The Future is Now
The Digital Medical Office of the Future

The Electronic Health Record

Exploring Functionality and the Return on Investment

Mark Anderson, FHIMSS, CPHIMSS
Healthcare IT Futurist

- 34+ Years In Healthcare IT
  Installed over $1B in technologies since 1972

- Hospital Experience
  - CIO Position at Three Multi Facility Regional IDN's
  - Executive Team Member at 5 Different IDN's
  - Worked In 158 Hospitals and 21 Payer Organizations

- Physician Experience
  - Managed 50 Physician Practices in the Late 1980's
  - CIO of a 2,300+ physician (500+ Practices) IPA
  - Currently Conducting EHR Searches for > 100 Practice
  - National Speaker on EHR > 400 sessions since 2001

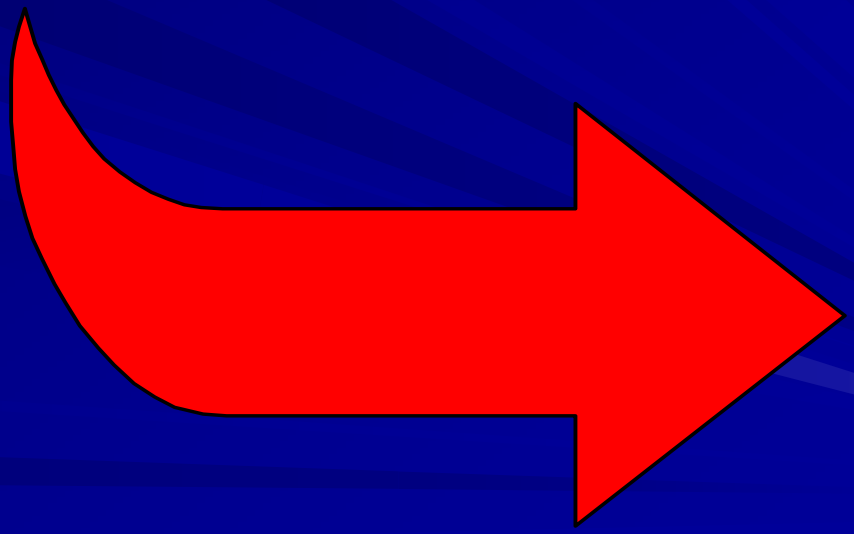
What is ROI

- ROI = Return on your investment
- Financial Improvement for 3 years compared to the cost of newer technologies over the same period
- Cost reduced by $50,000 and Revenue increase $30,000, but the cost for newer technologies was only $35,000.
- For every $1 you spent on Technology you received $2 to your bottom line.

Today's Agenda

- Before you can determine ROI you have to know your costs
- Business Changes
- What are you going to implement?
- ROI
- Who is Paying?

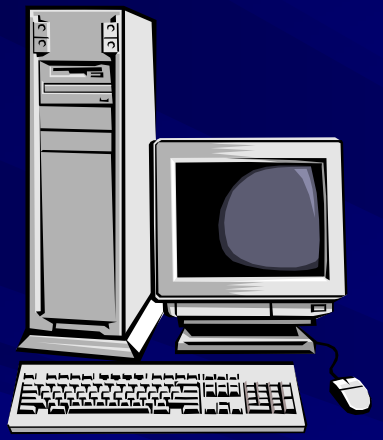
EHR COSTS



EHRs For Small Groups

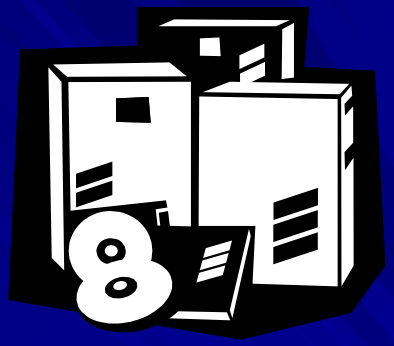
- Cost Benefit Issues
  - Scale
  - Attainable Benefits
  - Budget Limitations
  - Economies of Scale
- Challenges
  - Management Authority
  - Staff Sophistication
  - Implementation Effort

EHR Cost Factors



Server
$10,000 to $50,000 each

Handheld Device
$2,000 to $3,500 each



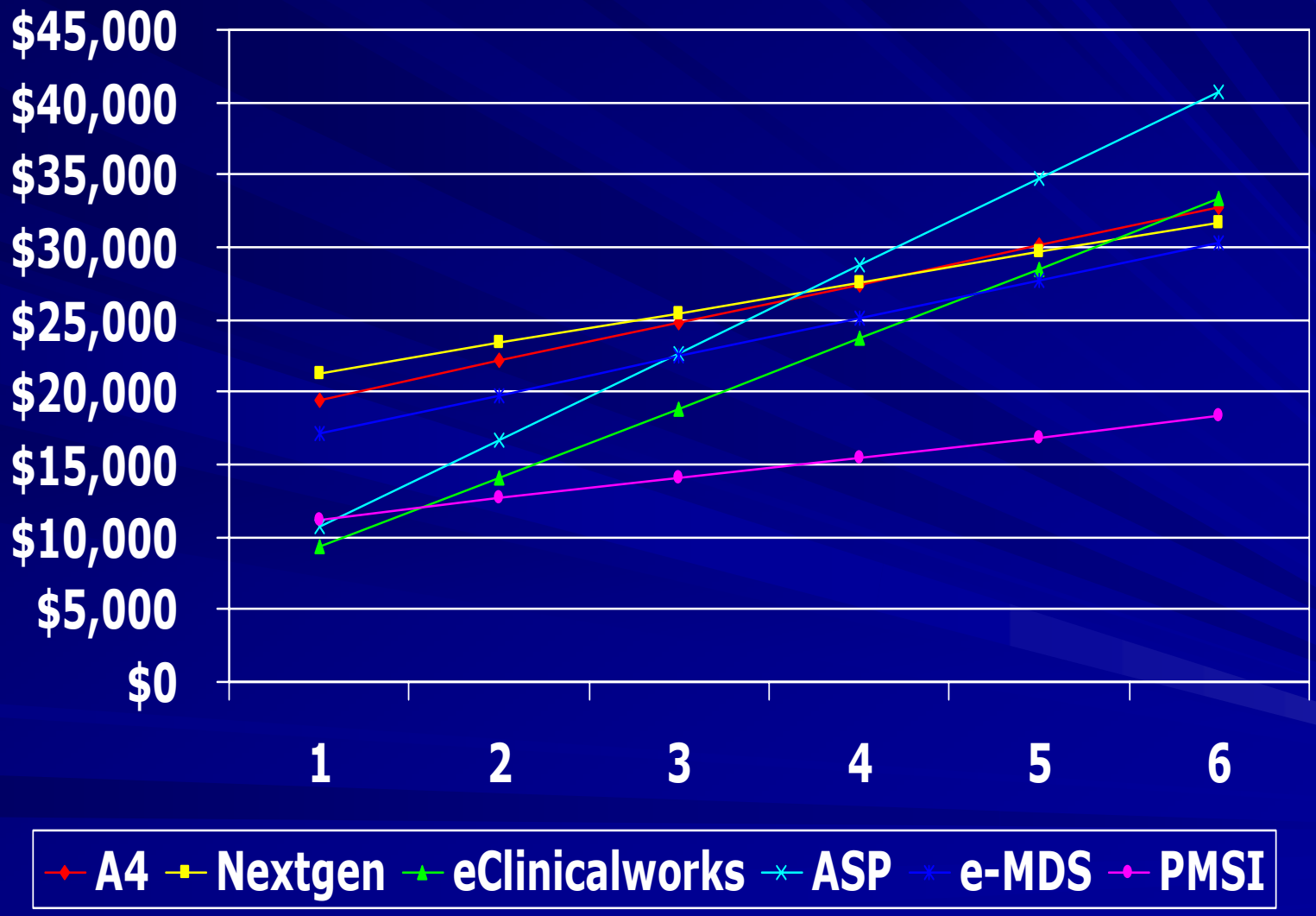
Software Licenses
$2,000 to $5,000 per user

