

# **A New RAP for Public Health**

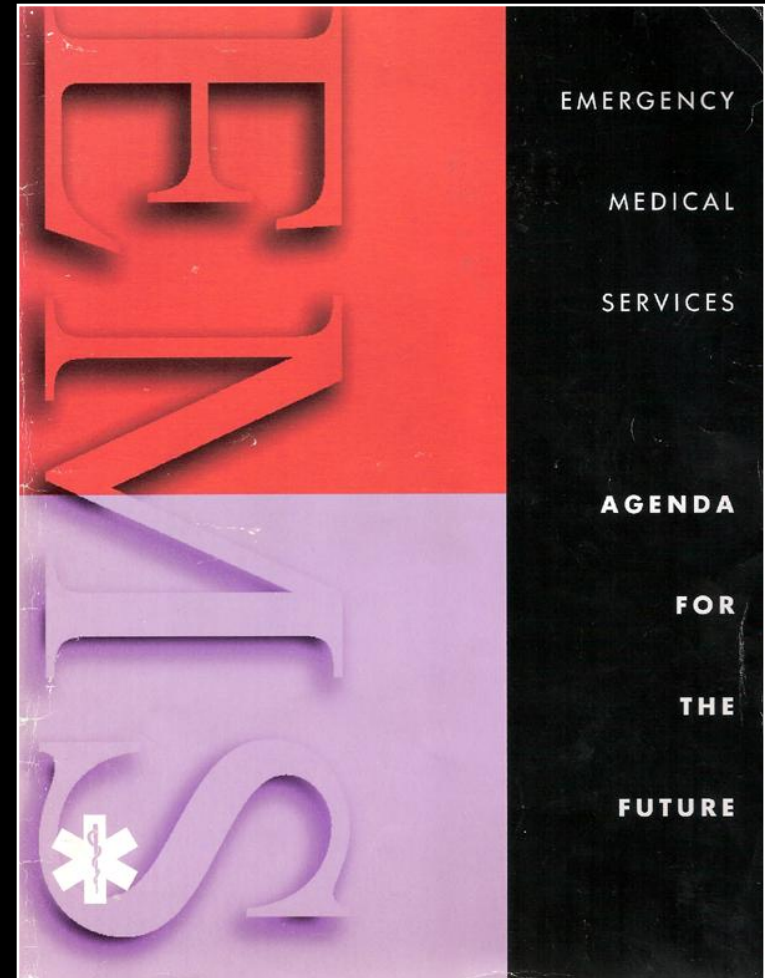
**How EMS information systems can  
address high users of care**



**James Dunford, MD**  
**City of San Diego Medical Director (EMS)**  
**Professor, Dept. of Emergency Medicine**  
**UCSD Medical Center**

# Vision Statement

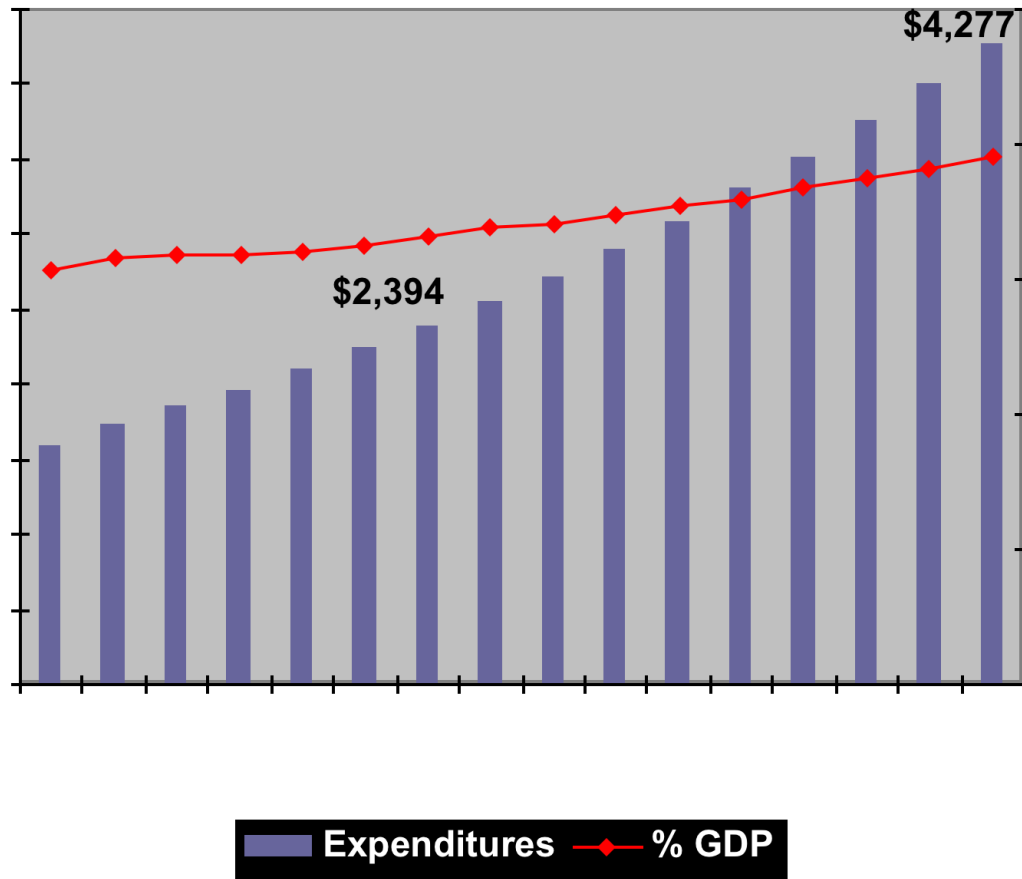
- **Acute care**
- **Health management**
- **Fully integrated**
- **Identify & modify risk**
- **Community health monitoring**





# National Health Expenditure Projections

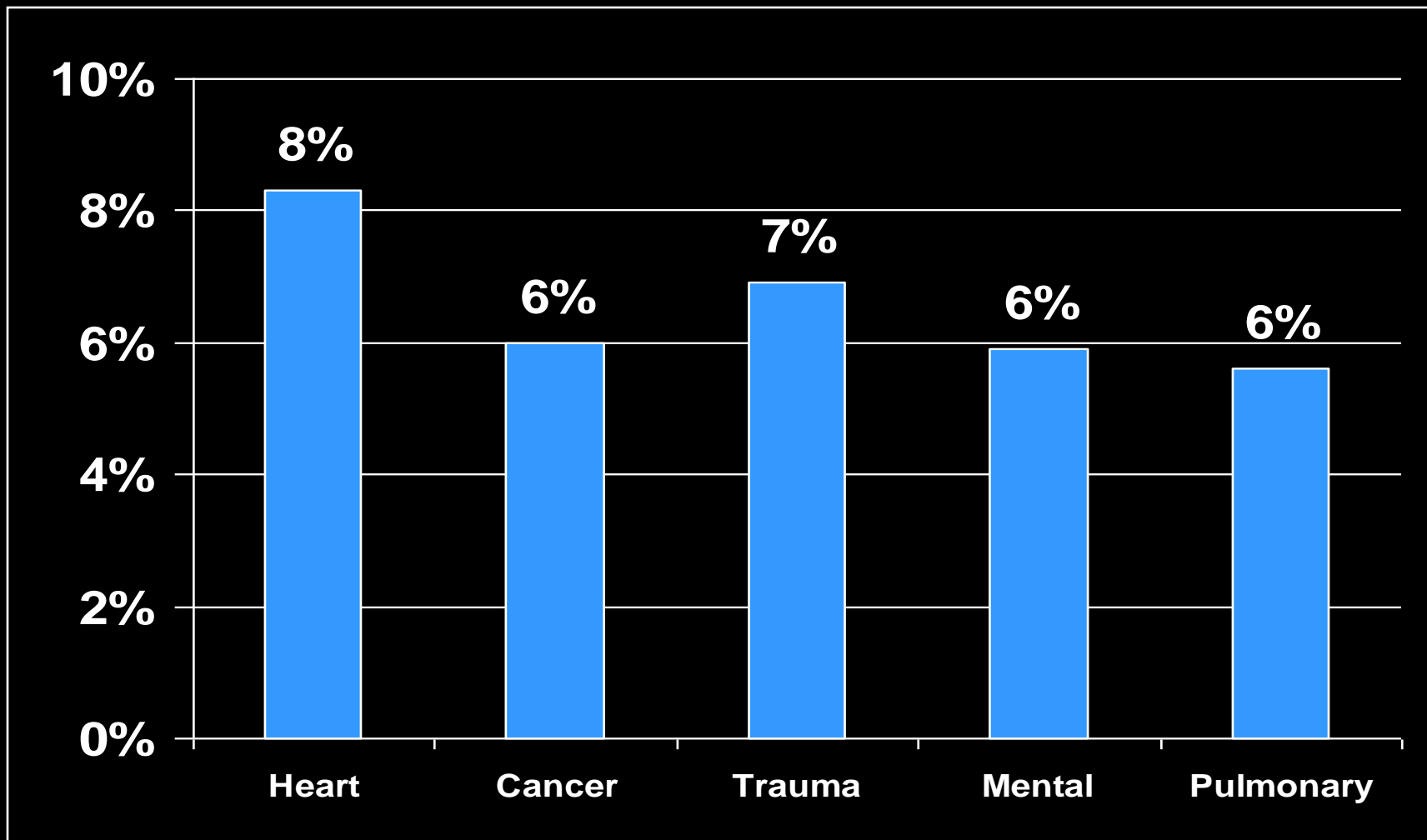
## 2007-2017



Office of the Actuary in the Centers for Medicare & Medicaid Services, 2008.



