Management Engineering at Banner Health System
Who & What is Banner?

- Banner is a Healthcare system
- BHS-Arizona has 7 hospitals in the valley
- BHS-West has several facilities in Alaska, and North Dakota
- BHS-Colorado also has several facilities spread throughout the state
Who are the Management Engineers?

- **Ellen Ermer-Braun**
  - Masters Degree in Industrial Engineering, BS Degree in Dietetics
  - Clinical and Consulting Dietitian in various settings, including Mesa Lutheran; joined Banner Health in January, 2001
  - Located at Banner Corporate Center, 602 495-6378; ellen.braun@bannerhealth.com

- **Mary Ellen Bucco**
  - Industrial Engineering Degree
  - 20 years experience in industry, came to healthcare in 1999
  - Located at Mesa Lutheran Hospital, 480 461-2152; maryellen.bucco@bannerhealth.com

- **Steve Kisiel**
  - Masters Degree in Systems Engineering
  - 20 years as Management Engineer
  - Published and presented at professional conferences
  - Located at Good Samaritan Regional Medical Center, 602 239-4220; steve.kisiel@bannerhealth.com

- **Courtney McEvoy**
  - Industrial Engineering Degree
  - Recent graduate; completed internship at Banner Health System in 2000
  - Located at Banner Corporate Center, (602) 495-6372, courtney.mcevoy@bannerhealth.com

- **Reza Ziaee**
  - Masters Degrees in Industrial and Systems Engineering and Economics, coursework towards PhD. completed
  - 13 years as Management Engineer, joined team in 1998 from Henry Ford Health System
  - Published in professional publications
  - Located at Thunderbird Samaritan Medical Center, 602 588-4714; reza.ziaee@bannerhealth.com

- **Twila Burdick**
  - Masters Degree in Business Administration
  - 15 years as Management Engineer, 20 years in healthcare, serves as System Director of Organizational Performace
  - Published and presented at professional conferences
  - Located at Banner Corporate Center, 602 495-4518; twila.burdick@bannerhealth.com
What is Management Engineering?

* A Staff Function that works with managers and staff at all levels of the organization to:
  * Understand Customer Needs and Expectations
  * Measure Organizational Performance
    * Including:
      * Performance Measurement
      * Benchmarking
  * Analyze & Improve Processes
  * Facilitate Interaction on various levels
  * Training
Who are our customers?

- Patients
  - Friends and Families
- Managers/Directors
- Hospital Staff
- Administrators
- Other BHS Employees and Departments
How We Operate

- Centralized Reporting
  - System-wide function
  - Part of Corporate Allocation
- Decentralized, facility based locations
- Team approach
  - Common files
  - Virtual Meetings with MEs in Other Regions

🌟 ME – Management Engineer
Performance Measurement and Analysis

- Identifying process and outcome measures
- Performing quantitative and qualitative customer research
- Aligning measures to meet organizational goals
- Designing “scorecards”
- Establishing performance targets
- Collecting and analyzing data
Productivity Measurement and Analysis

- Measuring workload, identifying patterns and trends
- Identifying labor utilization, by type and cost impact
- Matching staffing to workload
- Projecting budget volumes and FTEs
- Using WALES productivity reports
Internal and External Benchmarking

- Using HBSI Action Reports for Operational Indicators
- Accessing process specific information
- Attending and facilitating internal networking meetings
Project Facilitation

- Planning projects
  - timelines
  - resources
  - methods
- Consulting with and supporting Team Leaders
- Planning meetings
- “Facilitating” discussion at meetings
Process Analysis

- Flow diagramming of current processes
  - Identifying opportunities for improvement
- Analyzing capacity
- Applying simulation software to healthcare operations
Training Design and Delivery

- How to Use Control Charts
- Tools for Analyzing Data
- Approaches for Solving Problems
- Using Survey Data
Specific Examples of Previous Projects

- Operational planning for 80+ bed expansion
- Facility “report card” development
- Consult – Call Center control charts
- Document physician documentation/suspension processes
- Deployment of System & Facility strategic plans
- Redesign of front-end patient flow in ED
- BHS-AZ Workforce Initiative – predictive staffing model