Installation
Varies

Training
Varies

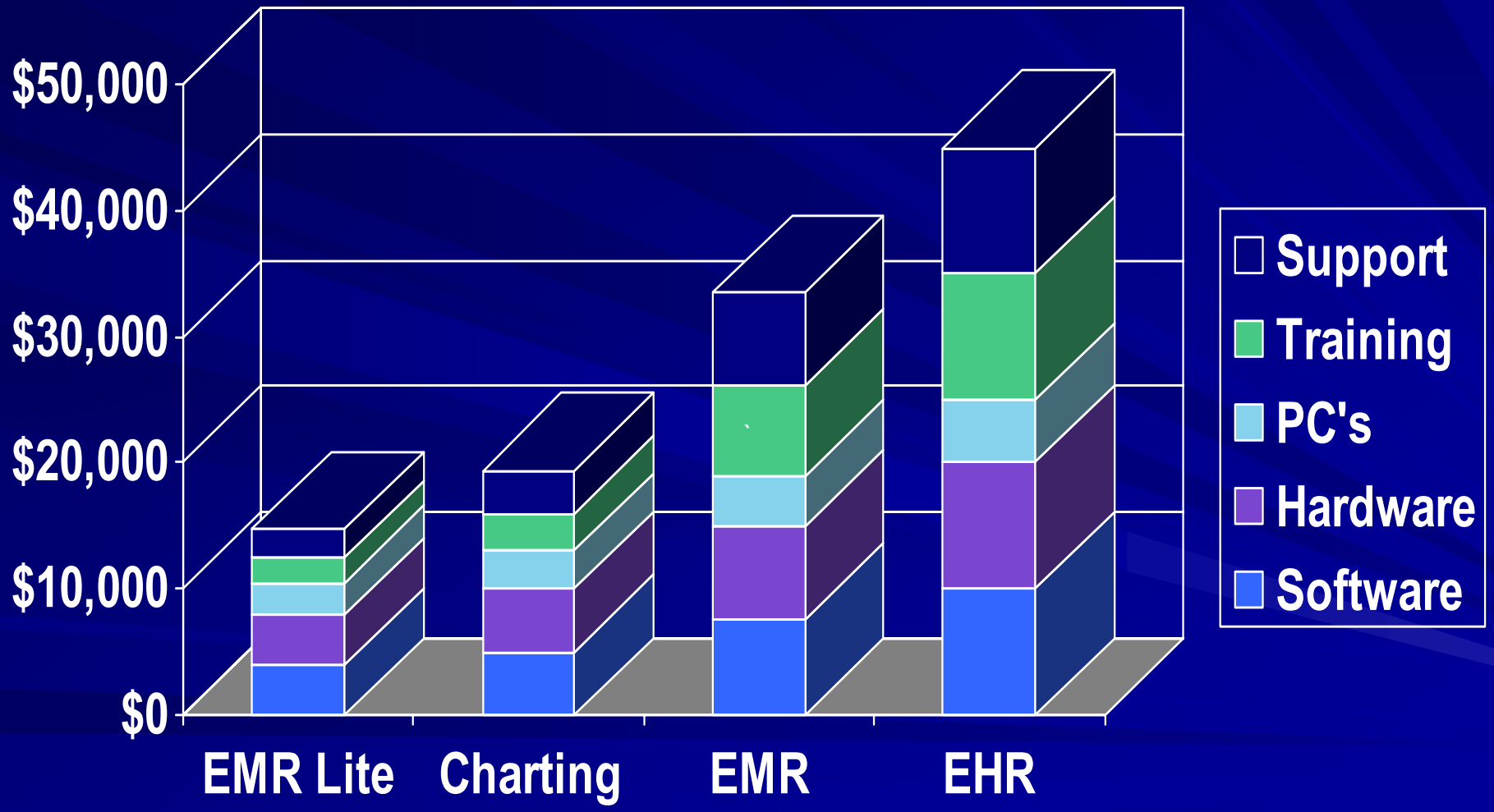
Support
15% to 33% per year

5-Provider Non-Hardware Pricing Model by Year



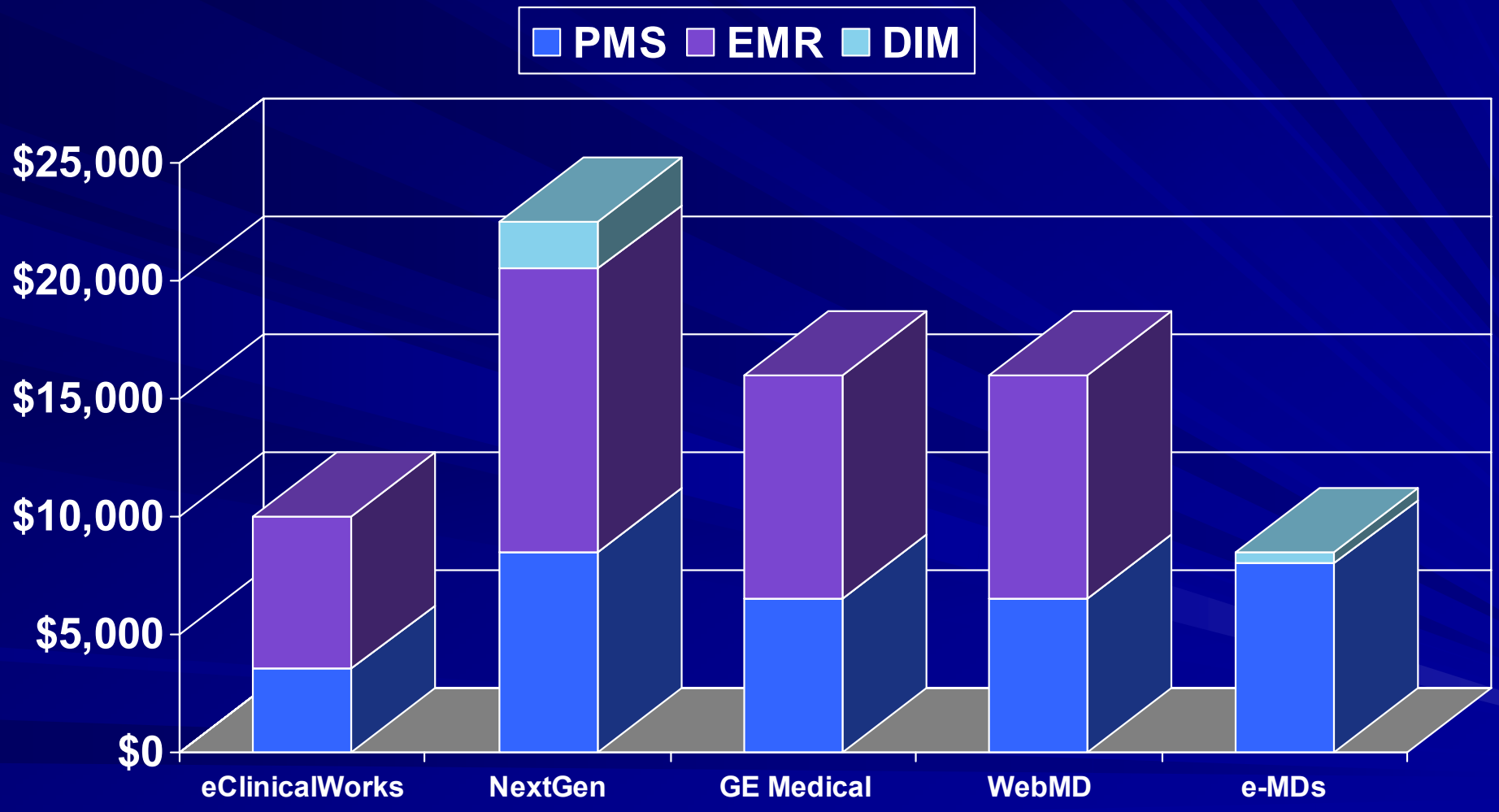
AC Group 2004 Functionality Report

COSTS PER PHYSICIAN

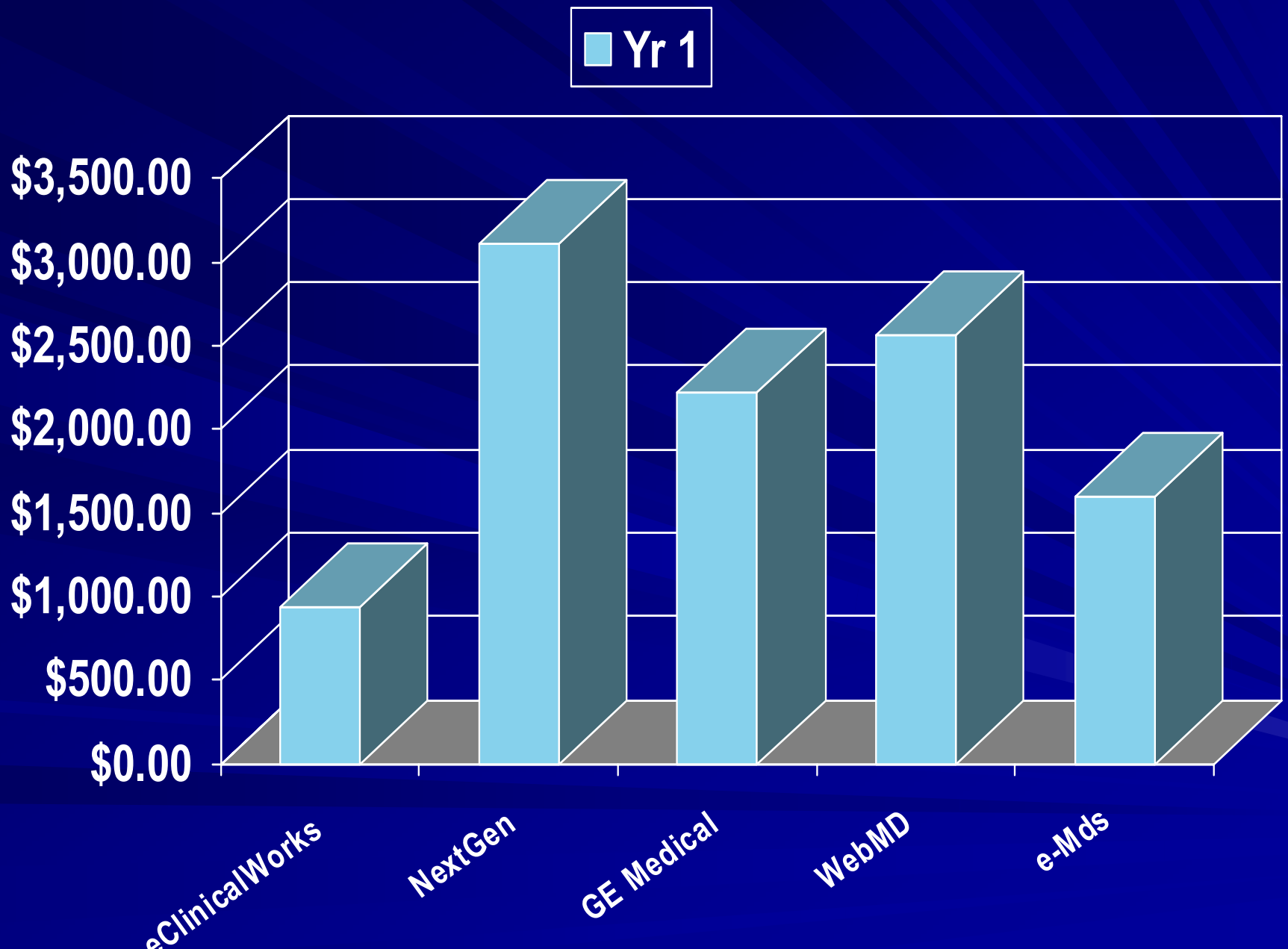


AC Group 2004 Functionality Report

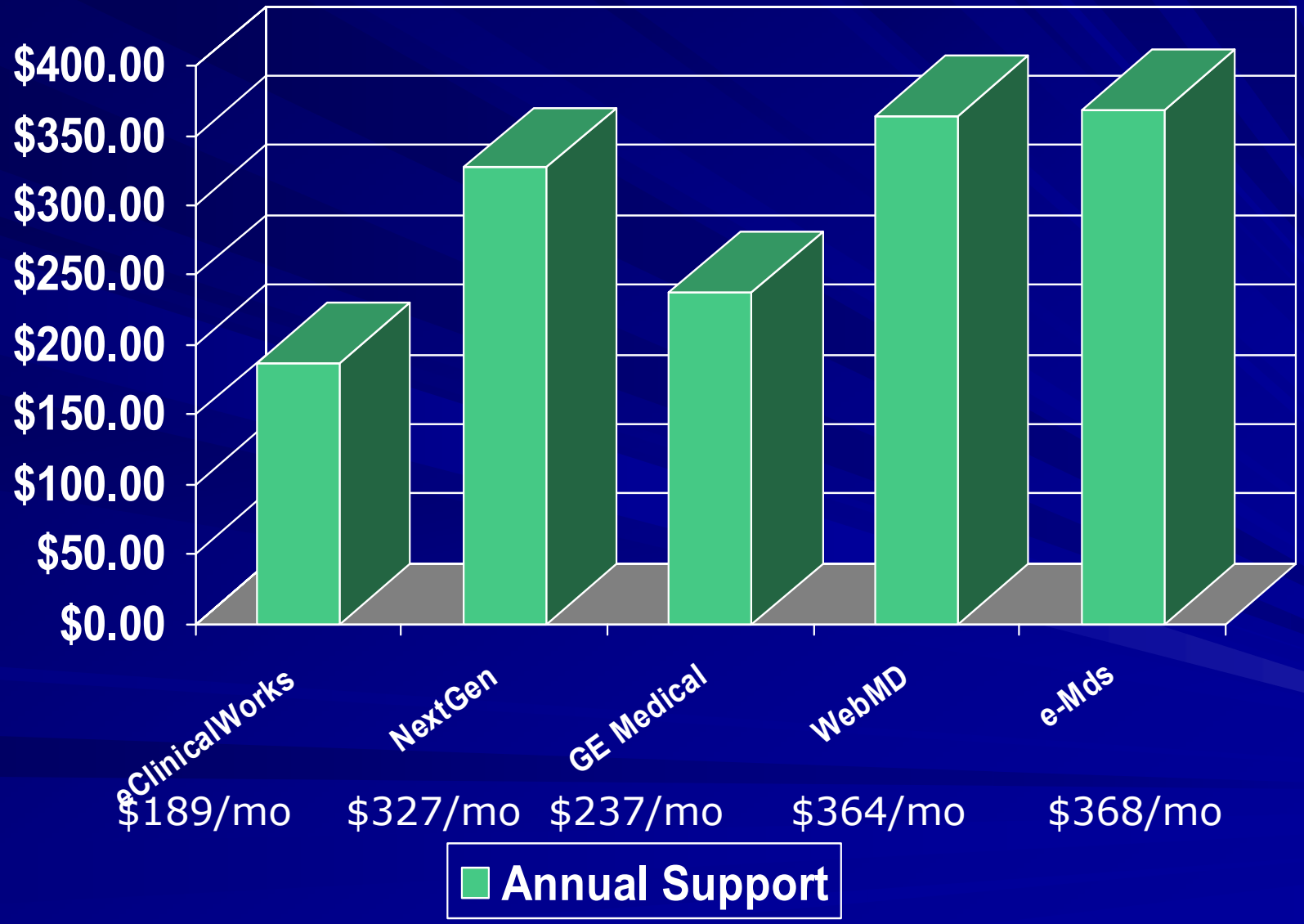
