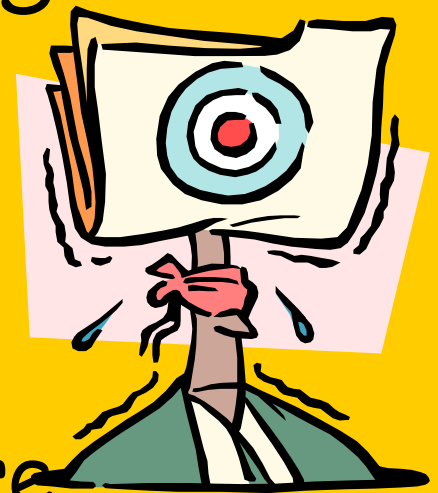


Using Research to Improve Practice and Policy

Bridging the Gap of EMS

James Augustine, M.D.
Emergency Physician
Medical Director, DC Fire
EMS



Three syringes are arranged vertically on the left side of the slide, set against a red background with glowing yellow circles. The syringes are detailed with a needle, plunger, and scale.

The Hope of RAES = Regional Accountable Emergency Systems

- Serve Community and Patients
- Improve Practice and Policy
- Attract and Retain to an EM Career
- Improve Emergency Service Interaction
- Right Patient, Right Provider, Right Place at the Right Time (Right Price)

Johnny is Alive



Emergency Services US Goals 2009

- Deliver Great Care
- Prepare



Make Health Care System Functional
Prevention Works,
but Creates a
Different Patient
Population

Community-Based Health Care



Home
Care
Services



Extended
Care
Facility



Community
Mental Health



Ambulatory
Surgical



Primary
Care

The Unscheduled Care System

EMS ~ ED ~ Urgent Care ~ Ask-A-Nurse

Women's
Services

Diagnostic
Services

Clinical Decision
and
Observation
Services

Medical Patient
Hospitalist
Service

Surgical Centers
of
Excellence

Specialty
Services



Hospital-Based Health Care

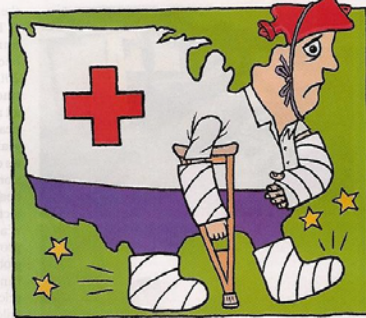
Policy: Better Care Occurs in Focused Factories

BRAINSTORM EZEKIEL EMANUEL AND VICTOR FUCHS

How to Cure U.S. Health Care

A voucher plan that covers everyone—and helps businesses too.

S KYROCKETING costs, 45 million uninsured, dangerous lapses in quality: Those are the most urgent and most obvious of America's health-care problems. What may not be obvious is that they are all in some sense a consequence of the way America pays for health care—that truly bizarre agglomeration of employer-sponsored insurance, Medicaid, and Medicare. Incremental changes, made over generations, got us into this mess. So we need a radical and comprehensive overhaul to get us out. We propose a universal



health-care voucher plan, a simpler and better solution than what we have now, that will support Americans' strong preference for individual choice and start to ease the financial burden saddling U.S. businesses. Here are its five core principles: **UNIVERSALITY** Every American under 65 years of age receives a voucher that pays for a core benefits package offered by qualified health plans like Kaiser, Aetna, United, WellPoint, and the various Blues. The core package would be similar to the coverage currently offered by private employers. The plans would coordinate and guarantee delivery of care.

CHOICE Unlike today, when most workers have their insurance plan chosen for them by their business, in our system Americans would choose their health plan and therefore be able to select the doctor they wanted. They would have a choice of five to ten different plans. Beneficiaries would be guaranteed coverage and renewability; there would be no exclusions for preexisting conditions. Those who want services beyond the basic plan, such as a wider choice of specialists, can purchase them with their own dollars.

FUNDING The vouchers are funded by an earmarked value-added tax of about 10%; the aim is to bring in about \$850 billion a year. But remember, it is not additional money; it replaces the current system—the \$650 billion spent on employment-based health care and the \$200 billion spent on Medicaid, plus the \$180 billion tax breaks for employer-provided health coverage.

ACCOUNTABILITY A Federal Health Board and regional boards,

OUR HEALTH-CARE SYSTEM IS BROKEN, THE NEED FOR CHANGE ACUTE.

modeled on the Federal Reserve System, would specify the core benefit package and report regularly to Congress. Like the Fed, the health fed would have the independence to make tough decisions. An institute reporting to the health fed would evaluate the benefits of new technologies and the quality of care provided. **MALPRACTICE REFORM** A Center for Patient Safety and Dispute Resolution would adjudicate and compensate patients' claims, study how to enhance safety, and disqualify bad doctors. Physicians would no longer pay for malpractice insurance. A universal voucher system cuts the umbilical cord between being employed and being insured, while breaking the link between today's status quo and a more efficient future. The economy benefits because the private sector, relieved of the increasingly onerous burden of health care, can redeploy the more than \$650 billion it spends annually. The states are relieved of Medicaid and other means-tested programs, reducing administrative costs. As for Medicare, no existing beneficiary would be forced to change. But once the voucher system is established, no new entrants would be allowed; Medicare and its taxes would be phased out.

