Wichita/Sedgwick County, Kansas
May 1999 - April 2002

Hospital-wide Utilization Study

Uncompensated Care and Medicaid

Prepared by the University of Kansas School of Medicine-Wichita for the Central Plains Regional Health Care Foundation, Project Access

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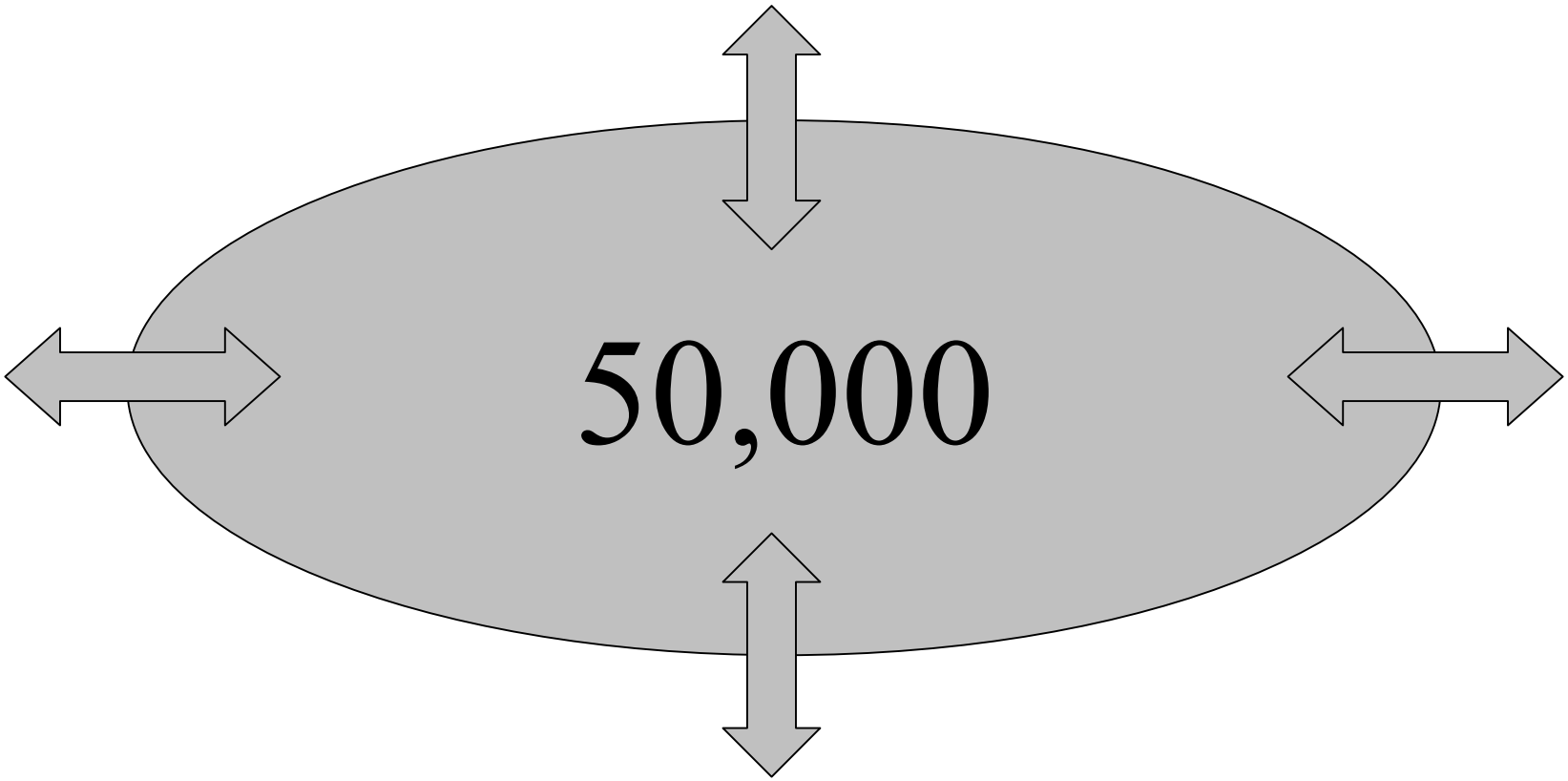
Number of Uninsured Persons in Sedgwick County, Kansas March 2004



Arrows represent people entering and leaving the ranks of the uninsured.

Yearly Cost of Health Care 2002

Estimated yearly health care cost:	**$1.6 Trillion**
US Population:	**286 Million**
Estimated cost per person:	**$5,440**

50,000 Uninsured persons in Sedgwick County

50,000
x $5,440

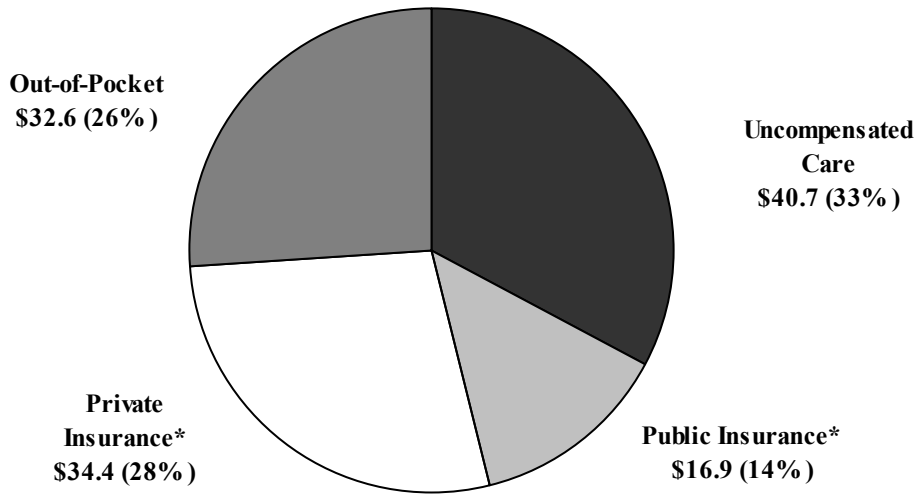
$272,000,000 **Estimated yearly cost of uninsured health care in Sedgwick County**

How much uncompensated care is provided to the uninsured each year?

Figure 1

Amount and Sources of Payment for Care Received by Full-Year and Part-Year Uninsured

In Billions of 2004 Dollars



Total = $124.5 Billion

Note: Includes payments for people uninsured all-year and for only part of the year.
* Payments for part of year when part-year uninsured have coverage.
SOURCE: Hadley and Holahan analysis of 1998 – 2000 MEPS data, 2004

