

# Presentation to Crouse Hospital

## Introduction to The Health Economics and Outcomes Research Institute (THEORI) at GNYHA

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# Introduction

# What is THEORI?

- The name of the division within GNYHA that conducts quantitative analysis in the areas of
  - ◆ Provider reimbursement policy
  - ◆ Comparative provider outcomes
  - ◆ Hospital and general healthcare market trends

# Who Works for THEORI?

- Karen Heller, M.B.A., *Executive Director*
- Ismail Sirtalan, Ph.D., *Director, Economics and Informatics*
- Brian Taylor, Ph.D., *Director, Clinical Research*
- Dimitrios Tsaprounis, Ph.D., *Director, Health Economics*
- Christopher Vaz, Ph.D., *Director, Economic Policy*
- Elisabeth Wynn, M.P.A., *Director, Health Policy Analysis*
- Orville Francis, M.P.A., *Research Analyst*

# Why Does the Division have a Special Name?

- Because of our dual function
  - ◆ We provide advocacy on behalf of our hospital and long-term care members
  - ◆ We have an independent national identity because we occasionally conduct research and consulting on a fee-for-service basis to help defray our costs

# Examples of Recent THEORI Research and Consulting

- New Medicare psychiatric payment system
  - ◆ Research for the American Psychiatric Association
  - ◆ Consulting to individual hospitals nationwide
  - ◆ Potential subcontractor to RAND on a CMS grant

# Examples of Recent THEORI Research and Consulting

- Disease management
  - ◆ Subcontractor to Columbia University on an AHRQ grant
- Outcomes
  - ◆ Consulting to NewYork-Presbyterian Hospital
    - ◆ *U.S. News & World Report* hospital rankings
    - ◆ Network's *System Standards Initiative*
  - ◆ Consulting to North Shore/LIJ System
    - ◆ Risk adjust current mortality data

# Provider Reimbursement Policy

# Provider Reimbursement Policy

- We model payments for individual services for every hospital in the country or New York State in order to
  - ◆ Help hospitals with financial planning
  - ◆ Determine the fiscal impact of policy changes
  - ◆ Develop legislative and regulatory proposals and comment letters
  - ◆ Identify similarly situated hospitals to build advocacy coalitions

# Examples of Recent Reimbursement Studies: Medicare

## ■ BBA

- ◆ Proved cuts deeper than portrayed
- ◆ Aggregate margin dispelled “profit” myth

## ■ Outliers

- ◆ Proved acceptability of tentatively settled RCCs

## ■ Psych PPS

- ◆ Proved hospital-based units under-funded and clinical classification system inappropriate

## ■ Wage index

# Examples of Recent Reimbursement Studies: Medicaid

- FY 2002–2003

- ◆ Worker Recruitment and Retention funding

- FY 2003–2004

- ◆ Fiscal impact of proposed rate cuts

- FY 2004–2005

- ◆ Quantifiable reasons for cost differences among states' programs

# Comparative Provider Outcomes

# Comparative Hospital Outcomes

- THEORI focuses on performance measurement requiring rigorous econometric analysis
- Work conducted in collaboration with the GNYHA Outcomes Research Committee
- Activities complement those of
  - ◆ Terri Straub, R.N., *Vice President, Quality and Patient Safety*
  - ◆ Mary Johnson, *Senior Vice President, Public Affairs*

# Outcomes Research Committee

- Meets monthly
- Chaired by Ben Chu, M.D., *President, New York City Health and Hospitals Corporation (HHC)*
- Geared toward quantitatively oriented decision support professionals

# Two Principal Activities

1. Provide comparative hospital outcomes to members based on THEORI's state-of-the-art risk adjustment methodology
2. Deconstruct, explain, and critique quantitative methods used by purveyors of public report cards

# Quaesitum Measurement System (QMS)

- THEORI's comparative outcomes report series since 1997
  - ◆ Available through [www.theori.org](http://www.theori.org)
    - ◆ Contact Ismail Sirtalan, (212) 506-5414
  - ◆ Reports are provided for internal management purposes
    - ◆ May not be shared with the public
    - ◆ May be used in private communications with government entities and business associates

# QMS Outcomes

- Risk-adjusted
  - ◆ Mortality rates
  - ◆ Complication rates
  - ◆ Length of stay
  - ◆ Cost per case (*total, operating, labor, non-labor*)

# QMS Benchmarks

- Other hospitals in New York State
  - ◆ Peer groups based on region and teaching status
  - ◆ Competitor groups based on patient origin analyses
    - ◆ Different for each clinical service line
  - ◆ Hospital-specific and aggregated results are shown

# QMS Data

- Performance is measured by comparing actual and risk-adjusted expected outcomes
- Expected outcomes are derived at the case level using four years' worth of
  - ◆ Statewide Planning and Research Cooperative System (SPARCS) data
  - ◆ Institutional Cost Report (ICR) data
  - ◆ Census bureau data

# QMS Risk Factors

- QMS uses NYS databases to maximize patient-level data
  - ◆ Age
  - ◆ Gender
  - ◆ Poverty
  - ◆ Emergency admission
  - ◆ Admission from another acute care hospital
  - ◆ SNF or adult care facility residence
  - ◆ Comorbidities based on MDC (we exclude complications)
  - ◆ Teaching intensity (for cost models)
  - ◆ Region (for cost models)

# QMS Risk Adjustment Methodology

- Regression analysis
  - ◆ Separate models for each outcome within each DRG
  - ◆ Over 1,000 models
- QMS reports include
  - ◆ Effect of each risk factor on expected outcome
  - ◆ Explanatory power of model
  - ◆ Statistical significance of each result

# QMS Reports

- Each series includes separate reports for
  - ◆ Each federal DRG “cluster”
  - ◆ 35 clinical service lines
  - ◆ All patients
- Reports also include
  - ◆ Four-year performance trends
  - ◆ Hospital’s market share among competitors

# QMS Updates

- Annual data updates
- Annual or biennial methodology updates
  - ◆ Constantly developing refinements based on
    - ◆ Original research
    - ◆ Literature review
    - ◆ Analysis of other methodologies in use

# Critiquing Other Methodologies and Report Cards

- 3M All Payer Refined DRGs (APR DRGs)
- U.S. News & World Report rankings
- Agency for Health Research and Quality (AHRQ)
- Niagara Health Quality Coalition
- Leapfrog Group
- National Quality Forum

# Process of Evaluating Other Report Cards: Technical

- Replicate methodology to evaluate
  - ◆ Statistical approach
  - ◆ Purveyor's skill at applying techniques
- Derive explanatory power
- Derive statistical significance of results
  - ◆ Use different formulas to test stability

# Process of Evaluating Other Report Cards: Policy

- Present methodology and assessment to Outcomes Research Committee
- Post replicated data on [www.theori.org](http://www.theori.org)
- Solicit comments of Committee and directions for action
  - ◆ Communicate problems to purveyors
  - ◆ Advised NQF to form Committee on Data Integrity and Availability

# Hospital and General Healthcare Market Trends

# Hospital and General Healthcare Market Trends

- Utilize national and New York State data to study trends in
  - ◆ Utilization and access
  - ◆ Payer mix
  - ◆ Cost and other efficiency measures
  - ◆ Profitability by facility and service
  - ◆ Provider liquidity and capital structure

# Hospital and General Healthcare Market Trends

- THEORI posts multiple years' worth of hospital-specific data at [www.theori.org](http://www.theori.org)
  - ◆ ICR data tables
  - ◆ HCRA pool distribution tables
  - ◆ Miscellaneous reports and tables
- Data available to registered members
  - ◆ Must register separately for GNYHA and THEORI Web sites