Cost Recovery Models and Other Economic Issues Involved in the Implementation of the NCI Best Practices

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Background and Overview

Jim Vaught, NCI OBRR
OBBR is exploring several economic issues based on public comments and other input:

- Understanding the overall economic value of biospecimen resources that are accessible to the research community

- Supporting the NCI Leadership in considering approaches to control biospecimen resource costs during a period of NIH budget limitations

- Understanding additional costs associated with implementing the *NCI Best Practices*
  - Exploring different cost recovery models for supporting biospecimen resources (Lisa Miranda’s presentation)
Overall Economic Value of Biospecimen Resources*

- **Biological Resource Centers (BRCs)** amplify the impact of scientific progress by enabling future generations to build on past discoveries.

- **BRCs** fulfill several important functions, including:
  - **Authenticating** materials to ensure quality
  - **Preserving** materials over long periods of time that may have future value
  - **Providing Access** to materials for the research community
  - **Creating Economies of Scale** for larger biospecimen resources

- However, maintaining **BRCs** may be challenging and costly for individual institutions.

Cost Recovery for Biospecimen Resources

- Cost recovery provides a mechanism for individual institutions to work with the NCI to maintain valuable biospecimen resources

- Importance of not exceeding cost recovery in developing user fees

- Possible effects of cost recovery on biospecimen access for future generations of researchers

- Challenge of defining cost recovery for different biospecimen resource and funding models
Talk Objectives

Brief Overview: Biospecimen Resource Economic Issues
Brief Overview: Tumor Tissue and Biospecimen Bank
Brief Tutorial
  - Introduction to Cost Recovery
    - Elucidate TTAB Cost Recovery Pathway
    - Brief Highlight of TTAB Cost Recovery Model
    - TTAB Cost Analysis 12 Step Walkthrough
  - Review Strategies For User Fee Implementation

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Brief Overview: TTAB

Tumor Tissue and Biospecimen Bank

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TTAB’s Mission

NEW UPENN SOM CORE Facility & Service Center

- Sponsors: Pathology & Abramson Cancer Center

MISSION

- Create Extensive, Robust Biospecimen & Data Repository
- Centralize Resources: Physical & Virtual Biobank
- Promote Internal & External Collaborations
- Harmonize University Biospecimen Banking efforts
- Standardize Data Collection & Annotation

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Types of Services

- Biospecimen Collection & Banking Support
- Technical Support
- Consultation & Feasibility Review
- Project Development & Management
- Collection Inventory Management
- Pathology Case Review & Annotation
- Quality Management
- Training & Education
- Histology Services
3 Types of Users

- Private PI Collections
  - Clinical Trial OR Bench Researcher
  - Lymphoma, Myeloma, Breast, GU, Lung, Etc…

- Departmental Biobanks
  - ENT, GYN

- Virtual Bank For External Institutions
  - UPITT & CDC- MVB Project

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Introduction To Cost Recovery

- What Does Fee For Service Really Mean?
- What Does It Take To Be Revenue Neutral?
- Pro’s & Con’s of Cost Recovery

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Fee For Service Model

*Most Common Model For Nonprofits*

Recouping *ALL* Costs

- Direct
- Overhead

**Mechanism:**

Fee for Service Social Enterprise Model

*(Kim Alter, 2004)*

**Pays For Expenses**

- Salary Support (*Labor & Benefits*)
- Capital Depreciation
- Service Contracts
- Supplies & Consumables
Revenue Neutrality

Biospecimen Resource Fiscal Year Budget Goal

EXPENDITURES  REVENUE  COST RECOVERY
Cost Recovery:  
*It’s Good For You*

**Invaluable Business Tool For Biorepository**
- Establish Real Costs
- Develop User Fees
- Budgetary Planning
- Revenue Projections & Predictions
- Resource Planning
- Economic Justification
- Grant Planning
- Financial Proposals
- Financial Evaluations & Reporting

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Cost Recovery: Putting the Pieces Together

- Service Metrics
- Pricing Structure
- User Fee Development
- Labor Rates
- Cost Analysis
- Billing
- Effort Breakdowns
- Revenue Projections
- Needs Assessment

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The Path To Cost Recovery Is Often Not Clear

MANY roads lead to the Path, but basically there are only two: reason and practice.

Bodhidharma

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TTAB Cost Recovery Pathway

Existing Biobank

- Conducted Cost Analysis
- Defined Metrics for Services
- Determined Service Types
- Explored User Fee Issues
- Compared Fees

NEW Biobank

- Developed User Fees
- Developed Quotes for Service
- Implemented Billing

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The Dreaded Cost Analysis

Curiosity begins as an act of tearing to piece or analysis

Samuel Alexander

If you don't have time to do it right, when will you have time to do it over?