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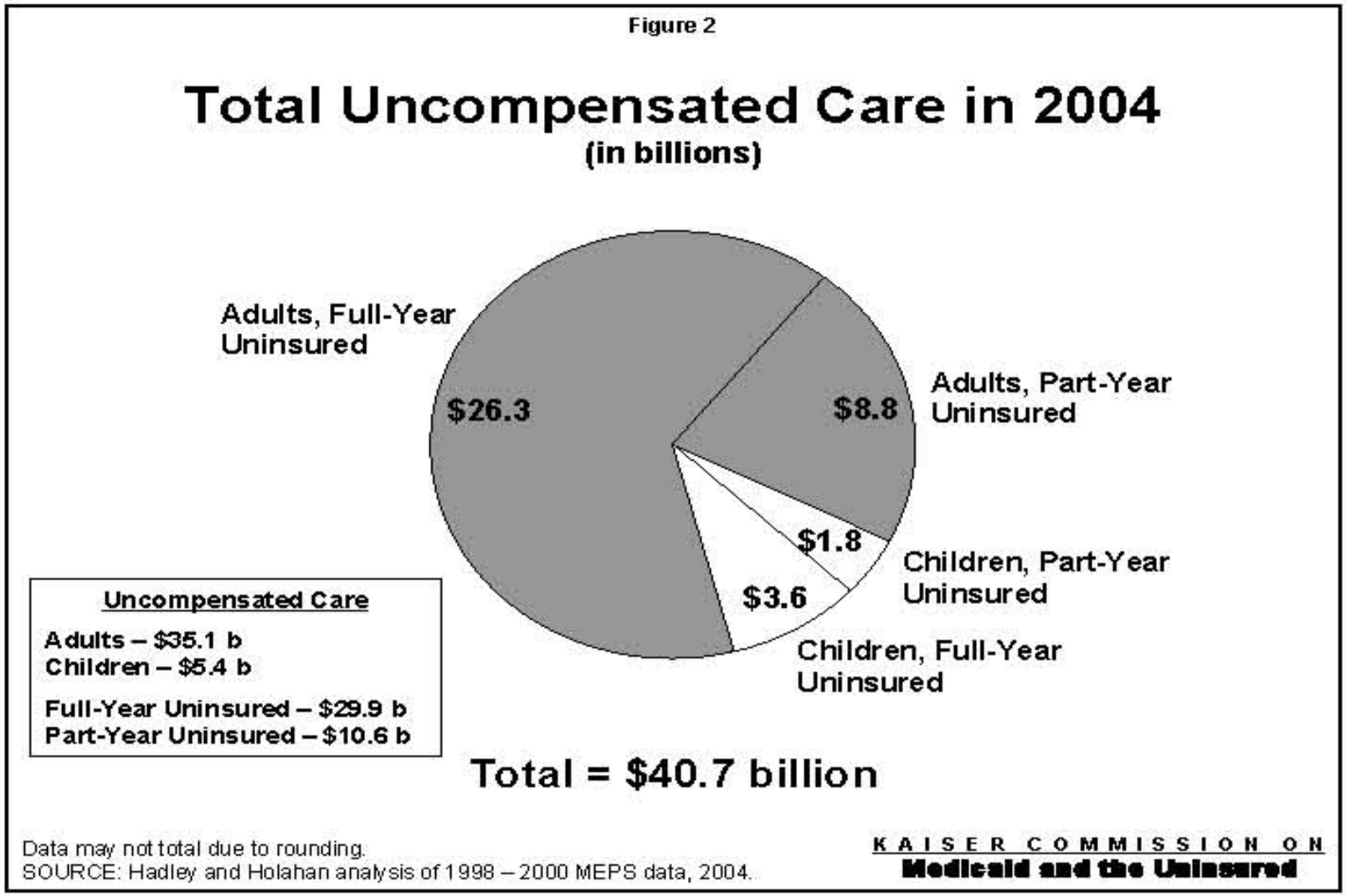
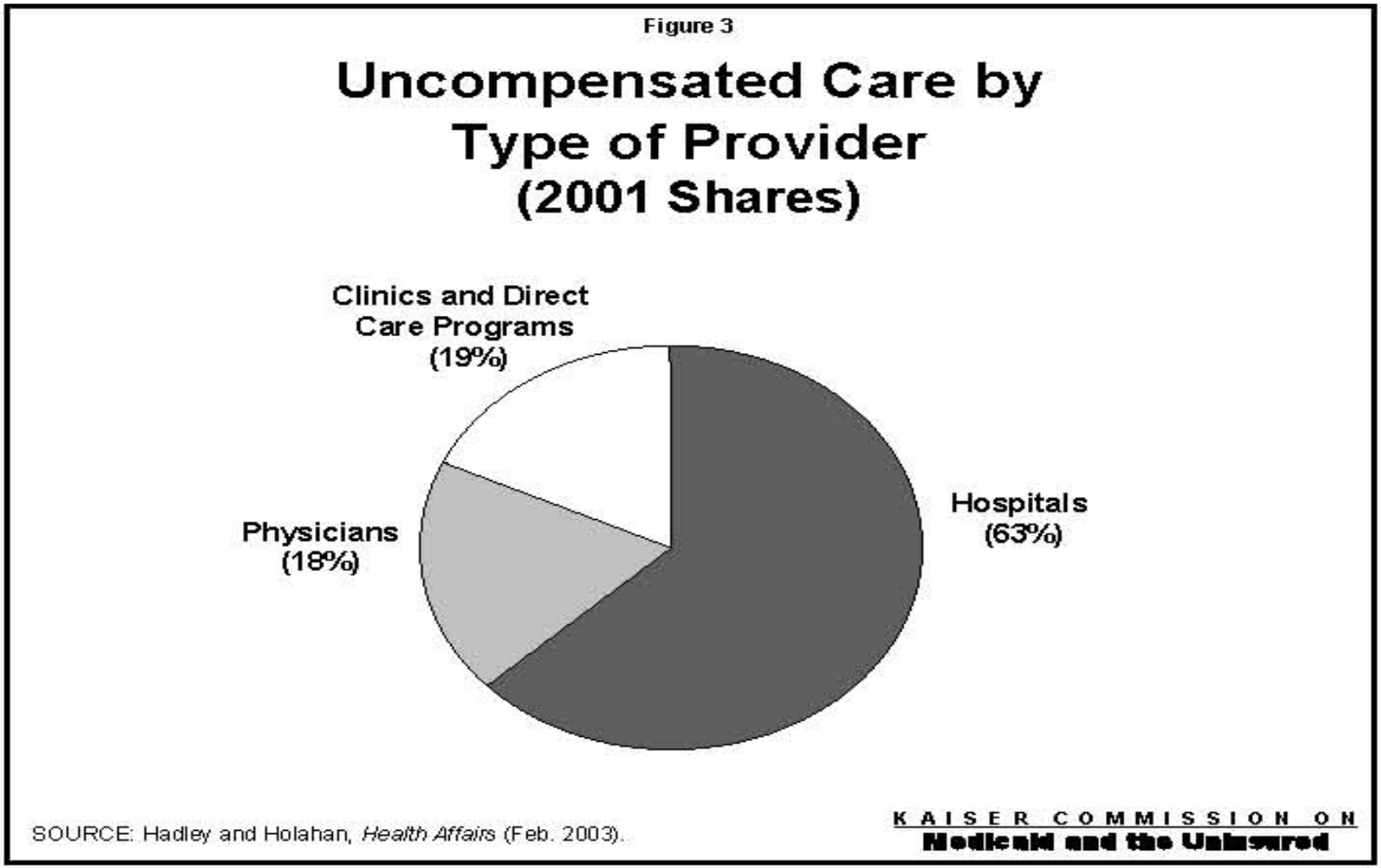
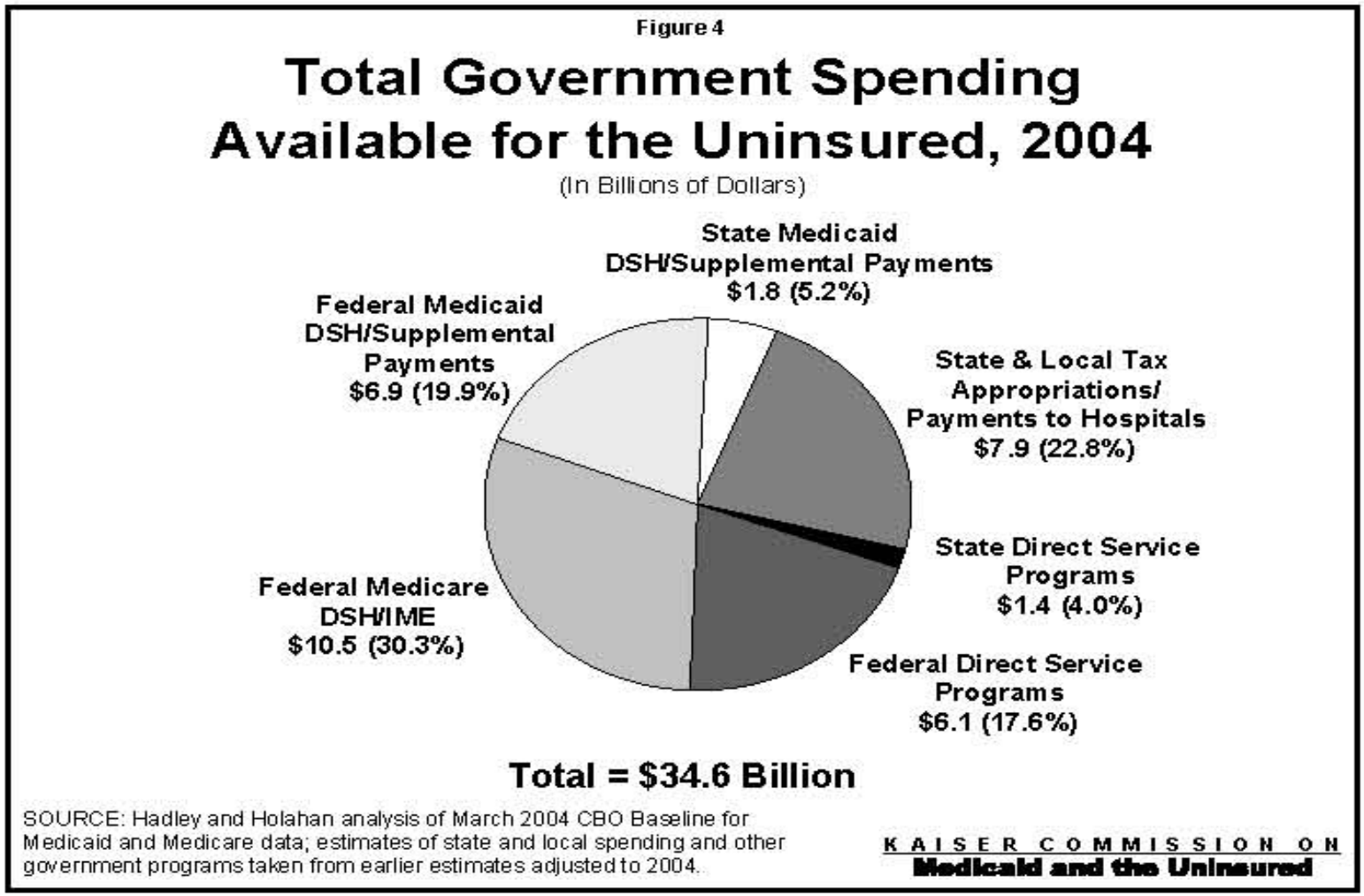
Estimated Medicaid and the Uninsured



Who provides uncompensated care?



