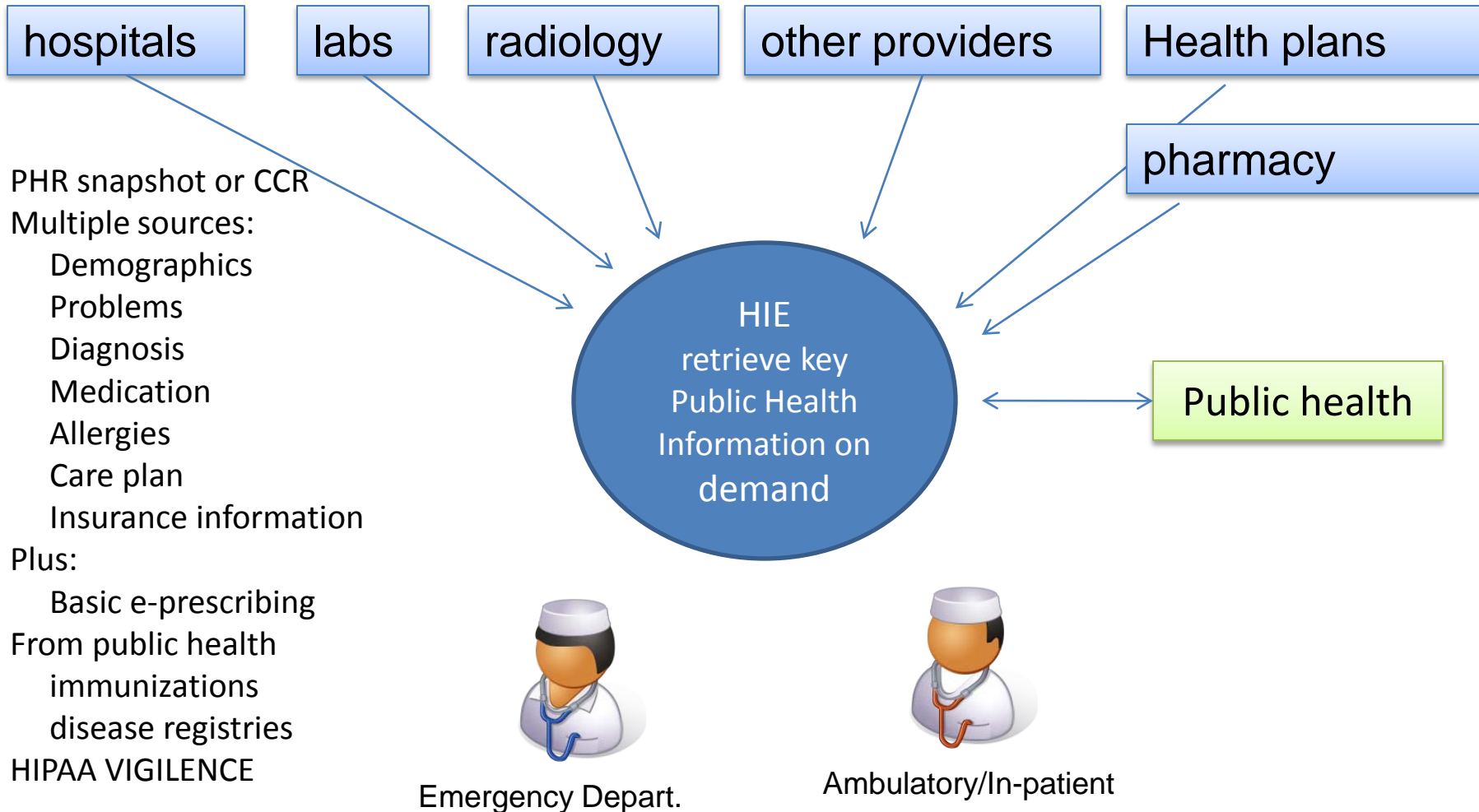
Net Estimated National Annual Savings: \$132 Billion



- Substantial benefits from reduction in duplicate diagnostic procedures and medical error prevention.
- Majority of savings come from the exchange of clinical information among care providers.

