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# Adult Potentially Preventable Hospitalizations in Texas (2006-2010)

Texas Health and Human Services Commission  
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## Adult Potentially Preventable Hospitalizations in Texas (2006-2010)

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### Purpose of Presentation:

1. Provide Information on **Adult Potentially Preventable Hospitalizations** in Texas;
2. Provide Information on the Relationship Between **Behavioral Health** (Mental Health and Substance Abuse) and **Potentially Preventable Hospitalizations**; and
3. Provide Information to Assist the **Regional Healthcare Partnerships** in Making Informed Decisions.



## Adult Potentially Preventable Hospitalizations in Texas (2006-2010)

- Since 2008, the Texas Department of State Health Services (DSHS) has attempted to put data into a **user-friendly** format to educate communities and policymakers on the following ten adult potentially preventable hospitalization conditions:
  1. Bacterial Pneumonia;
  2. Dehydration;
  3. Urinary Tract Infection (UTI);
  4. Angina (without procedures);
  5. Congestive Heart Failure (CHF);
  6. Hypertension;
  7. Asthma;
  8. Chronic Obstructive Pulmonary Disease (COPD);
  9. Diabetes Short-term (ST) Complications; and
  10. Diabetes Long-term (LT) Complications.

Note: While DSHS refers to the above conditions as Potentially Preventable Hospitalizations (PPHs), the 1115 Transformation Medicaid Waiver would refer to these conditions as Potentially Preventable Admissions (PPAs).



## Adult Potentially Preventable Hospitalizations in Texas (2006-2010)

- Hospitalizations for the following ten conditions are considered **“potentially preventable,”** because **if the individual had access to and cooperated with appropriate outpatient healthcare, the hospitalization would likely not have occurred:**
  1. Bacterial Pneumonia;
  2. Dehydration;
  3. UTI;
  4. Angina (without procedures);
  5. CHF;
  6. Hypertension;
  7. Asthma;
  8. COPD;
  9. Diabetes ST Complications; and
  10. Diabetes LT Complications.



## Adult Potentially Preventable Hospitalizations in Texas (2006-2010)

- **Bacterial Pneumonia** is a serious inflammation of the lungs caused by an infection. Bacterial pneumonia primarily impacts older adults. Communities can potentially prevent hospitalizations by encouraging older adults and other high risk individuals to get vaccinated for bacterial pneumonia.
- **Dehydration** means the body does not have enough fluid to function well. Dehydration primarily impacts older adults or institutionalized individuals who have a limited ability to communicate thirst. Communities can potentially prevent hospitalizations by encouraging attention to the fluid status of individuals at risk.
- **UTI** is usually caused when bacteria enter the bladder and cause inflammation and infection. It is a common condition, with older adults at highest risk. In most cases, an uncomplicated UTI can be treated with proper antibiotics. Communities can potentially prevent hospitalizations by encouraging individuals to practice good personal hygiene; drink plenty of fluids; and (if possible) avoid conducting urine cultures in asymptomatic patients who have indwelling urethral catheters.



## Adult Potentially Preventable Hospitalizations in Texas (2006-2010)

- **Angina (without procedures)** is chest pain that occurs when a blockage of a coronary artery prevents sufficient oxygen-rich blood from reaching the heart muscle. Communities can potentially prevent hospitalizations by encouraging regular physical activity; smoking cessation; controlling diabetes, high blood pressure, and abnormal cholesterol; maintaining appropriate body weight; and daily administration of an anti-platelet medication (like low dose aspirin) in most individuals with known coronary artery disease.
- **CHF** is the inability of the heart muscle to function well enough to meet the demands of the rest of the body. Communities can potentially prevent hospitalizations by encouraging individuals to reduce risk factors such as coronary artery disease, diabetes, high cholesterol, high blood pressure, smoking, alcohol abuse, and use of illegal drugs.
- **Hypertension (High Blood Pressure)** is a syndrome with multiple causes. Hypertension is often controllable with medications. Communities can potentially prevent hospitalizations by encouraging an increased level of aerobic physical activity, maintaining a healthy weight, limiting the consumption of alcohol to moderate levels for those who drink, reducing salt and sodium intake, and eating a reduced-fat diet high in fruits, vegetables, and low-fat dairy food.