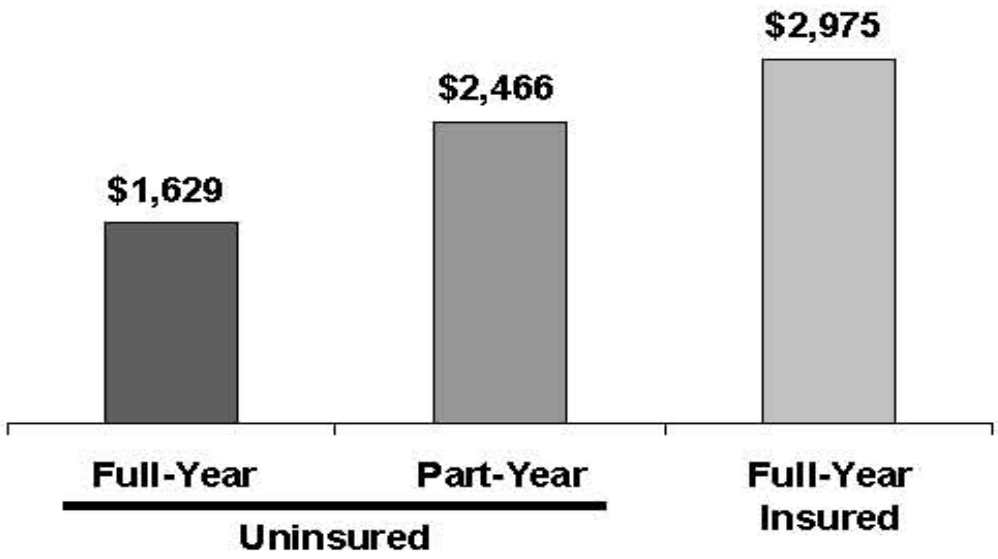
How is uncompensated care funded?



Does uncompensated care fully make up for the lack of health insurance?

Figure 5

Estimates of Per Capita Spending, 2004 dollars
(includes uncompensated care)



SOURCE: Hadley and Holahan analysis of 1998 – 2000 MEPS data, 2004.

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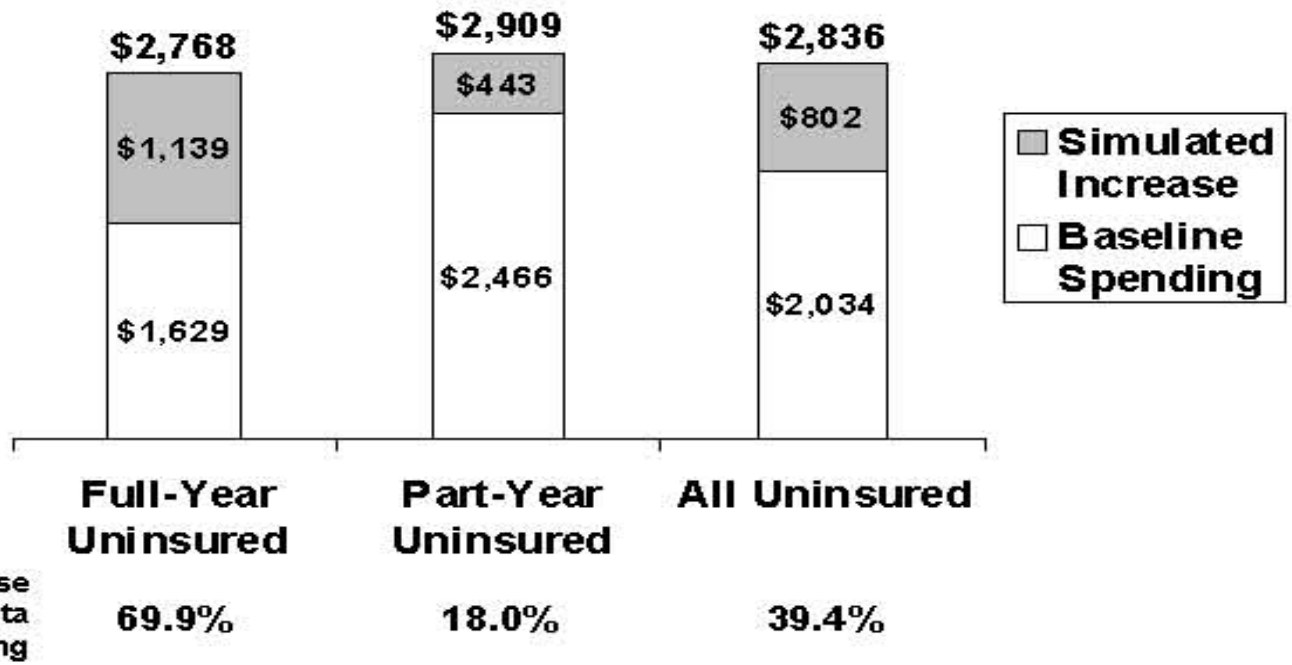
How much more would it cost to cover all of the uninsured?

Figure 6

Simulated Spending per Capita if Uninsured Had Coverage (2004 Dollars)



SOURCE: Hadley and Holahan analysis of 1998 – 2000 MEPS data, 2004.

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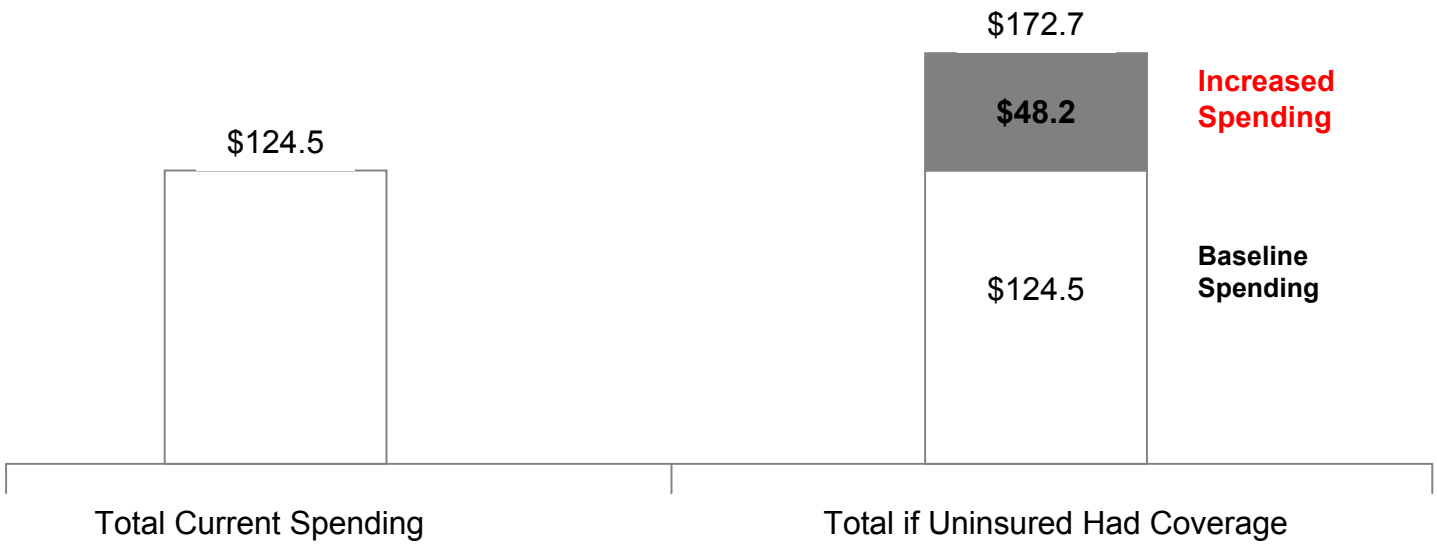
Under a universal expansion how much would total spending increase?

Figure 7

Total and Incremental Medical Spending if Uninsured Had Coverage (Billions of 2004 Dollars)



SOURCE: Hadley and Holahan analysis of 1998 – 2000 MEPS data, 2004.

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Medicaid and the Uninsured

Cost of Uncompensated Medical Care in Sedgwick County, Kansas

Per capita medical spending for persons uninsured for the full year in 2004	$1,629
Uninsured persons in Sedgwick County	50,000
Estimated cost of uncompensated care in Sedgwick County	$81 M
Uncompensated care by type of provider	
Hospitals (63%)	$51 M
Physicians (18%)	$15 M
Clinics and Direct Care Programs (19%)	$15 M

Yearly Outpatient Care of the Uninsured in Sedgwick County

Care Location	# of Visits/Year
SCAMU Clinics*	60,000
Residency Clinics	45,000
Emergency Room Visits	18,300
Hospital Outpatient Visits	5,000
Health Department Clinics (includes 10,500 visits for pediatric primary care)	28,000
Project Access (1,728 Patients)	7,120
TOTAL	163,420

Not accounted: visits to private physicians (fee-for-service visits)

*Center for Health and Wellness, Good Samaritan Clinic, Guadalupe Clinic, Hunter Health Clinic, Medical Service Bureau, United Methodist Clinics of Wichita, Inc.

