An Educational Presentation on

Medical Errors:

Frequency, Costs, and Systemic Causes: A Comprehensive Solution

Presented to:

The First National HIPAA Summit
October 17, 2000

Presented by:

Safety-Centered Solutions, Inc.

2000 Winner of the Healthcare Innovations in Technology Systems Award (HITS)
Honoring Partners in Healthcare Technology

What Gets Measured, Gets Managed: Grim Facts

- **Nationally, 44,000 - 98,000 People Die Unnecessarily in Hospitals Each Year**

  (Institute of Medicine [IOM] Report)

- **44,000 Deaths from Medical Errors Exceed Annual Deaths from Motor Vehicle Accidents, Breast Cancer or 3X AIDS**

  (IOM Report)

- **The Death Rate Equates to Three Jumbo Jet Crashes Every Two Days**

  (Lucian Leape, MD)

What Gets Measured, Gets Managed: The Research

Harvard Medical Practice Study (1991)

- 70% of Adverse Events Due to “Systemic” Causes, Not Negligence
- 80% of Adverse Events Are Preventable

Lucian L. Leape, MD
JAMA, Dec. 21, 1994

1999 OIG & IOM Reports: Watershed Reports

- Office of Inspector General (OIG) Report Finds "Patients at Risk" & "Major Regulatory Deficiencies" (7/99)
- IOM Report Sets National 5-Year Agenda to Reduce Error (11/99)
- Federal Government Adopts IOM Report (2/00)
- Quality Interagency Coordination (QuIC) Task Force Expands Federal Actions Beyond IOM Report (2/00)

Federal Government Adopts IOM Report Recommendations

- **Adopted the IOM Goal:**

  50% Reduction in Medical Errors in Five Years

- **Adopted the IOM Recommendations:**
  - *"(Hospitals have) serious, visible, and on-going commitments to creating safe systems of care & develop a culture of safety"*
  - *"implement…new safety measurement systems…to improve safe practices at the delivery level"*
  - *"set and enforce explicit standards for safety…by regulators…accreditors"*

- **Adopted Purchaser Requirements:**

  The Office of Personnel Management (OPM) Is Requiring All 300 Health Plans Serving Federal Employees to Implement Patient Safety Initiatives Beginning in 2001.

The Silver Lining for Hospitals

- New Comprehensive Error and Cost-Reduction Methodologies Exist
- Use Other Industries as Models (Motorola, G.E., Saturn, Airline Industry)
- Data-Driven Medical Error Reduction Cuts Significant Costs
- Case Study: Utilizing the New Data-Driven Methodologies

What are the types of information that will need to be protected in the future related to medical errors (patient safety)?

A look at the patient safety information of the future:

large, protected databases essential to determining systemic causes and implementing prevention strategies

New Medical Error Reduction Methodologies

- **Comprehensive Taxonomy of Medical Errors**
  Consistent Definitions, Classification & Coding; Relevant for Research & Clinical Application
- **Comprehensive Hospital-Wide Inventory**
  All Potential Error Sources
- **Relational Database**
  Linking the Taxonomy, Demographics, Associated Additional Costs & Days, and Enabling Extensive Drill-Downs, and Ongoing Measurement and Trending
- **Comparative Error & Associated Data**
  Enabling Use of Data for Best Practices and Benchmarking Purposes
- **Technical & Cultural Education**
  Building a Strong Foundation for a “Culture of Safety” and Replacing the Cultures of Blame and Silence

Safety-Centered Solutions, Inc.
Overview of Safety-Centered Care™

Healthcare Experience Plus Other Industries' Research

(Reducing Human Error)

Technology *(Measurement)*

◆ Event Frequency, Costs, and Systemic Causes

Learning Center *(How to Use the Technology)*

◆ Data-Driven Cultural Change

Feature	Value
1. Excalibur™ On-site	1,500 Events/18 Modules
2. Sentinel™ (NPSBC)*	Comparative and Best Practices Data - 250,000 Events in National Data Repository
3. Medical Error Taxonomy (PSDR)**	Standard Definitions, Classification, and Coding for All 1,500 Events
4. Medical Records Strength Assessment	Tests Strength of Medical Record in High-Risk Areas
5. Executive Seminars • Strategic - Enterprise-Wide Measurement - Enterprise-Wide Incentives - Formalized Safety Targets - New System of Accountability • Tactical (Excalibur™ Elite Skills)	Provides Knowledge, Understanding, and Skills Required to Successfully Use the Technology at All Levels

