

Adult Potentially Preventable Hospitalizations in Texas

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The purpose of this presentation is to provide information on how Texans are impacted by adult potentially preventable hospitalizations (PPHs).

Information in this presentation is **not an evaluation** of hospitals or other healthcare providers.

PPH Conditions

Since 2008, DSHS has educated **communities** and **policymakers** on the impact of these adult PPHs:

1. Diabetes Short-term (ST) Complications;
2. Diabetes Long-term (LT) Complications;
3. Chronic Obstructive Pulmonary Disease (COPD);
4. Asthma;
5. Hypertension;
6. Congestive Heart Failure (CHF);
7. Angina (without procedures);
8. Dehydration;
9. Bacterial Pneumonia; and
10. Urinary Tract Infection (UTI).

Definition and Methodology

PPHs are considered “potentially preventable,” because if the individual had **access to** and **cooperated** with appropriate **outpatient healthcare**, the hospitalization would likely not have occurred.

Methodology to identify PPHs was developed by the **Agency for Healthcare Research and Quality (AHRQ)**. AHRQ is the lead federal agency responsible for research on healthcare quality costs, outcomes and patient safety.

PPHs are sometimes referred to as Ambulatory Care Sensitive Conditions, Prevention Quality Indicators, and/or Potentially Preventable Admissions/Events.

PPH data is based on **primary diagnosis**.

Definition and Methodology

PPH 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 can be used as a tool to assess a **community's outpatient healthcare system** and **improve population health**.

Inpatient hospital data in Texas is available from the **Texas Health Care Information Collection** (www.dshs.state.tx.us/thcic), in the Center for Health Statistics, at DSHS.

Hospital Charges

2013 Adult PPHs (Texas)	Number of Hospitalizations	Avg. Hospital Charge	Total Hospital Charges
Diabetes ST Complications	12,759	\$31,060	\$396,291,871
Diabetes LT Complications	22,899	\$56,709	\$1,298,576,527
COPD or Older Adult Asthma	38,997	\$37,346	\$1,456,400,076
Angina (without procedures)	1,692	\$29,659	\$50,183,436
Hypertension	10,663	\$28,711	\$306,141,308
CHF	50,692	\$41,538	\$2,105,621,975
Dehydration	17,383	\$26,753	\$465,047,612
Bacterial Pneumonia	43,127	\$41,052	\$1,770,438,976
UTI	32,246	\$28,827	\$929,550,287
TOTAL	230,458	\$38,090	\$8,778,252,068

Note: \$8.8B equals approximately **\$450** for every adult in Texas.

PPH Data

<i>Adult Residents of Texas (2008-2013)</i>	Bacterial Pneumonia	Dehydration	UTI	Angina w/o procedures	CHF	Hypertension	COPD or Older Adult Asthma	Diabetes ST	Diabetes LT
Hospitalizations	280,079	91,238	204,853	13,743	326,337	65,973	253,148	63,954	134,630
Female	55.8%	61.5%	74.7%	54.9%	51.3%	62.3%	62.3%	51.7%	46.2%
Male	44.2%	38.5%	25.3%	45.1%	48.7%	37.7%	37.7%	48.3%	53.8%
White	72.0%	70.9%	68.7%	66.0%	63.0%	49.3%	73.7%	53.6%	53.2%
Black	10.3%	11.4%	10.8%	14.0%	18.6%	31.2%	13.2%	25.0%	19.3%
Other (Race)	17.5%	17.4%	20.3%	19.0%	18.2%	19.4%	12.8%	21.3%	27.3%
Hispanic	19.6%	20.2%	24.8%	24.5%	21.8%	24.0%	14.1%	27.0%	36.1%

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

Texas (U.S. Census 2010, Adult Population)

White (Race): 72.2% Black (Race): 11.6% Other (Race): 16.2% Hispanic (Ethnicity): 33.6%

PPH Data

<i>Adult Residents of Texas (2008-2013)</i>	Bacterial Pneumonia	Dehydration	UTI	Angina w/o Procedures	CHF	Hypertension	COPD or Older Adult Asthma	Diabetes ST	Diabetes LT
Hospitalizations	280,079	91,238	204,853	13,743	326,337	65,973	253,148	63,954	134,630
Average Age	65	64	65	58	68	58	67	38	57
Age									
18-19 Years								06.2%	
20-29 Years			06.0%					24.0%	
30-39 Years		03.2%	06.1%			04.7%		19.3%	07.8%
40-49 Years	07.8%	08.9%	07.2%	16.2%	03.6%	16.7%	09.1%	19.6%	16.6%
50-59 Years	13.7%	13.7%	09.8%	26.6%	13.3%	21.3%	19.2%	16.2%	24.9%
60-69 Years	17.7%	17.2%	13.2%	23.4%	20.4%	18.7%	26.1%	08.6%	22.4%
70-79 Years	22.0%	20.4%	20.4%	16.7%	24.5%	16.7%	26.8%		15.4%
80-89 Years	23.0%	20.9%	26.6%	10.0%	25.7%	13.6%	16.2%		08.8%
90+ Years	07.7%	06.7%	09.5%		07.9%	03.3%			
Other	08.2%	09.0%	01.2%	07.2%	04.7%	05.0%	02.6%	06.1%	04.2%