Hospital-wide Utilization Study Population Definition

- Discharge Data
- May 1, 1999 – April 30, 2002
- Emergency Room patients, In-patients, and Out-patients
  (No residency clinic data included)
- Sedgwick County Residents
- 218,167 Encounters
- 98,978 Patients (Duplication between hospitals may exist)
- Medicaid, HealthWave, SCAMU, Project Access, and Self-pay payor designations
- MDC codes 19, 20, 25 = “sensitive”
- ICD-9-CM diagnosis and procedures < 6 = “rare”

Major Conclusion #1

Wesley Medical Center (one campus) and Via Christi Regional Medical Center (St. Francis and St. Joseph campuses) care for a large number of uninsured and underinsured patients from Sedgwick County, Kansas, each year.

- Medicaid patients: over 17,000 patients with over 43,000 visits
- Uninsured patients:almost 15,000 patients with over 28,000 visits

In addition, people who are uninsured and under-insured tend to be:

- unemployed / under-employed
- disproportionately minorities
- single and female

Major Conclusion #2

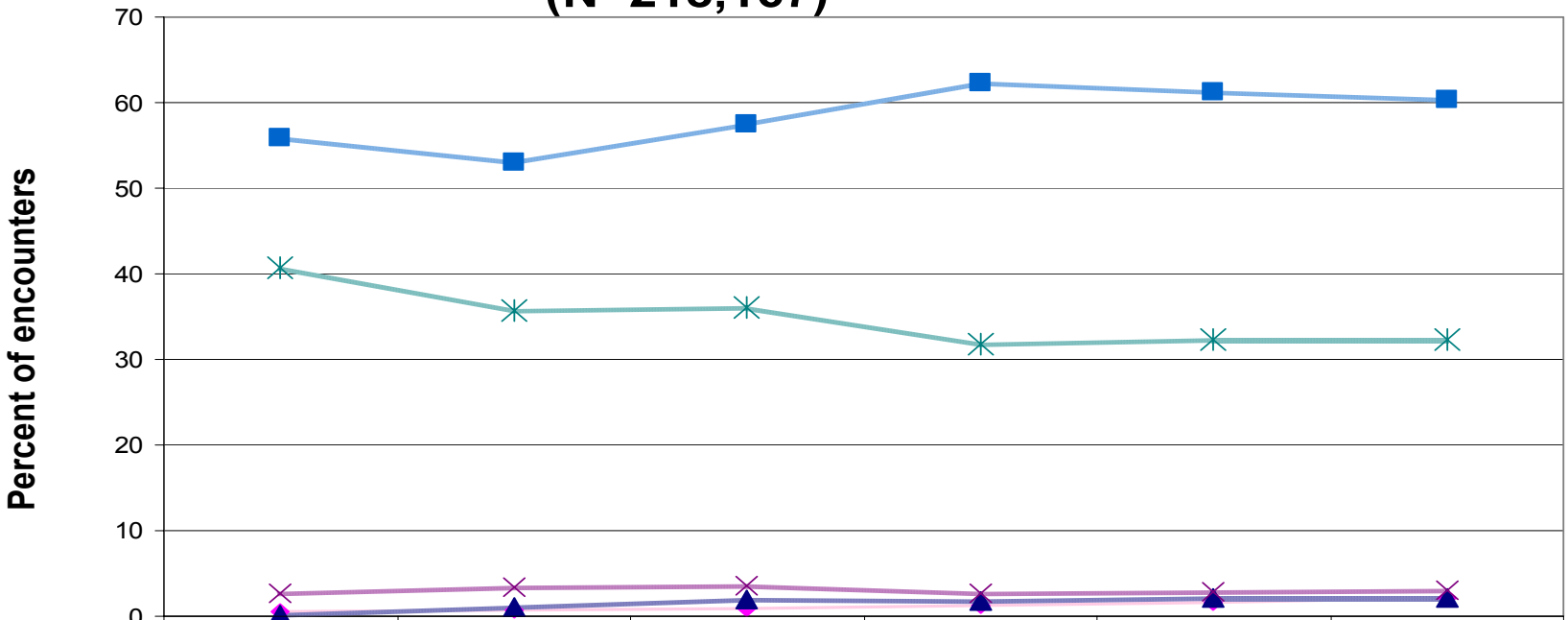
Medicaid visits increased and uninsured visits decreased until April 2002.

- During the three-year study the percent of Medicaid visits increased (56 to 60%) and the percent of uninsured visits decreased (41 to 32%) for all patients combined, stratified by six-month intervals.
- This trend may reverse as the increasing numbers of recently unemployed workers lose their health insurance.

Three Year Payor Status Over 6 Month Intervals

Hospital-wide Utilization Study, Sedgwick County, Kansas

Percent of Encounters by Payor Status by Six Month Time Period (N=218,167)



	May '99-Oct '99	Nov '99-April '00	May '00-Oct '00	Nov '00-April '01	May '01-Oct '01	Nov '01-April '02
HealthWave	0.57	0.8	0.98	1.27	1.52	2.17
Medicaid	55.88	53.02	57.54	62.34	61.25	60.35
Project Access	0.09	1.01	1.95	1.84	2.12	2.13
SCAMU	2.7	3.39	3.53	2.73	2.78	3.09
Self-pay	40.76	35.77	36	31.82	32.32	32.26

Six month Time Periods

Prepared by the University of Kansas School of Medicine-Wichita for the Central Plains Regional Health Care Foundation, Project Access

Major Conclusion #3

Medicaid ED visits increased 46% over the three-year study when stratified by 12 month intervals and payor type.

- In general, the publicly insured (those with Medicaid and HealthWave) had a 31% increase when comparing the first twelve month period (5/1999 – 4/2000) to the third twelve month period (5/2001 – 4/2002).

- When stratifying by patient type (ER, IP, OP), ED visits contributed the highest percent at 46% with IP-Medicaid and OP-Medicaid visits at a distant 15% and 12% increase, respectively, when comparing the same years.

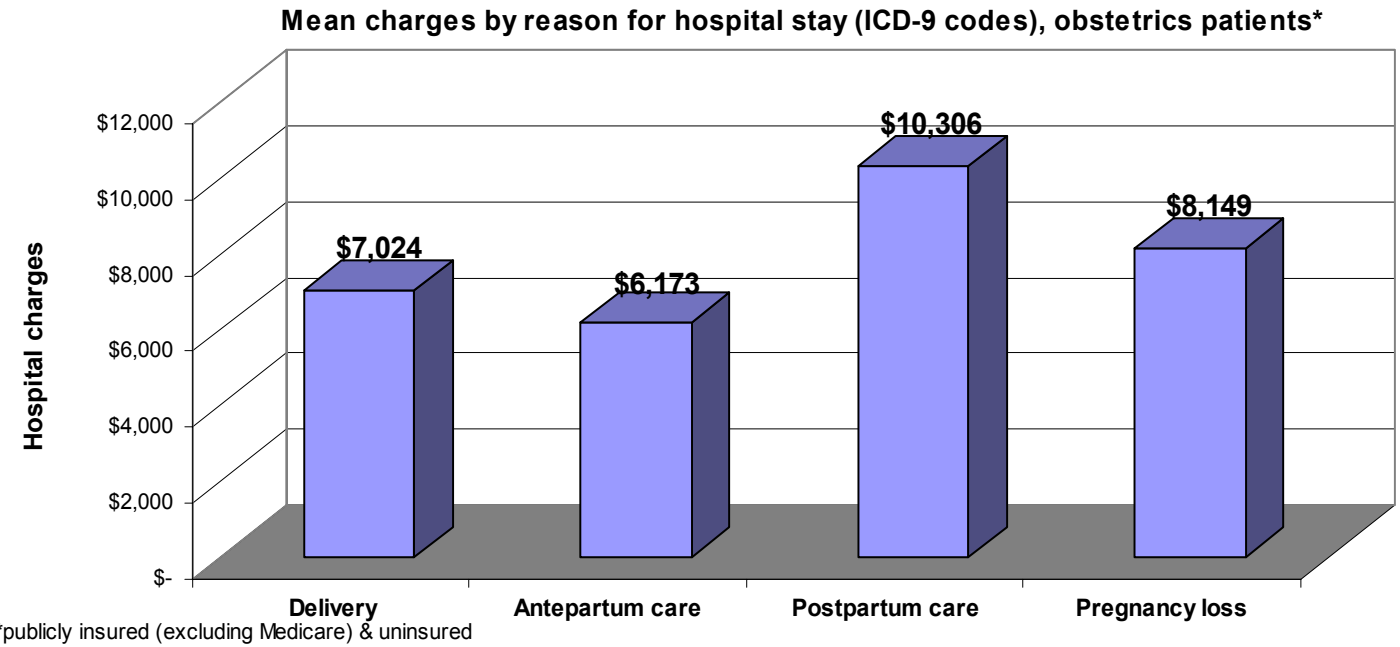
Comparison of 12 Month ED and Hospitalized Counts

	5/1999 - 4/2000 encounters (patients)	5/2000 - 4/2001 encounters (patients)	5/2001 - 4/2002 encounters (patients)
	46% increase from 1st year to 3rd year		
ED Medicaid	18,225 (8,953)	22,891 (11,854)	26,628 (14,561)
	10% increase from 1st year to 3rd year		
ED Uninsured	17,442 (11,724)	18,010 (12,743)	19,118 (14,144)
	15% increase from 1st year to 3rd year		
Hospitalized Medicaid	7,721 (4,324)	8,678 (5,192)	8,879 (5,477)
	8% increase from 1st year to 3rd year		
Hospitalized Uninsured	2,150 (1,404)	2,061 (1,410)	2,328 (1,767)

Major Conclusion #4

Obstetric female patients accounted for 23% (n=7593) of all hospitalized patients (n = 32380).

