

**Iowa Foundation for Medical Care  
Des Moines, IA  
October 1, 2007**

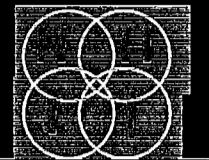
# **Health Record Banking: The Consumer-controlled, Market-based Community Solution for Health IT**

**William A. Yasnoff, MD, PhD, FACMI  
Managing Partner, NHII Advisors**



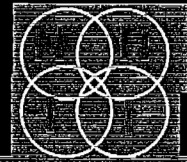
*“The development of an information technology infrastructure has enormous potential to improve the safety, quality, and efficiency of health care in the United States”*

**- Institute of Medicine, *Crossing the Quality Chasm*, 2001**



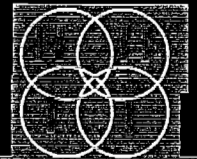
# Key Points

- v **Quality Healthcare Requires Complete Information**
- v **Need Electronic Records AND Privacy**
- v **Solution: Health Record Bank**
  - λ **Rationale**
  - λ **Functions**
  - λ **Business Model**
- v **Next Steps**
  - λ **Community non-profits hire Health Record Bank providers**
  - λ **State governments may enact policy to support Health Record Bank development**



# Health Information Today

- v **Scattered Records**
  - λ **Each person's records are scattered at whatever locations care has been given**
  - λ **Mostly paper**
- v **Information sharing not effective**
  - λ **Cumbersome, expensive, time-consuming, and fallible**
  - λ **No mechanism to collect patient information from disparate sources**
- v **No responsible institution**
  - λ **Each patient's complete records (from all sources) are not available for care**
  - λ **Need to create these institutions**



# Health Information Today (cont.)

- v **Consequences of health information deficit**
  - λ **Medical errors common**
    - 44,000-98,000 preventable deaths/year (just in hospitals)
  - λ **Quality poor**
    - only 55% of adults receive recommended care (RAND study)
  - λ **Costs out of control**
    - rising >10% annually
    - consuming an increasing proportion of GDP
    - now \$2 trillion/year and growing



# I. Quality Healthcare Requires Complete Information

- √ **Status Quo**

- λ **Health information scattered**

- λ **Complete information not available**

- λ **No institution responsible**

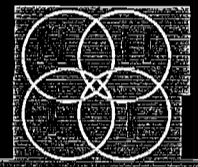
- √ **Result**

- λ **Quality is poor**

- λ **Costs out of control**

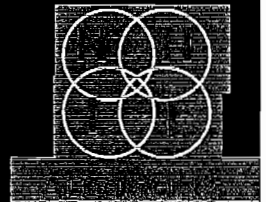
- √ **More complete information --> better care**

- √ **Health IT can save 8% or more**



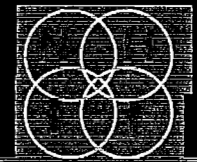
## II. Need for Electronic Records

- v **Rapid access**
- v **Combine multiple scattered records into complete “master” record**
- v **Rapid review using different views**
  - λ **Graphs**
  - λ **Charts**
  - λ **Enhance relevant information**
- v **Automated reminders to improve quality and reduce errors**



# Benefits of electronic healthcare information

- A. **Improving Healthcare Delivery at Point of Care (Improving Quality)**
  - λ **Complete patient information**
  - λ **Decision support**
- B. **Reducing Costs & Achieving Efficiencies**
  - λ **Eliminate duplicate tests & imaging**
  - λ **Eliminate duplicate communication channels (labs, x-rays, etc.)**
- C. **Support Public Health Initiatives & Biosurveillance**
  - λ **Automated disease reporting**
  - λ **Automated syndrome reporting**



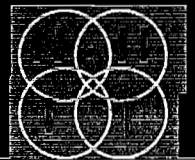


# Dangers of Electronic Records

*“Anything you do to make information more accessible for good, laudable purposes will simultaneously make it more accessible for evil, nefarious purposes”*

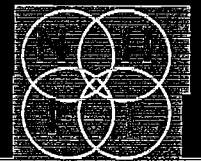
- William A. Yasnoff, *New York Times*, 2/18/07 (p. 16)