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- **Asthma** occurs when air passages of the lungs become inflamed and narrowed and breathing becomes difficult. Asthma is treatable, and most flare-ups and deaths can be prevented through the use of medications. Communities can potentially prevent hospitalizations by encouraging people to learn how to recognize particular warning signs of asthma attacks. Treating symptoms early can result in prevented or less severe attacks.
  - **COPD** is characterized by decreased flow in the airways of the lungs. It consists of three related diseases: asthma, chronic bronchitis and emphysema. Because existing medications cannot change the progressive decline in lung function, the goal of medications is to lessen symptoms and/or decrease complications. Communities can potentially prevent hospitalizations by encouraging education on smoking cessation and minimizing shortness of breath.

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- **Diabetes ST Complications** are extreme fluctuations in blood sugar levels. Extreme dizziness and fainting can indicate hypoglycemia (low blood sugar) or hyperglycemia (high blood sugar), and if not brought under control, seizures, shock or coma can occur. Diabetics need to monitor their blood sugar levels carefully and adjust their diet and/or medications accordingly. Communities can potentially prevent hospitalizations by encouraging the regular monitoring and managing of diabetes in the outpatient health care setting and encouraging patient compliance with treatment plans.
  - **Diabetes LT Complications** include risk of developing damage to the eyes, kidneys and nerves. Risk also includes developing cardiovascular disease, including coronary heart disease, stroke, and peripheral vascular disease. Long-term diabetes complications are thought to result from long-term poor control of diabetes. Communities can potentially prevent hospitalizations by encouraging the regular monitoring and managing of diabetes in the outpatient health care setting and encouraging patient compliance with treatment plans.

- Methodology used to identify “Potentially Preventable Hospitalizations” was developed by the Agency for Healthcare Research and Quality (AHRQ) (<http://www.ahrq.gov>). AHRQ is the lead federal agency responsible for research on healthcare quality costs, outcomes and patient safety. Potentially Preventable Hospitalizations are also referred to as Ambulatory Sensitive Conditions and/or Prevention Quality Indicators.
- Potentially Preventable Hospitalization conditions were all a primary diagnosis.
- Potentially Preventable Hospitalization data is based on county of residence – not the county where the individual was hospitalized.

- The purpose of this information is to assist in **improving healthcare** and **reducing healthcare costs**.
- This information is **not** an evaluation of hospitals or other healthcare providers.
- This information can be used as a tool to assess the health of a **community’s outpatient healthcare system**.
- The source of this hospital data for Texas is the Texas Health Care Information Collection (<http://www.dshs.state.tx.us/thcic>) located in the Center for Health Statistics (<http://www.dshs.state.tx.us/chs>) at DSHS.



## Adult Potentially Preventable Hospitalizations in Texas (2006-2010)

- \*From 2006-2010, adult residents of Texas received approximately **\$33.7 Billion (B)** in charges for hospitalizations that were potentially preventable.
- \*\$33.7B equals **\$1,844** for every adult Texan.
- \*Allocation of the \$33.7B by First Estimated Pay Source:

...Medicare	\$21.4B (63.4%)
...Private Health Insurance	\$ 6.0B (17.9%)
...Uninsured	\$ 3.2B (09.4%)
...Medicaid	\$ 2.4B (07.0%)
...Other	\$ 775.1 Million (02.3%)

\*Combination of Ten Adult Potentially Preventable Hospitalization Conditions (2006-2010): Bacterial Pneumonia, Dehydration, UTI, Angina (without procedures), CHF, Hypertension, Asthma, COPD, Diabetes ST Complications, and Diabetes LT Complications.



## Adult Potentially Preventable Hospitalizations in Texas (2006-2010)

- \*Number of Hospitalizations: 1,220,001
- \*Average Hospital Charge: \$27,625
- \*Average Length of Hospital Stay: 4.9 Days
- \*Average Age of Individual Hospitalized: 64 Years

\*Combination of Ten Adult Potentially Preventable Hospitalization Conditions (2006-2010): Bacterial Pneumonia, Dehydration, UTI, Angina (without procedures), CHF, Hypertension, Asthma, COPD, Diabetes ST Complications, and Diabetes LT Complications.