- Of the 63% female, 37% (7593) were coded with an obstetric primary diagnosis code (ICD9 diagnosis codes 630 – 677, v23.81, v23.89, v25.42, v30.00, v30.01, v31.00, v31.01).
- Hospitalized patients (those with patient type = IP) were 37% (n = 11982) male and 63% (20397) female.

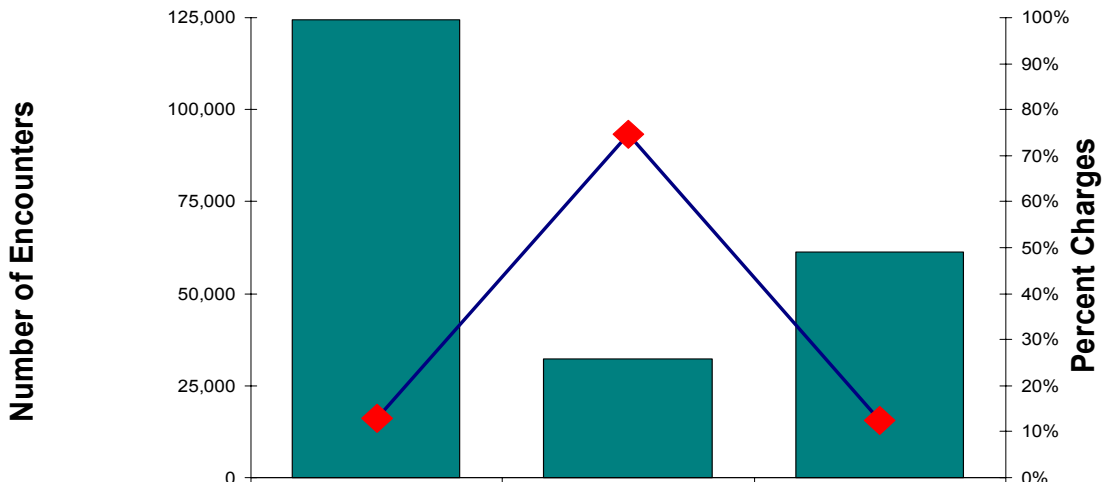


Major Conclusion #5

Seventy-five percent of all Medicaid and uninsured charges were for hospitalizations.

- In-hospital visits (32,380) make up the smallest portion of all encounters (15%) while totaling the largest proportion (75%) of all charges.

Number of Total Encounters (N=218,167) and Percent of Charges ($467,911,873.36) by Patient Type



	ER	In-Patient	Out-Patient
# of Encounters	124,505	32,380	61,282
% Total Charges	12.93%	74.55%	12.51%

Major Conclusion #6

Approximately 65% of all charges were incurred by 12% of the patient population.

- Over 30% of these most costly patients were 40 – 64 years old versus just 17% of the general hospitalized population.
- The majority of the most costly population (73%) were Medicaid beneficiaries versus 49% of all hospitalized patients being Medicaid beneficiaries.
- The most frequent reason for hospitalization in this high cost group is live birth (7.3%) with the most common procedure being cesarean section (15.4%).

High Charge Patients* -- Frequent Reasons For Hospitalization

Primary diagnoses (CCS categories)	Total number of discharges*	Percent of all discharges*
Liveborn	846	7.3
Other complications of birth, puerperium	589	5.1
Previous cesarean section	338	2.9
Pneumonia	334	2.9
Hypertension complication pregnancy	296	2.5
Diabetes mellitus with complications	292	2.5
Coronary artherosclerosis	252	2.2
Polyhydramnios, problems of amniotic cavity	231	2.0
Prolonged pregnancy	228	2.0
Affective disorders (depression)	222	1.9

***publicly insured (excluding Medicare) & uninsured**

Major Conclusion #7

Timely access to a primary care provider, had one been available, could have managed 88% of emergency department visits.*

- Over the three-year period ED visits steadily increased with in-hospital and outpatient visits remaining relatively stable.
- Of all ED encounters (124,274), a small percent (10%) were admitted to the hospital.
- Had a primary care provider been available, potentially 88% of emergency department visits could have been avoided.
- Regarding the 23% of emergency department visits that actually required ED intervention, over 12% were potentially preventable or avoidable.

*Excluding injury, mental health related, substance abuse related, alcohol related, and unclassified ED visits (n = 48,512 or 26%) by non-admitted patients.

ED Algorithm Group Definitions

Non-Emergent

Immediate medical care not required within 12 hours (light or minor symptoms assigned by initial complaint, vital signs, medical history and age)

Emergent/Primary Care Treatable

Treatment required within 12 hours, but could have been provided in a primary care setting (most are chronic conditions)

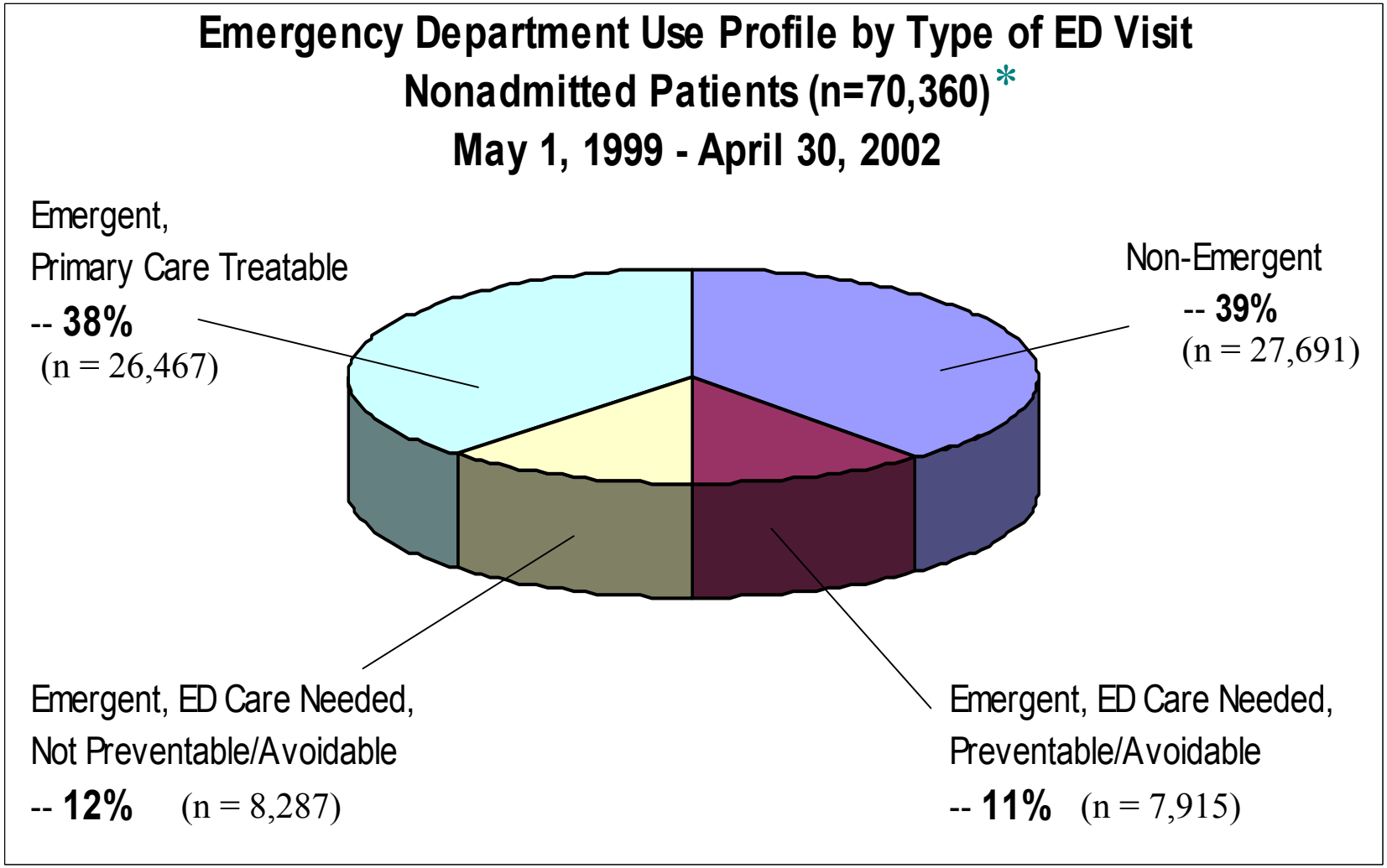
Emergent, ED Care Needed, Preventable / Avoidable

Emergency care required, but could have been prevented with timely and effective primary care (asthma, diabetes, CHD)

Emergent, ED Care Needed, Not Preventable/Avoidable

Emergency care was required and primary care treatment could not prevent (trauma, appendicitis, heart attack)

Emergency Department Use Profile



*Excluding injury, mental health related, substance abuse related, alcohol related, and unclassified ED visits (n = 48,512 or 26%) by non-admitted patients.

