



# **“Patient Care Quality Improvement via Information Systems”**

**By: Bill W. Childs**

The problem has been addressed  
for many years. Today we have a  
Problem/Opportunity and a  
Synergistic solution

# Information Explosion

## ❖ Information Explosion

### ❖ Time Line

- 4000 BC to 1800 AD
- 1800 AD to 1900 AD
- 1900 AD to 1945 AD
- 1945 AD to 1960 AD
- 1960 AD to 1970 AD
- 1970 AD to 1975 AD

### Number of Years

5,800 years

100

45

15

10

5

# Information Explosion #2

## Storage Capacity

### Bytes

Megabytes

Gigabytes

Terabytes

Petabytes

Exabytes

Zettabytes

Yottabytes

## Costs

### Dollars

Hundreds of Dollars

Thousands of Dollars

Millions of Dollars

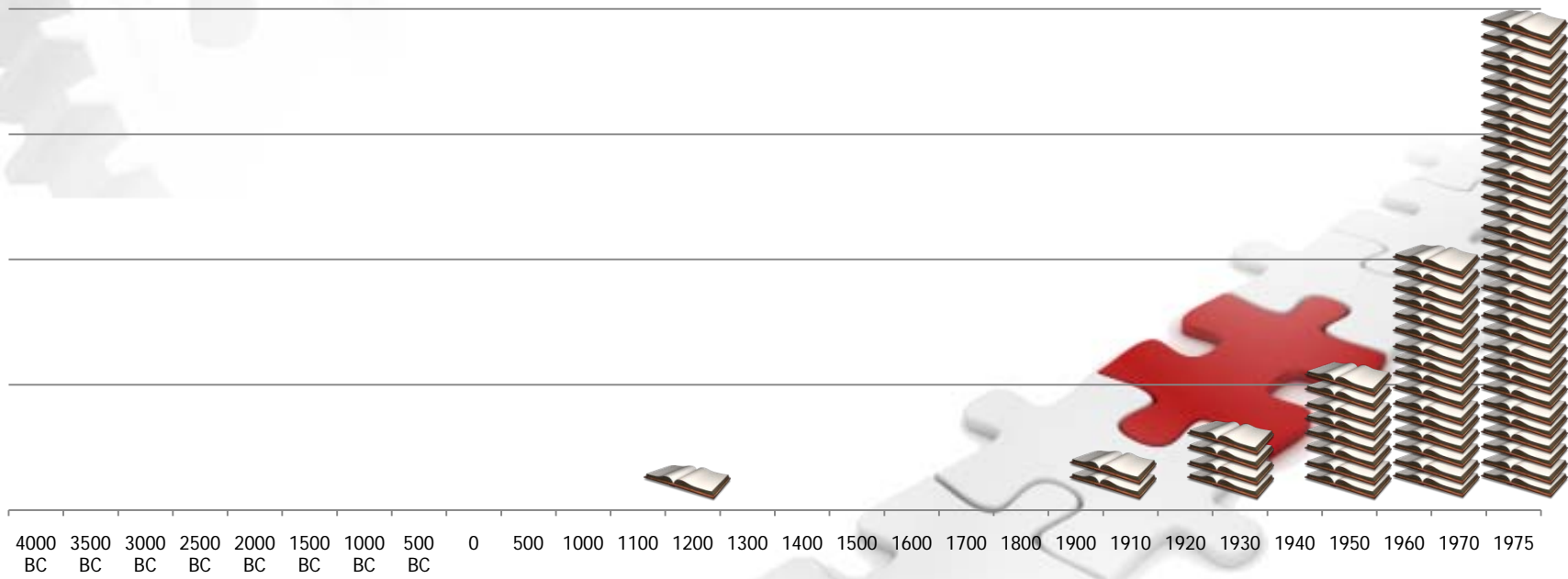
Trillions of Dollars

Quadrillions of \$\$\$

Quintillions of \$\$\$

Sextillions of \$\$\$\$

# Information Explosion



# Technology Explosions

- ❖ Medicine
- ❖ Clinical / Medical Information Systems
- ❖ High Speed Internets and Web Pages
- ❖ Cell Phones
- ❖ Storage and instant retrievals
- ❖ Standards
- ❖ Invasive and Non-Invasive Patient Monitoring

# Quality Improvement via I.S.

- ❖ Continuous Monitoring of Patients V/S
- ❖ Temperature, Pulse, Respiration, BP
- ❖ Blood Sugars, Respiratory rates
- ❖ Electrolyte Balances
- ❖ INR's, Oxygen saturation, Heart rate
- ❖ Heart Valve Performance
- ❖ This list goes on and on