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

PPH Data

<i>Adult Residents of Texas (2008-2013)</i>	Bacterial Pneumonia	Dehydration	UTI	Angina w/o procedures	CHF	Hypertension	COPD or Older Adult Asthma	Diabetes ST	Diabetes LT
Hospitalizations	280,079	91,238	204,853	13,743	326,337	65,973	253,148	63,954	134,630
Expected Primary Source of Payment									
Medicare	64.7%	60.3%	66.2%	45.8%	73.1%	46.4%	66.8%	20.5%	53.0%
Private Health Insurance	19.8%	25.3%	16.2%	32.1%	12.2%	24.6%	16.6%	28.9%	20.5%
Uninsured	08.2%	07.4%	09.5%	12.2%	07.2%	18.9%	07.4%	32.5%	14.0%
Medicaid	05.3%	05.0%	06.3%	06.1%	05.9%	07.0%	07.1%	13.6%	09.8%
Other	01.9%	02.1%	01.8%	03.8%	01.6%	03.0%	02.1%	04.6%	02.7%
Avg. Length of Hospital Stay	5.3 Days	3.4 Days	4.2 Days	2.3 Days	5.2 Days	3.1 Days	4.6 Days	3.7 Days	6.7 Days
Avg. Hospital Charge	\$36,925	\$21,706	\$25,282	\$24,987	\$41,191	\$25,365	\$31,674	\$26,913	\$46,872
Total Approximate Hospital Charges	\$10.3B	\$2.0B	\$5.2B	\$343.4M	\$13.4B	\$1.7B	\$8.0 B	\$1.7B	\$6.3B

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

B means Billion **M** means Million

County Projects

- In 2011, the 82nd Texas Legislature appropriated \$2M for DSHS to implement an initiative to reduce PPHs in FY12/13.
- On 8/29/11, DSHS announced the availability of funding for 92 eligible counties through a Request for Information (RFI) to attempt to reduce hospitalizations and/or hospital charges for adult PPH conditions by implementing evidence-based interventions through a community coordinated approach.
- The 92 counties eligible to respond to the RFI were those that had a hospitalization rate, for adult county residents, **more than 50% higher than the state rate** for at least one adult PPH condition from 2005-2009; and had a population of less than 100,000 residents between the ages of 18 and 64.

County Projects

- The **92 eligible counties** included: Anderson, Angelina, Aransas, Atascosa, Bandera, Bastrop, Bee, Bowie, Brooks, Brown, Burleson, Caldwell, Camp, Cass, Cherokee, Comal, Comanche, Cooke, Coryell, DeWitt, Duval, Ector, Falls, Fannin, Franklin, Freestone, Gray, Grayson, Gregg, Grimes, Guadalupe, Hale, Hardin, Henderson, Hill, Hockley, Houston, Howard, Hunt, Hutchinson, Jasper, Jim Wells, Johnson, Kaufman, Kleberg, Lamar, Lampasas, Lavaca, Leon, Liberty, Limestone, Maverick, Medina, Milam, Montague, Moore, Morris, Nacogdoches, Navarro, Newton, Orange, Palo Pinto, Panola, Parker, Polk, Potter, Randall, Red River, Robertson, Rusk, San Augustine, San Jacinto, Scurry, Shelby, Starr, Taylor, Terry, Titus, Tom Green, Trinity, Tyler, Upshur, Uvalde, Van Zandt, Victoria, Walker, Wharton, Wichita, Willacy, Wilson, Wood, and Zapata County.

County Projects

- By 01/06/12, DSHS executed contracts with 16 counties for a 20-month period of 01/01/12 – 08/31/13.
- Each county received approximately \$50,000, per targeted PPH condition, for the 20-month period.
- For example, DSHS contracted with Angelina County for \$150,000 to target Bacterial Pneumonia, Dehydration, and UTI.