Major Conclusion #8

Sedgwick County Medicaid beneficiaries and the uninsured relied heavily on EDs for nonemergent conditions, which surpassed even New York City's relative rates.*

- Nonemergent ED use among Sedgwick County Medicaid beneficiary (Fee For Service & Managed Care combined) and uninsured children (0 – 17 years) was 4.0 while adults (18 – 64 years) were lower with a 3.0 relative rate.
- Relative rates indicate that Sedgwick County Medicaid beneficiaries and the uninsured used the ED 30 – 50 % more often for nonemergent conditions than New York City Medicaid beneficiaries and uninsured.
- Project Access patients age 18 – 64 years old (n = 92) seemed to use the ED more appropriately than other uninsured Sedgwick County residents.

*Relative rates {RR} were calculated using the "emergent care / not preventable or avoidable" category as a basis for comparison {RR = 1.0}.

Relative Rates of ED Use Category by Insurance Status and Age --Non admitted Patients (May 1999-Apr 2002)

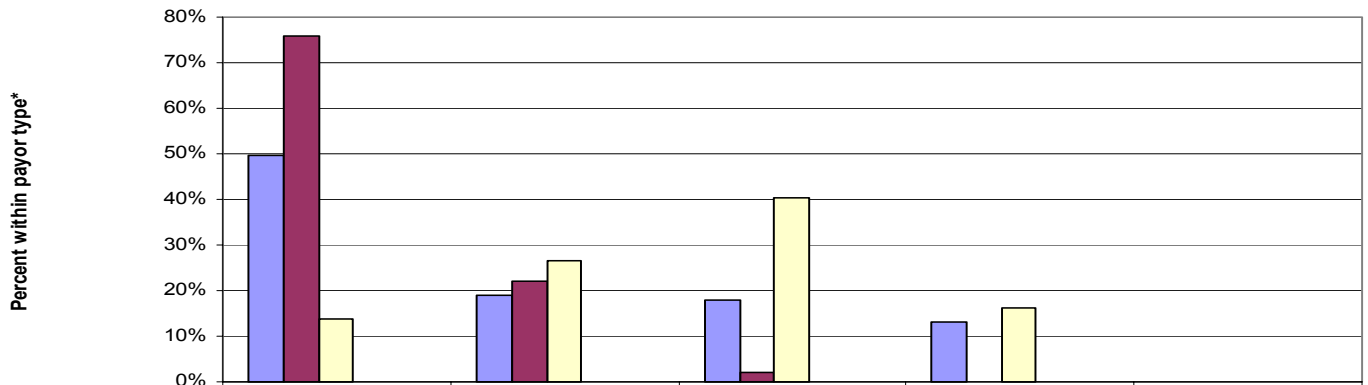
	Nonemergent**	Emergent, Primary Care Treatable**	Emergent ED Needed, Preventable / Avoidable**	Emergent ED Needed, Not Preventable Or Avoidable**
Children 0 to 17 years old				
Medicaid (n=25152)	3.9	4.8	1.3	1
NY City, 1998 Medicaid FFS	3.16	2.67	0.61	1
NY City, 1998 Medicaid Managed Care	2.92	2.56	0.55	1
HealthWave (n=944)	5	5.1	1.8	1
Uninsured / Other (n=4824)	4.2	4.6	1.2	1
Project Access (n=1)***	X	X	X	X
SCAMU (n=0)***	X	X	X	X
NY City, 1998 Selfpay	2.79	2.37	0.45	1
18 to 64 years old				
Medicaid (n=16269)	3	2.3	0.7	1
NY City, 1998 Medicaid FFS	2.41	1.85	0.57	1
NY City, 1998 Medicaid Managed Care	2.94	2.36	0.56	1
HealthWave (n=93)	4.1	3	0.7	1
Uninsured / Other (n=22822)	3	2.5	0.8	1
Project Access (n=92)	1.3	1.9	0.6	1
SCAMU (n=22)	3.6	2.5	0.8	1
NY City, 1998 Selfpay	2.15	1.63	0.33	1
65+ years old				
Medicaid (n=72)	1.4	2	0.6	1
NY City, 1998 Medicaid FFS	NA****	NA	NA	NA
NY City, 1998 Medicaid Managed Care	NA	NA	NA	NA
HealthWave (n=0)	X	X	X	X
Uninsured / Other (n=66)	1.2	1.8	1.1	1
Project Access (n=2)***	X	X	X	X
SCAMU (n=1)***	X	X	X	X
NY City, 1998 Selfpay	NA	NA	NA	NA

Major Conclusion #9

Of those that frequent the ED more than one time per year, Medicaid and HealthWave children age 0 – 14 had the highest recurrence of ED visits per year.

- For 5/99 – 4/00, 5/00 – 4/01 and 5/01 – 4/02 Medicaid and HealthWave were 53% and 88%; 52% and 77%; and 50% and 76%, respectively.

Use patterns by payor and age categories for frequent ER users
Age group by payor type for patients with more than one ER visit from May 2001-April 2002, at first encounter (N=4,266)



	0-14	15-24	25-39	40-64	65-89
Medicaid (n=2,645)	49.75%	19.05%	18.07%	13.04%	0.08%
HealthWave (n=50)	76.00%	22.00%	2.00%	0.00%	0.00%
Uninsured/other (n=1,559)	13.86%	26.63%	40.35%	16.10%	0.06%
Project Access (n=9)*					
SCAMU (n=3)*					

*small counts (n<10) not graphed

Major Conclusion #10

Estimates indicate that coordinated care yields a 30 to 40% cost savings.*

- Average uncoordinated care costs are estimated to be $6,000 to $6,500 per person per year versus average costs for coordinated care at $3,700 to $4,500 person per year (D.P. Rogoff).

- It is estimated that coordinated care with an emphasis on primary care would be much less expensive (30 – 40%) than our current safety net system that emphasizes emergency room care and inpatient care when patients become very ill.

* Health Care Safety Nets and the Art of Making Crazy Quilts, HRSA-CAP TA Call 04-02-2002. Presented by David Rogoff, Director, Health and Social Services, Hillsborough County, FL.

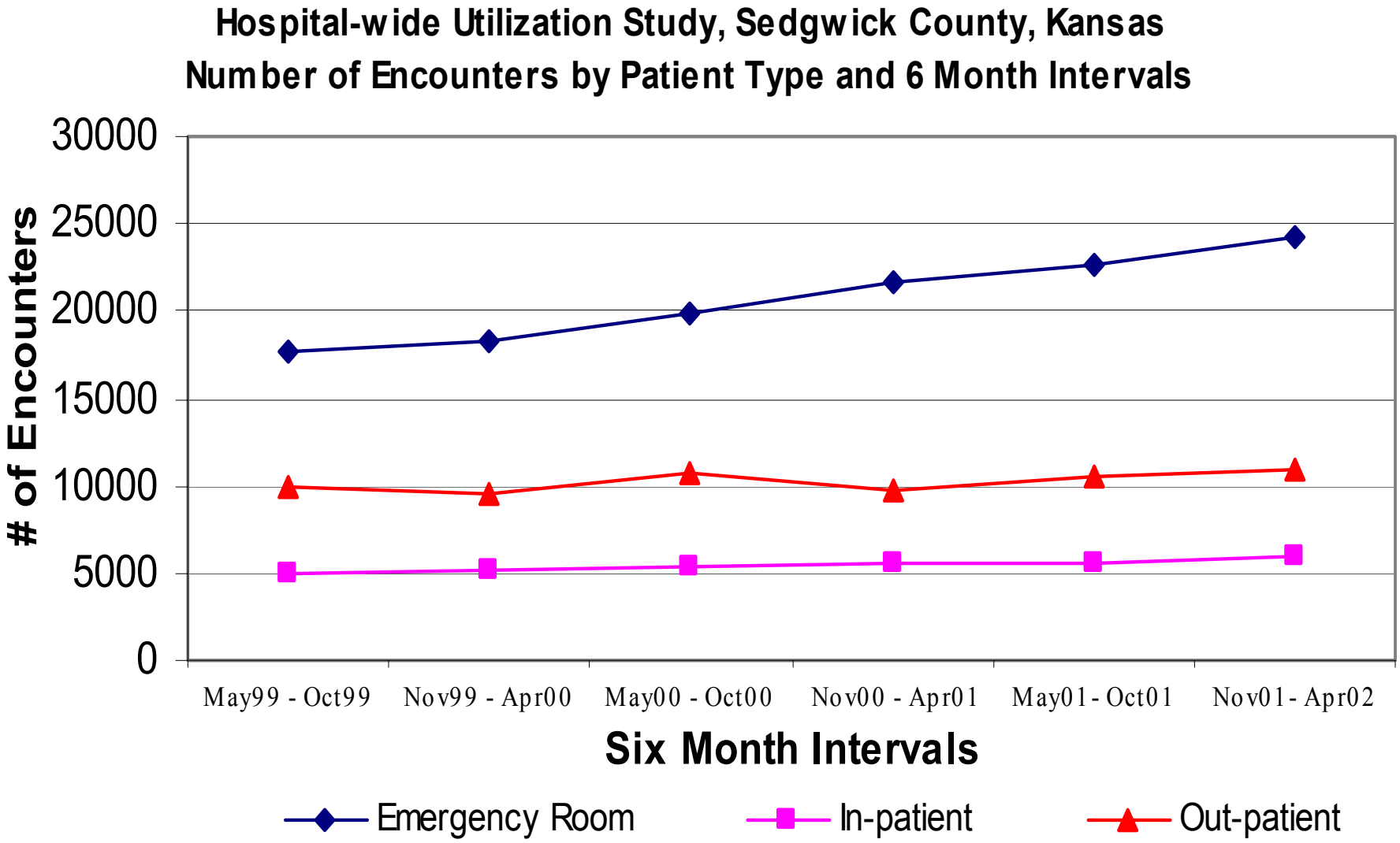
Range of Costs

UNCOORDINATED vs. COORDINATED HEALTH CARE (Based on Experience in Other Locations)