Most important, the new system addresses rising health-care costs. First, because the value of the voucher is tied to the VAT that funds it, people's aversion to paying taxes would restrain their demand for ever more health-care services. Second, health plans would be under competitive pressure to deliver care as efficiently as possible while maintaining quality. Third, individuals who purchase additional services would have a strong incentive to seek value for their money. Finally, technology assessment would redirect innovation to more cost-effective drugs and devices. With health-care costs eating into wages, corporate profits, and government finances, the need for change is acute. The present system is clearly broken. Comprehensive change is needed. Universal health-care vouchers could solve most of the problems. **E**

EZEKIEL EMANUEL is the chairman of the department of clinical bioethics at the National Institutes of Health. VICTOR R. FUCHS is a professor of economics at Stanford University.

- How do others get to Focus?

Send the Unfocused to the Emergency System!!!

Three syringes are arranged vertically on the left side of the slide, set against a red background with glowing yellow circles. The syringes are detailed with measurement markings and a needle.

Emergency Medical System

- Improve Practice and Policy
- EMS Importance:
 - The service that allows sick patients to go home!
- 40% of EMS patients are admitted

17 million EMS transports to EDs (30 per minute)

- 37% were admitted
- Most Common Patients:
- Chest pain and heart disease
- Short of breath
- Contusions/blunt injury
- Sprains of neck and back (MVA)
- Syncope and seizures



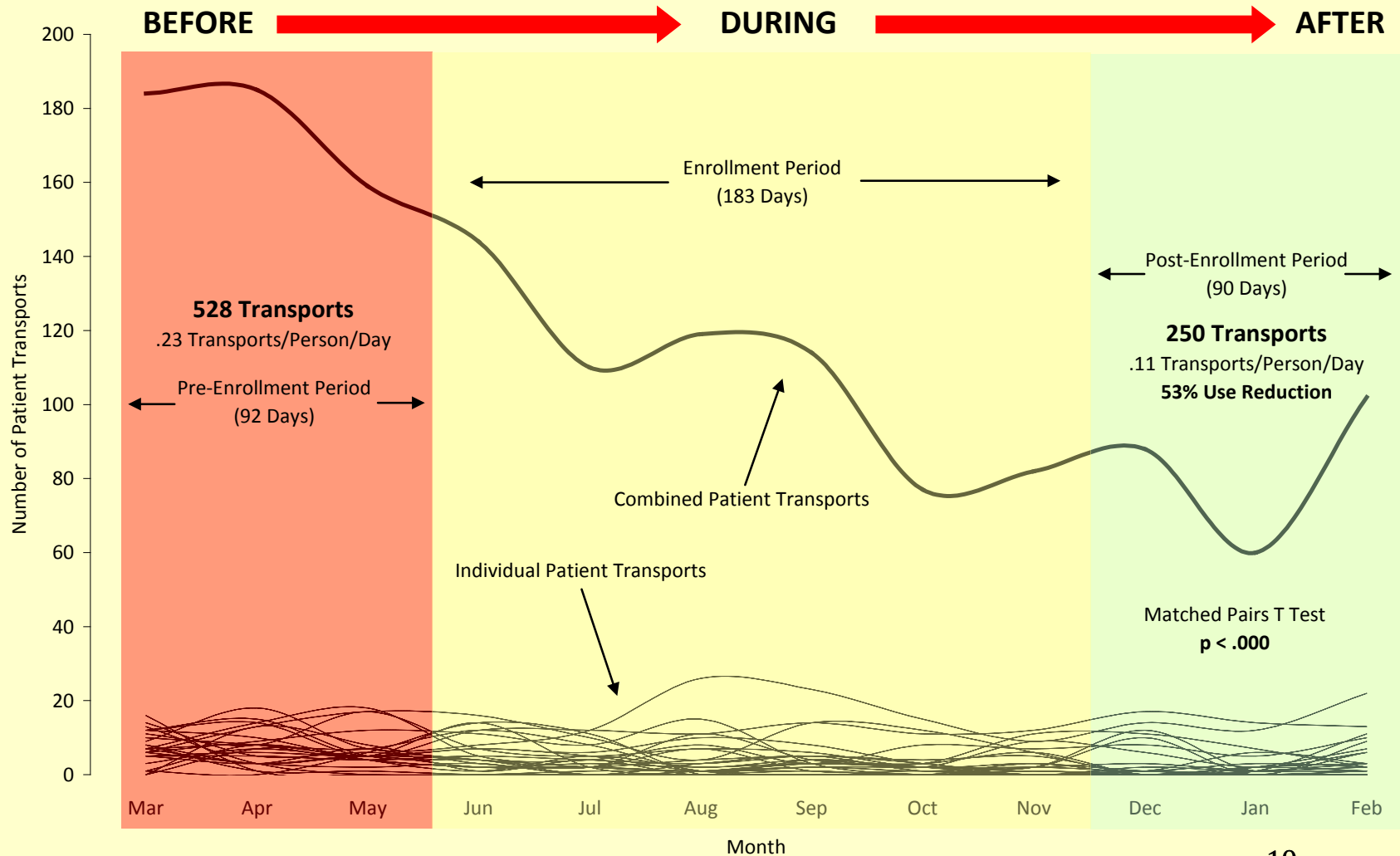
Emergency Services are Predictable

- 100 EMS calls per 1,000 population
- 80% transported
- Demand Management can be successful
 - Increasing use of Hospice, DNR, Comfort Care, a success in the American health system