Software Only Cost per Provider



First Year Cost per provider Per Month



Annual Software Support Cost per Month per provider



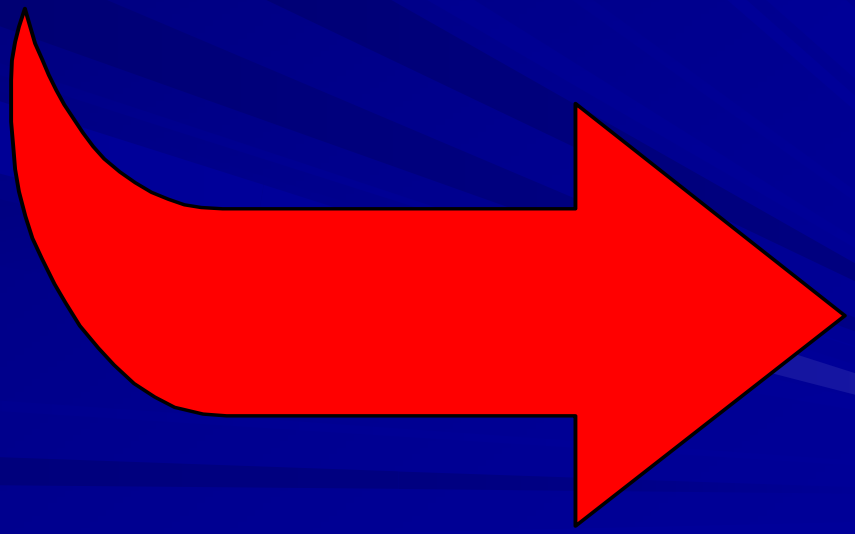
Hidden Costs

- Initial Productivity Losses
- Provider Time to Start EHR
- Staff Time to Start EHR
- Unexpected Upgrades to Current Technology Base
- Additional Security and Network Protection