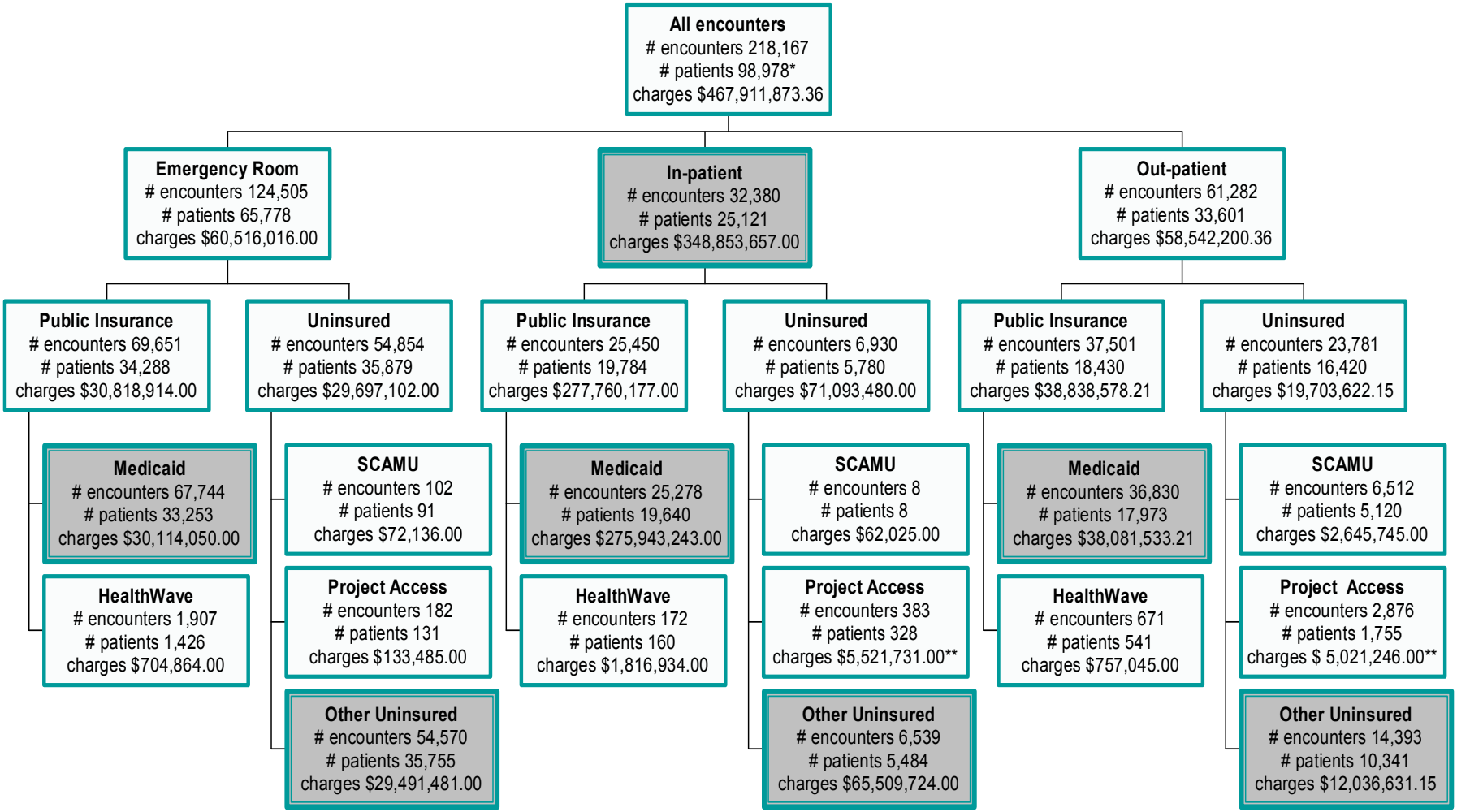
UNCOORDINATED	COORDINATED
$6,000 to $6,500 Avg. Cost / Person / Yr.	$3,700 to $4,500 Avg. Cost / Person / Yr.
X 10,000 People	X 10,000 People
$60 TO $65 MILLION	$37 TO $45 MILLION

Health Care Safety Nets and the Art of Making Crazy Quilts, HRSA-CAP TA Call 04-02-2002. Presented by David Rogoff, Director, Health and Social Services, Hillsborough County, FL.

Three Year Number of Encounters by 6 Month Intervals and Patient Type



Flow Chart – Three Year Data

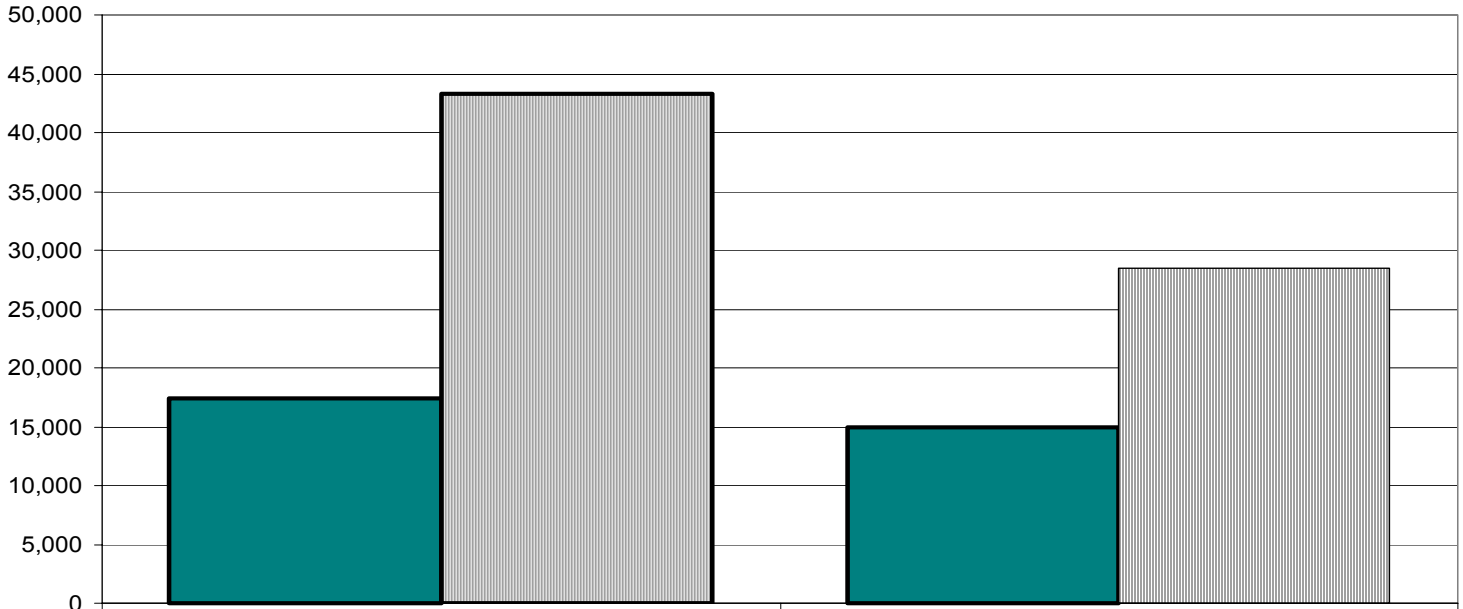


* Duplication between Emergency Room, In-patient and Out-patient categories exists. "# patients" can not be summed across these categories.