John Wooden

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Cost Analysis: The 12 Steps

- User Fee Implementation
- FY Revenue Projections
- Pricing Development
- User Fee Development
- Capital Depreciation Rate
- Service Contract Rate Assessment
- Labor Service Metric Development
- Lab & Facility Needs Assessment
- FY Annual Billable Hours Calculation
- Salary Effort Breakdowns
- Organizational Chart
- FY Narrative Overview
User Fee Development: 

*Let's Get Granular*

- User Fee Elements Include:
  - Labor
    - *Direct*
    - *General & Administrative*
  - Direct Materials
  - General Laboratory Supplies Fees
  - Service Contract Fees
  - Capital Depreciation
Implementation Of Cost Recovery: Billing To Recoup Costs

Setting Up Your Billing
- DEVELOP
  - Pricing Structure
  - TTAB Examples
- A Few Policies
- Quotes
- Users
- Projects
- DESIGN Deliverable Document
- DRAFT Invoices

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One cannot have economic growth without security.  
John Bruton

The art of economics consists in looking not merely at the immediate but at the longer effects of any act or policy; it consists in tracing the consequences of that policy not merely for one group but for all groups.  
Henry Hazlitt
How **You** Can Support Financial Best Practices: 
*Complete the Puzzle For Yourself*

**Fiscal Accountability**

**Increased Self Reliance**

**Sustainable Development**

**Financial Empowerment**

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Biospecimen Resources...
We NEED TO TALK

AND We ALL Have Issues
These Are Just A Few…

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How Do You
  o Create A Culture To Support A Fee For Service Approach?
  o Use Cost Recovery To Engage Collaborators/End Users?

How Can You Use Cost Recovery To
  o Support Resource Planning & Aid Resource Growth?
  o Aid Financial & Executive Reporting?

What Are Some Cost Recovery “Best Practice” Tips?

What Are Key Strategies To Promote Adherence?

How Can Cost Recovery
  o Support NCI Best Practices?
  o Promote Data Sharing?
  o Aid Implementation Of Ca tissue Tools & Offset Costs In Adoption?
What funding models exist for various biospecimen resources?
  o How do they vary among commercial, academic, Government resources?

Is it possible to fully recover costs?
  o Is it desirable to fully recover costs? Will recovery of costs affect access?

Will there be additional costs associated with implementing the NCI Best Practices?
  For informatics, equipment, QA/QC, personnel?

How will the costs to implement NCI’s best practices differ in a small biorepository (1 or a few freezers) versus a large facility?
Is it advantageous, from an operational and/or economic point of view, to consolidate biospecimen resources into larger centralized facilities?

- Would a central resource be accepted in your organization?

Is it possible to quantify the economic impact of a biospecimen resource?

- Few studies have addressed this.

Are there newer technologies available that can reduce costs now or in the near future?

Other issues based on your experience?

Jim Vaught, PhD
Your Mother WAS Right

Try It, You’ll Like It
AND...
Cost Recovery Is SO MUCH MORE

Cost Recovery Can Aid Evaluation Of 3 Critical NCI Questions:

How effectively has the resource performed?
What impact has the resource had on research?
Is there a continuing need for the resource?

Related Source: NCI Website

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Cost Recovery Can Demonstrate Financial *Performance* Of The Biospecimen Resource

Financial *Performance* Measures Include:

- $$ worth of specimens the resource has provided to researchers
- $$$ value of projects & researchers supported with specimens/services from the resource
- $$$ value of different specimen types that the resource has provided
- $$$ value of difficult to obtain specimens made available to researchers by the resource
- Funds recouped from Collections/Distributions/Biorepository Services
- Funds recouped from repeat requests
- Grant Funding/New projects funded from Biospecimen Resource related publications
- Cost efficiency reporting ($$$ Saved to Users)
- Per Specimen Savings

Related Source: NCI Website

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Financial Impact Measures Include:

- The financial value of published studies using resource specimens
- The financial impact on your Institution from resource-related papers
- Determination of Cost per critical research finding.
- The financial value from the Biospecimen Resource’s contribution towards:
  - FDA approval of a medical device
  - Development of useful technologies
  - Development of useful research techniques
- Financial Feedback from users:
  - Impact of the resource on their research

Related Source: NCI Website
Everyone Wants To Be Needed

Cost Recovery Can Demonstrate Continuing Need To Stakeholders AND Aid Resource Planning

**Key Continuing Need Evaluation Questions include:**

- Is the resource meeting its financial objectives?
- Is the Use Cost Effective?
- Is the Resource Financially Viable OR promoting sustainable development?
- Is the Value of specimens (and data) being provided (collected) worth the cost of running the Facility?
- What level of facilitation of scientific progress is necessary to support cost of operations?
- Has the resource improved financial issues regarding access to specimens for PI’s?
- Evaluation of Financial issues related to duplication of effort
- Are PI based banks competing with OR impeding funding for central biospecimen resource?
- Is the resource still needed?
- Financial comparison of alternative specimen sources
- Does the resource still need NCI support or can it support itself?

Related Source: NCI Website

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