**Therefore, privacy is a much greater concern as more health records are electronic.**



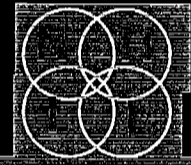
# Consumers and Health Privacy

- v **Surveys of “information hiding”**
  - λ **2006: 13% of consumers**
  - λ **2007: 17% of consumers**
- v **Consumers already control information in their records**
- v **Without control, too many will opt out OR politically force system shut down**
- v **Choices are today’s system or consumer control -- complete information without consent is not (and should not be) a viable option**
- v **Patient control essential**



# III. Solution: Health Record Bank (HRB)

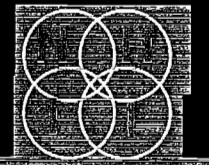
- v **Secure community-based repository of complete health records**
- v **Access to records completely controlled by patients (or designee)**
- v **“Electronic safe deposit boxes”**
- v **Information about care deposited once when created**
  - λ **Required by HIPAA**
- v **Allows EHR incentives to physicians to make outpatient records electronic**
- v **Operation simple and inexpensive**





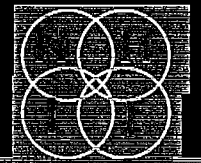
# HRB Rationale

- v **Operationally simple**
  - λ **Records immediately available**
  - λ **Deposit new records when created**
  - λ **Enables value-added services**
  - λ **Enables research queries**
- v **Patient control -->**
  - λ **Trust & privacy**
  - λ **Stakeholder cooperation (HIPAA)**
- v **Low cost facilitates business model**
- v **Creates EHR incentive options**
  - λ **Pay for deposits**
  - λ **Provide Internet-accessible EHRs**



# Central Repository

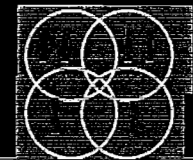
- **Protects privacy (since data is known)**
- **Security controlled in one location**
- **Rapid response time**
- **Allows review of questionable deposits**
- **Allows queries for research (with permission)**
- **Alternative “scattered” model not feasible**
  - **Slow**
  - **Requires all systems to be available for queries 24/7**
  - **Requires universal interoperability**
  - **Searching data not feasible**
  - **Requires staffing “network central”**
  - **Requires real-time assembly of disparate records (expensive and error prone)**



# Examples of Community HII

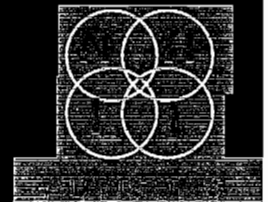
<u>Name</u>	<u>Data Storage</u>
Spokane, WA	Central
South Bend, IN	Central
Indianapolis, IN	Central
Fishkill, NY	Central
Bellingham, WA	Central
Cincinnati, OH	Central

Number of operational community HII systems using scattered model: **NONE**



# Trusted HRB Governance

- ∨ **Community non-profit contracting with for-profit HRB**
  - λ **For-profit organization has inherent conflict between fiduciary duty to shareholders (requiring sale of information) and consumer desire to keep information private**
  - λ **Non-profit community governance eliminates this conflict**
    - **Primary duty to consumers specified in contract with for-profit**
    - **Requirements for privacy, security, and audit also specified**
  - λ **Promotes trust without government regulation**

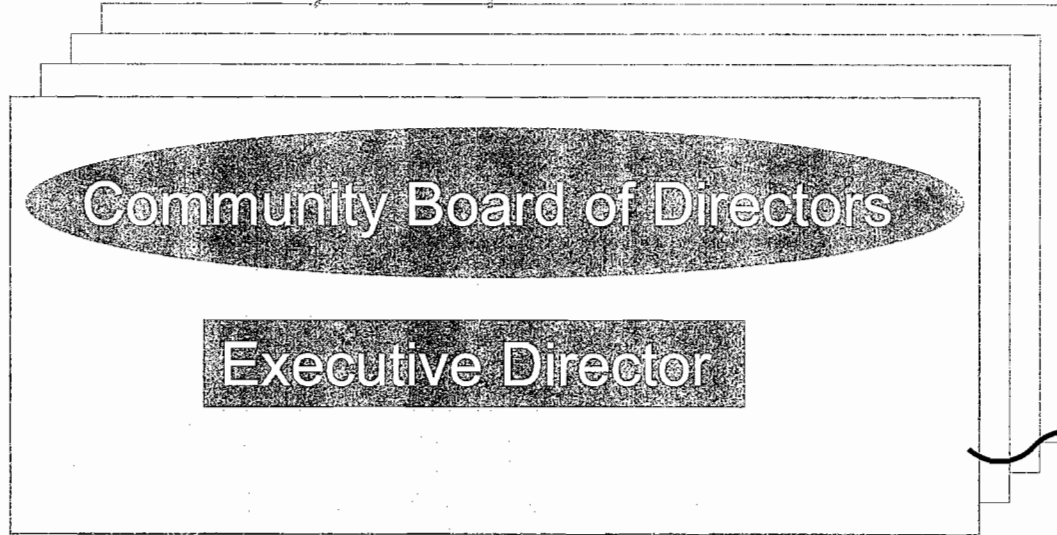




# Health Record Bank Organization

Community Non-profits

RESPONSIBLE FOR:



Policy  
Governance  
Oversight

Many communities use single HRB

regulate via contract

HRB Operator Board of Directors

Management

Health Record Bank Operator (for-profit)

RESPONSIBLE FOR:

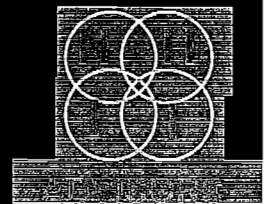
Obtaining Capital  
Operating HRB



ADVISORS

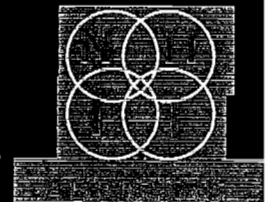
# Trustworthy HRB Architecture

- v **Establish secure facility (as used for “classified” data)**
- v **No phone/network connections to searchable database (server #1)**
- v **Special “cubbyhole” server (#2) for individual records with no search/aggregation capabilities**
  - λ **Worst case release: 1 record**
- v **Continuity of Operation**
  - λ **Backup facilities**
  - λ **Geographically separated**



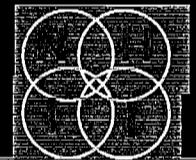
# HRB Business Model

- v **Account fee starts at \$5/month (< 1% of healthcare costs)**
  - λ **Paid by patient or sponsor**
  - λ **Drops to \$1/month with large number of accounts (1,000,000+)**
- v **Breakeven at about 100,000 accounts**
  - λ **Subsequent margins excellent**
  - λ **Can use revenue to reduce fees**
- v **Additional revenue sources**
  - λ **Advertising**
  - λ **Queries**
  - λ **Value-added services (may be sponsored)**



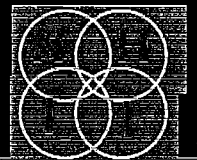
# IV. Next Steps

- v **Establish community non-profit for governance**
  - λ **All key stakeholders**
  - λ **Include consumers**
- v **Non-profit develops plan, engages for-profit health record bank**
- v **Requires \$500-750K, 1-2 years**
  - λ **Organizational expenses**
  - λ **Executive Director & assistant**
  - λ **Business planning**
  - λ **Engage for-profit HRB provider**



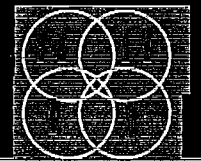
# IV. Next Steps (continued)

- v **Possible State Government Actions**
  - λ **Provide matching grants for health record bank startup in communities**
  - λ **Regulate health record banks**
    - **Consumer ownership & control of records**
    - **Independent privacy & security audits**
    - **Serious penalties for violations**
  - λ **Fund health record bank account fees for state beneficiaries**
    - **Medicaid**
    - **State employees**



# Key Points - Review

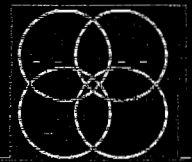
- v **Quality Healthcare Requires Complete Information**
- v **Need Electronic Records AND Privacy**
- v **Solution: Health Record Bank**
  - λ **Consumer-controlled --> privacy & trust**
  - λ **Market-based --> sustainability**
  - λ **Community --> feasibility**
- v **Next Steps**
  - λ **Community non-profits hire Health Record Bank providers**
  - λ **State governments may provide seed grants, regulation, and funding for beneficiary participation**



© The New Yorker Collection 2005 from cartoonbank.com. All Rights Reserved.