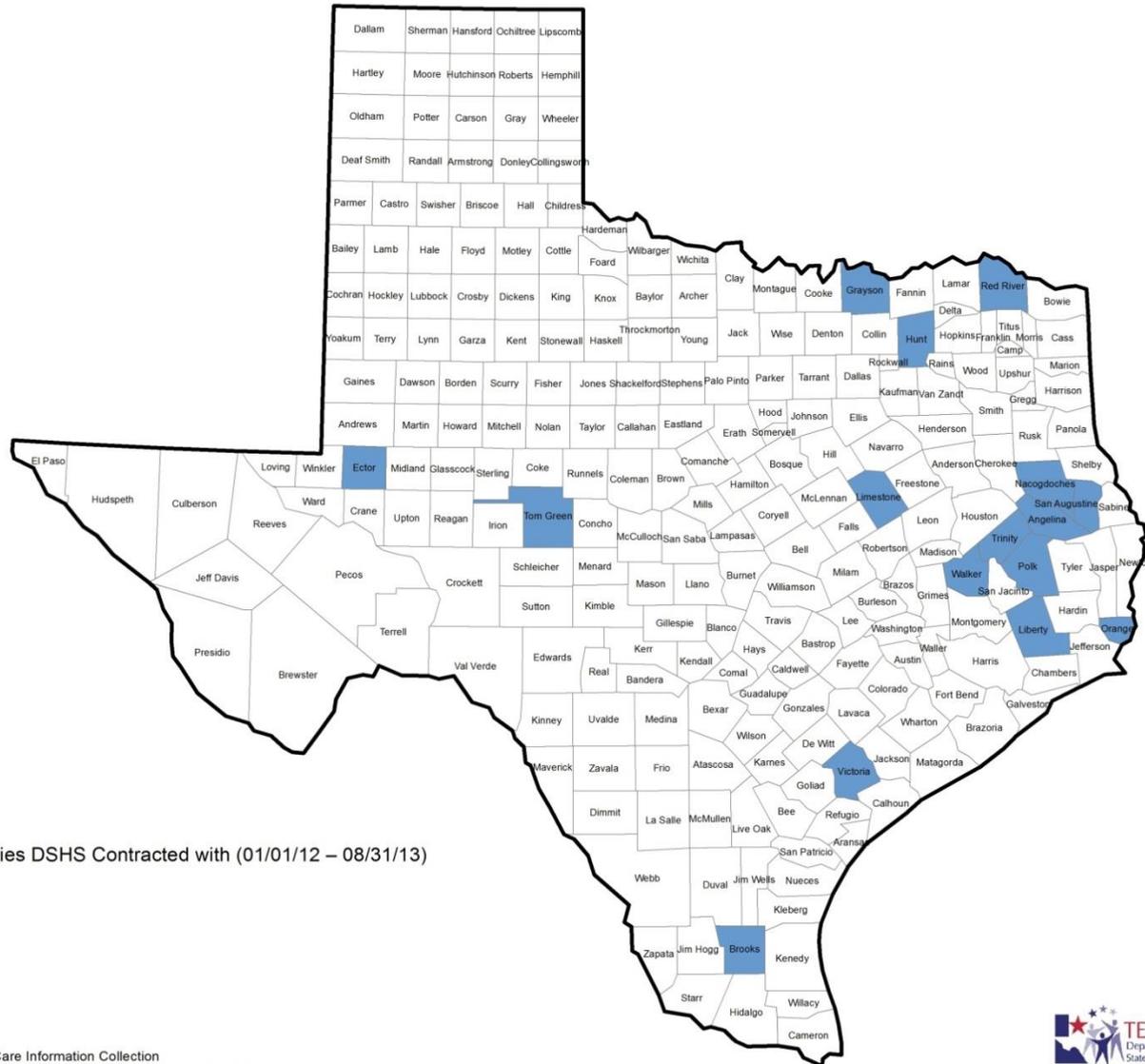
County Projects

- Each of the 16 funded counties had a **Project Contact** (designated by the county judge) that led a **community coordinated approach** to implementing evidence-based interventions.
- Each county project had a **coalition** of at least 5 partners/stakeholders (e.g., hospitals, DSHS, and home health agencies) that met monthly to coordinate implementation of the evidence-based interventions.
- Each project coordinated the implementation of evidence-based interventions through a **Plan of Action**.