### Adult Potentially Preventable Hospitalizations in Texas (2006-2010)

Adult Residents of Texas (2006-2010)	Bacterial Pneumonia	Dehydration	UTI	Angina w/o procedures	CHF	Hyper-tension	Asthma	COPD	Diabetes ST	Diabetes LT
<b>Hospitalizations</b>	<b>250,721</b>	<b>68,557</b>	<b>160,599</b>	<b>14,984</b>	<b>296,953</b>	<b>51,817</b>	<b>77,900</b>	<b>145,200</b>	<b>45,192</b>	<b>108,078</b>
Female	56.2%	63.9%	74.5%	56.3%	53.6%	63.4%	75.5%	56.2%	51.6%	48.2%
Male	43.8%	36.1%	25.5%	43.7%	46.4%	36.6%	24.5%	43.8%	48.4%	51.8%
Black	10.5%	11.4%	11.1%	14.5%	19.2%	31.5%	21.4%	09.5%	25.8%	20.0%
White	72.9%	72.5%	70.2%	66.9%	63.8%	50.5%	61.9%	80.3%	54.4%	53.9%
Other (Race)	16.5%	15.8%	18.5%	18.3%	16.8%	17.8%	16.4%	09.7%	19.6%	26.0%
Hispanic	19.1%	18.7%	23.3%	23.0%	21.5%	22.7%	20.0%	10.8%	26.7%	36.2%

\*Values of less than 3% are included in "Other"

Texas (U.S. Census 2010 Adult Population)  
 ...White = 72.2%      ...Black = 11.6%  
 ...Other (Race) = 16.2%      ...Hispanic = 33.6%



### Adult Potentially Preventable Hospitalizations in Texas (2006-2010)

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<b>Age</b>										
...18-19 Years	*	*	*	*	*	*	*	*	06.3%	*
...20-29 Years	*	*	06.4%	*	*	*	06.9%	*	24.9%	*
...30-39 Years	*	03.0%	06.3%	03.1%	*	05.0%	10.1%	*	19.7%	04.6%
...40-49 Years	08.1%	08.5%	07.3%	18.1%	03.8%	17.1%	17.5%	03.5%	20.1%	15.8%
...50-59 Years	13.3%	13.0%	09.4%	26.8%	13.1%	21.8%	21.3%	15.0%	15.6%	24.2%
...60-69 Years	17.0%	15.9%	12.3%	22.3%	19.1%	17.6%	17.7%	27.2%	04.7%	21.9%
...70-79 Years	22.7%	21.5%	20.3%	16.3%	25.1%	16.9%	14.5%	31.1%	*	16.6%
...80-89 Years	23.3%	22.8%	27.0%	09.3%	26.4%	13.3%	09.3%	18.3%	*	09.6%
...90+ Years	07.6%	07.5%	09.5%	*	07.9%	*	*	*	*	*
...Other	08.0%	07.7%	01.3%	04.0%	04.7%	08.0%	02.7%	05.0%	08.9%	07.0%

\*Values of less than 3% are included in "Other"



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<b>Discharged to</b>										
...Home/Self-Care	62.2%	66.2%	57.2%	75.8%	60.0%	84.3%	84.8%	67.6%	86.2%	59.5%
...Skilled Nursing Facility	11.6%	11.5%	<b>18.3%</b>	*	10.5%	03.4%	*	07.9%	*	08.7%
...Home Health	10.3%	09.7%	10.9%	*	14.2%	06.4%	06.8%	12.3%	04.4%	16.5%
...Intermediate Care Facility	*	*	<b>04.5%</b>	*	*	*	*	*	*	*
...Short-term Hospital	*	*	*	14.5%	*	*	*	*	*	*
...Medicare Certified Long-term Hospital	*	*	*	*	*	*	*	*	*	05.3%
...Left Against Medical Advice	*	*	*	03.0%	*	*	*	*	03.3%	*
...Other	12.4%	12.2%	08.7%	06.4%	15.4%	05.3%	08.0%	12.1%	05.3%	09.8%

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<b>Estimated Source of First Payment</b>										
...Medicare	66.2%	63.8%	66.4%	43.3%	74.2%	45.2%	43.9%	72.9%	19.2%	54.4%
...Private Health Insurance	18.9%	24.2%	16.4%	32.9%	11.2%	26.3%	28.0%	12.9%	29.6%	20.3%
...Uninsured	07.6%	05.2%	08.9%	13.0%	06.9%	17.7%	14.5%	05.7%	<b>31.5%</b>	12.0%
...Medicaid	05.4%	05.1%	06.4%	06.3%	06.0%	07.4%	10.6%	06.6%	<b>14.4%</b>	10.1%
...Other	01.9%	01.8%	02.0%	04.5%	01.8%	03.4%	03.0%	01.9%	05.3%	03.2%
<b>Avg. Length of Hospital Stay</b>	<b>5.4 days</b>	<b>3.7 days</b>	<b>4.4 days</b>	<b>2.2 days</b>	<b>5.2 days</b>	<b>3.2 days</b>	<b>4.2 days</b>	<b>4.9 days</b>	<b>3.8 days</b>	<b>6.8 days</b>
<b>Avg. Hospital Charge</b>	<b>\$30,306</b>	<b>\$17,904</b>	<b>\$21,071</b>	<b>\$18,487</b>	<b>\$30,367</b>	<b>\$20,881</b>	<b>\$23,349</b>	<b>\$27,984</b>	<b>\$23,167</b>	<b>\$38,737</b>
<b>Total Approximate Hospital Charges</b>	<b>\$7.6B</b>	<b>\$1.2B</b>	<b>\$3.4B</b>	<b>\$277M</b>	<b>\$9.0B</b>	<b>\$1.1B</b>	<b>\$1.8B</b>	<b>\$4.1B</b>	<b>\$1.1B</b>	<b>\$4.2B</b>