*“Someday, all this will be infrastructure.”*



# Questions?

**For more information:**

**[www.ehealthtrust.com](http://www.ehealthtrust.com)**

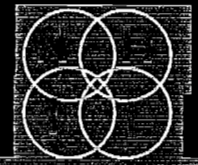
**[www.healthbanking.org](http://www.healthbanking.org)**

**[www.yasnoff.com](http://www.yasnoff.com)**

**William A. Yasnoff, MD, PhD, FACMI**

**[william.yasnoff@nhiiadvisors.com](mailto:william.yasnoff@nhiiadvisors.com)**

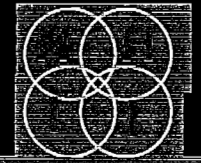
**703/527-5678**



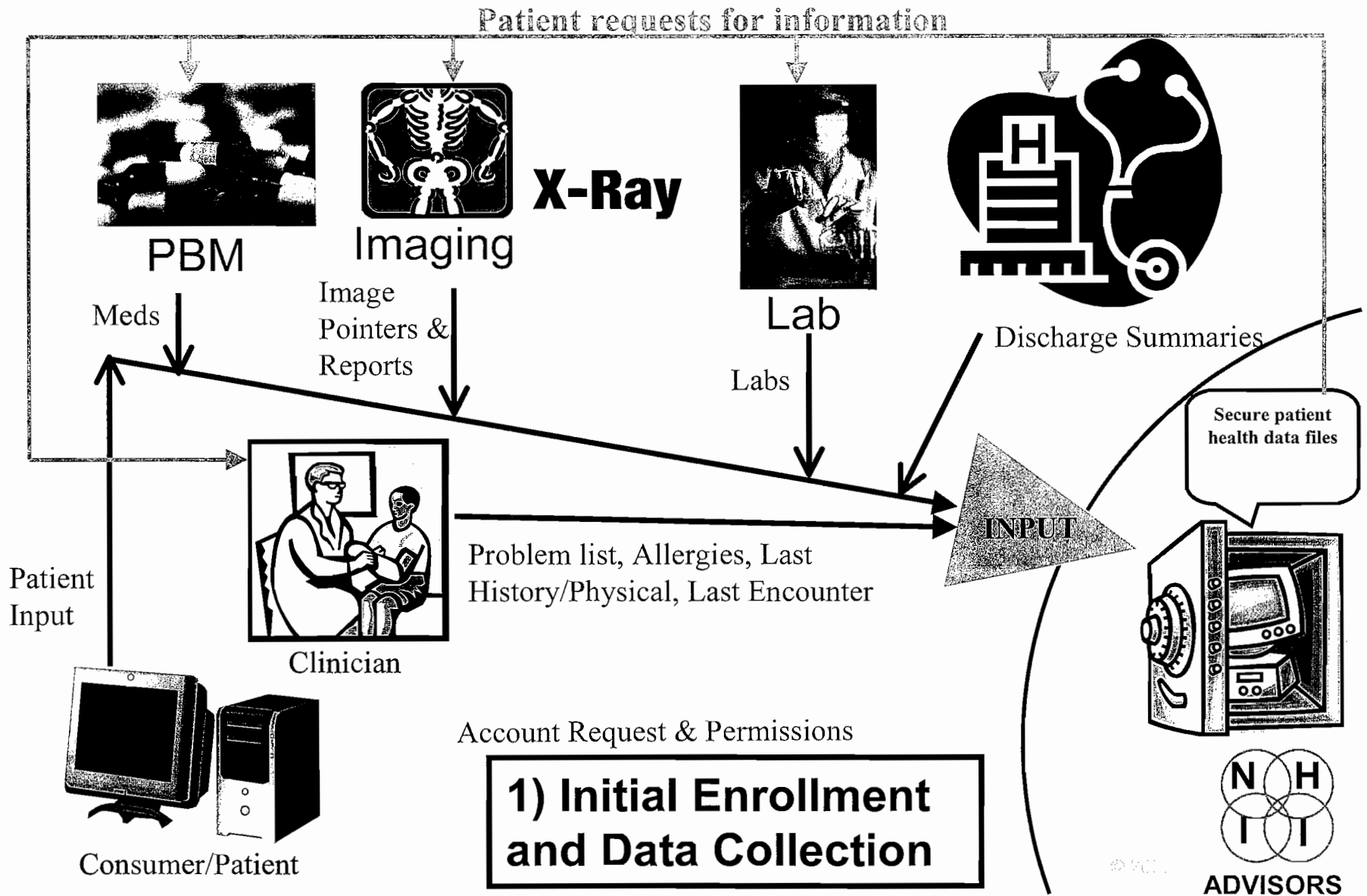