* *National Patient Safety Benchmarking Center™*

** *Patient Safety Desk Reference™*

The Economics of Patient Safety

- **National Costs Associated with Preventable Medical Errors, Estimated at $17 - $29 Billion of which Health Care Costs Are Over One-Half**

  (IOM Report)

- **At the Hospital Level, 25-35% of All Hospital Admissions Are Involved in an Adverse Event**

  (SCS)

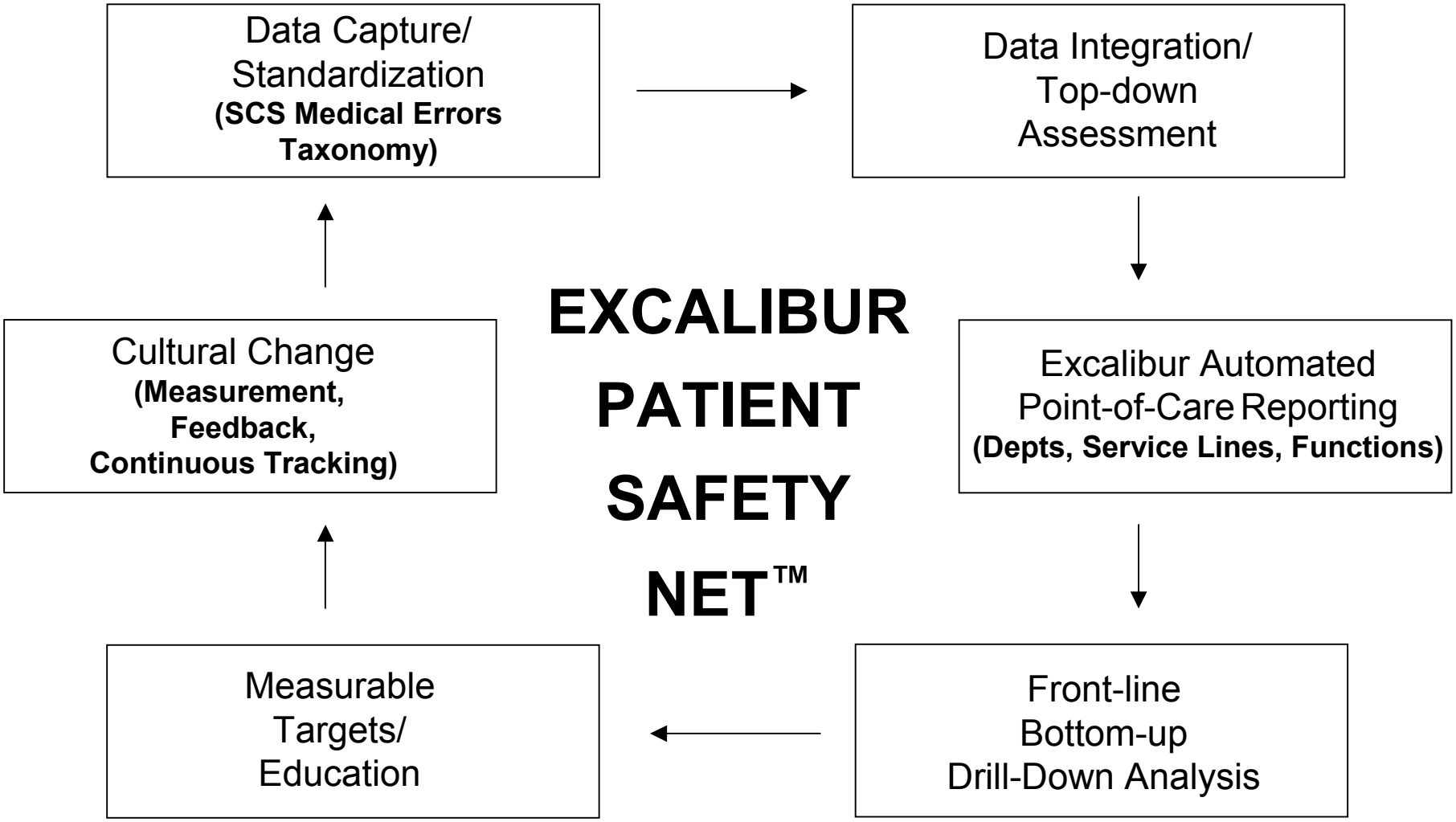
- **At the Hospital Level, Errors Cost 10-15% of a Hospital's Annual Operating Budget - $10 - $12 Million for a 200-Bed Hospital**