- Continuing Staff and Provider Support
- Providing Access to All Necessary Staff
- Converting Paper Medical Records to the EHR

The Bottom Line

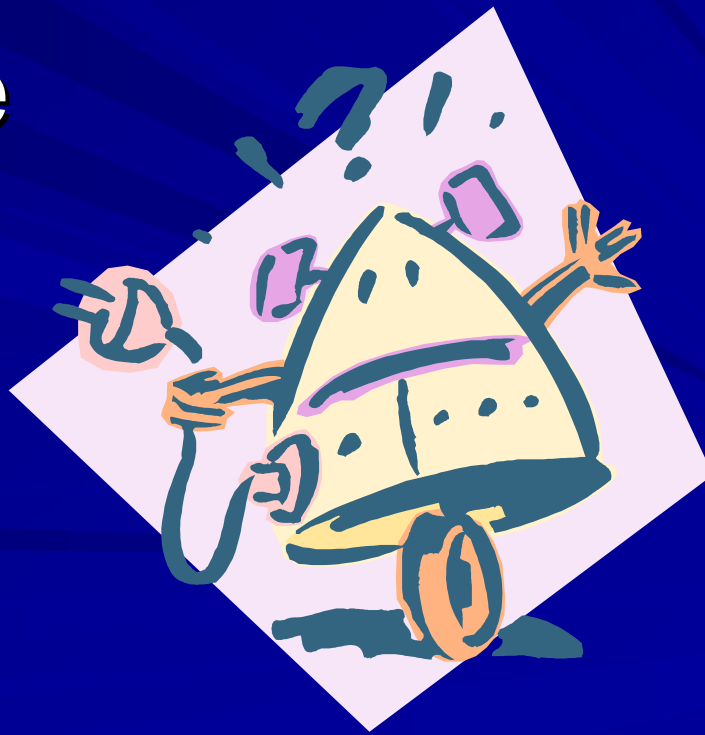
- EHR Systems Cost $25,000 to $50,000 + Per Physician Plus Communications.
- Monthly Costs (Including 60 Month Recapture of Initial Investment) Run $1,000 to $2,000 Per Provider.