DC Fire EMS Street Calls Program

Street Calls Program - Reduction in Patient Transports

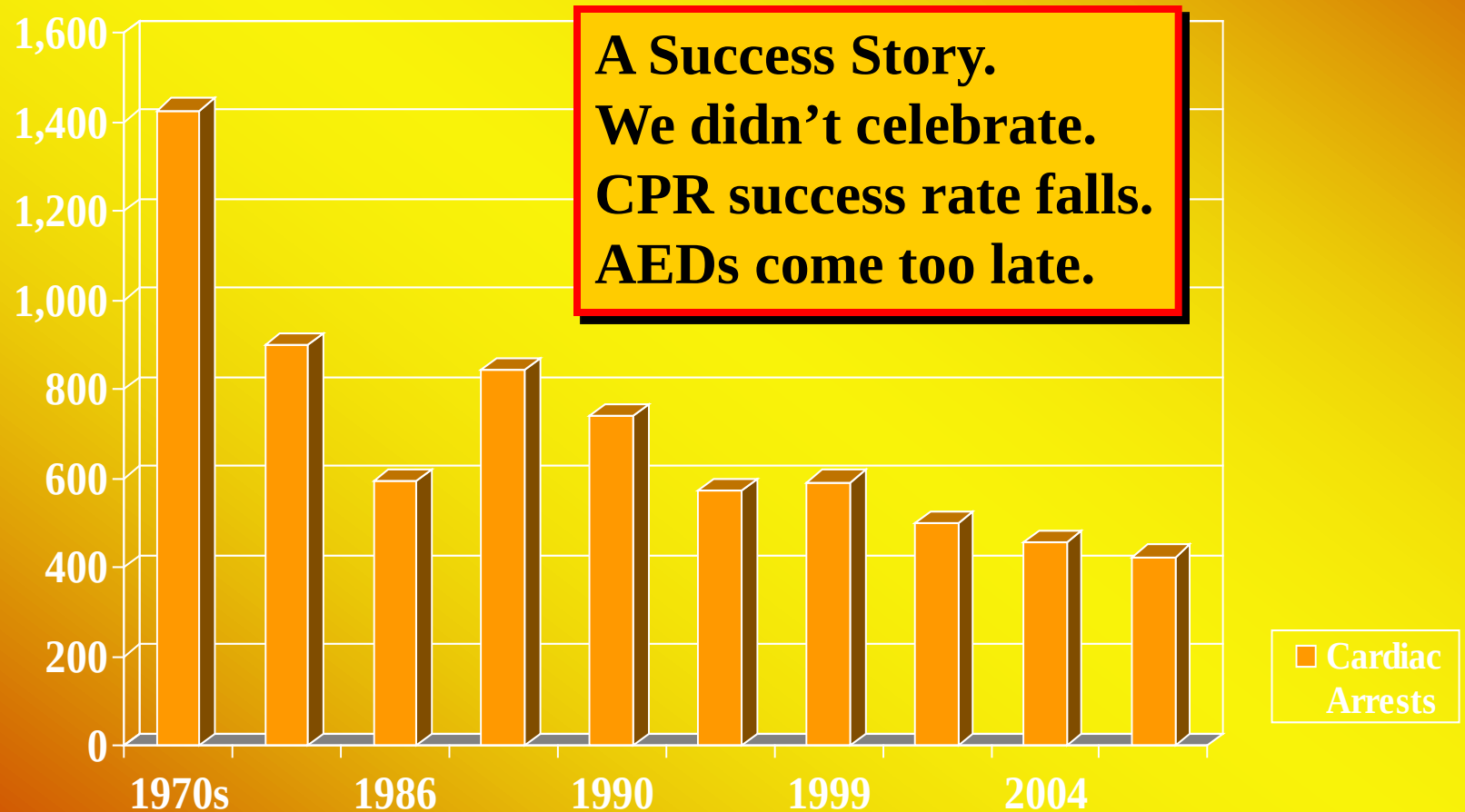


The Burn, Trauma, Injury and Cardiac Arrest Issue

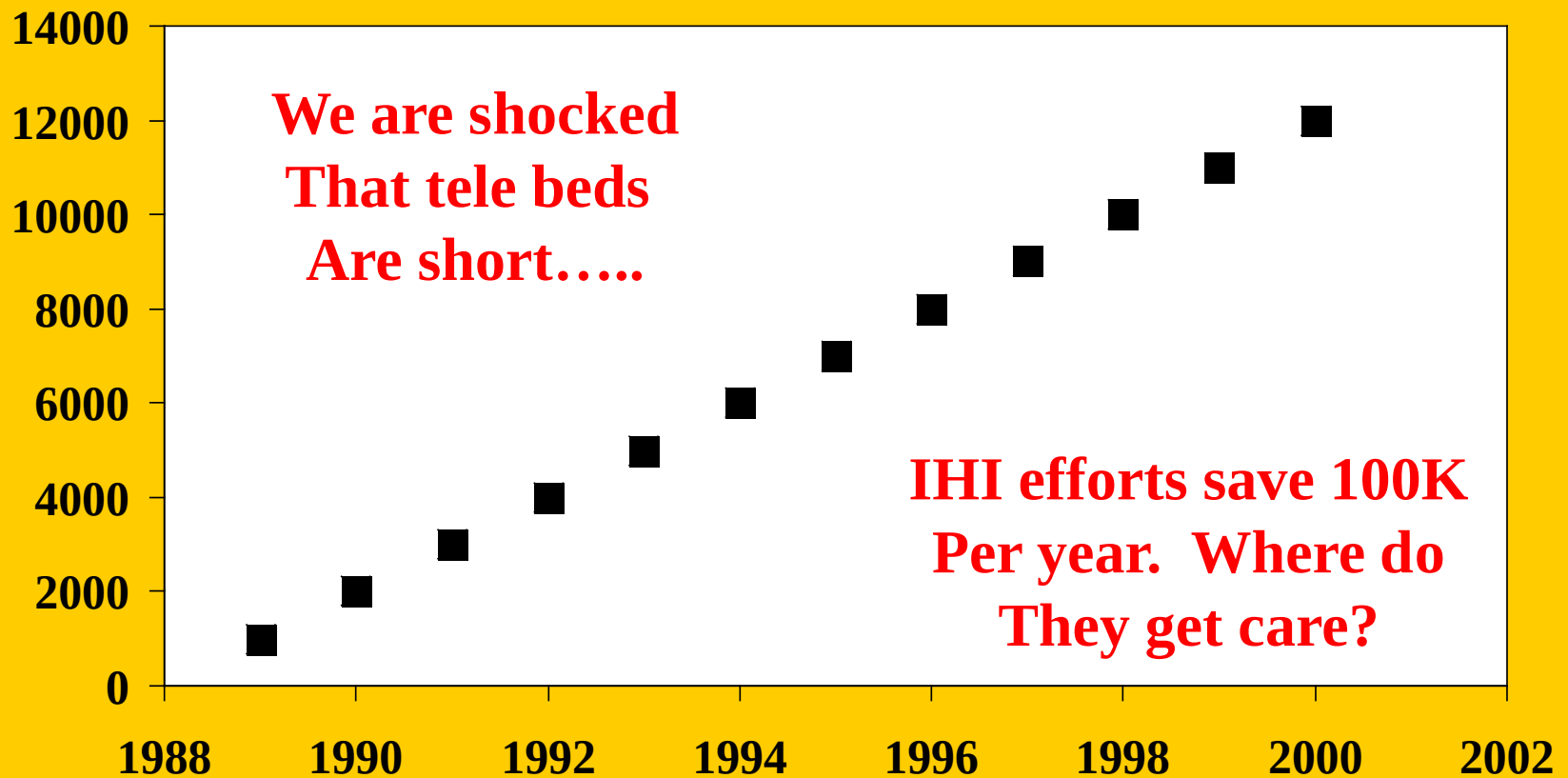
- Prevention Works
- When prevention works, more people are alive to get ill



Montgomery County Cardiac Arrests



Adding 1000 people per year back to the population



Adding 1000 People a Year

- WE SHOULD CONGRATULATE OURSELVES!!
- Cardiovascular at risk population
- We should expect these people to use ED
- No surprise they present with Chest Pain, Dyspnea, TIAs,....

