

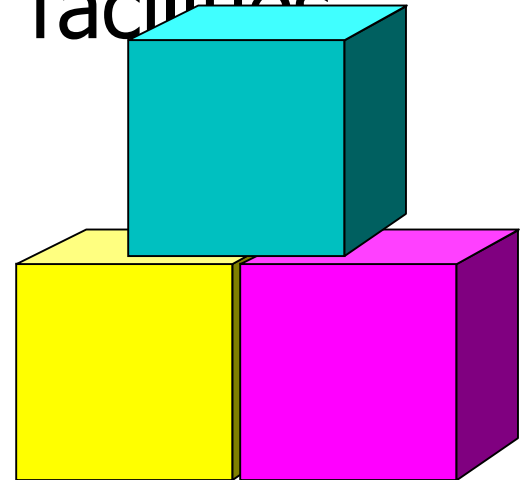


Banner Health System

**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 Performance
- 🏠 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

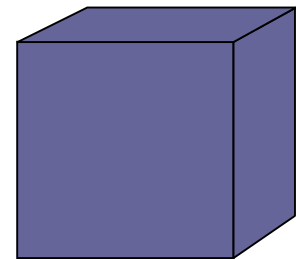


- Centralized Reporting
 - System-wide function
 - Part of Corporate Allocation
- Decentralized, facility based locations
- Team approach
 - Common files
 - Virtual Meetings with MEs in Other Regions

✦ ME – Management Engineer

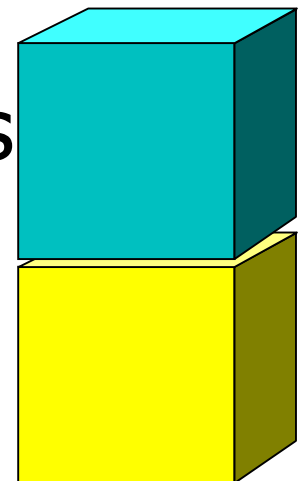
Performance Measurement and Analysis

- 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



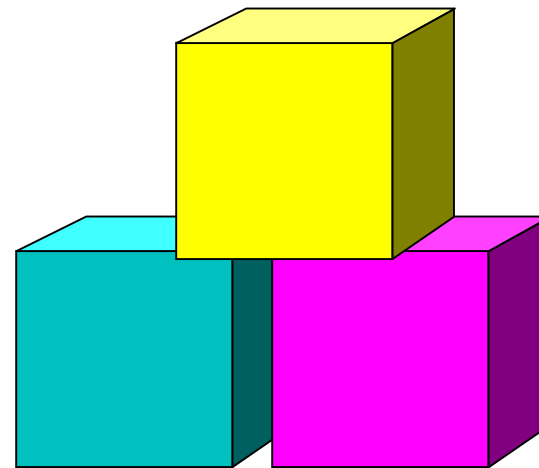
Productivity Measurement and Analysis

- 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



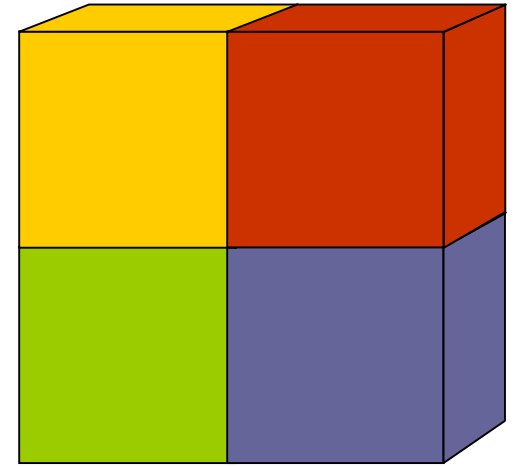
Internal and External Benchmarking

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



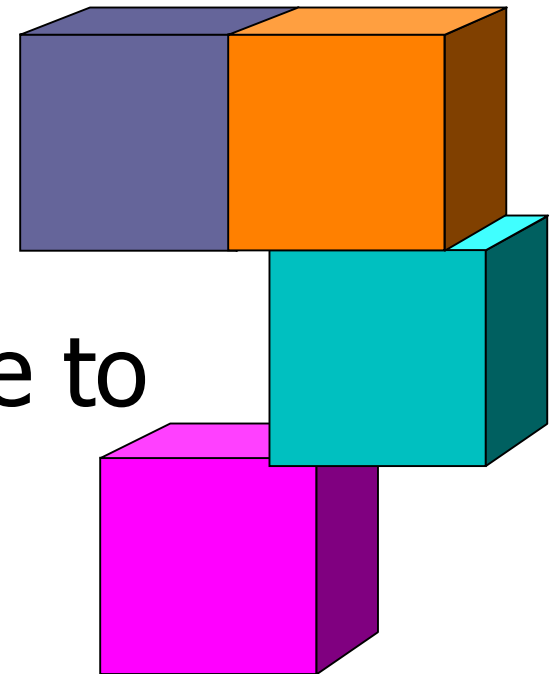
Project Facilitation

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



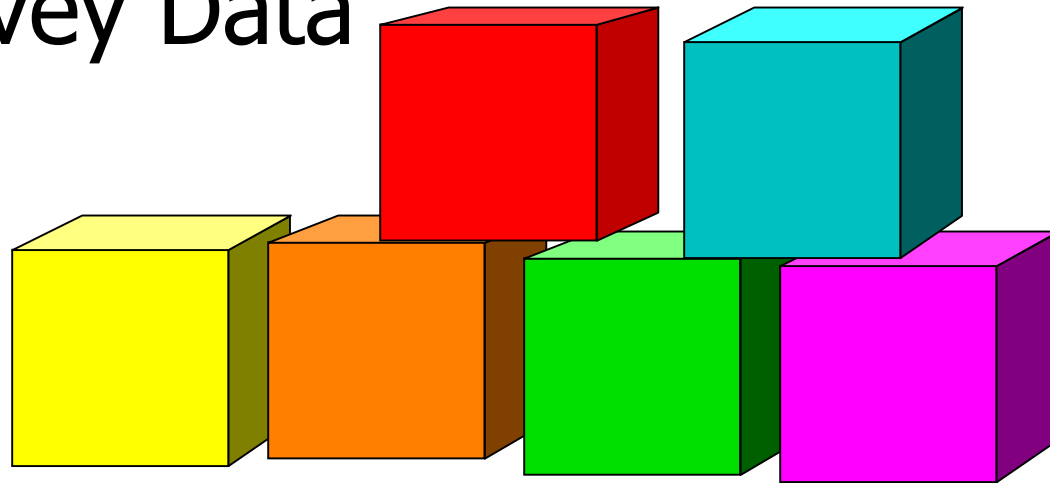
Process Analysis

- 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