Potential Return on Investment



Practice Benefit Factors

- Practice Size
- Locations
- Collaborative Patient Service Style
- Separate Billing Office
- Multiple Modalities
- Chart Movement



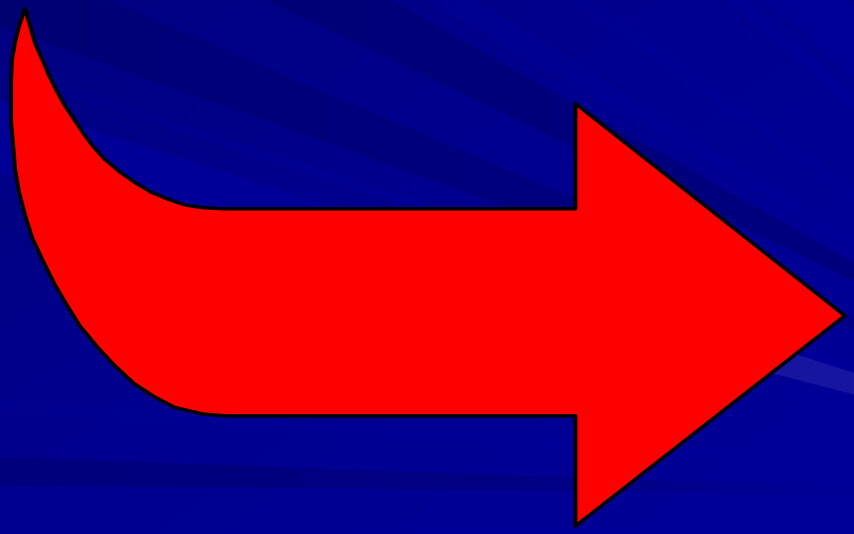
Benefits to the Physician

- Clinical Integration
- Reduce operating cost > 8%
- Improve Revenue Capture > 3%
- Lower costs = 40% reduction
- Monthly fixed costs with local support
- Contract terms and conditions
- The power “of the many”
- Pay-for-performance - $5K-10K
- Interfaces to all sources
- Data exchange between Primary Care, Specialists, and Hospitals
- Grants to the IPA offset costs
- Local clinical support via IPA
- More service = more value

Provider Revenue Enhancement

- More Accurate E&M Coding - $10,000+/Yr
- Minimize Lost Charges - 1+/day
- Increase Patient Volume - 0-15%
- Improve Internal Referrals
- Improved Claim Management

Case Study



ROI – Transcription Costs

- The application help cut Medical Transcription costs from $5.93 per visit in 2001 to $0.25 per visit in 2002.
- Based on the number of visits in 2002, SETMA saved more than $340,000.

SETMA

- 5 physicians expanded to 16 Physicians
- Installed EMR 5 years ago
- Total Paperless
- Charting in Clinic, Hospital, Home, Home Health

ROI – E & M Coding

- The EMR application helped improved E&M coding and thus, increased average billable charges for office visits by 4.23%.
- These coding improvements added more than $150,000 in billable charges.

ROI – Billing and Collections

- Average charge per patient visit increased from $171 to $206 (a 20% increase)
- Average collection increased from $80 to $104 (a 30% increase).
- Based on the number of patients seen in 2002, total billable charges increased by $2.1M and overall collections increased by $1.4M.

ROI - Administrative Staff

- Number of administrative staff required to handle the patient's chart decrease by 76.7% ($2.65 per visit down to $0.62).
- The new procedure saved the clinic more than $120,000 per year in administrative costs.

ROI - Staff

- The average man-hour cost to establish a chart decreased 85% from 8.0 minutes per new chart to 1.2 minutes, an annual savings of more than $22,000.

ROI - Supplies

- The average cost for administrative supplies decreased from an average of $8.00 per patient to $0.97, a decrease of more than 87%.
- Based on the number of actual patients (55,000), the practice saved more than $380,000 in paper and supply costs.

Phone Calls

- The amount of time required to handle phone call inquiries that required the chart has been reduced by 73%. The number of tasks decreased from 18 down to 2.

- Total annual savings exceed $103,000.

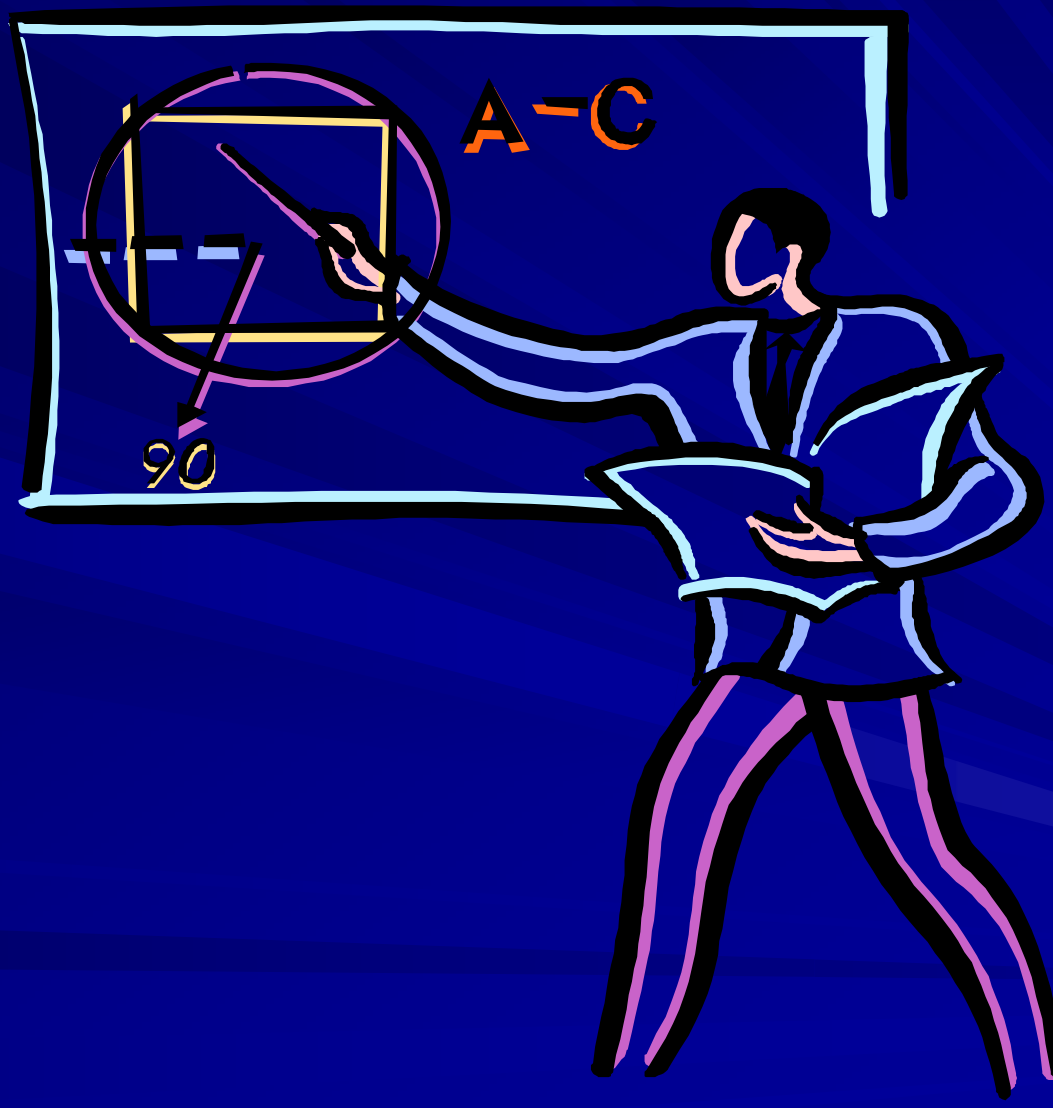
ROI - Claims

- Because of better charting, the number of claim denials has decreased 26%.
- This has help reduce days in accounts receivables by 7 days, thus increasing actual revenues by $102,000.
- With improved charting and documentation, the number of successful audits has improved and in the last year the clinic has passed 100% of their required audits.

ROI - Eliminating No Shows

- Electronically calling our patients each day to remind them of their appointments has decreased our "no shows" by 65%.
- This has resulted in an 8% increase in number of daily visits without increasing practice size.
- At an average reimbursement of $100 per visit, this represents a $60,000 per month increase in revenue.