Source: Center for Information Technology Leadership 2005

Goal: Improve care coordination and reduce redundant testing



American Recovery and Reinvestment Act 2009



- The ARRA provides billions of dollars in incentives for the adoption and use of Health Information Technology by Medicare and Medicaid over the next ten years.
- To receive the financial incentives, eligible professionals and hospitals must achieve MEANINGFUL USE of electronic health records.

Initiative #1

State HIE Plan

Overview

- The State Designated Entity
- Grantor: Office of the National Coordinator for HIT (ONC)
- Purpose: develop and implement a state HIE plan
- Federal Budget: \$5.6M
- Timeframe: Feb 2010 – Feb 2014
- State match required and is being supplied from the private sector

Project Timeline

- Sept. 2009 – became the SDE
- Sept. 2009 – submitted grant application
- Feb. 2010 – awarded
- Mar. 2010 – planning process approved
- **Mar.-July 2010 – develop draft plan**
- July 31, 2010 – submit to state for approval
- Aug. 21, 2010 – submit to ONC for approval
- Oct. 2010 – ONC approves plan
- Nov. 2010 – begin implementation

Over the next 4 years, we will oversee the development of a statewide HIE to improve the quality of health in Hawai'i.



2-Year Technical Requirements

eligibility and claims transactions

prescribing and refill requests

clinical laboratory ordering and results delivery

public health reporting (i.e., immunizations, notifiable laboratory results)

quality reporting

E-prescription fill status and/or medication fill history

clinical summary exchange

Leverage: HIEs (MPIs), Medicaid Management Information System (MMIS), shared directories (providers/lab service plans) and services (patient matching, provider authentication)



Initiative #2

Hawai'i Pacific Regional Extension Center

Center for Hawai'i Pacific Physician
HIT Outreach

Overview

- Grantor: Office of the National Coordinator for HIT (ONC)
- Purpose: Help PCPs implement EHRs and meet the Meaningful Use requirements
- Federal Budget: \$5.8M
- Timeframe: April 2010 – April 2012
- December 2010 – operating at full capacity
- State match required and is being supplied from the private sector
- One of 70 RECs across the country
- Key partners:
 - Mountain Pacific Quality Health Foundation
 - Telecommunications Information & Policy Group, UH

Service Areas

EHR Technical Assistance & Training to 1,000 Priority Primary Care Providers

- Supporting Providers with Individualized and On-site Technical Assistance
- EHR Vendor Selection & Group Purchasing
- Effective Implementation of a Certified EHR
- Clinical and Administrative Workflow Redesign
- Functional Interoperability and HIE
- Privacy and Security Best Practices
- Progress Towards Meaningful Use
- Local Workforce Support