# 5 most costly conditions: U.S. 2002

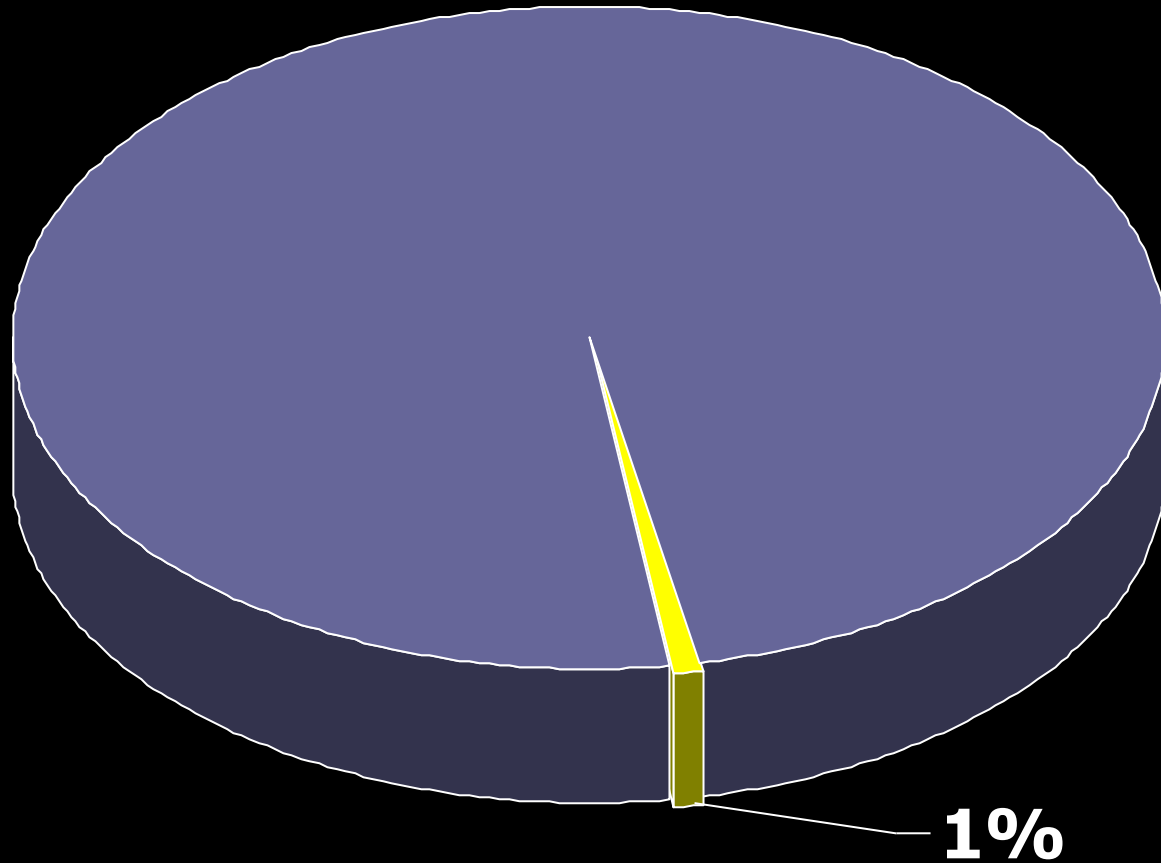






Frequent Users

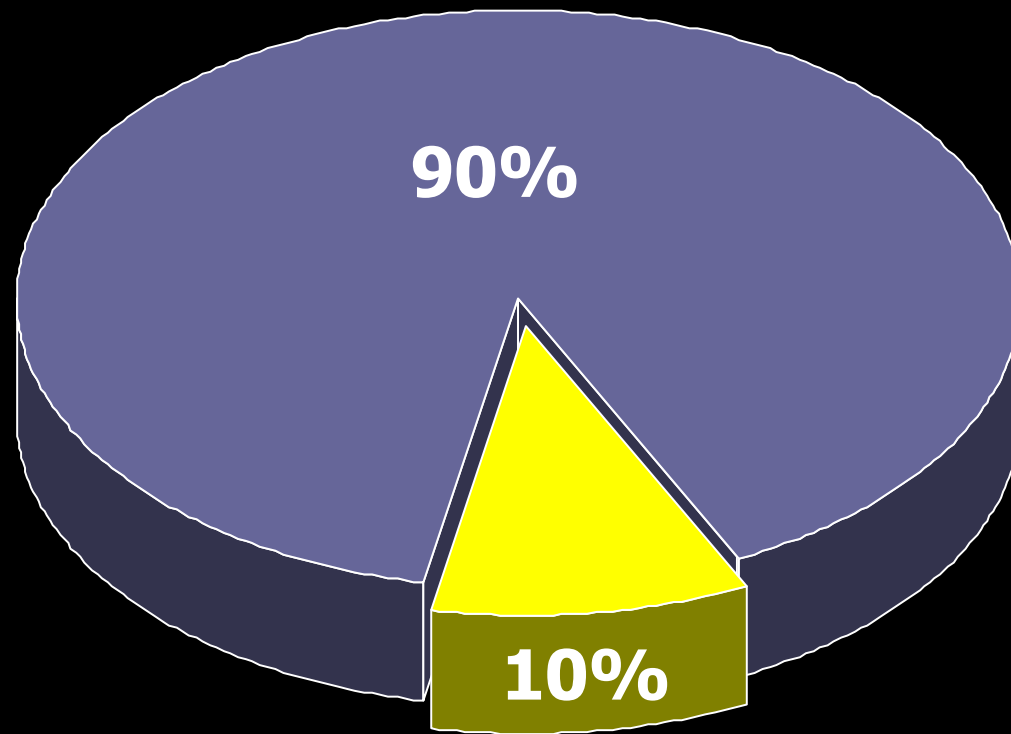
# ED patients >10 visits/year



UCSD Medical Center – Hillcrest (2001)