Calculating your own ROI



Calculating your Potential ROI

- What do you need?
  - Basic clinic visit data, revenues and expenses
- Clinic Visits
  - By Service Level Code (Level 1 – 5)
  - New and Returning Patients
- Billable Charges
  - By Service Level Code (Level 1 – 5)
  - New and Returning Patients

Calculating your Potential ROI

- Operating Expenses:
  - Copier Costs
  - Paper Costs
  - Chart Paper Costs
  - Transcription Costs
  - Postage Costs
  - Other related costs

Calculating your Potential ROI

- Staffing man-hours
  - Front Desk Staff
  - Clinical Staff
  - Billing and back office staff
- Staffing Costs
  - Front Desk Staff
  - Clinical Staff
  - Billing and back office staff

3 – Year ROI Study

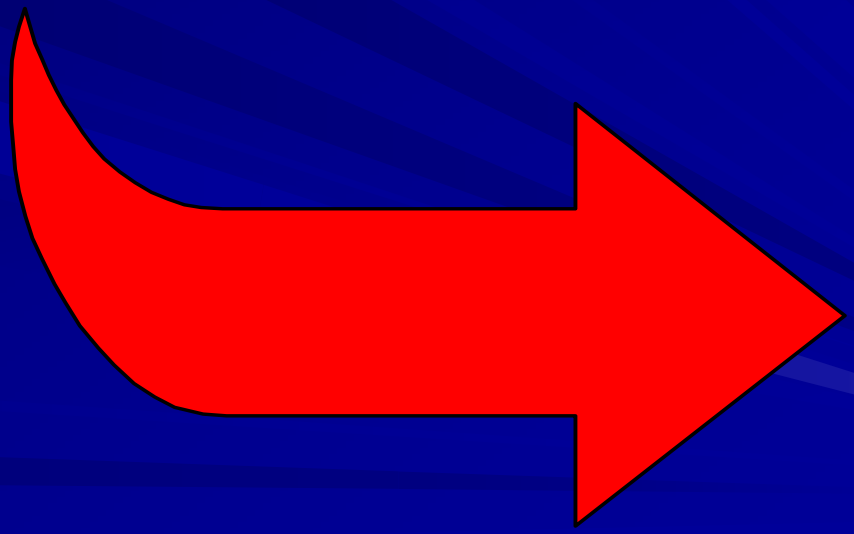
	Overall Factor	Factor	Cost/Rev	First	Second	Third	3-Year
Annual Visits	**9,000**						
Number of Cancelled Visits	Increases Revenue	3.10%	$ 100.22	$ 2,796	$ 8,389	$ 14,540	$ 25,725
Estimated time required to create initial chart	4.23 minutes per chart	4.23	$ 15.00	$ 6,662	$ 8,566	$ 9,518	$ 24,746
Estimated % of time the chart was not available at the time of visit	Physician and staff costs searching for chart and delays in care at 0.18 hrs	21%	$ 5.62	$ 1,912	$ 6,266	$ 8,709	$ 16,887
Estimated number of pharmacy refills	Physician and staff costs for each pharmacy refill at 0.12 hrs	2,250	$ 3.75	$ 3,793	$ 6,069	$ 7,418	$ 17,280
Estimated number of total lab tests preformed	Physician and staff costs searching for lab results, posting lab results at 0.17	5,850	$ 5.31	$ 13,972	$ 22,354	$ 27,322	$ 63,648
Transcription Costs	Reduction in Transcription Costs	$ 50,000	33%	$ 16,500	$ 33,000	$ 46,200	$ 95,700
Copier, paper, and Chart Costs	Reduction in Costs	$ 28,000	25%	$ 7,000	$ 19,040	$ 22,400	$ 48,440

3 – Year ROI Study

	Overall Factor	Factor	Cost/Rev	First	Second	Third	3-Year
Improved Coding							
New Patients	Improvement in Coding Level 2	0.20%	$ 50.00	$ 33	$ 43	$ 50	$ 125
New Patients	Improvement in Coding Level 3	3.40%	$ 70.00	$ 466	$ 607	$ 714	$ 1,786
New Patients	Improvement in Coding Level 4	4.20%	$ 100.00	$ 548	$ 714	$ 840	$ 2,102
New Patients	Improvement in Coding Level 5	1.80%	$ 150.00	$ 176	$ 230	$ 270	$ 676
Improved Coding							
Returning Patients	Improvement in Coding Level 2	0.20%	$ 70.00	$ 146	$ 190	$ 224	$ 560
Returning Patients	Improvement in Coding Level 3	3.40%	$ 100.00	$ 3,094	$ 4,046	$ 4,760	$ 11,900
Returning Patients	Improvement in Coding Level 4	4.20%	$ 150.00	$ 4,914	$ 6,426	$ 7,560	$ 18,900
Returning Patients	Improvement in Coding Level 5	1.80%	$ 200.00	$ 2,340	$ 3,060	$ 3,600	$ 9,000
Total Potential ROI				**$ 64,350**	**$ 118,999**	**$ 154,125**	**$ 337,474**

Who is Paying?

Case Study



Taconic Healthcare Information Network and Community (THINC)