Patient Flow is Predictable

EMS



80/1000
Population

Emergency Department



Total use 400 / 1000
Population

76 - 88% Walk-Ins

12 - 24% Arrival by EMS

General Population



Walk-ins to ED

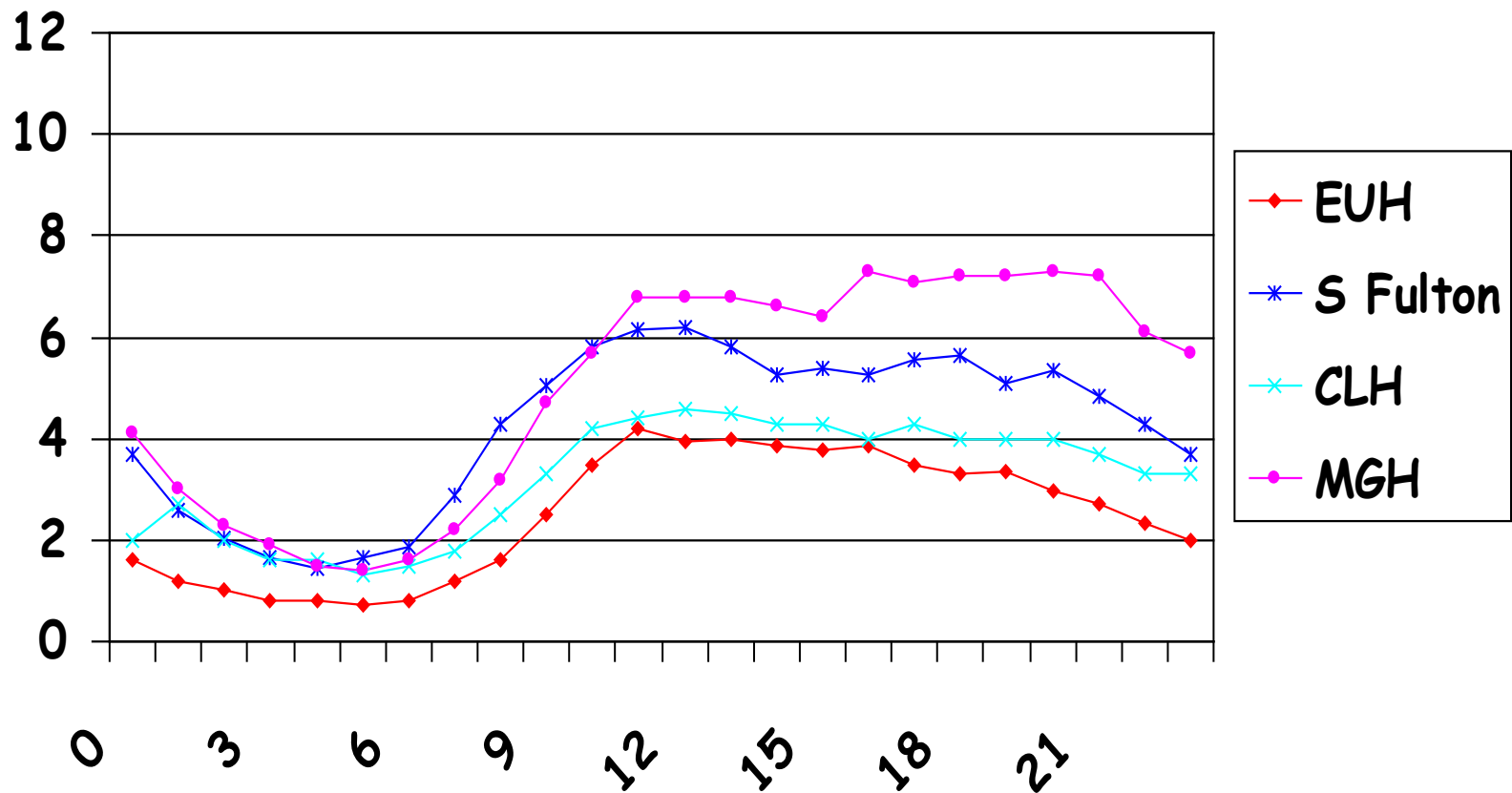
320 / 1000
Population

Transfer
0.3 - 4%

Admit
11 - 30%

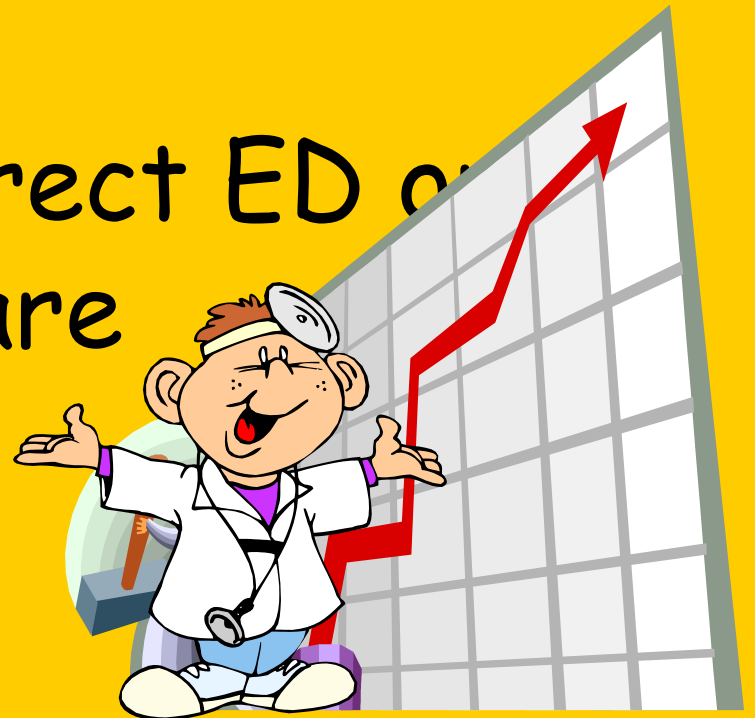
Treat &
Release
65 - 85%

Arrival by Hour starting Midnight

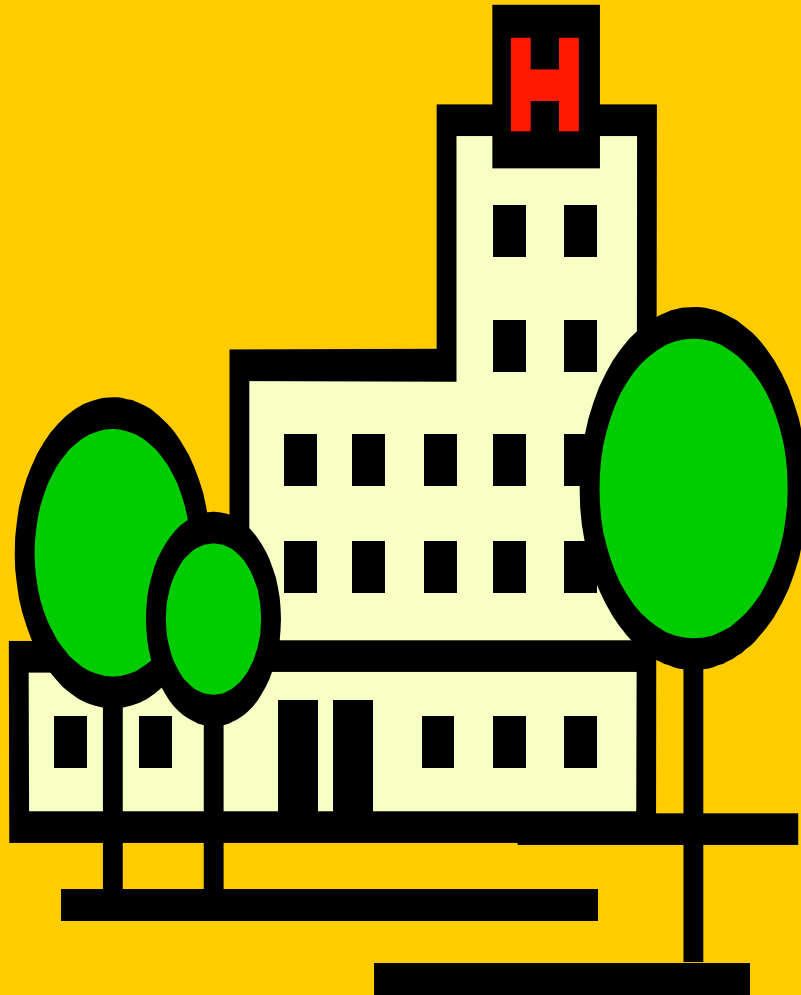


Improve Practice and Policy

- Timely Response
- Personnel with Critical Skills