  (SCS)

Excalibur Point-of-Care Reporting

- Through Excalibur Automated Point-of-Care Reporting, Events and their related data are reported on a Department, Function, Business Unit, or Service Line basis
- Point-of-Care represents **Breakthrough Thinking** establishing a permanent, hospital-wide system of accountability for the proactive management of patient safety
- Point-of-Care reports also empower employees, physicians, and key managers to measure and reduce medical errors in an atmosphere of trust
- This unique approach to reducing medical errors enables data-driven cultural change on a continuing basis

Safety-Centered Care™
An Integrated, Comprehensive Solution



Excalibur Point-of-Care Report
Operating Room

SAFETY-CENTERED CARE™ Point-of-Care Safety Report OPERATING ROOM								
EVENT	January – September				September			
	1999 Actual	1998 Actual	Increase + / Decrease <>	Safety Target	1999 Actual	1998 Actual	Increase + / Decrease <>	Safety Target
Technical Error	86	97	<11>		9	3	+6	
Surgical Wound Infection	51	49	+2		6	2	+4	
Incorrect Counts, Sharps	44	4	+40		4	4	0	
Unplanned Return to OR	36	27	+9		6	3	+3	
Complications of Invasive Procedures	36	39	<3>		5	4	+1	
Surgical, Other	33	36	<3>		4	4	0	
Incomplete Consent	14	6	+8		3	2	+1	
High-Risk Device Complication	12	13	<1>		4	3	<1>	

Excalibur Point-of-Care Report
5 South

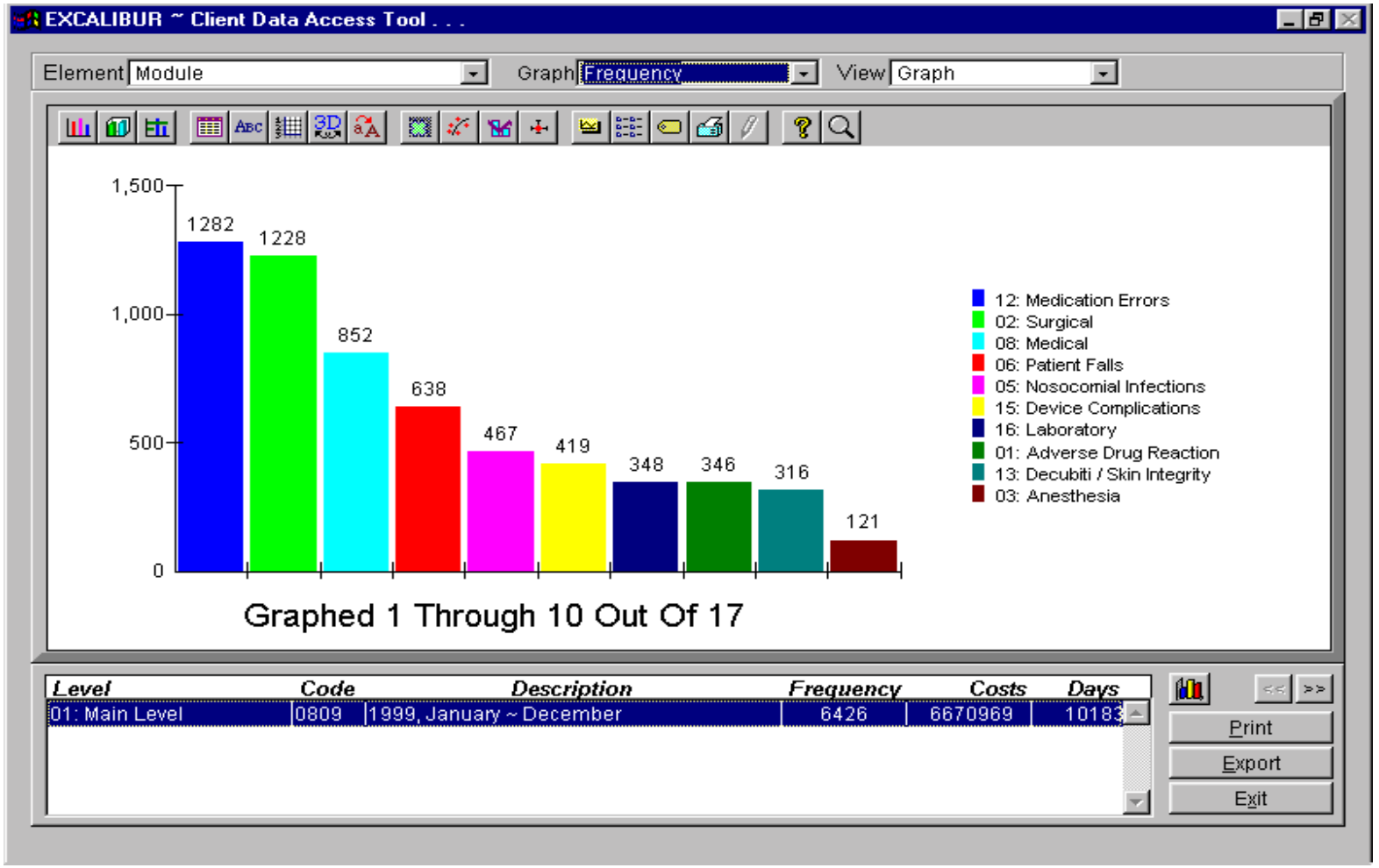
SAFETY-CENTERED CARE™ Point-of-Care Safety Report FIVE SOUTH								
EVENT	January – September				September			
	1999 Actual	1998 Actual	Increase + / Decrease <>	Safety Target	1999 Actual	1998 Actual	Increase +/ Decrease <>	Safety Target
Medication Omission Error	55	47	+8		6	3	+3	
Fall – No Injury	38	36	+2		6	2	+4	
Procedure Delay, No H & P	29	31	<2>		4	3	+1	
Unauthorized Drug Error	14	9	+5		2	0	+2	
Fall – Minor Injury	12	13	<1>		3	1	+2	
Clerical Error, Lab Ordered / Not Done	11	8	+3		2	2	0	
IV Infiltration	11	7	+4		2	2	0	
Improper Dose Med Error	11	12	<1>		3	2	+1	