Taconic IPA

- 2,300+ Physicians
- 500+ practices
- Located North of NYC

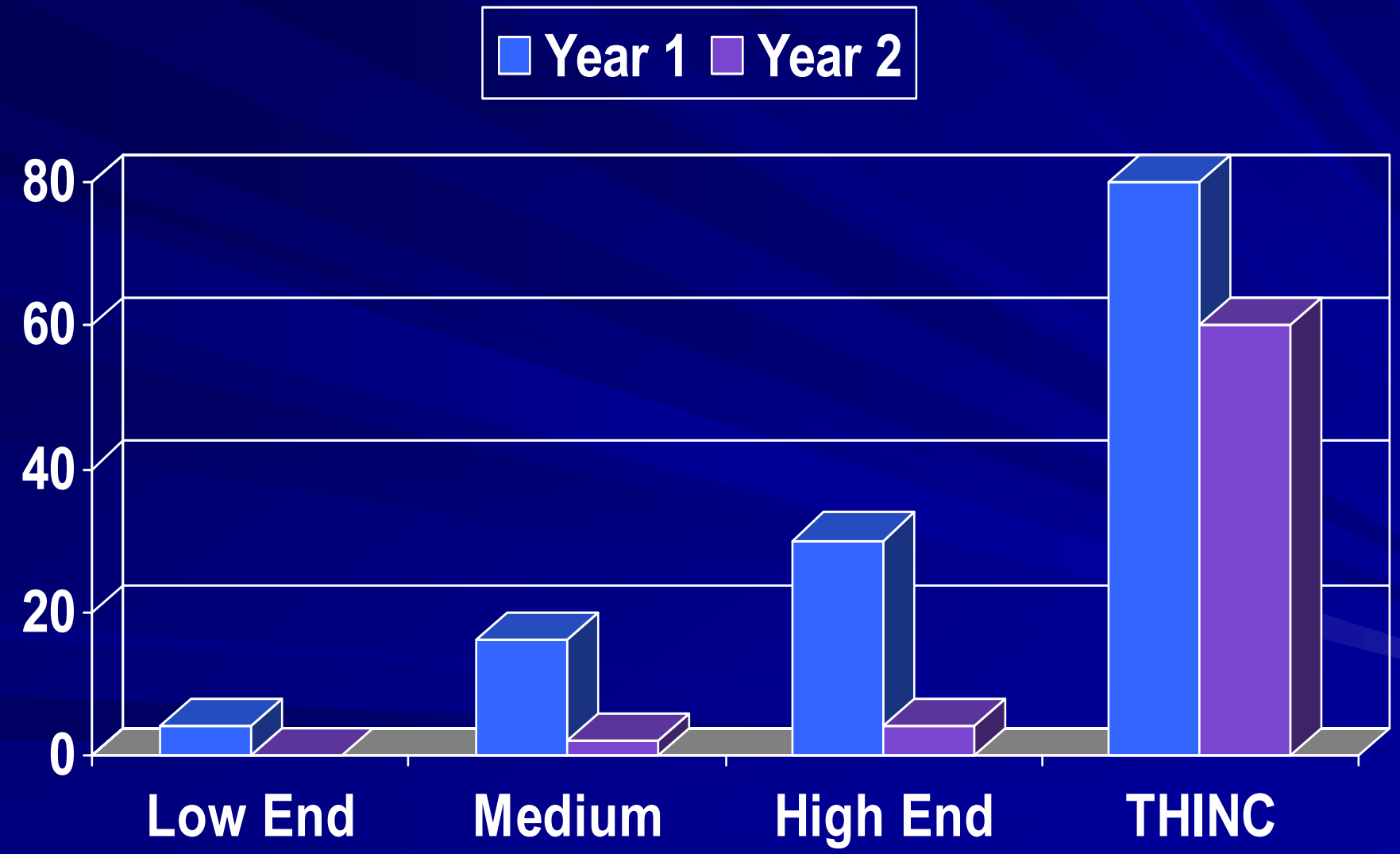
- Multi Grants for Taconic Healthcare Information Networked Community (THINC)

THINC Goals

- Improve Quality
- Reduce Operating Costs
- Improve Disease Management Tracking
- Improve Outcomes Measurement

- Provide Technologies within the community as a lower cost.
- Provide Local Support

INSTALLATION , TRAINING, AND CONFIGURATION PER PROVIDER



Comparisons

- Physician's monthly costs are fixed based on the applications selected

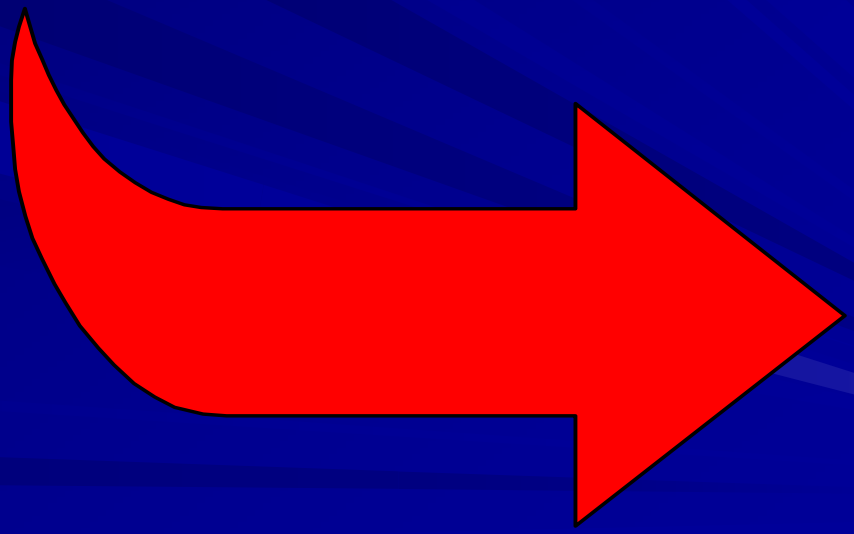
- **Upfront costs reduction of 88%**
- **First Year Costs – 58% - 80% Less**
- **Three Year Costs – 35% to 58% Less**

Plus Pay-for-Performance

Compared to costs of 4 other Certified EMR vendors

Who is Paying

P4P



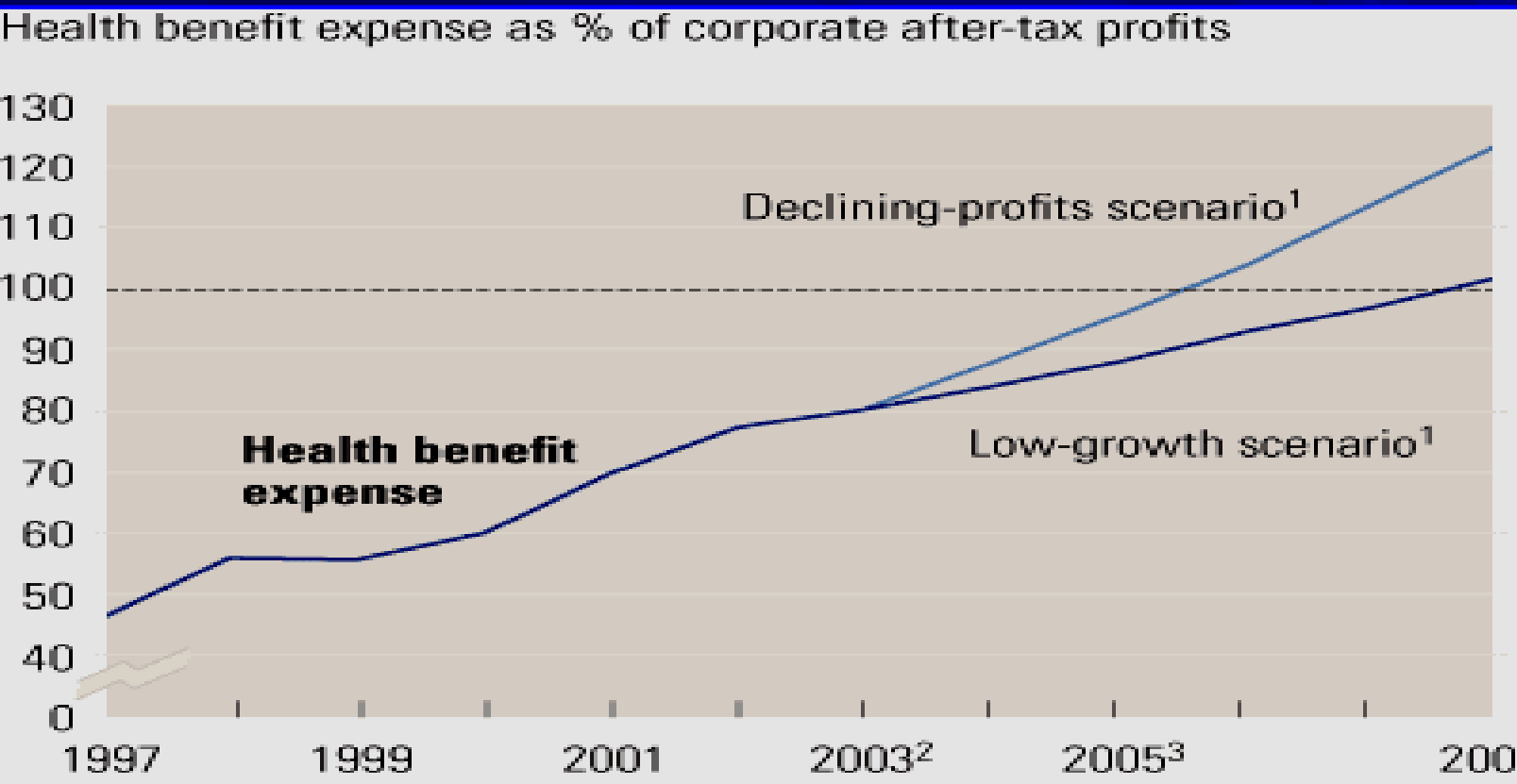
Why the Gap in EBM?