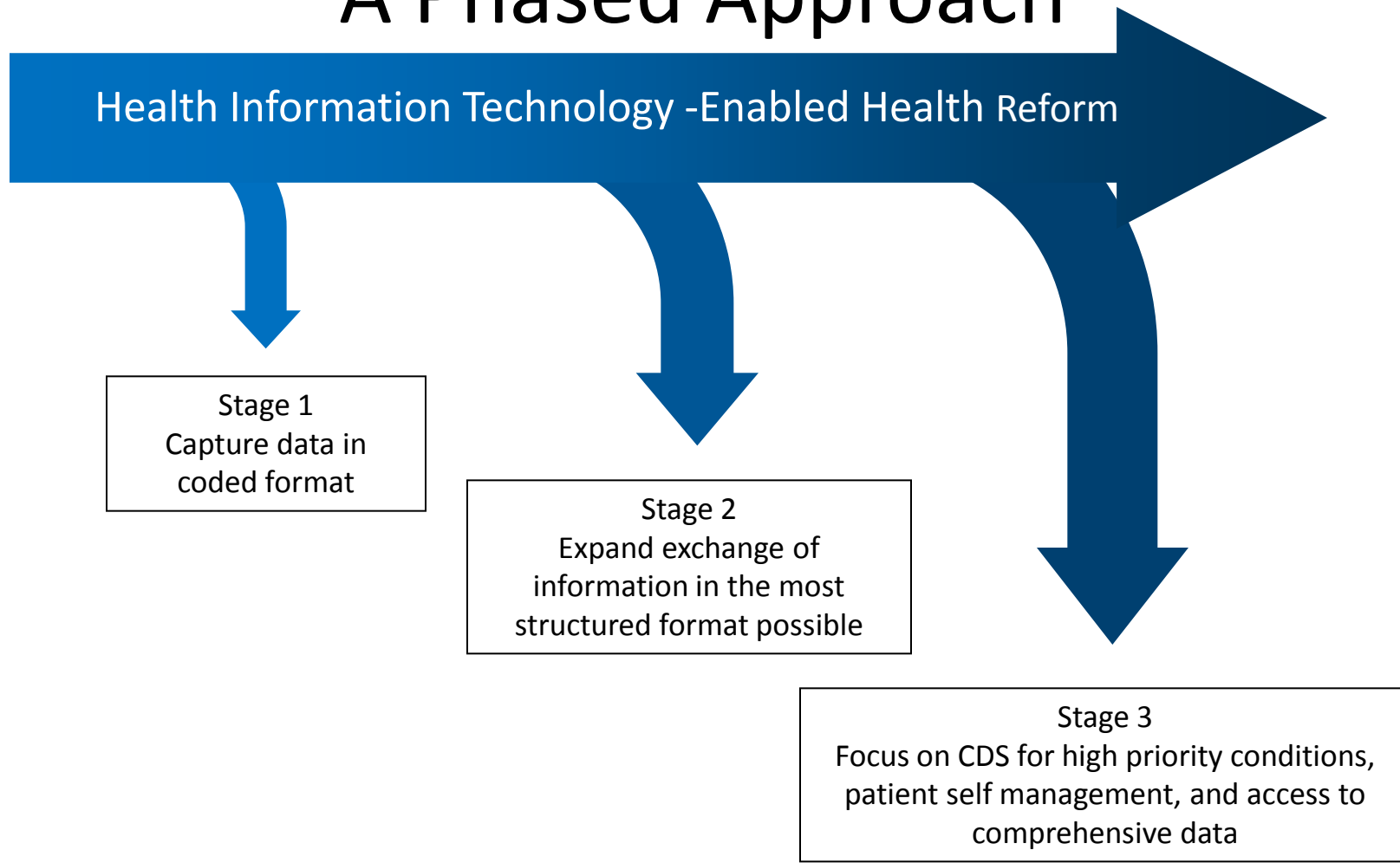
1,000 Priority Primary Care Physicians (PPCPs) in Hawai'i

- Must be able to prescribe (MD, DO, NP, PA)
- Must be primary care (family practice, internal medicine, OB/GYN, pediatrician)
- Individual and small groups (fewer than 10)
- Must be in small clinic, CAH, CHC, FQHC public hospital or primarily serve the underserved

What Is Meaningful Use?

- The Recovery Act specifies the following 3 components for Electronic Health Records (EHR):
 - Use of certified EHR in a meaningful manner (ex: E-prescribing) and to capture data
 - Use of certified EHR technology for electronic exchange of health information to improve quality of health care
 - Use of certified EHR technology to submit clinical quality reporting and other measures

Meaningful Use: A Phased Approach





Progress Report:
Hawai'i Health Information Exchange (Hawai'i HIE)
**Strategic and Operational Plans
and Environmental Scans**

Deane Neubauer

Process and Goal

- Between April and August, develop a statewide Health Information Exchange strategic plan, operational plan, and environmental scan.
- The process focuses on working through the five Hawai'i HIE board committees: governance, finance, data access and management, technical infrastructure, and legal/policy.
- These committees roughly parallel what ONC has established as the five domains for plan development: governance, finance, business and technical, technical infrastructure, and legal/policy. ONC has provided requirements for two-year deliverables and assistance through a process labeled "The Toolkit." Both have been used to assist committees in their tasks.