Case Study: Nosocomial Infection Reduction

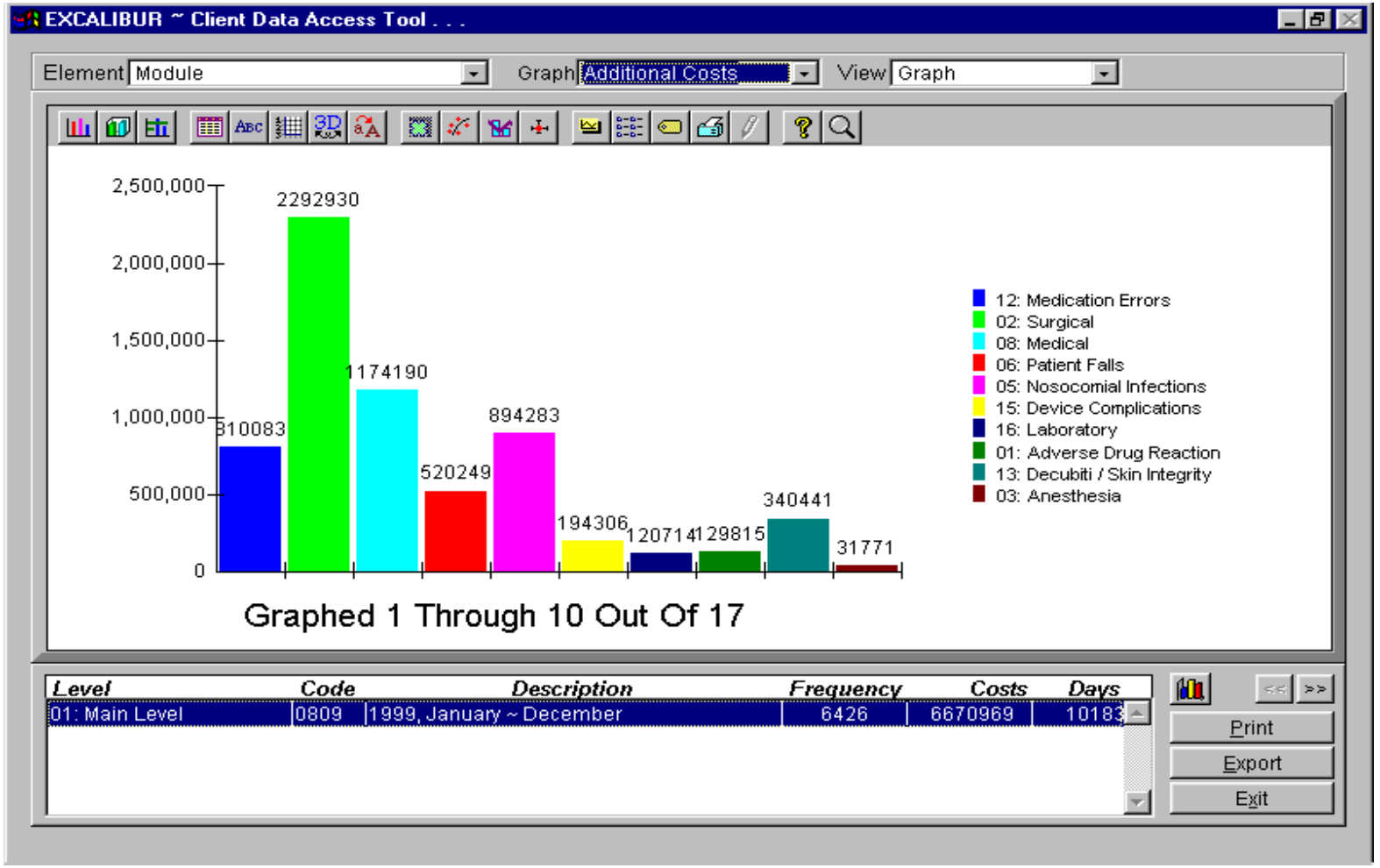
- Action Team Processes & Findings -

- **A Hospital Team Utilized Excalibur Patient Safety Net™ to Make Rapid Improvements**
- **Reviewed the Current Infection Control Practices**
  - Focused Surveillance (Point Prevalence)
  - Retrospective Review
  - No Reporting Mechanisms for Potential Infections
- **Reviewed 12-Month Retrospective Database Produced by the Hospital's Medical Error Inventory**
- **Analyzed Data Patterns, in Only Minutes, Using Excalibur™ -- as Illustrated by the Following Example for Primary Bloodstream Infections**