16 Counties	PPH Condition(s) Targeted in FY12/13
Angelina	Bacterial Pneumonia, Dehydration and UTI
Brooks	Bacterial Pneumonia
Ector	Asthma and COPD
Grayson	Bacterial Pneumonia, Dehydration and UTI
Hunt	Bacterial Pneumonia and COPD
Liberty	Bacterial Pneumonia, CHF and COPD
Limestone	Bacterial Pneumonia and CHF
Nacogdoches	Dehydration and UTI
Orange	Bacterial Pneumonia, CHF and COPD
Polk	Bacterial Pneumonia, CHF and COPD
Red River	CHF and COPD
San Augustine	Bacterial Pneumonia
Tom Green	Bacterial Pneumonia, UTI and COPD
Trinity	Bacterial Pneumonia, UTI and COPD
Victoria	Bacterial Pneumonia, CHF and Diabetes
Walker	Hypertension and Diabetes

Note: The majority of the 16 counties DSHS contracted with are primarily **rural** and **resource poor** and not fully participating in Texas' Medicaid Transformation Waiver.

FY12/13 Adult Potentially Preventable Hospitalizations Initiative



Data Source: Texas Health Care Information Collection
 Map Author: Center for Health Statistics (CHS), GIS (September 2014)



Impact of Initiative

In FY12/13, the *16 Funded Counties (Combined) for all PPH Conditions (Combined): **Improved community health and decreased hospital charges among their adult residents.**

- There was a **decrease of 10.5%** in hospitalizations (26,319 vs. 29,417), compared to Texas which had a **decrease of 03.1%**.
- There was a **decrease of 02.7%** in hospital charges (\$905.8M vs. \$930.7M), compared to Texas which had an **increase of 04.0%**.

*Comparison of Funded Period (01/01/12 – 09/30/13) to Non-Funded Period (01/01/10 – 09/30/11)

Impact of Initiative

In FY12/13, the *16 Funded Counties (Combined) for all PPH Conditions (Combined): **Had a significant impact on populations that historically face health challenges (e.g., Uninsured Individuals and African Americans/Blacks).**

- There was a **decrease of 14.8%** in hospitalizations for the Uninsured (1,984 vs. 2,330), compared to Texas which had an **increase of 07.7%**.
- There was a **decrease of 15.6%** in hospital charges for the Uninsured (\$53.9M vs. \$63.8M), compared to Texas which had an **increase of 15.0%**.
- There was a **decrease of 22.9%** in hospitalizations for African Americans/Blacks (2,631 vs. 3,415), compared to Texas which had a **decrease of 05.6%**.

*Comparison of Funded Period (01/01/12 – 09/30/13) to Non-Funded Period (01/01/10 – 09/30/11)

Impact of Initiative

Example: Bacterial Pneumonia

In FY12/13, the *12 Counties Funded (Combined) to Target Bacterial Pneumonia:

- There was a decrease of 32.0% in hospitalizations for Bacterial Pneumonia for the Uninsured (231 vs. 340), compared to Texas which had an increase of 02.2%.
- There was a decrease of 23.9% in hospital charges for Bacterial Pneumonia charged to Uninsured (\$7.3M vs. \$9.6M), compared to Texas which had an increase of 05.1%.

*Comparison of Funded Period (01/01/12 – 09/30/13) to Non-Funded Period (01/01/10 – 09/30/11)

Impact of Initiative

Example: UTI

In FY12/13, the *5 Counties Funded (Combined) to Target UTI:

- There was a decrease of 29.0% in hospitalizations for UTI for Medicaid Individuals (71 vs. 100), compared to Texas which had a decrease of 00.8%.
- There was a decrease of 25.3% in hospital charges for UTI charged to Medicaid (\$1.6M vs. \$2.1M), compared to Texas which had an increase of 14.3%.

*Comparison of Funded Period (01/01/12 – 09/30/13) to Non-Funded Period (01/01/10 – 09/30/11)

Impact of Initiative

Project Model Results

In FY12/13, the *16 Funded Counties (Combined) for all PPH Conditions (Combined) experienced positive results for the project models with the following elements:

- The organization coordinates intervention activities among multiple providers/partners in a community.
- The community is given flexibility in defining and implementing the specifics of an intervention.
- PPH data is presented in a user-friendly format.
 - For example, instead of highlighting risk-adjusted admissions and confidence intervals, the data highlighted number of hospitalizations, amount of hospital charges, and demographic information.