Process and Goal (con't)

- Process started with an “informational stakeholder presentation” day (April 23), which 15 stakeholders presented in nature of their organizations and relation to Hawai‘i HIE.
- All committees will conduct at least five open meetings through which they will develop the content areas for their portion of the strategic plan.
- Simultaneously, an environmental scan will be conducted to provide an overview of the state of HIE in Hawai‘i.
- An operational plan to guide the implementation of the strategic plan is being created that will be completed at the same time as the strategic plan.

Progress to Date

- Each set of committee meetings has been focused around both The Toolkit and two-year deliverable requirements.
- Strategic Plan – approximately 80% complete and modifications will take form from here to mid-July.
- Environmental Scan –approximately 70% complete, some survey activity still on-going.
- Operational Plan – Naturally lags behind the Strategic Plan since its substance is to assist implementation of the Strategic Plan.
- Input still being gained from various stakeholder engagements, committee exercises, and neighbor island presentations.

HIE in Hawai'i at a Glance

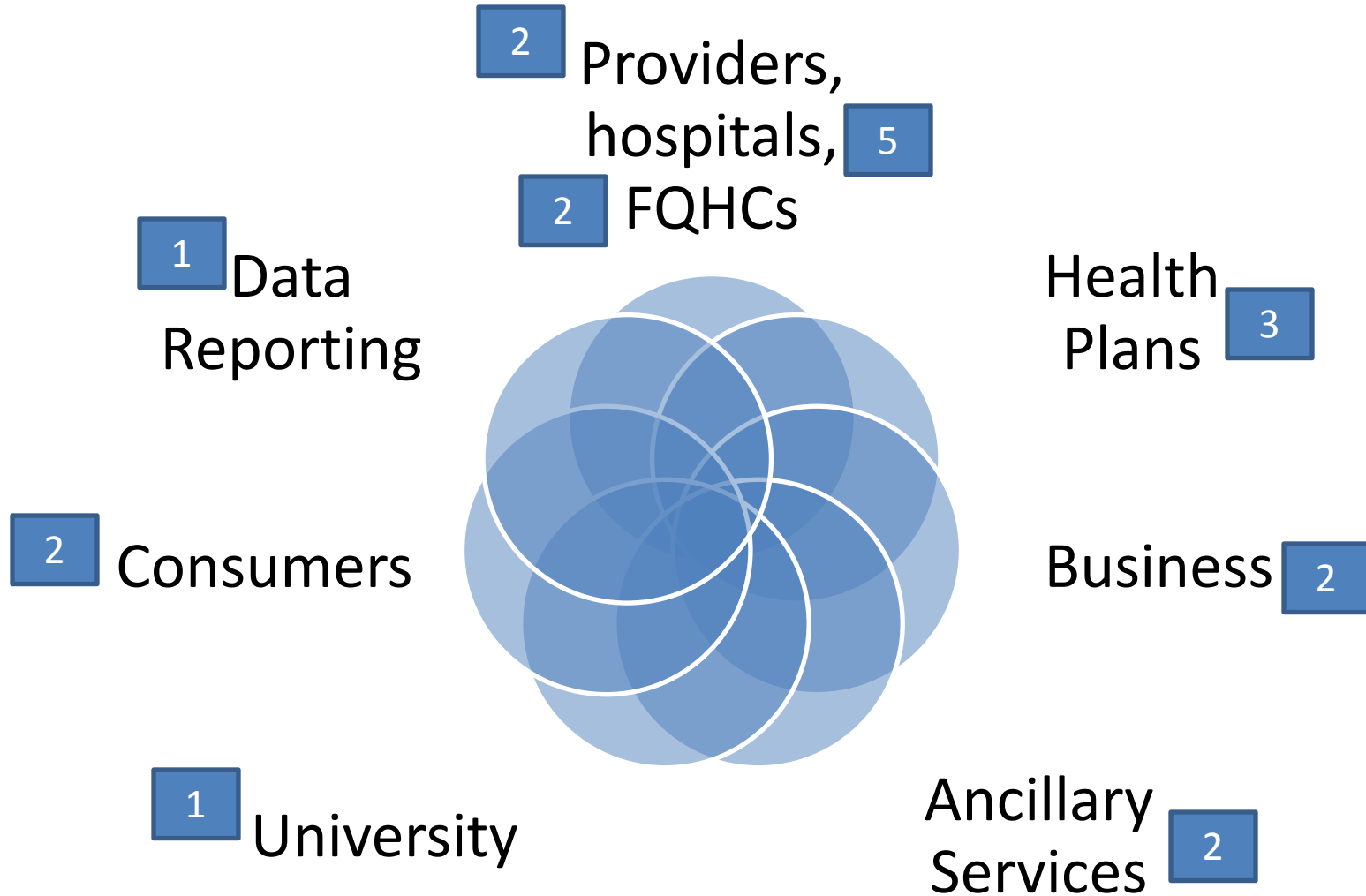
- High degree of integration in some hospital systems on some neighbor islands sites
- Low degree of integration at the independent provider level (est. < 40%)
- Federal initiatives underway at:
 - Hawai'i Island HIE (HIHIE) – \$16M ONC award lead by UH Hilo College of Pharmacy to implement a region-wide HIE and Patient Health Record solution