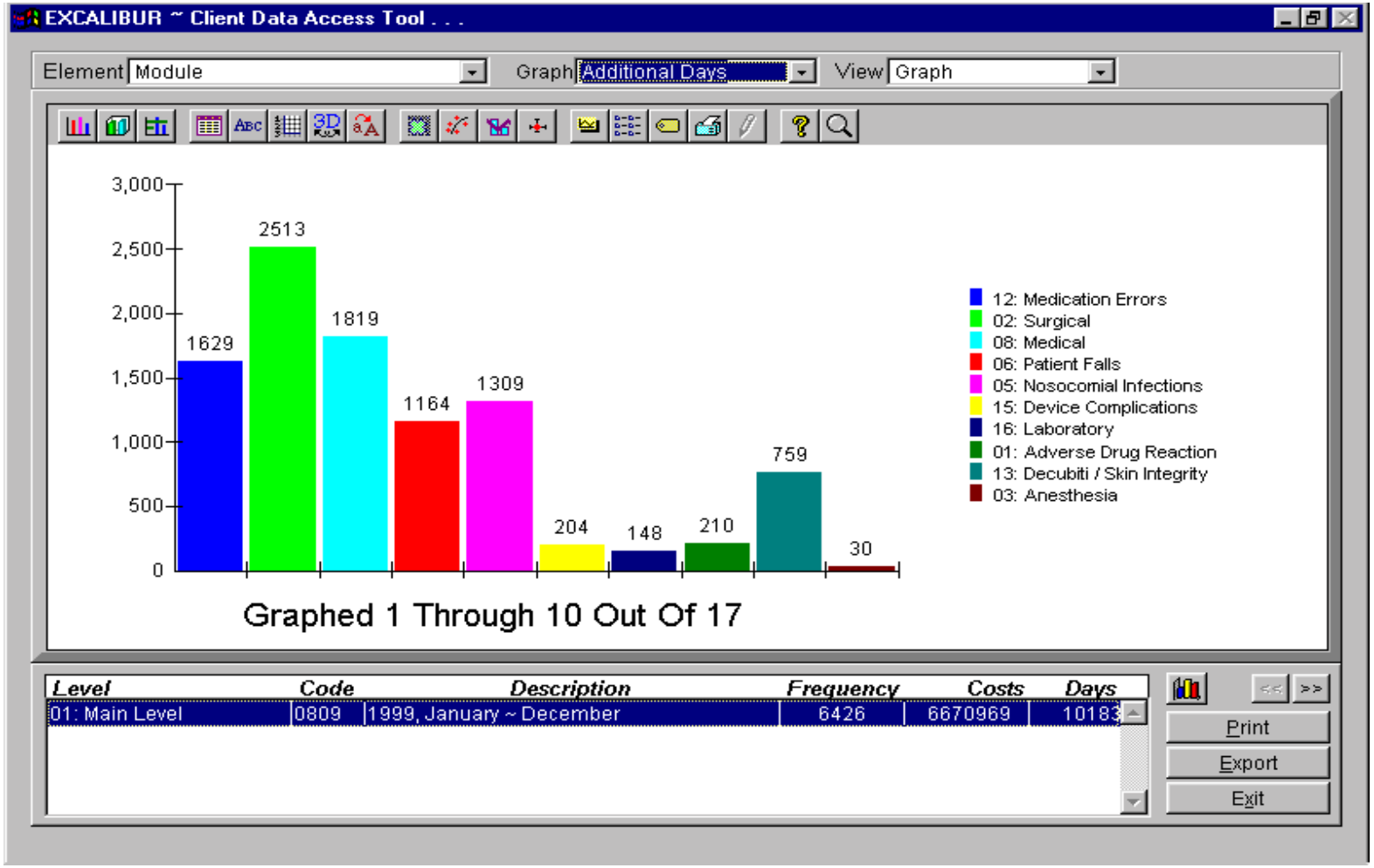
Frequency by Module



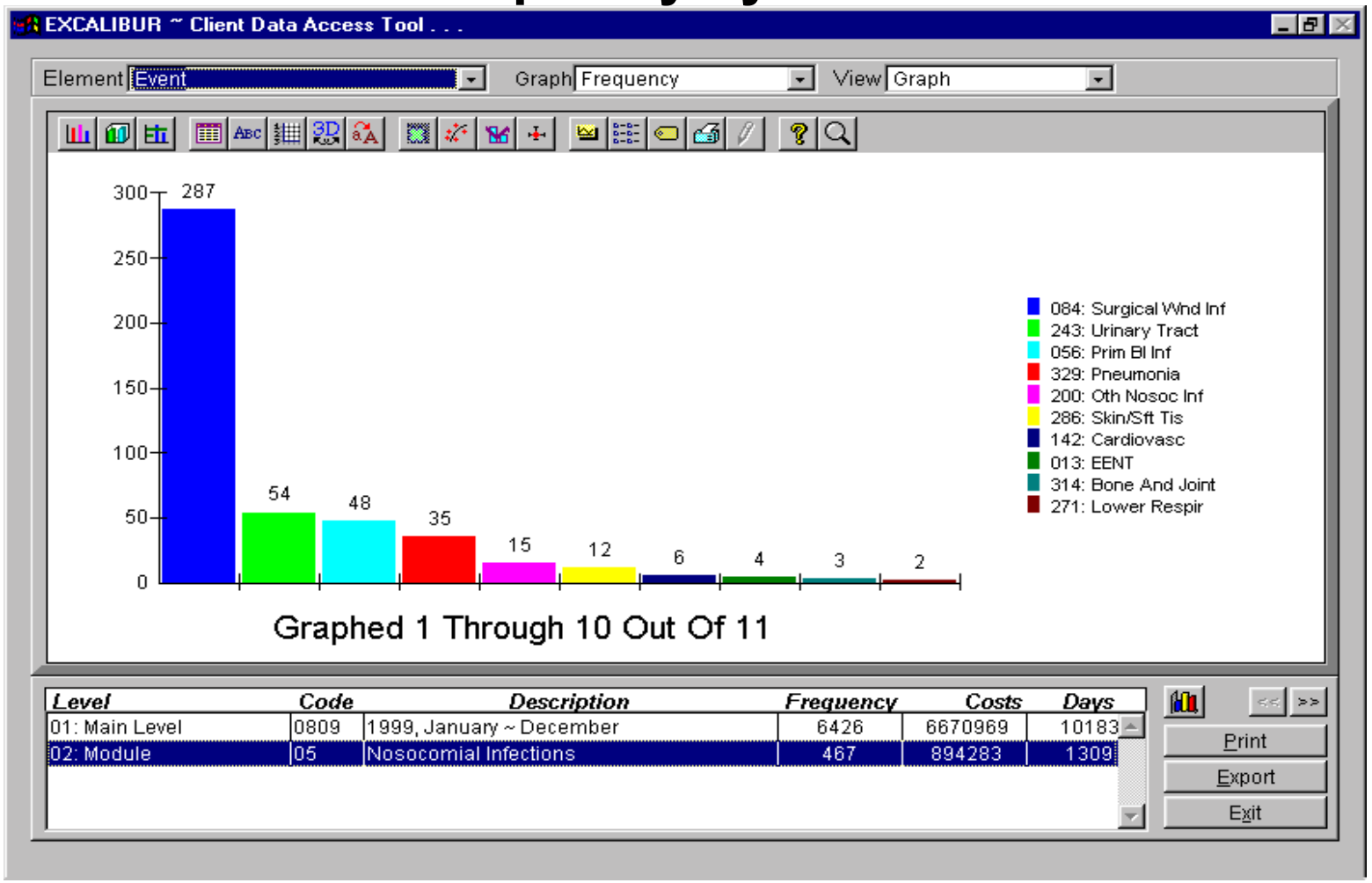