# Impact of frequent users on ED census

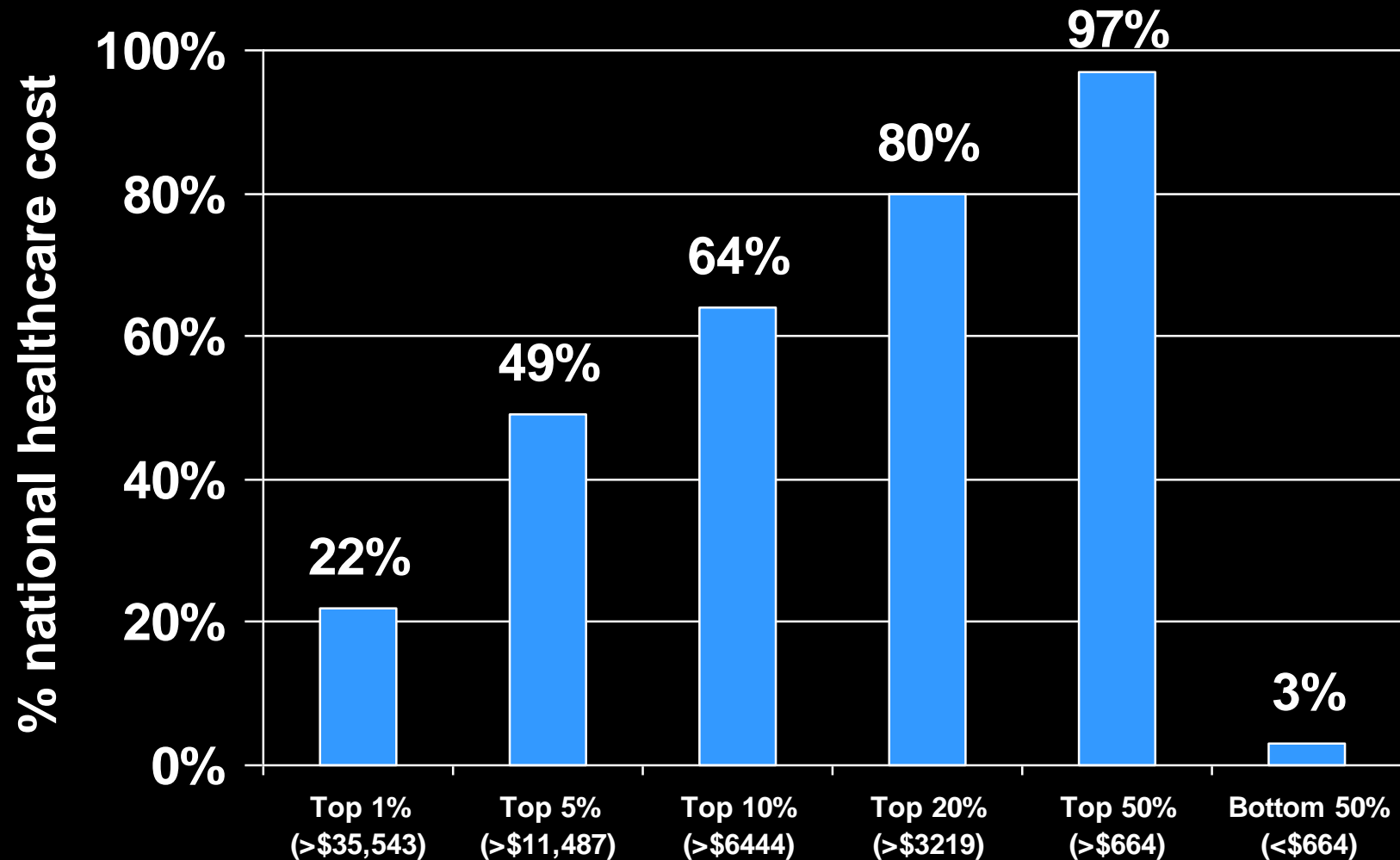


UCSD Medical Center – Hillcrest (2001)