Domain Summary: Governance

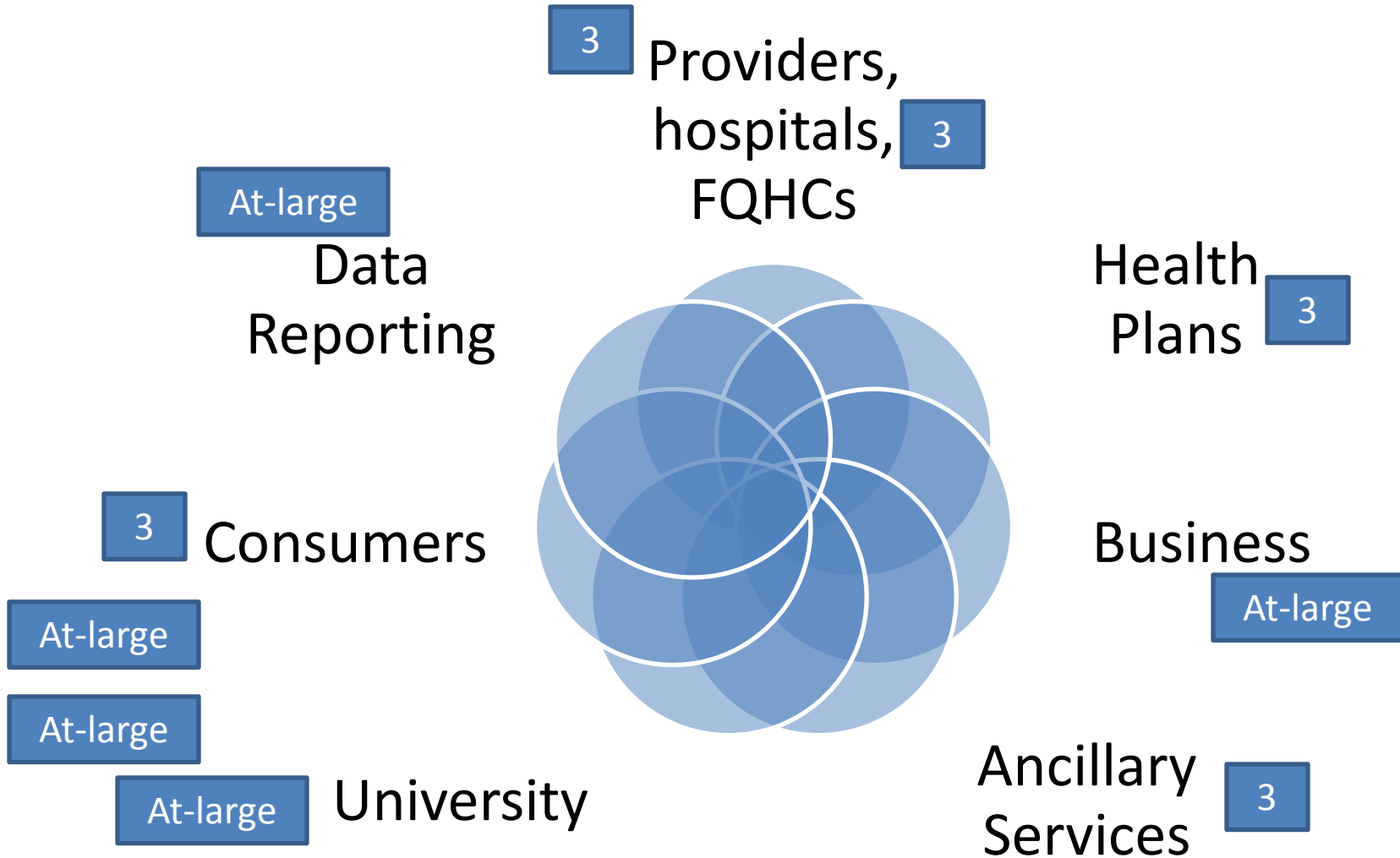
- Governance structures have been reviewed.
- The Governance Committee is preparing two recommendations for board action:
 - Expansion of the board to increase representative nature by including other stakeholders, e.g. more independent physicians, pharmacy.
 - Creation of a revised nomination process for the board to ensure equity.

NOTE: These will be drafted in July/August and presented to the board for action.

Current Composition



Draft Composition



Domain Summary: Finance

- The Finance Committee has developed a “multiple participant” value and benefit model that proposes a sustainable financial model on the basis of relative benefits to be gained from health information exchange.
- Four value/benefit communities have been identified: patients, providers, plans, and the public.
- The Operational Plan organizes a process for development of a substantive funding model based on these principles.

Domain Summary: Data Access and Management

- The Data Committee has done a first pass through an exercise that specifies relative priorities for data sources (e.g. physicians, hospitals, labs, etc.) and data categories (e.g. patient identifiers, demographic data, labs, etc.)
- That information has been codified and linked to the technical infrastructure elements approved by that committee for first stage development.



Tentative List of Data Elements

HIE Patient Data Types:

- Patient demographics
- Admissions/discharges
- Physician notes
- Diagnosis
- X-Rays (interpretations and images)