Additional Costs by Module



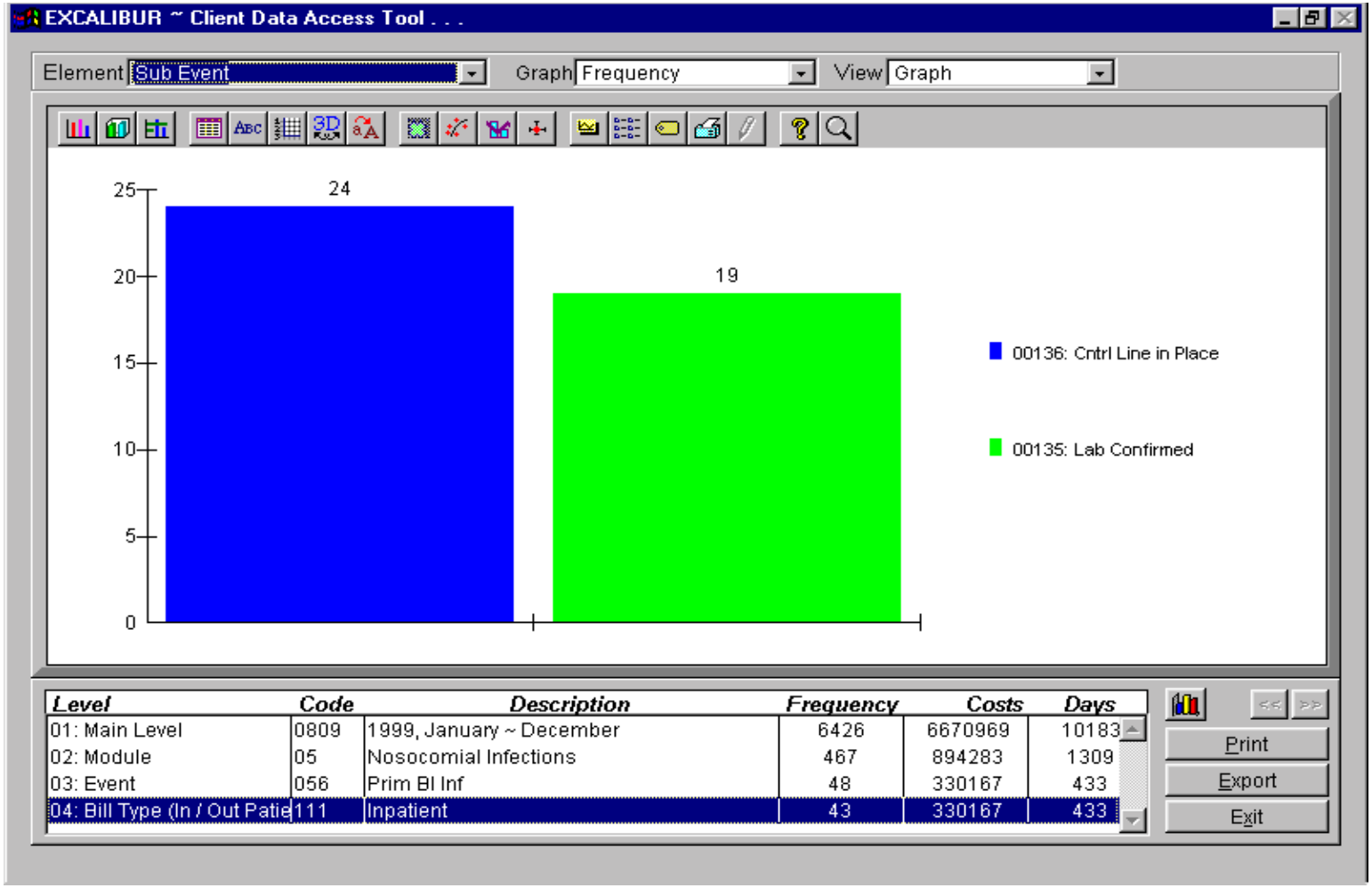
