



## Health Care Informatics – Next Steps for “The Health State”

A Call for Discussion: A Hawaii Health Care Informatics Collaborative,  
Opportunities for Health care, Research, Education and Business

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### Executive Summary and Contents:

Preface: Health care data sharing is crucial for effective Medical Informatics – the study and application of computer technologies to health care. Such information sharing offers immediate and intuitive benefits, while presenting daunting obstacles. Individuals and organizations, such as physician groups - The Hawaii Outcomes Institute, The Hawaii Medical Services Association, private insurers, business groups, and City State and Federal Government institutions – have worked over the years for just such functionality as is suggested here. Emerging technologies that bring new energy and motivation to the effort as these enabling developments are much closer to our grasp.

Introduction: Profound technology developments, a health care revolution, a need for new industry, a persistent economic downturn, and an apposition of events offer significant opportunities for the health care system and the economy of Hawaii.

What follows is a call for discussion on the concept of forming a statewide health care informatics collaborative. The collaborative would act in a guided adjudicated, non competitive manner to share blinded clinical data, processing expertise, and clinical informatics expertise, as well as development, technology, and support costs, thus enabling us to translate developments into real world applications.

The reader is encouraged to carefully consider the benefits and not to think first of the barriers and obstacles. Though the barriers may seem overwhelming at present, they will be overcome with perseverance wrought from the magnitude of the long-term visionary benefits.

Confluence of Factors and Events: Technology developments in telecommunications, bio-informatics, clinical informatics, and electronic medical records development, as well as, factors such as Hawaii’s geography, unique ethnic mix, small population, current healthcare model, economic structure, revitalized school of medicine, and readiness requirement for bioterrorism, present compelling reasons to take up the challenge of building a central data repository.

Stakeholders and Their Benefits: Clearly, patients have the most to benefit from improved and unified healthcare data systems. Potential benefits are outlined. Other likely stakeholders are listed, and their potential benefits outlined. Potential beneficiaries include: Health Care Providers, Hospitals, Community Clinics, Provider Groups and other Health Care Institutions, Insurers, Business, University of Hawaii, Biomedical Industry, Information Technology Industry, High Performance Computing, State of Hawaii Agencies and others.

## **The Hawaii Medical Informatics Collaborative (HIMedIC):**

Introduction: Preliminary outline of the structure and function of a Hawaii Informatics Collaborative is outlined.

Privacy and Security: The foundation for any collaboration needs to be insured. Comfort in development and execution of procedures goals and objectives needs to be collaborative constructed. Patient control of individually identifiable data must be maintained.<sup>1</sup>

Inclusion by Charter: Collaborations must start with a philosophy of inclusion and maintain this philosophy to be successful.

Don't Start from Scratch: Work of others in the area needs to be recognized, emulated, pushed forward and build upon.

Governance: A neutral platform for governance will be required to foster broad participation and confidence.