- Clinical lab results
- Insurance information for billing
- Financial class

HIE Administrative Data Types:

- Users authentication profile
- User authorization levels
- Opt in/opt out agreements
- Patient consent to share PHI
- Insurance payers-cross reference
- Patient Record Locator (if applicable)
- ICD9/CDE10
- CPT
- SNOMED CT
- RxNorm
- NCPDP
- HCPCS
- Master Patient Index
- National Provider ID

Data Elements (con't)

Inpatient Data Types

- Admissions/discharges/transfers
- Medical record numbers
- Lab orders and results
- Point of care lab orders and results
- Medication dispensing
- X-Rays interpretations

Data Sources Identified by Other Surveys

- Bedside medication
- Core MPI database
- Lab information system
- Medication dispensing
- Pharmacy system
- E-prescribing
- Practice management system

Domain Summary: Legal/Policy

- An extensive inventory has been conducted of relevant state provisions, identifications of possible barriers to effective exchange, and requirements for security/privacy policy.
- Extensive use has been made of expertise within the hospital and plan community and experience with Holomua.
- External experts have been invited to review all security and privacy policies and to make recommendations of new policies to be developed.
- The Operational Plan details a process for meeting ONC requirements that “identified barriers” to effective exchange be identified and addressed within three months of the approval of the plan.
- The committee will develop appropriate legislative recommendations that emerge from this review.