Additional Days by Module



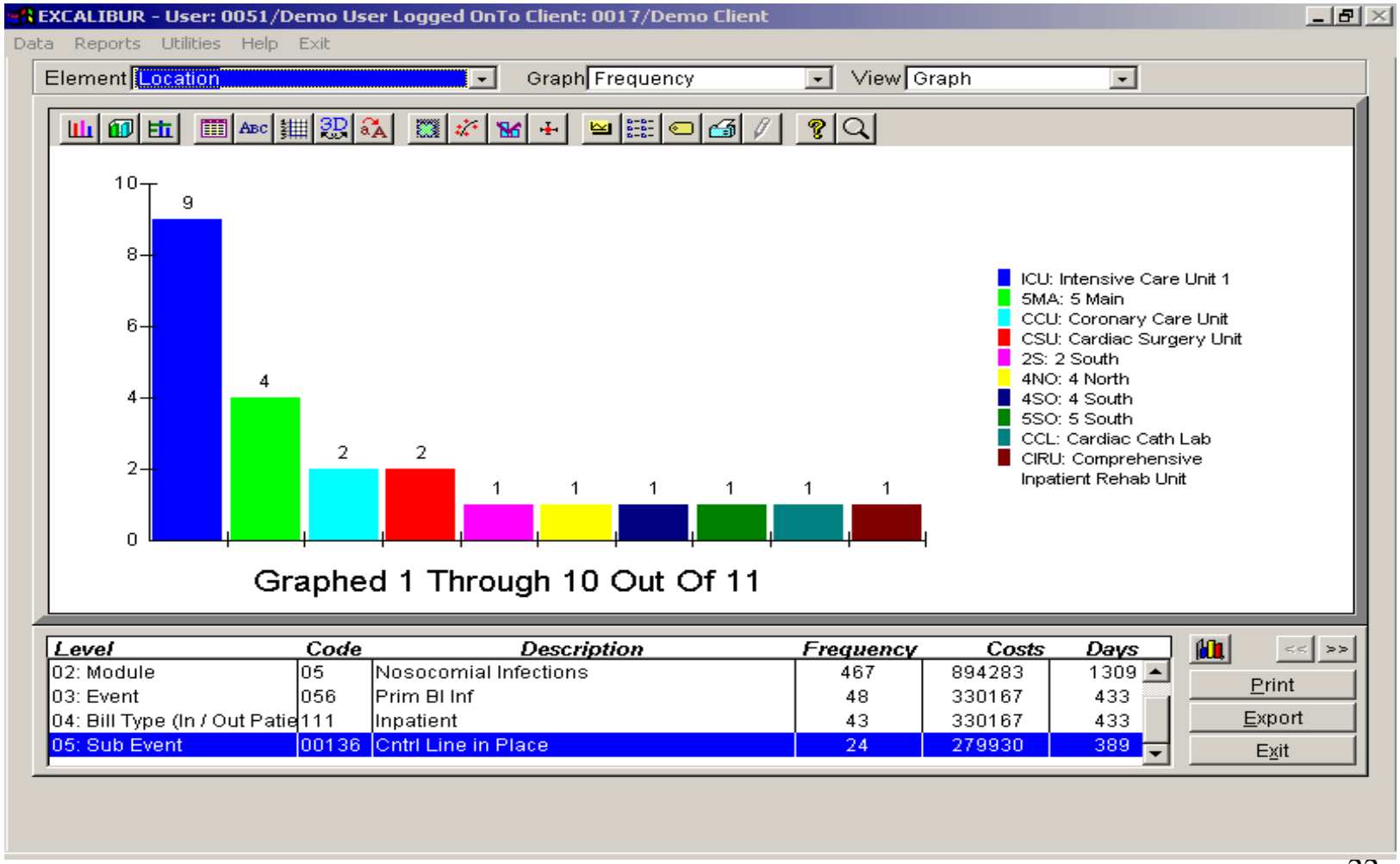
Frequency by Event



Frequency by Sub Event



Frequency by Location



Is charging for care

caused by a medical error fraudulent?