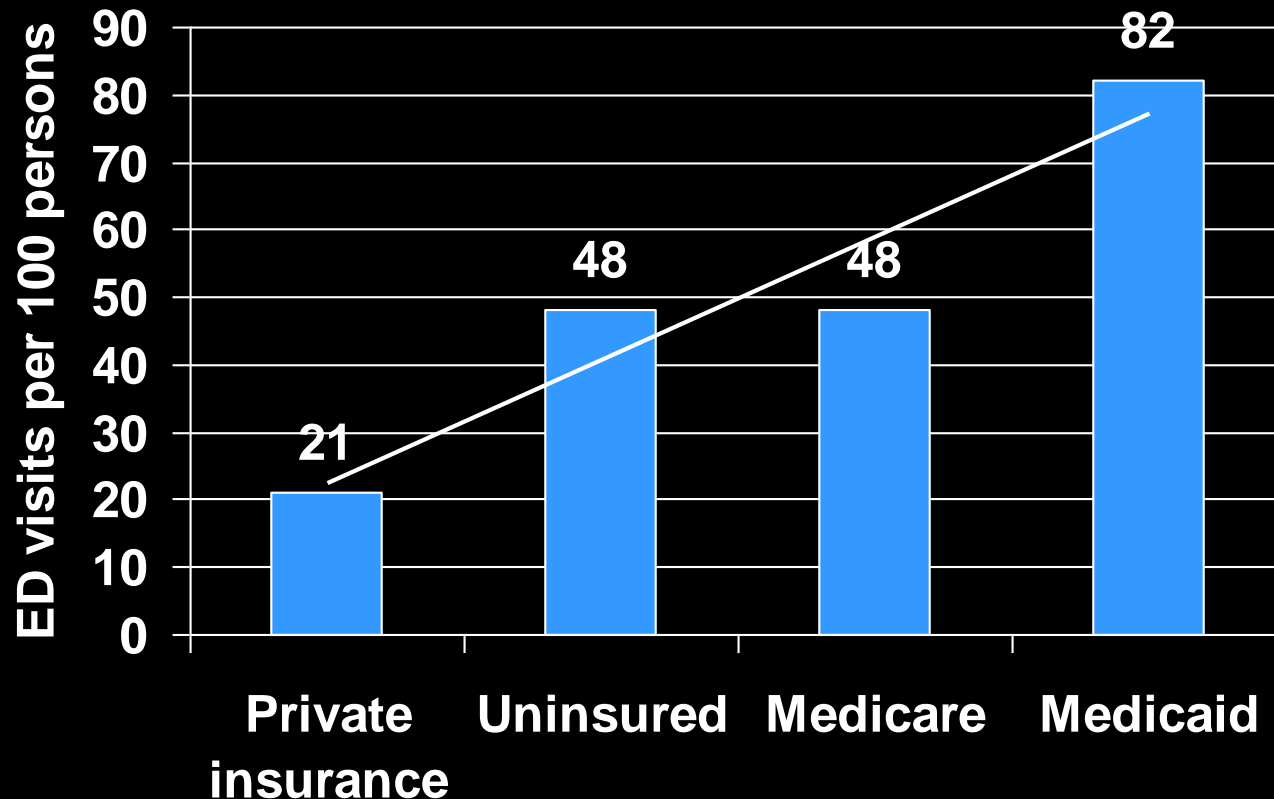
# Million-Dollar Murray



# National healthcare expense. 2002



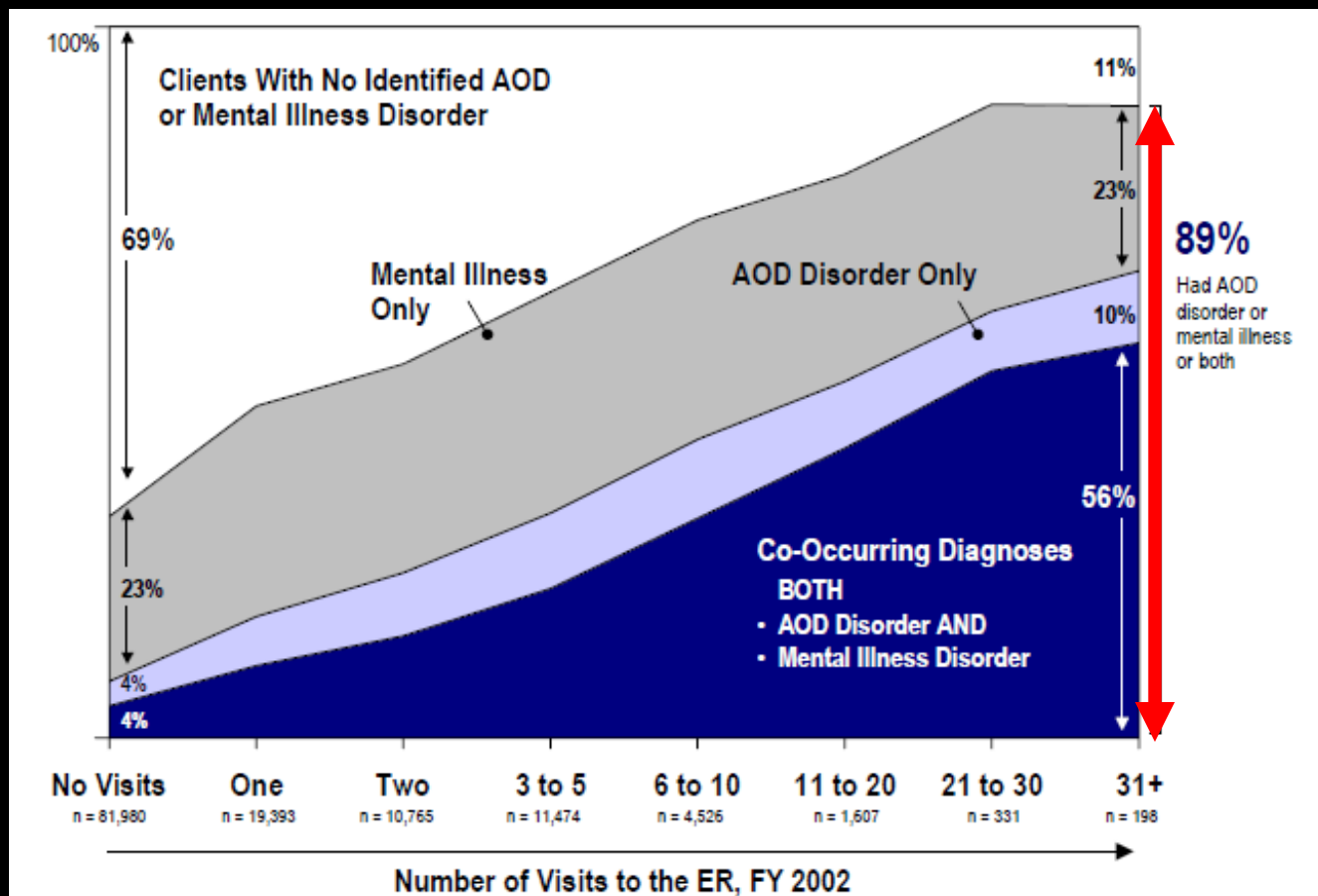
# Frequent Users of Acute Services



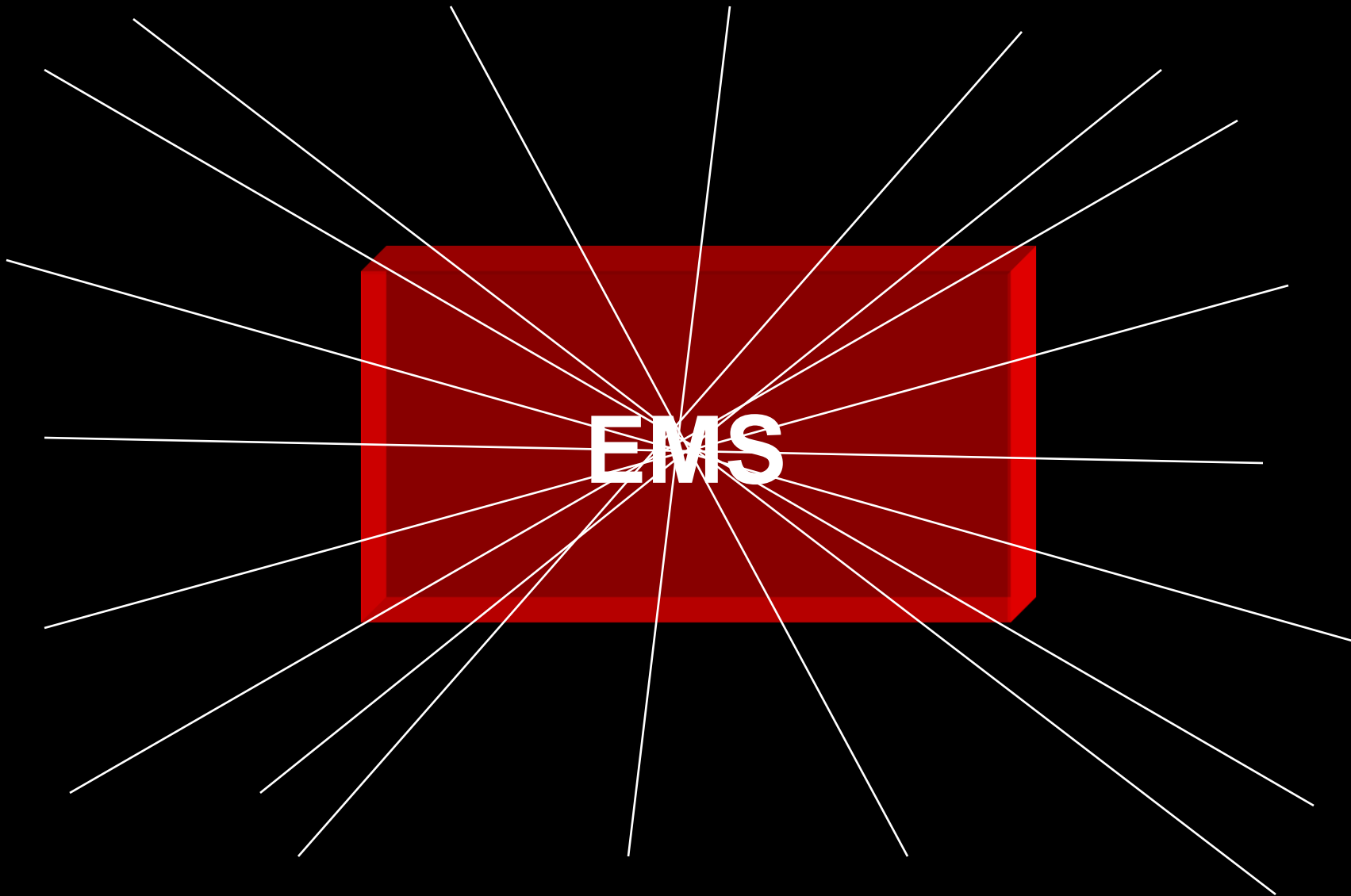


# ED visits: alcohol, drug disorder or mental illness

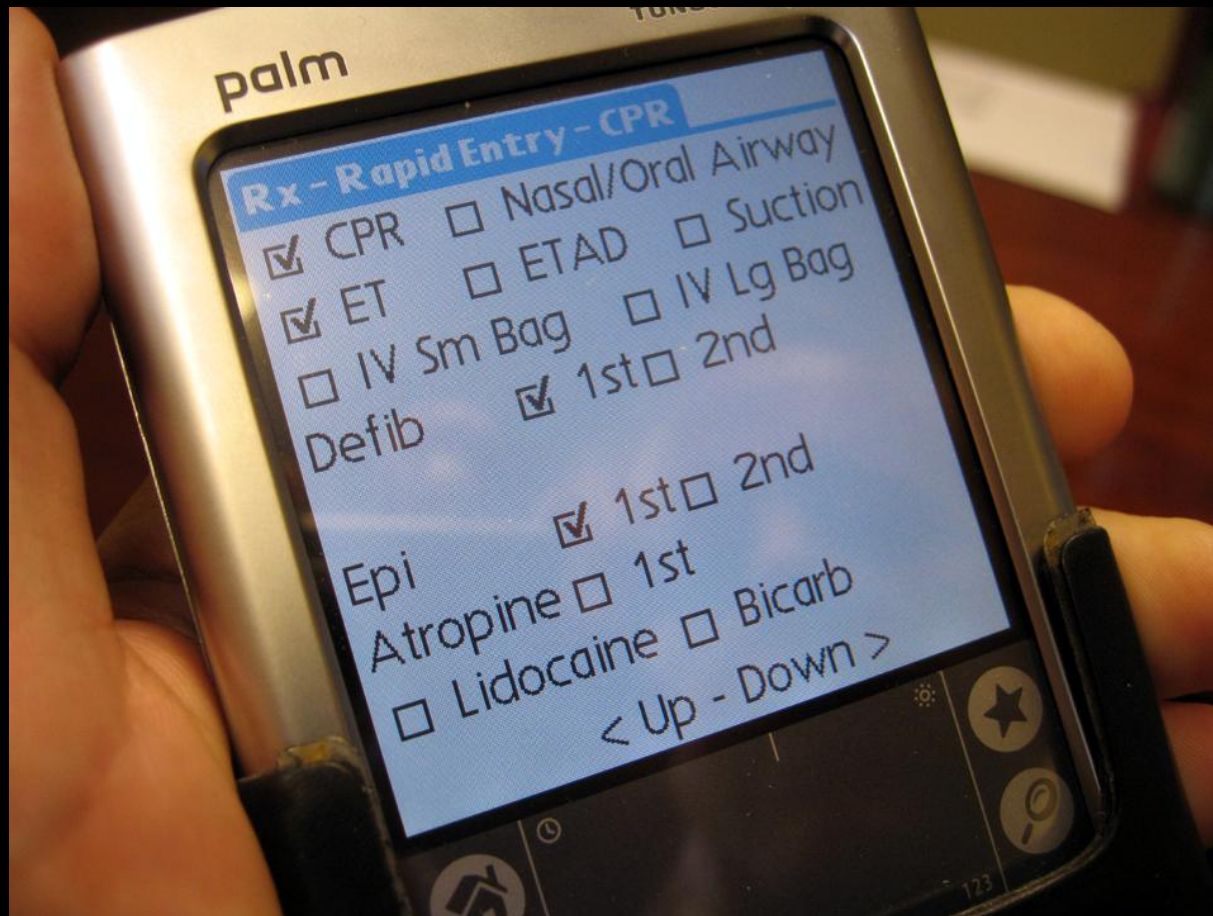
## Washington State. Medicaid. 2002



**EMS**



# EMS Information Systems



# 15 homeless inebriates

- 18 months
- 2 hospitals
- 312 transports
- 417 ED visits



**\$1,476,000**



# Serial Inebriate Program



# SIP Partners

San Diego Police Dept.