# HRB Functions

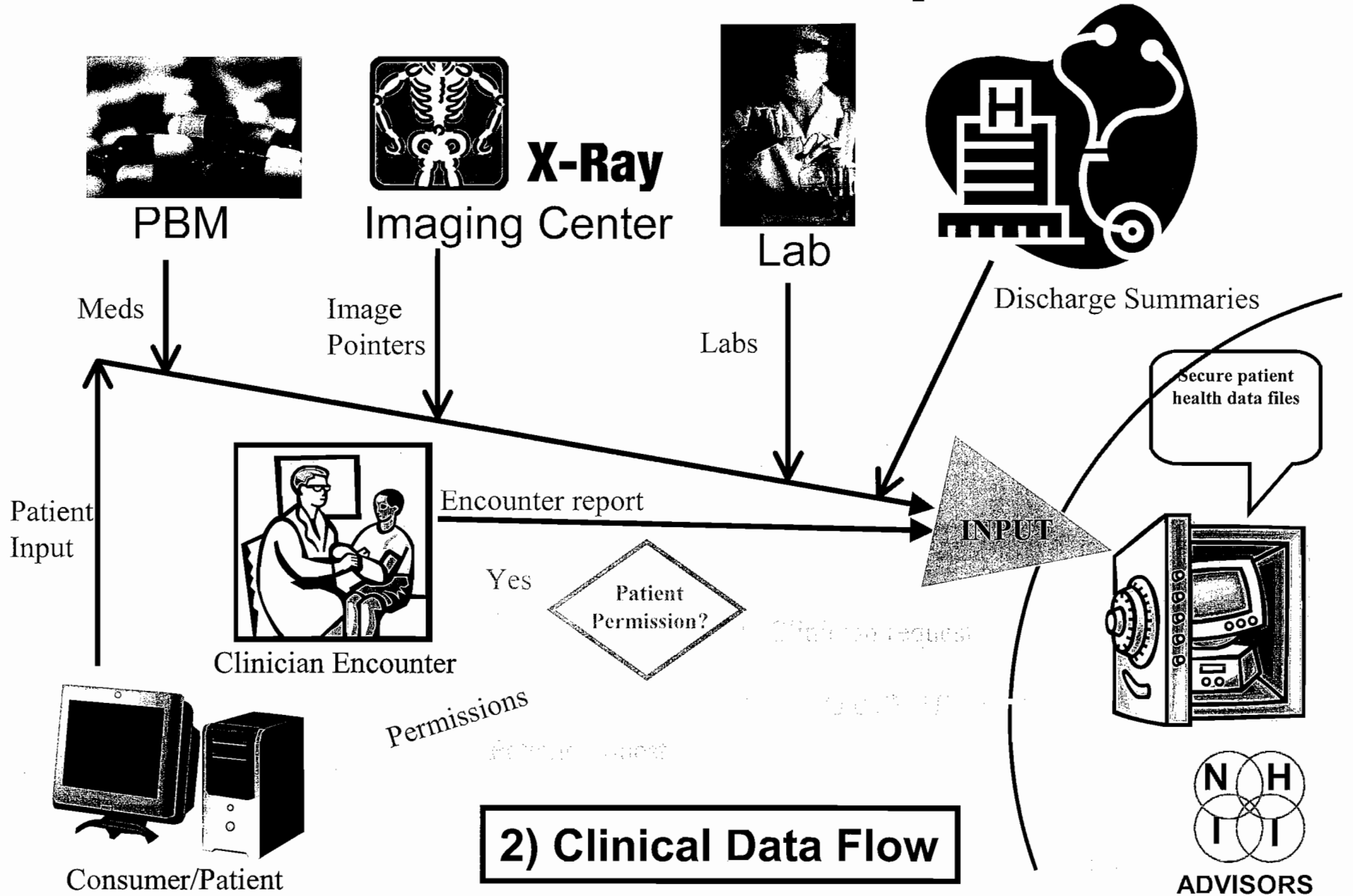
- v **Enrollment**
  - $\lambda$  **Initial collection of information**
- v **Care Episode**
  - $\lambda$  **New information deposited**
- v **Query**
  - $\lambda$  **Count & demographics of matches returned**
- v **Value-added Services**
  - $\lambda$  **Patient reminders**
  - $\lambda$  **Process improvements**



# Health Record Bank Operations



# Health Record Bank Operations



# Health Record Bank Operations

## 3) Research Data Flow