Domain Summary: Technical Infrastructure

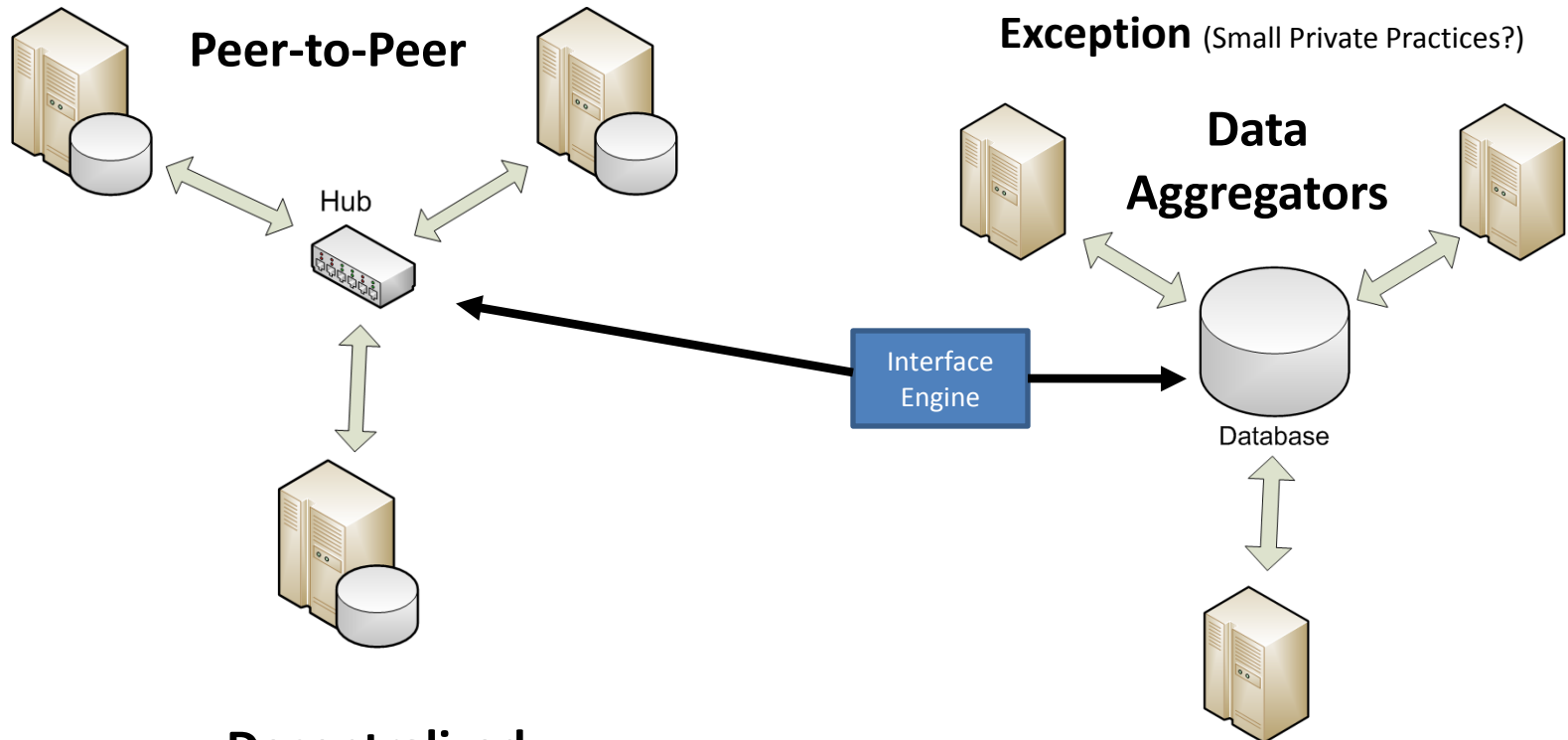
- The committee has determined that it will pursue a hybrid model of exchange architecture.
- The goal of the committee is to develop a model of minimum but effective data interchange within the shortest time period possible.
- The committee is operating from the principles: keep it simple; do it in stages; use as much off the shelf technology as available.
- The functional requirements of a second stage have also been identified and will be sequenced into development as appropriate.
- The Operational Plan will specify next steps to be taken to engage an appropriate design process consistent with ONC requirements.