San Diego EMS

Mental Health

Sheriff

Alcohol & Drug Services

City Attorney

Public Defender

Superior Court

St. Vincent de Paul Clinic

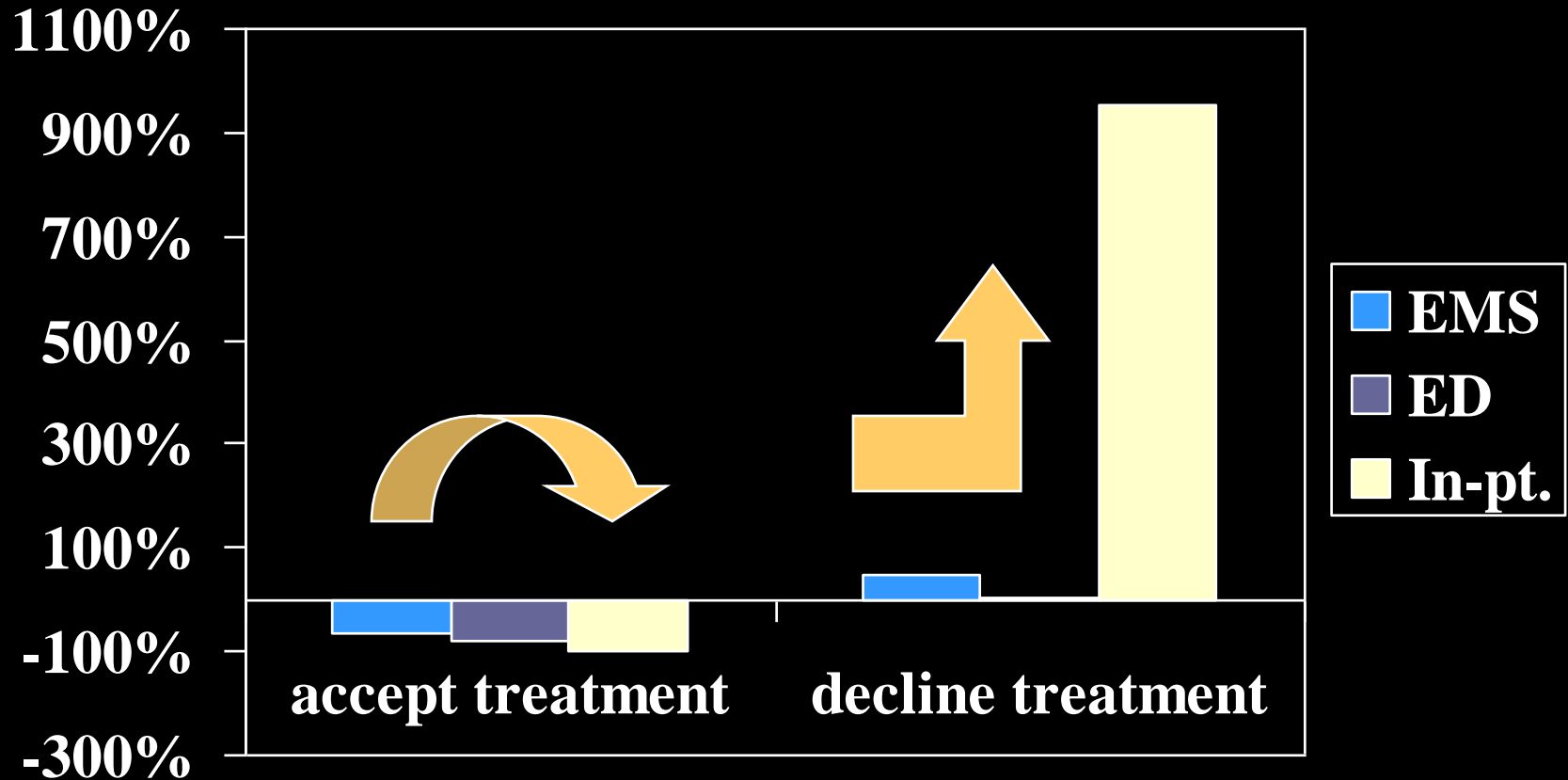


# Chronic inebriates

<b>529 clients (48 months)</b>	
<b>EMS transports</b>	<b>2,335</b>
<b>ED visits</b>	<b>3,318</b>
<b>Hospital admits</b>	<b>652</b>
<b>In-patient days</b>	<b>3,361</b>

Dunford J. Impact of the San Diego Serial Inebriate Program (SIP) on use of emergency medical resources.  
*Ann Emerg Med.* 2006;47(4):328-336

# Average monthly charges





# **Philip Mangano - Executive Director U.S. Interagency Council on Homelessness**

**“... we’ve unearthed  
evidence-based  
research that allows  
us to make policy  
and provide  
investment in these  
projects”.**





# Frequent Users of Health Services Initiative

- Corporation for Supportive Housing
- 6 year, \$20 million
- Responsive systems of care for frequent ED users
- 6 pilot programs
  - Los Angeles
  - Alameda
  - Santa Clara
  - Santa Cruz
  - Sacramento
  - Tulare





# ED & In-patient Utilization & Charges

	1 yr pre-enrollment	1 yr in program	2 yr in program	% change over 2 y
ED visits	10.3	6.7	4.0	-61%
ED charges	\$11,388	\$8,191	\$4,697	- 59%
In-patient admits	1.5	1.2	0.5	-64%
In-patient days	6.3	6.5	2.4	-62%
In-patient charges	\$46,826	\$40,270	\$14,684	-69%

# SB 1738

- **Senator Steinberg**
  - President pro tem
- **Pilot program**
  - 2500 frequent Medi-Cal users



# Lessons Learned

- Develop partnerships
- Identify frequent users
- Engage frequent users
- Collaborate with ED's
- Support change process
- Provide housing
- Access community-based services