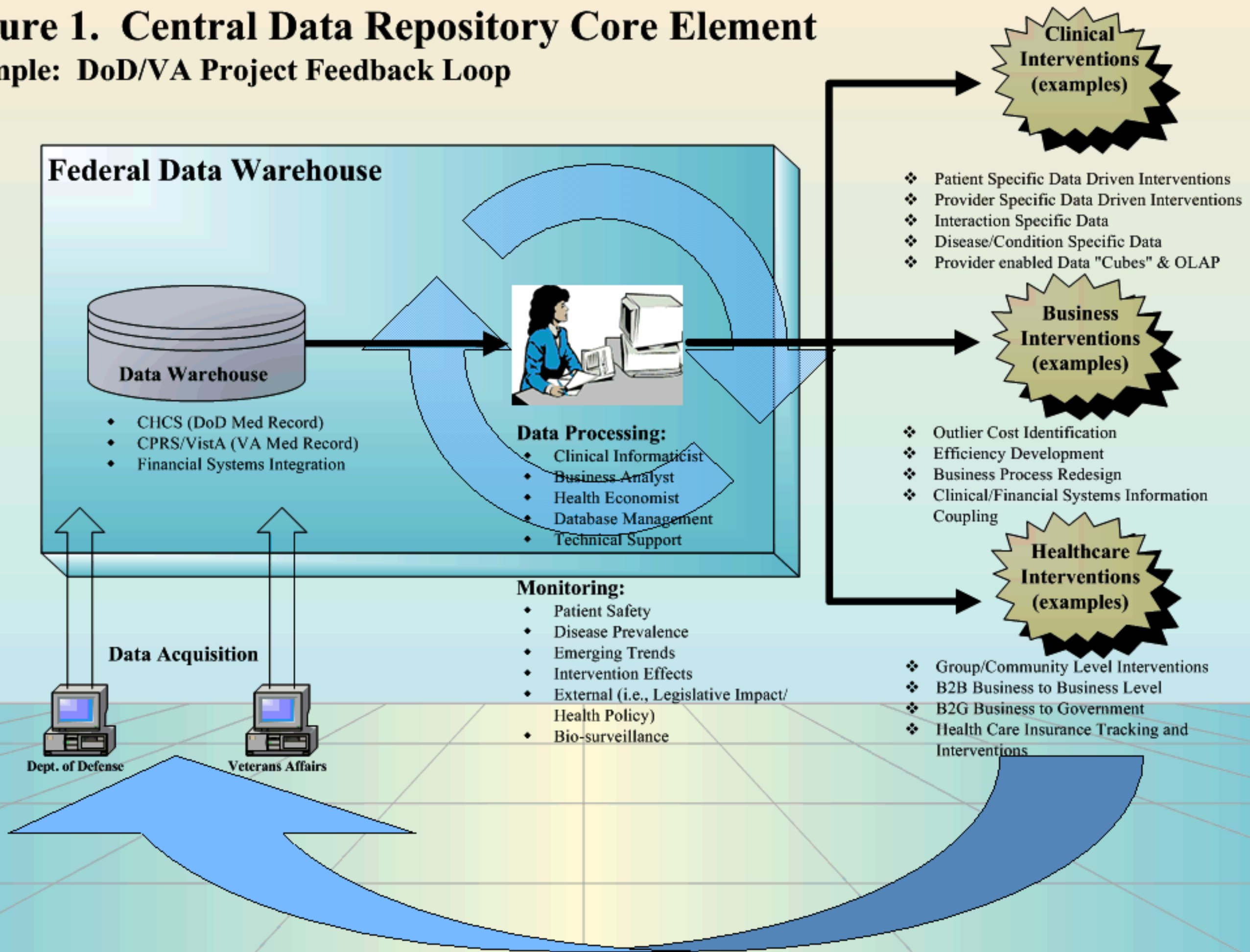
Components: The Health Data Repository components defined and the interrelations of the components discussed. A design concept is proposed with mechanisms to deliver benefits to partners and a concept of sustainment is outlined.

The Core Elements form a Feedback Loop which includes, Data Acquisition, the Data-warehouse, Data Processing, healthcare intervention construction and application, Database Amplification, Governance and management structures.