- Correct Tools
- Delivery to Correct ED or other site of Care



Improve Practice and Policy



- It works in Small Communities
- Culture: We have to serve the needs
- Don't have a definition of diversion
- Focus on Flow

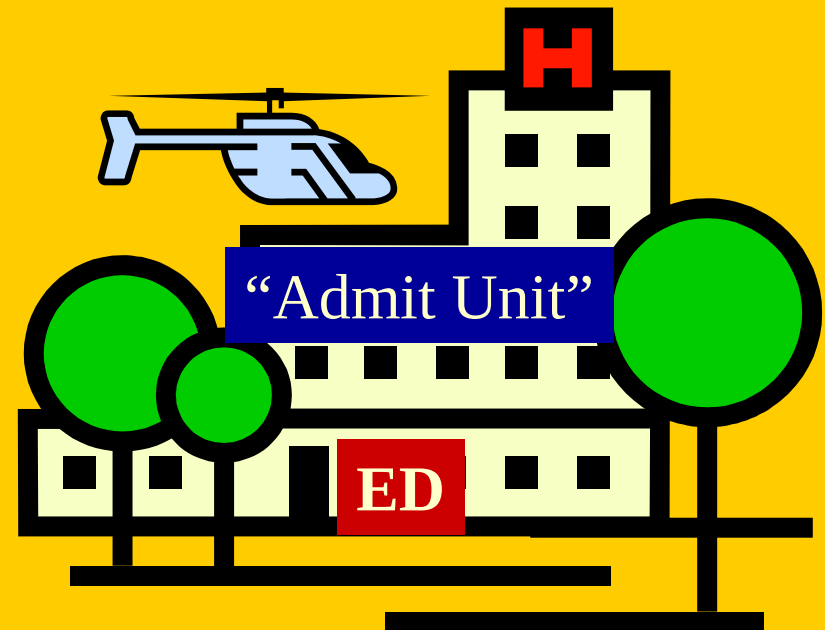
The Effective System



Urgent Care or Freestanding

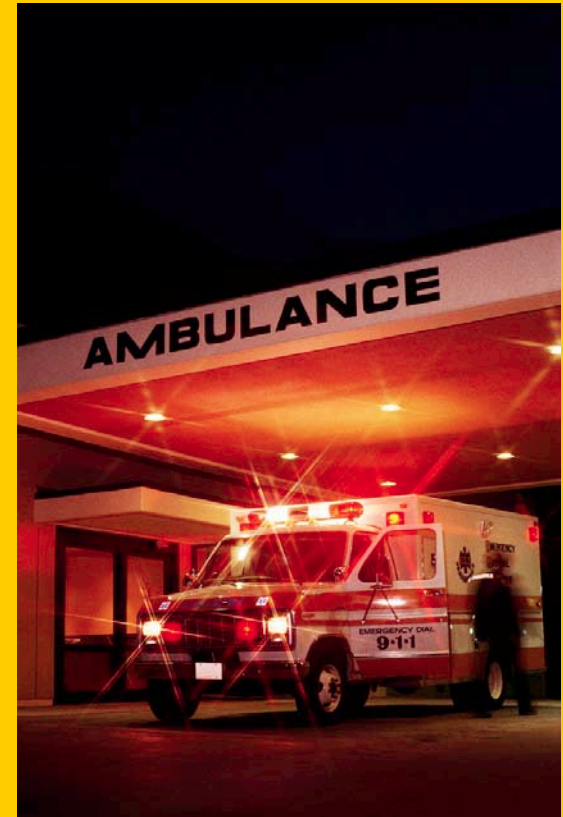


Community



The Effective Emergency System

- Public Education
- Uniform Quality Oversight
- Statistics for community reports
- Flow Matters, from Dispatch to..