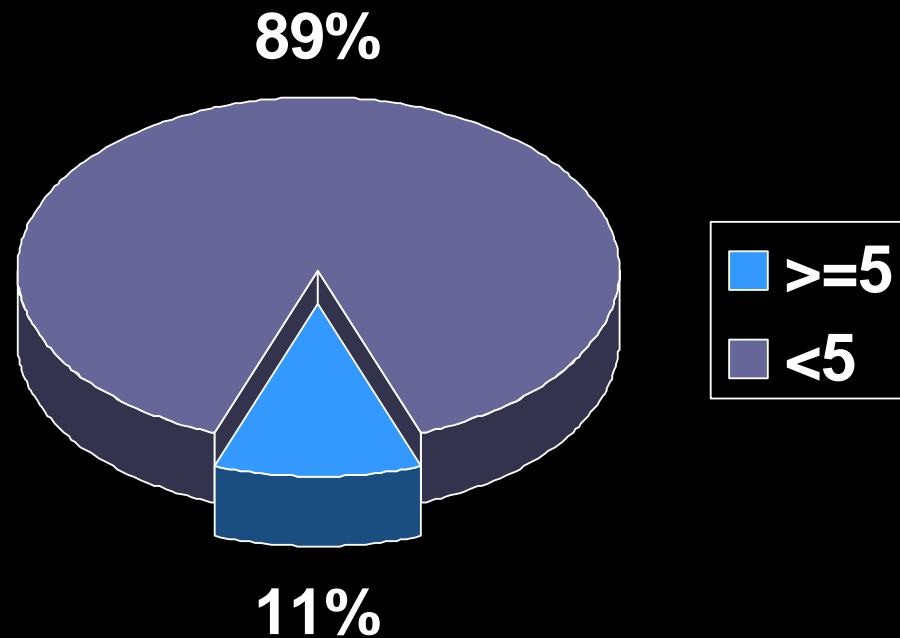


FS07088355	1756 Essex St	M68-City of San Diego ALS	Transported By Calling Unit	UCSD Medical Center	46 Y/O M	Chest Pain-Cardiac
FS07088600	901 Park Bl	M11-City of San Diego ALS	Transported By Calling Unit	Scripps Mercy Hospital	46 Y/O M	Other-Medical
FS07088720	Essex St & Park Bl	M68-City of San Diego ALS	Transported By Calling Unit	Scripps Mercy Hospital	46 Y/O M	Other-Medical
FS07091395	16 15th St	M1-City of San Diego ALS	Transported By Calling Unit	Scripps Mercy Hospital	46 Y/O M	Abdominal Pain
FS07092116	01st Av & Washington St	M20-City of San Diego ALS	Transported By Calling Unit	UCSD Medical Center	46 Y/O M	ETOH/Substance Abuse
FS07094415	1122 Broadway	M67-City of San Diego ALS	Transported By Calling Unit	UCSD Medical Center	46 Y/O M	Chest Pain-Other
FS07094598	13th St & C St	M64-City of San Diego ALS	Transported By Other Unit	UCSD Medical Center	46 Y/O M	Other-Medical
FS07094823	10th Av & Broadway	M12-City of San Diego ALS	Transported By Calling Unit	UCSD Medical Center	46 Y/O M	Seizure
FS07095903	1818 Robinson Av	M41-City of San Diego ALS	Transported By Calling Unit	UCSD Medical Center	46 Y/O M	Abdominal Pain
FS07096674	MARKET ST & PARK BL	M18-City of San Diego ALS	Transported By Calling Unit	Scripps Mercy Hospital	46 Y/O M	Seizure
FS07101408	904 05th Av	M70-City of San Diego ALS	Transported By Calling Unit	Scripps Mercy Hospital	46 Y/O M	Headache-Medical
FS07103258	1155 C St	M1-City of San Diego ALS	Transported By Calling Unit	UCSD Medical Center	46 Y/O M	Chest Pain-Other
FS07104265	10th Av & Broadway	M11-City of San Diego ALS	Transported By Calling Unit	UCSD Medical Center	46 Y/O M	ETOH/Substance Abuse
FS07105224	1414 University Av	M66-City of San Diego ALS	Transported By Calling Unit	Scripps Mercy Hospital	46 Y/O M	Other-Medical
FS07105971	1010 Broadway	M68-City of San Diego ALS	Transported By Calling Unit	Scripps Mercy Hospital	46 Y/O M	Chest Pain-Other
FS07110113	1136 C St	M1-City of San Diego ALS	Transported By Calling Unit	UCSD Medical Center	46 Y/O M	Trauma-Torso
FS07112836	08th Av & Broadway	M11-City of San Diego ALS	Transported By Calling Unit	Scripps Mercy Hospital	46 Y/O M	Trauma-Head/Neck
FS07115786	1335 Broadway	M70-City of San Diego ALS	Transported By Calling Unit	UCSD Medical Center	46 Y/O M	Other-Medical
FS07116925	720 E San Ysidro Bl	M29-City of San Diego ALS	Transported By Calling Unit	Sharp Chula Vista Hospital	46 Y/O M	Other-Medical
FS07117868	4009 Taylor St	M20-City of San Diego ALS	Transported By Calling Unit	Sharp Memorial Hospital	46 Y/O M	Chest Pain-Other
FS08001123	3811 Park Bl	M18-City of San Diego ALS	Transported By Calling Unit	UCSD Medical Center	46 Y/O M	Trauma-Extremities
FS08002141	350 47th St	M26-City of San Diego ALS	Transported By Calling Unit	Paradise Valley Hospital	46 Y/O M	Abdominal Pain
FS08020333	1602 University Av	M1-City of San Diego ALS	Transported By Calling Unit	UCSD Medical Center	46 Y/O M	ETOH/Substance Abuse
FS08032793	3911 Park Bl	M12-City of San Diego ALS	Transported By Calling Unit	UCSD Medical Center	46 Y/O M	Chest Pain-Cardiac
FS08034148	4009 Taylor St	M21-City of San Diego ALS	Transported By Calling Unit	UCSD Medical Center	46 Y/O M	Chest Pain-Other
FS08037281	131 Washington St	M1-City of San Diego ALS	Transported By Calling Unit	Scripps Mercy Hospital	46 Y/O M	Respiratory Distress/SOB
FS08038540	1200 03rd Av	M62-City of San Diego ALS	Transported By Calling Unit	UCSD Medical Center	46 Y/O M	Respiratory Distress/SOB
FS08040546	1122 Broadway	M1-City of San Diego ALS	Transported By Calling Unit	Tri-City Medical Center	46 Y/O M	ETOH/Substance Abuse
FS08054264	600 W A St	M64-City of San Diego ALS	Transported By Calling Unit	UCSD Medical Center	46 Y/O M	ETOH/Substance Abuse
FS08065944	333 05th Av	M66-City of San Diego ALS	Transported By Calling Unit	UCSD Medical Center	47 Y/O M	Other-Medical
FS08071589	1255 Imperial Av	M64-City of San Diego ALS	Transported By Calling Unit	UCSD Medical Center	47 Y/O M	Other-Medical
FS08076823	1255 Imperial Av	M11-City of San Diego ALS	Transported By Calling Unit	UCSD Medical Center	47 Y/O M	None
FS08106447	1133 C ST	M65-City of San Diego ALS	Transported By Calling Unit	Tri-City Medical Center	47 Y/O M	Other-Medical
FS08114792	Beyer Bl & Del Sol Bl	M61-City of San Diego ALS	Transported By Calling Unit	Paradise Valley Hospital	47 Y/O M	ETOH/Substance Abuse
FS08118072	1110 C St	M11-City of San Diego ALS	Transported By Calling Unit	Scripps Mercy Hospital	47 Y/O M	Other-Medical
FS09001129	04th Av & Robinson Av	M11-City of San Diego ALS	Transported By Calling Unit	UCSD Medical Center	47 Y/O M	Trauma-Head/Neck
FS09004581	04th Av & University Av	M20-City of San Diego ALS	Transported By Calling Unit	Scripps Mercy Hospital	47 Y/O M	ETOH/Substance Abuse
FS09014373	1809 National Av	M65-City of San Diego ALS	Transported By Calling Unit	UCSD Medical Center	47 Y/O M	Respiratory Distress/SOB

# High Users 2007

## $\geq 5$ transports

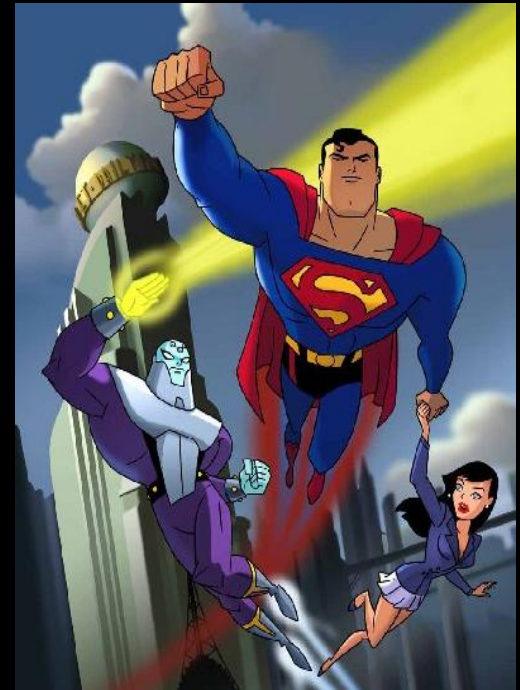
- 933 patients
- 7652 transports
- \$6.4 million



# Super Users 2007

## $\geq 10$ transports

- 214 px - 3126 transports
  - Male - 59%
  - Age – 53 yr
- Homeless – 42%
- Substance – 51%
- Psych– 76%
- Homeless + substance + psych - 55 patients