NOTICE TO OUR PATIENTS:

Doctors in our clinic do not practice according to national guidelines. Our reasons include:

- We are too busy.
- We don't agree with the guideline.
- We don't get paid extra to do it.
- It wasn't done that way 20 years ago when we were trained.
- We tried it once and it didn't seem to work.
- We are the doctors, and who are these guideline people to tell us what to do?

Employer Economic Crisis



[1] Declining-profits scenario assumes 2% annual decline in profits; low-growth scenario assumes 2% annual growth in profits; both scenarios assume 7% annual growth in health benefit expense.
[2] Estimated.
[3] Forecast.

Source: US Bureau of Economic Analysis; US Bureau of Labor Statistics; CMS; McKinsey analysis

Plans and Medical Groups – Who's Playing?

Health Plans

- Aetna
- Blue Cross
- Blue Shield
- Western Health Advantage
- CIGNA
- Health Net
- PacifiCare

Medical Groups/IPAs

- Over 215 groups

Approximately 6.2 million HMO enrollees

Measurement Year Domain Weighting

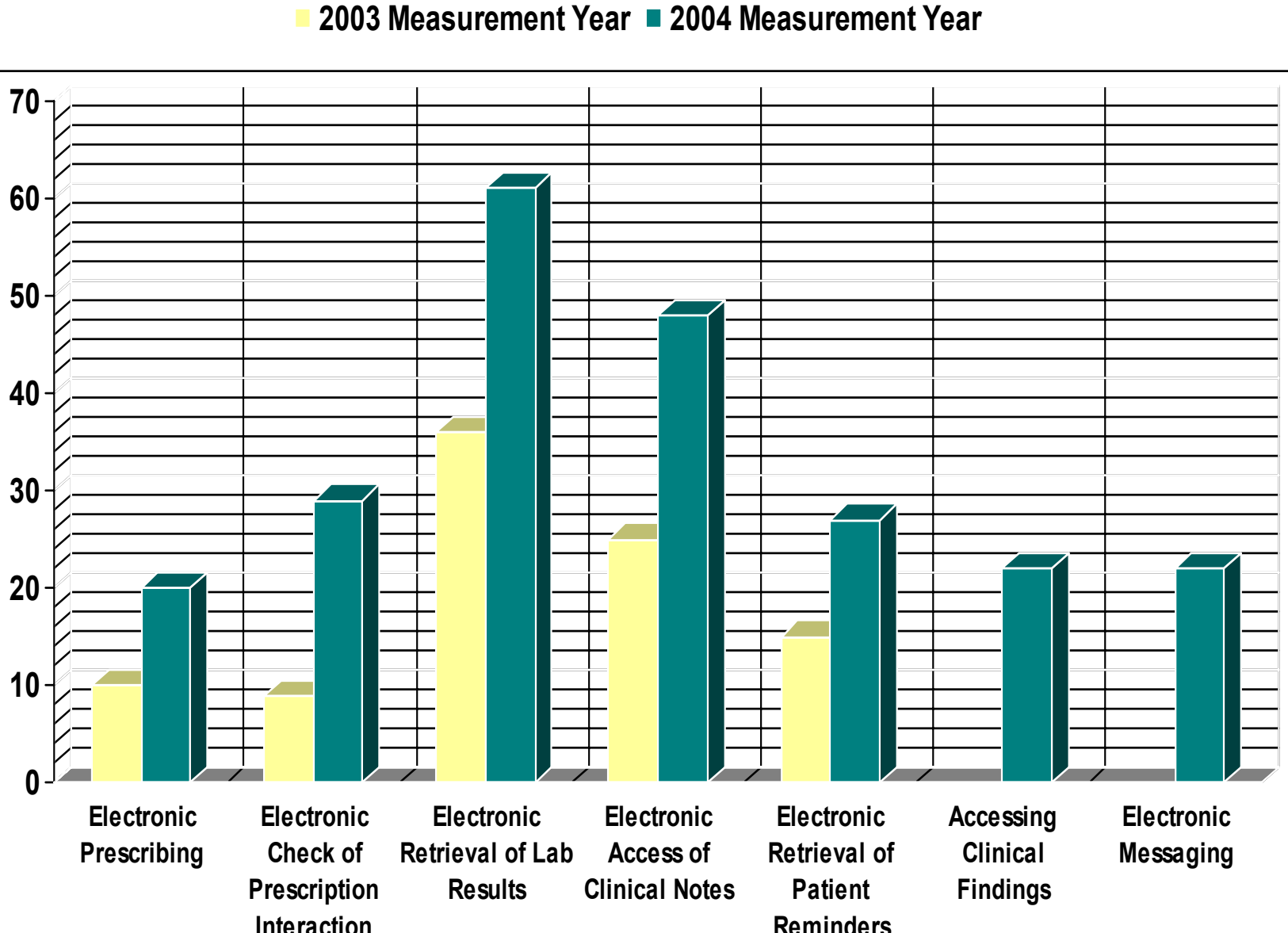
	2003	2004	2005
Clinical	50%	40%	50%
Patient Experience	40%	40%	30%
IT Investment	10%	20%	20%
Individual Physician Feedback program			10% "extra credit"

- a Rewarding Results Initiative

Clinical Measures

- **Preventive Care**
  - ✓ Breast Cancer Screening
  - ✓ Cervical Cancer Screening
  - ✓ Childhood Immunizations
  - ✓ Chlamydia screening
- **Acute Care**
  - ✓ Treatment for Children with Upper Respiratory Infection
- **Chronic Disease Care**
  - ✓ Appropriate Meds for Persons with Asthma
  - ✓ Diabetes: HbA1c Testing & Control
  - ✓ Cholesterol Management: LDL Screening & Control

Point-of-Care Technology



2003 and 2004 Incentive Payments

- Aggregate payment of $60 million to physician groups for IHA P4P program in 2003
- Two participating plans in 2004 paid about 70% of total payout
- Expected payout in 2005 for 2004 data will be $88 million, payments starting on July 1, 2005

Bottom Lines

- EMR is finally becoming Cost Justified
- Financial Savings
- Does NOT reduce time in front of Patients
- Saves time after the visit
- Every vendor is NOT the same
- Healthplans starting to pay more for EMR
- Malpractice rates will decrease with EMR

- Start Incrementally
- Remember, you still have paper
- EMR changes the way you work
- Therefore, change Incrementally

For More Information

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