\*Values of less than 3% are included in "Other"



## Adult Potentially Preventable Hospitalizations in Texas (2006-2010)

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### In-depth County Profiles Available

...Years (2006-2010);  
...Condition (Ten Conditions);  
...County;  
...Age Group;  
...Sex;  
...Race;  
...Ethnicity;  
...Zip Code of Residence;  
...Hospitalized at;  
...Average Length of Hospital Stay;  
...Average Hospital Charge;  
...Total Hospital Charges;  
...Discharged to;  
...Expected Source of First Payment; and  
...Secondary Diagnosis of Mental Illness/Substance Abuse.

To request an In-depth County Profile, email [mike.gilliam@dshs.state.tx.us](mailto:mike.gilliam@dshs.state.tx.us).

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## Adult Potentially Preventable Hospitalizations in Texas (2006-2010)

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- For more information on potentially preventable hospitalizations in Texas, go to the project website (<http://www.dshs.state.tx.us/ph>).

This website contains:

...Profiles on all 254 counties in Texas;  
...Clinical Interventions; and  
...Maps illustrating the impact of potentially preventable hospitalization conditions.

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## Adult Potentially Preventable Hospitalizations in Texas (2006-2010)

The 82nd Texas Legislature appropriated \$2 Million for DSHS to implement an initiative to reduce potentially preventable hospitalizations in FY 2012/13 (09/01/11 – 08/31/13).

DSHS contracted with the following sixteen counties to implement evidence-based interventions, through a **community coordinated approach**, to reduce hospitalizations and/or hospital charges among adult county residents for selected potentially preventable hospitalization conditions: [Angelina](#), [Brooks](#), [Ector](#), [Grayson](#), [Hunt](#), [Liberty](#), [Limestone](#), [Nacogdoches](#), [Orange](#), [Polk](#), [Red River](#), [San Augustine](#), [Tom Green](#), [Trinity](#), [Victoria](#), and [Walker](#) County.

Each of the sixteen counties has a Project Contact who is leading a **community coordinated approach** to implementing one or more of the following evidence-based interventions: immunizations; patient education; community education; smoking cessation; healthcare provider education; diabetes self-management education; patient case management; nutrition & physical activity; weight management; glycemic control; and blood pressure control.



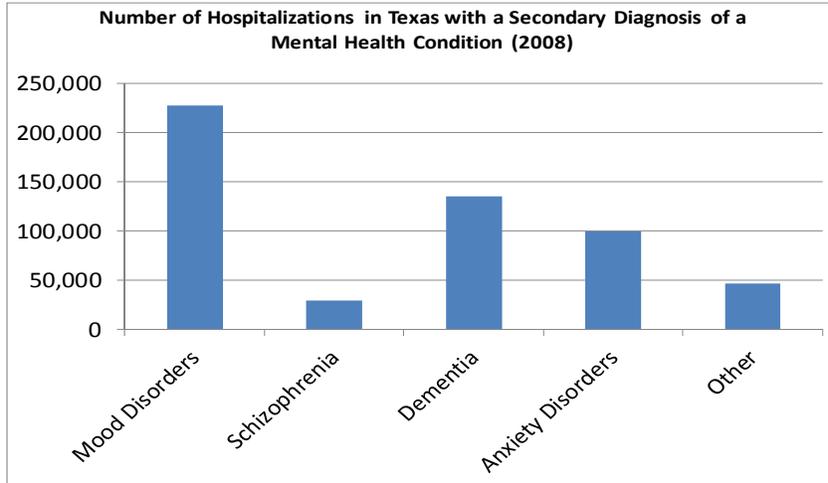
## Adult Potentially Preventable Hospitalizations in Texas (2006-2010)