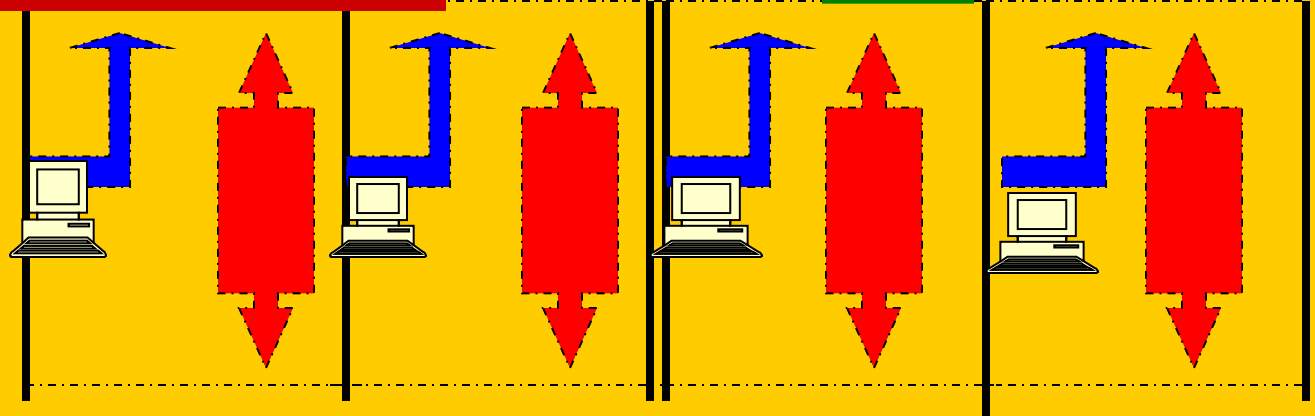
Effective "All Patient" Greeting Design

Procedure
Room
IVs, Labs

**EMTs have skillset
to serve as
Excellent Greeters**

Sniff Analyzer

To
ED



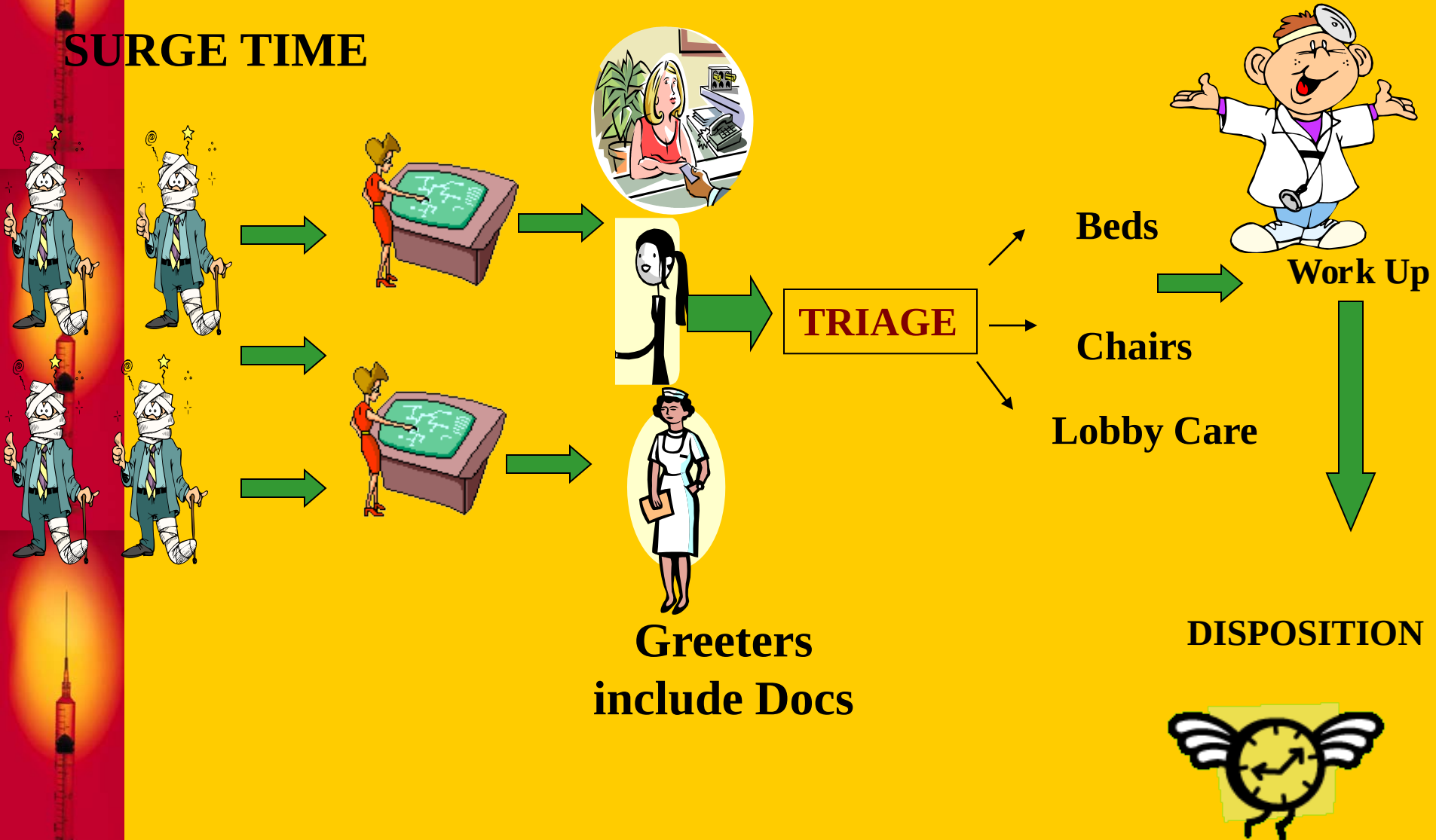
Security

Walk
In

EMS
In

ED Intake System Design

SURGE TIME



Physiology

Right or Left Dominant
Blood Types and Rh
Visual Acuity, Hearing
Variations from Normal

Vital Signs

(Hypertension, Hypoxia,
Hypercarbia)