# Resource Access Program (RAP)



**SDPD  
Homeless Outreach Team**



**San Diego EMS**

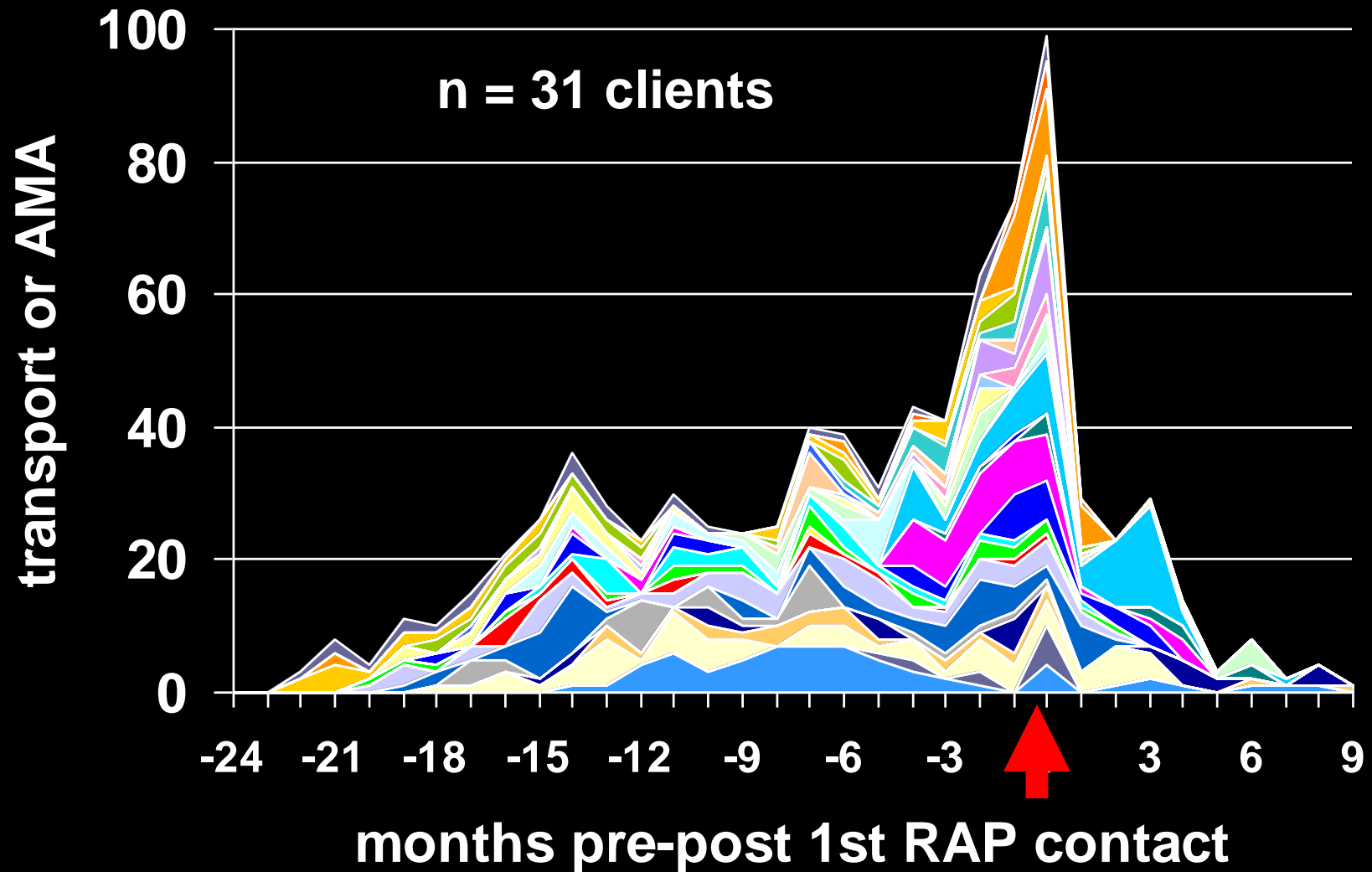


**Psychiatric Emergency  
Response Team**

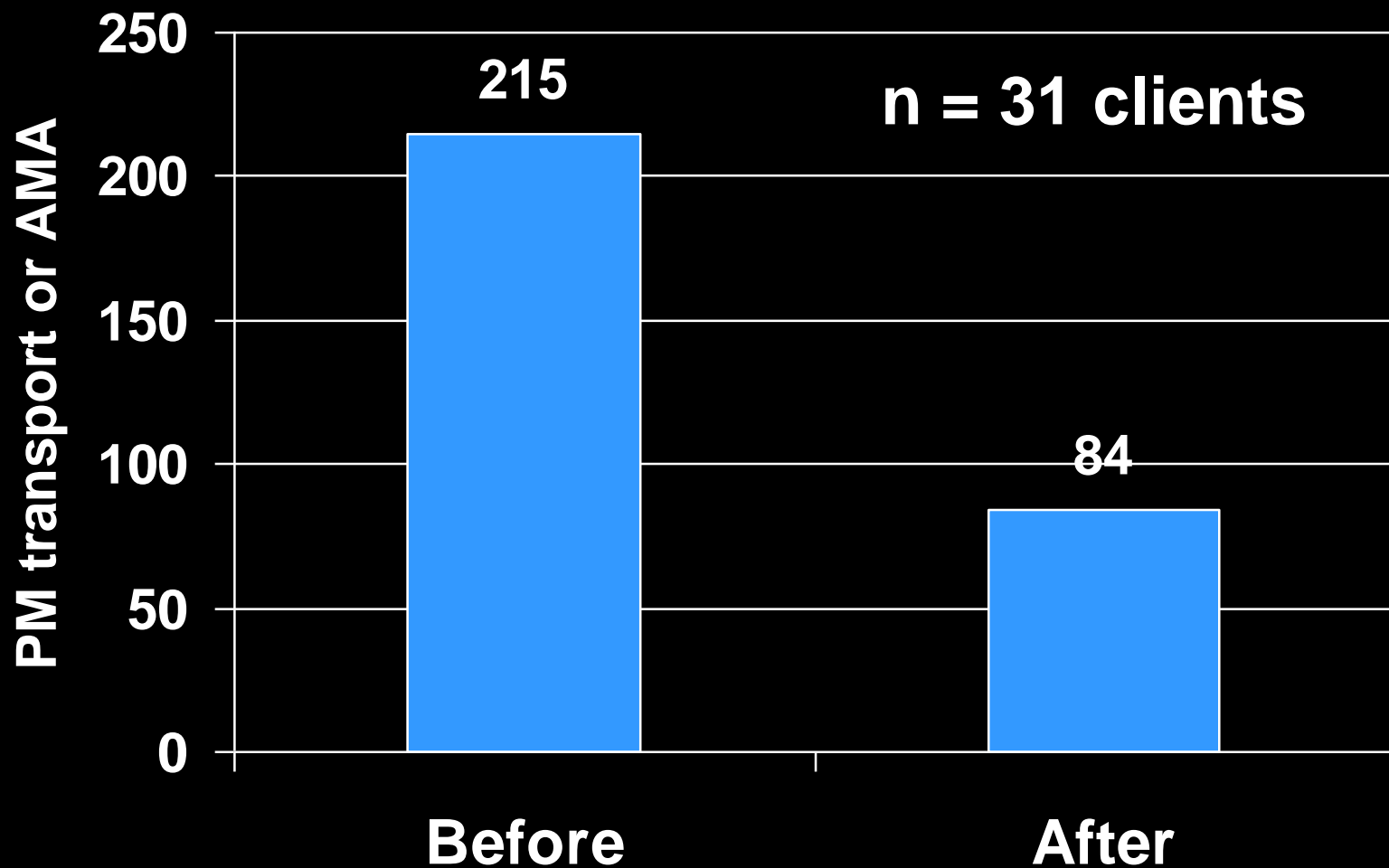


**San Diego HHSA**

# Paramedic contacts before/after RAP

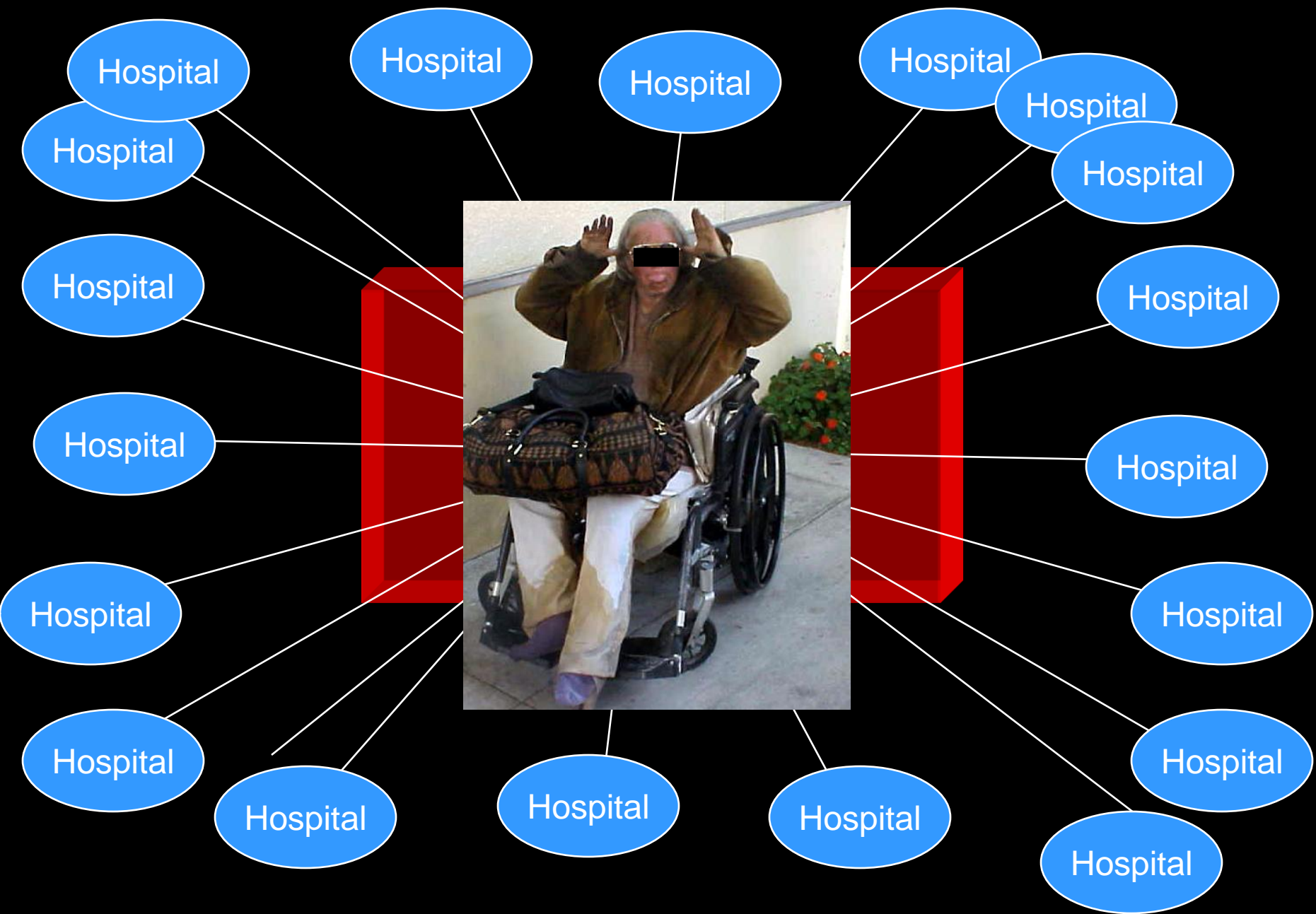


# Paramedic contacts before/after RAP

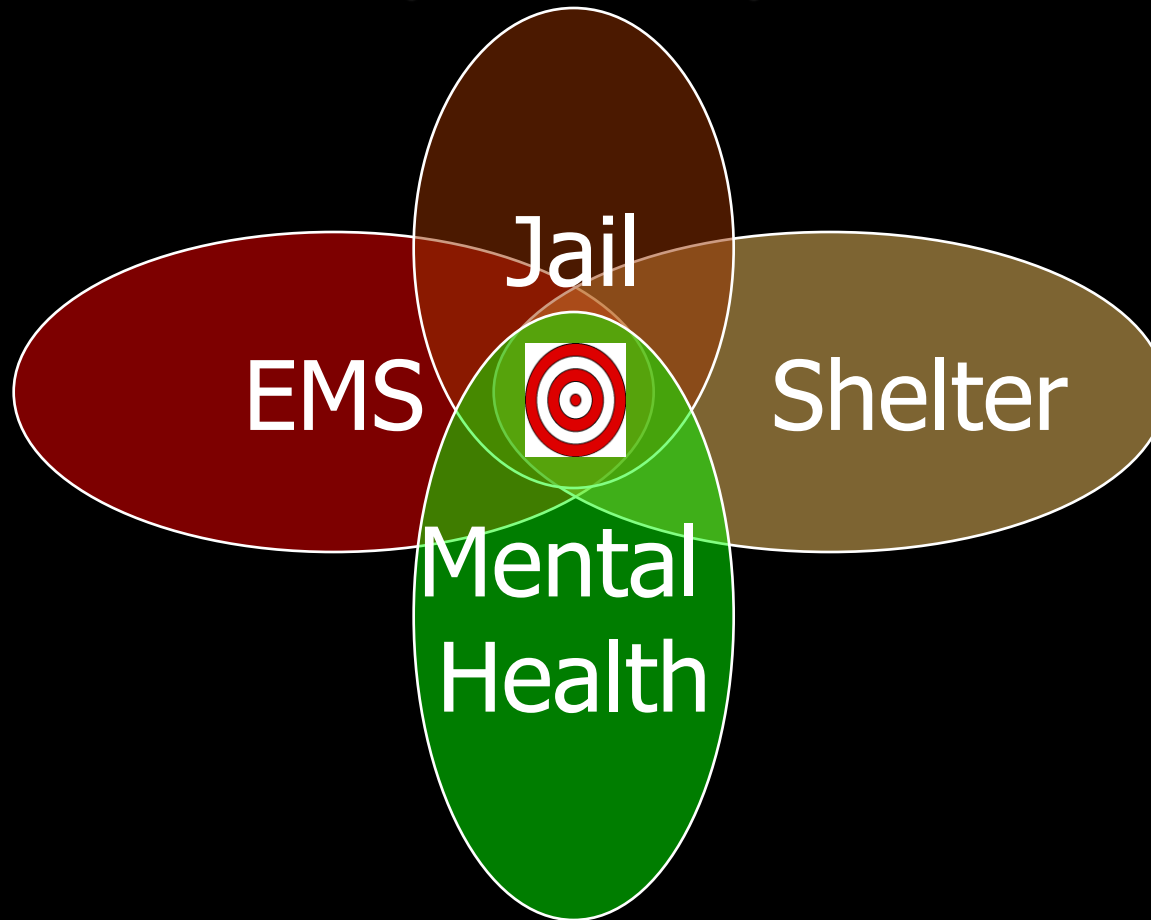






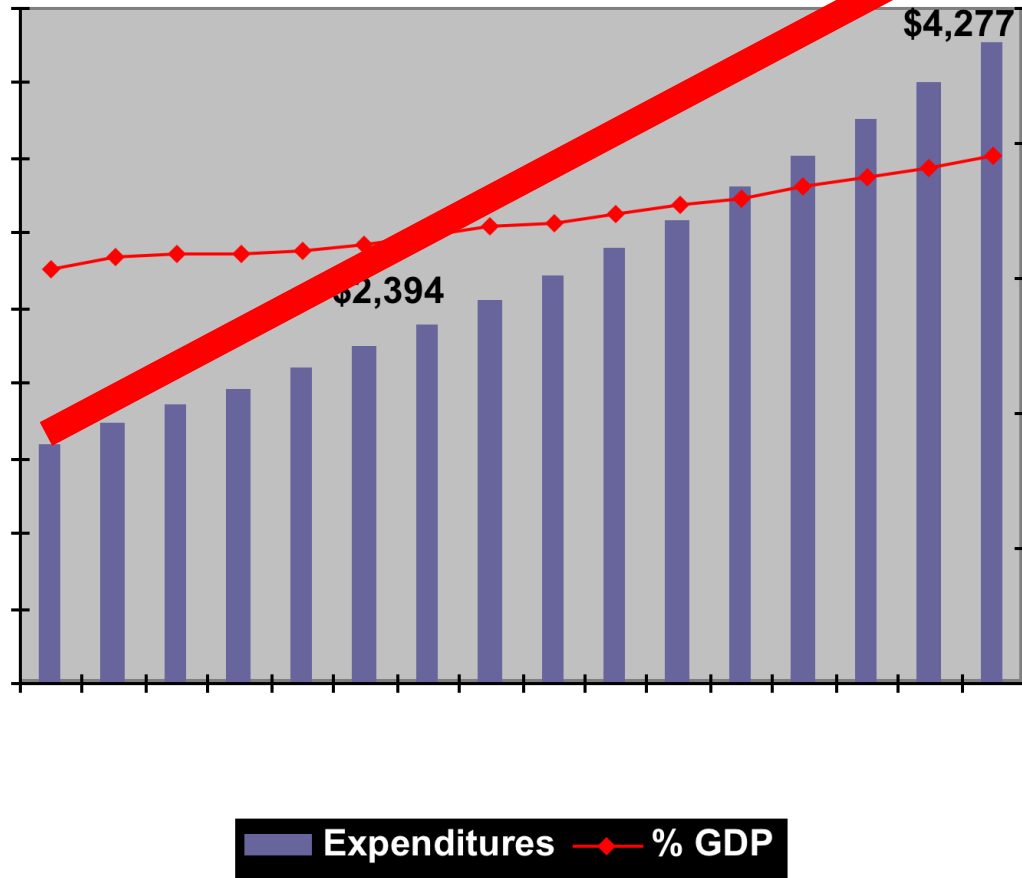


# Plan to End Chronic Homelessness in America (PTECH)



# Eagles Fogo de Chao Dinner Bill

2007-2017



Office of the Actuary in the Centers for Medicare & Medicaid Services, 2008.





An aerial photograph of the San Diego coastline, showing the ocean, a sandy beach, and the city skyline in the distance. The image is tinted with a blue color.

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619-533-4359

*San Diego*

C A L I F O R N I A