### Percent of Secondary Diagnosis of Mental Illness/Substance Abuse in Adult Potentially Preventable Hospitalizations in Texas (2006-2010)

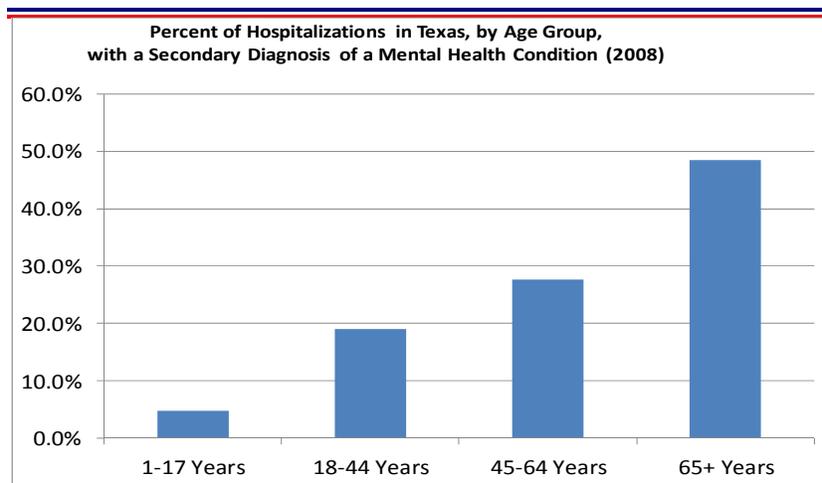
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*Mental Illness/ Substance Abuse (Secondary Diagnosis)	*32.5%	*31.0%	*36.1%	*31.3%	*20.6%	*30.9%	*37.0%	*44.4%	*29.3%	*20.3%

For example, **32.5%** of the **250,721** adult potentially preventable hospitalizations for **Bacterial Pneumonia** had a secondary diagnosis of mental illness/substance abuse.

\*Alcohol and other Drug Diagnoses (Excluding Tobacco Use Disorder) are **Significantly Underrepresented** Due to Data Suppression Requirements.



Number of Hospitalizations in Texas with a Secondary Diagnosis of Mental Health Condition (2008) = 453,536



Number of Hospitalizations in Texas with a Secondary Diagnosis of Mental Health Condition (2008) = 453,536

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**National Data**

**Dementia and the Relationship to CHF, Bacterial Pneumonia and UTI:**

- Approximately **two-thirds** of the hospitalizations for people with dementia are potentially preventable; and
- CHF, Bacterial Pneumonia and UTI account for **two-thirds** of hospitalizations for people with dementia.

Association of Incident Dementia with Hospitalizations. Journal of the American Medical Association. 2012;307(2):165-172

“Dementia is a slow, progressive decline in mental function including memory, thinking, judgment, and the ability to learn. Dementia occurs primarily in people older than 65. In the United States, at least 5 million people have dementia.”

(The Merck Manual: The Home Health Handbook)

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**National Data**

**Medicaid-Medicare Dual Eligibles:**

- \*Health costs almost 5 times greater than all other people with Medicare;
- \*Health costs almost 6 times greater than all other people with Medicaid;
- \*Higher rates of diabetes, pulmonary disease, stroke, Alzheimer’s disease, and mental illness; and
- \*\*Almost 40% have both a physical and mental disease or condition (compared to 17% of all other Medicare beneficiaries).

\*Testimony by the Centers for Medicare & Medicaid Services before the US Senate Committee on Finance – 08/03/11.

\*\*Kaiser Commission on Medicaid and the Uninsured – July 2010.

### National Data

Chronic Health Conditions among Persons Aged 18 or Older with and without Mental Illnesses in the Past Year: 2008 and 2009	High Blood Pressure	Asthma	Diabetes	Heart Disease	Stroke
<b>Any Mental Illness</b>					
...Yes	21.9%	15.7%	07.9%	05.9%	02.3%
...No	18.8%	10.6%	06.6%	04.2%	00.9%
<b>Serious Mental Illness</b>					
...Yes	21.6%	19.1%	07.7%	05.2%	02.6%
...No	17.7%	12.1%	06.6%	04.2%	01.1%
<b>Major Depressive Episode</b>					
...Yes	24.1%	17.0%	08.9%	06.5%	02.5%
...No	19.8%	11.4%	07.1%	04.6%	01.1%

The National Survey on Drug Use and Health – April 5, 2012

### Adult Potentially Preventable Hospitalizations in Texas (2006-2010)

THE END  
Thank You

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