Three General Models

- Centralized
 - All medical records are kept in one central data repository controlled by the Health Information Exchange (HIE)
 - Providers log into the repository and do queries.
- Federated
 - Medical records are kept only with the providers
 - Electronic Health Records (EHRs) support real-time requests for clinical information. HIE serves only as a post office.
- Hybrid
 - A Federated model with some exceptions such as:
 - Centralized research database to measure quality outcomes
 - Centralized medical records repository for EMRs that cannot support real-time queries for information.
 - Personal health records repository



Hybrid Design



Decentralized
Data maintained at the source

Centralized
Data maintained at the source
and centrally maintained.

Infrastructure Requirements

- **I1 Data Transformation Services**—A mechanism for facilitating the intake of data in multiple formats in real time through the use of an integration engine, which transforms the data into a useable format
- **I2 Clinical Portal**—A web-based service offered to providers for accessing, viewing and downloading clinical data available from data sources connected to an HIE
- **I3 Audit Trail Services**—A mechanism for tracking when, where and what data was accessed and who accessed the data through an HIE entity
- **I4 Patient Identifier Services**—A methodology and related services used to uniquely identify an individual person as distinct from other individuals and connect his or her clinical information across multiple providers using an Enterprise Master Patient Index (EMPI)
- **I5 Cross-Enterprise User Authentication Services**—A mechanism for identifying and authenticating clinical system users to validate their right to access clinical information based upon privacy rules, patient consent and individual user and organizational roles

Functional Requirements

- **F1 Lab Results Exchange**—Facilitating the delivery of patient lab results for use in clinical care
- **F2 Medication History Exchange**—Facilitating the delivery of patient prescription history to providers for use in prescribing, clinical care and medication management
- **F3 Medical Encounter Notes**—Facilitating the delivery of medical notes for use in clinical care
- **F4 Radiology Results Exchange**—Facilitating the delivery of patient radiology interpretations for use in clinical care

Functional Requirements (con't)

- **F5 Population Health Services**—A set of services that fulfill various state and federal public health and chronic disease management practice requirements—such as biosurveillance, predictive modeling and health risk assessment—by leveraging and aggregating data available through an HIE entity
- **F6 Patient Consent Management Services**—A process for defining levels of patient consent and for tracking those consents and authorizations to share PHI through an HIE entity
- **F7 De-identification Services**—A mechanism for removing demographic and other person-identifying data from PHI and other health care data so that they can be used for public health reporting, quality improvement, research, benchmarking and other secondary uses



Hawai'i HIE looks forward to working with you as your partner to:

- Improve patient care
- Improve operational efficiency
- Reduce operating costs
- Receive financial incentives
- Become part of a statewide information network for the exchange of electronic health records



Mahalo nui loa

Contact:

Christine Sakuda

Executive Director

Hawai'i Health Information Exchange

Email: csakuda@Hawaiihie.org

Website: www.hawaiihie.org

Tel: 808.441.1310