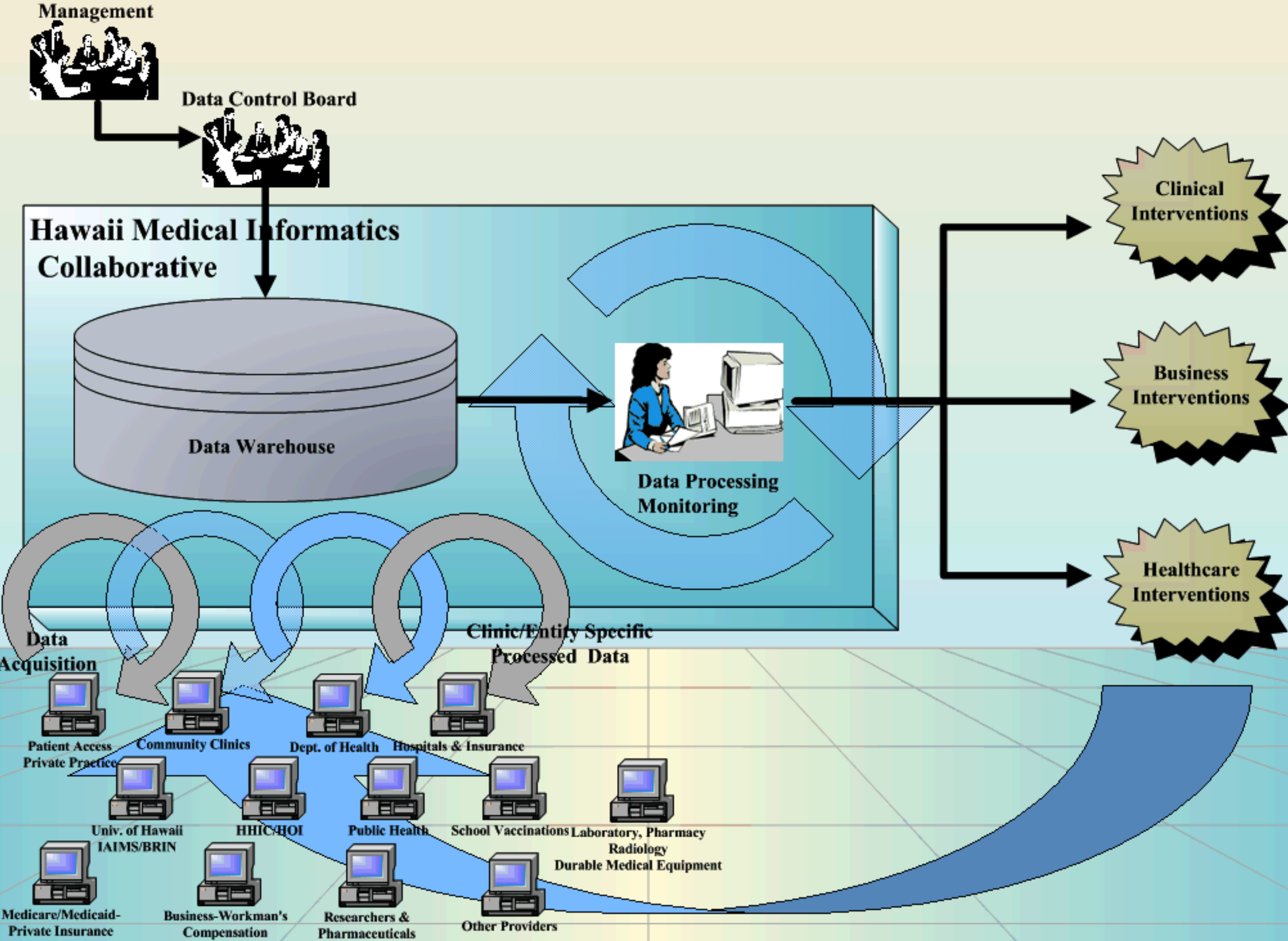
### **Next steps:**

1. Identification of interested parties:
2. Convene Working Group
3. Formation of the Collaboration:
4. Resource Identification:
5. Definition of a Governance structure
6. Formation of a Development Team and Staff
  - a. Charter and bylaws
  - b. Business and Development Plan
  - c. Logistics and Technology Identification
  - d. Legal/Legislative Development
  - e. Communications
  - f. Infrastructure Definition
  - g. Personnel Development
  - h. Scientific Committee
7. Other

**Figure 1. Central Data Repository Core Element**  
**example: DoD/VA Project Feedback Loop**



# Figure 2. Database Amplification



# Figure 3. Sustainment