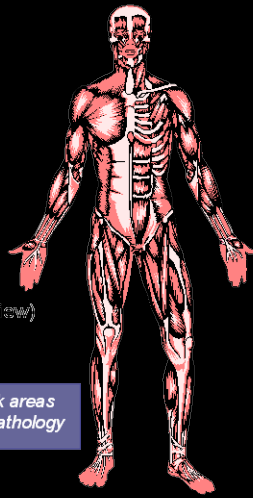
Physiologic Diagnostic Testing (click to view)

Pulmonary Functions

EKG's

EEG's

Labs



Mark areas
of Pathology

Patient Photo



Emory Master Patient Index

DOB Sex F M

Anatomy

HT WT

Click for Payment
Source

Pathology

Current Problem List

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Present Problem List

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Surgical History

Click to Enlarge

Anatomic Diagnostics

X Rays

CT Scans

Pathology

Today's Workup

Click to Choose

Today's Therapy

Click to Choose

Today's Diagnosis

Click to Choose

Provider ID

Pharmacology

Current Medicines

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

Allergies

Sensitivities

Genomic Risk Factors

Medication Warnings

Signature or Authentication

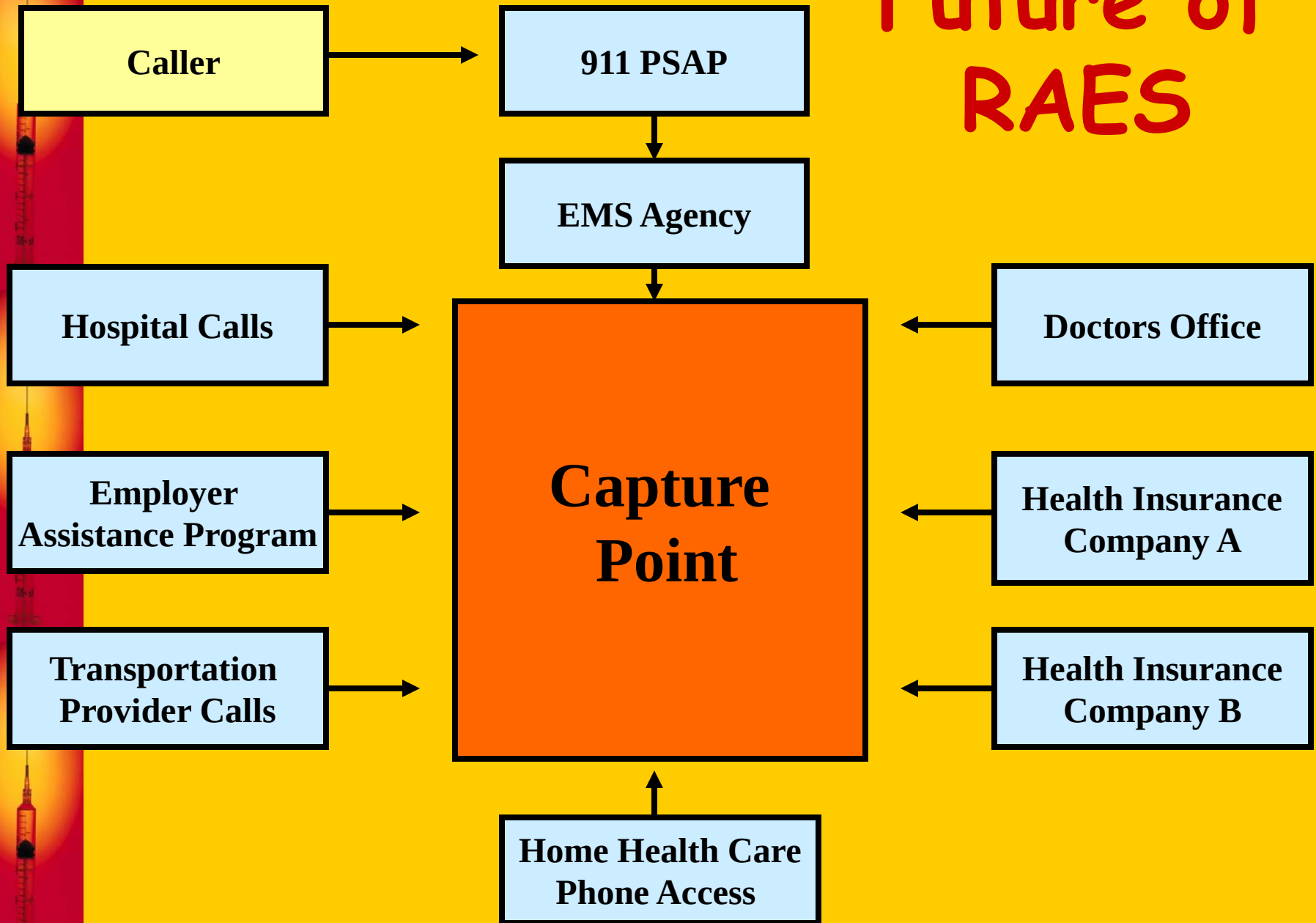
The Inclusive E.S. Patient Record

Emergency Care Product Research Laboratory



- EMS and ED care product and service research center for supplies, equipment

Future of RAES



Take Home

- Improve Practice and Policy
- Key is the hospital/EMS interface
- Create a RAES
- Right Practitioners with Right Tools
- Publish, Share Best Practices