** Sum of Project Access In-patient and Out-patient charges ($10,542,977) closely approximates Project Access self-reported charges ($10,581,594)

Medicaid versus Uninsured

Average Annual Number of Patients and Encounters by Payor

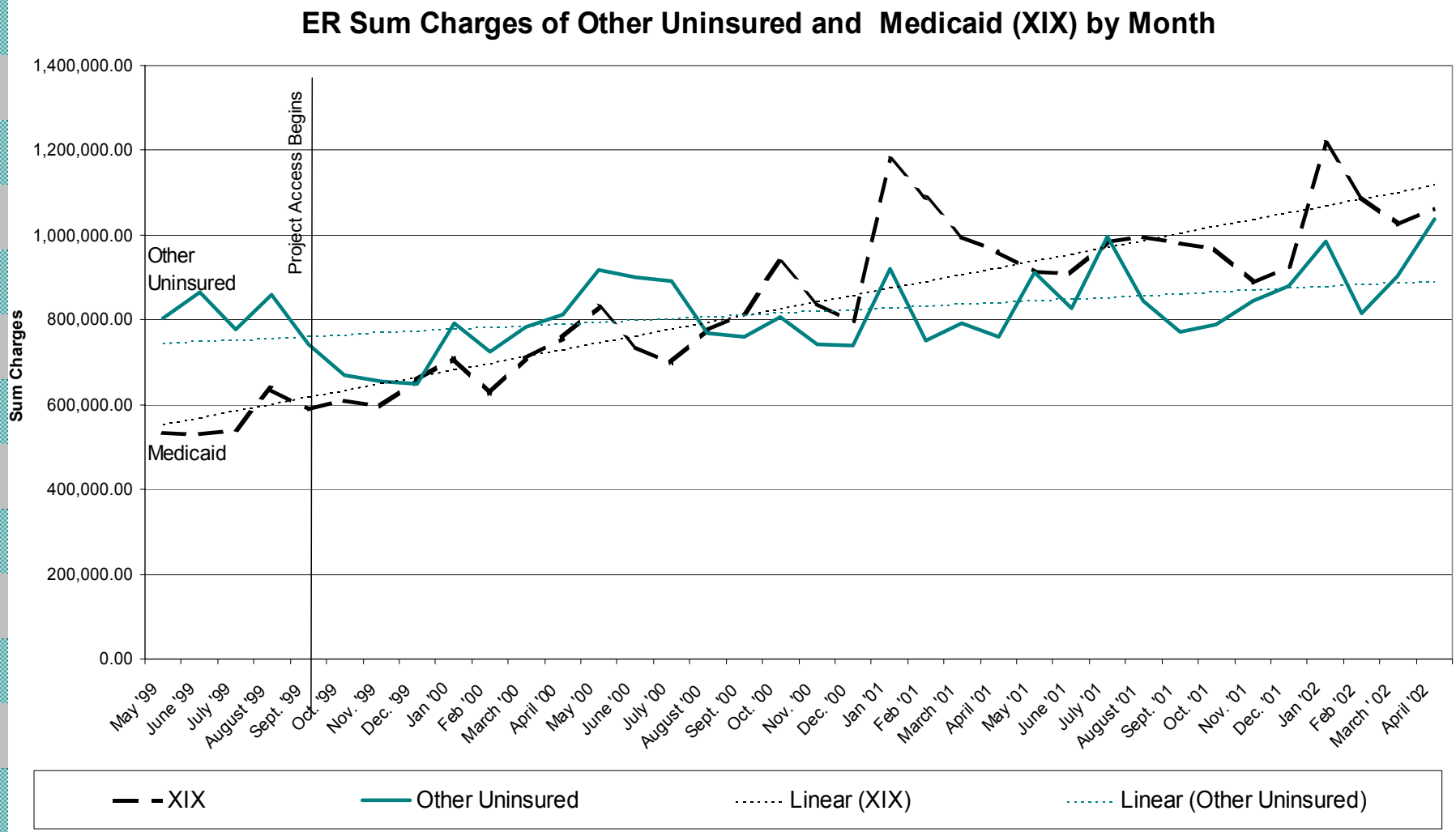


	Medicaid	Uninsured
Avg. # of Patients	17,383	14,961
Avg. # of Encounters	43,284	28,522

Top 10 DRG codes for In-patient Encounters by LOS and Stratified LOS

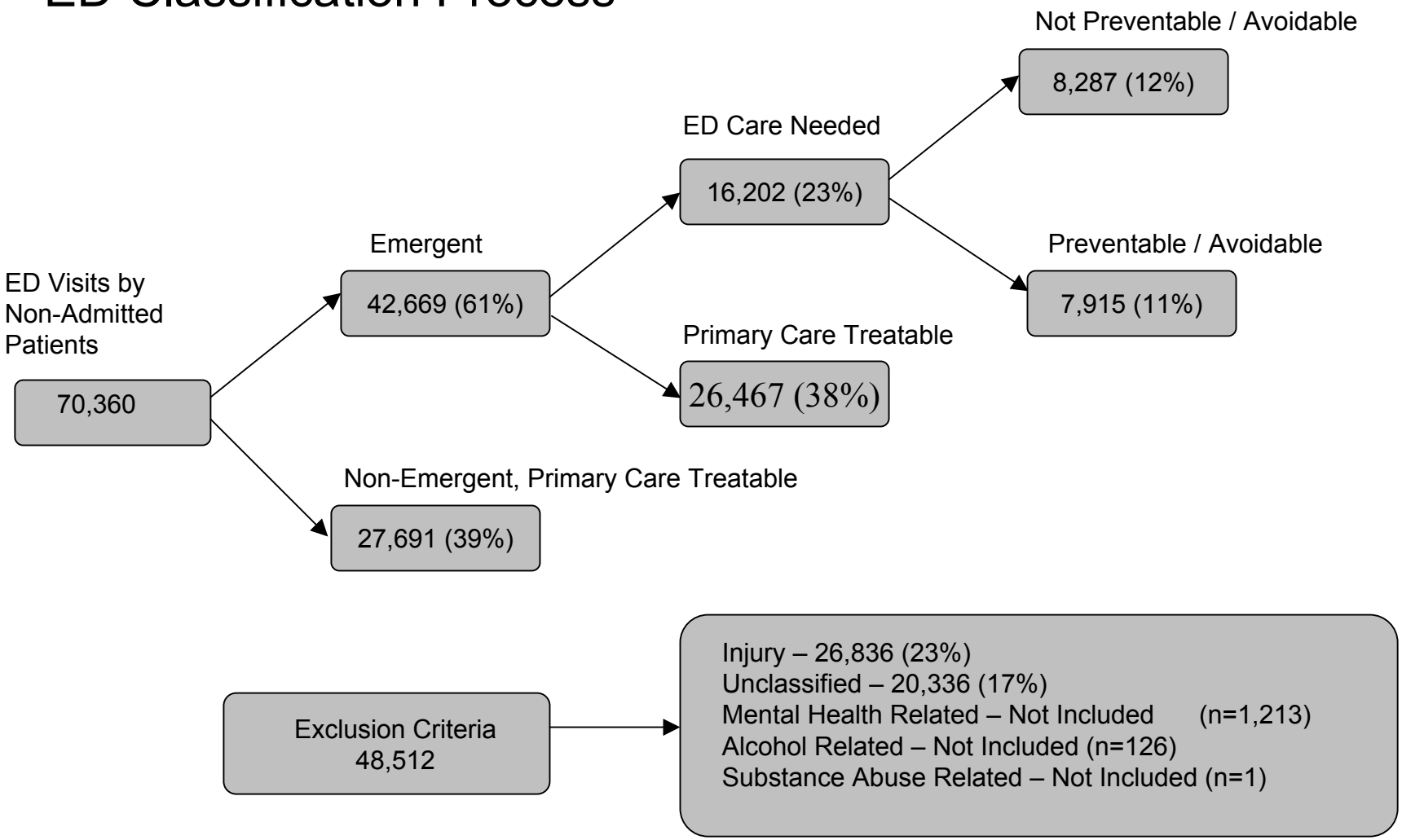
DRG	DRG Name	ALL IP LOS	DRG	DRG Name	Short IP LOS <4 days	DRG	DRG Name	Long IP LOS > 4 days
		N=32380			N=24336			N=8044
391	Normal Newborn	20.98%	391	Normal Newborn	26.78%	430	Psychoses	6.71%
373	Vaginal delivery without complicating diagnoses	15.78%	373	Vaginal delivery without complicating diagnoses	20.11%	389	Full-term neonate with major problems	4.01%
390	Neonates with other significant problems	2.85%	390	Neonates with other significant problems	3.29%	387	Prematurity with major problems	3.95%
371	Cesarean section without CC	2.72%	372	Vaginal delivery with complicating diagnoses	2.84%	370	Cesarean section with CC	3.52%
430	Psychoses	2.70%	371	Unspecified corneal opacity	2.74%	371	Cesarean section without CC	2.65%
372	Vaginal delivery with complicating diagnoses	2.40%	98	Bronchitis and asthma, age 0-17	2.34%	386	Extreme immaturity or respiratory distress syndrome, neonate	2.20%
98	Bronchitis and asthma, age 0-17	2.30%	370	Cesarean section with CC	1.73%	127	Heart failure and shock	2.17%
370	Cesarean section with CC	2.13%	430	Psychoses	1.54%	98	Bronchitis and asthma, age 0-17	2.17%
389	Full-term neonate with major problems	1.68%	383	Prematurity without major problems	1.44%	204	Disorders of the pancreas except malignancy	1.87%
383	Prematurity without major problems	1.44%	374	Vaginal delivery with sterilazation and D&C	1.36%	295	Diabetes	1.73%

ER Sum Charges Over Three Years



Emergency Room Use Profile

ED Classification Process



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