*Comparison of Funded Period (01/01/12 – 09/30/13) to Non-Funded Period (01/01/10 – 09/30/11)

Impact of Initiative

Most Successful Interventions

The following evidence-based interventions were most identified as a reason for a decrease in PPHs:

- Patient Case Management;
 - Patient Education;
 - Healthcare Provider Education; and
 - Community Education.
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- **Patient case management** means a one-on-one service where someone assists an individual (and family, if needed) to obtain needed information and/or services (e.g., assistance purchasing medications) by connecting them with available community resources;

Impact of Initiative

Most Successful Interventions

- **Patient education** means a one-on-one service where someone assists an individual (and family, if needed) to obtain needed information (e.g., weight management).
- **Healthcare provider education** means educating healthcare providers (e.g., hospitals, and home health agencies) on best practices/evidence-based interventions and on available community resources; and
- **Community education** means a consistent presence where user-friendly information is provided at sites where the target population is likely to be present (e.g., food banks and Meals on Wheels);

Note: Patient case management and patient education were strongly integrated together.

FY14/15

- In FY14/15 (09/01/13 – 08/31/15), DSHS re-contracted with 13 of the 16 Funded Counties.
- Similar to FY12/13, \$2M was available in FY14/15 for the Adult PPH Initiative.
- In FY14/15, counties continued focusing on conditions they targeted in FY12/13; additionally, they are focusing on one **additional condition**.

Additional condition targeted in FY14/15 is highlighted

13 Counties	Hospitalization Conditions County Project will Target in FY14/15
Angelina	Bacterial Pneumonia, Dehydration, UTI and Hypertension
Brooks	Bacterial Pneumonia and Dehydration
Ector	Asthma, COPD and Diabetes
Grayson	Bacterial Pneumonia, Dehydration, UTI and COPD
Limestone	Bacterial Pneumonia, CHF and COPD
Orange	Bacterial Pneumonia, CHF, COPD and Angina
Polk	Bacterial Pneumonia, CHF, COPD and Dehydration
Red River	CHF, COPD and Diabetes
San Augustine	Bacterial Pneumonia and Hypertension
Tom Green	Bacterial Pneumonia, UTI, COPD and Dehydration
Trinity	Bacterial Pneumonia, UTI, COPD and Hypertension
Victoria	Bacterial Pneumonia, CHF, Diabetes and Angina
Walker	Hypertension, Diabetes and Asthma

In September 2014, DSHS received a **1st Place Vision Award** for the Adult PPH Initiative from the Association of State and Territorial Health Officials (ASTHO).

The purpose of the award is to acknowledge “**creative and innovative approaches to addressing public health challenges.**”



Request for Continued Funding

- For FY16/17, DSHS plans to ask the 84th Texas Legislature for additional funding (\$3.4M) to support 27 county projects.
- Based on the FY12/13 Evaluation Report, DSHS estimates the following by funding 27 severely impacted low to moderate populated counties that target CHF, COPD or Asthma in Older Adults, Diabetes Complications and UTI:
 - *6,450 fewer hospitalizations;
 - *11.9% fewer hospitalizations charged to Uninsured;
 - *32.1% fewer hospitalizations charged to Medicaid;
 - *29.5% fewer hospitalizations among African Americans/Blacks;
 - *\$230.9M in avoided hospital charges; and
 - *\$29.9M in reduced hospital charges to Medicaid.

*FY16/17 compared to FY14/15.

Additional Information

DSHS has a website (<http://www.dshs.state.tx.us/ph>) which provides the following information on adult PPHs:

- State Profile;
- Profiles on all 254 counties in Texas;
- Clinical Interventions; and
- Maps illustrating the impact of PPH conditions in Texas.

A copy of the FY12/13 Evaluation Report for the Adult PPH Initiative was developed on 10/01/14 and is available by contacting mike.gilliam@dshs.state.tx.us.

In-Depth County Profile

In-depth data profiles are available with the following information:

- Years (2008-2013);
- 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; and
- Expected Primary Source of Payment.

To request an **in-depth profile**, send an email to mike.gilliam@dshs.state.tx.us.

In-Depth County Profile

Example:

LUBBOCK COUNTY: Adult Residents Diabetes Short-term Complications PPHs (2008-2013)			
Total Hospitalizations	1,150		
Age		Zip Code of Residence	
18-19 Years	04.7%	79403	13.0%
20-29 Years	29.7%	79416	09.1%
30-39 Years	22.0%	79411	08.1%
40-49 Years	17.2%	79423	07.9%
50-59 Years	12.0%	79415	07.5%
60-69 Years	09.1%	79407	07.4%
Other	05.3%	79424	06.4%
		79414	06.3%
Female	49.9%	79412	06.3%
Male	50.1%	79413	06.2%
		79404	05.6%
White (Race)	69.3%	79401	04.3%
Black (Race)	*18.9%	Other	11.9%
Other (Race)	11.9%		
Hispanic (Ethnicity)	*40.7%	*The adult (18+) population of Lubbock County is approximately 09.0% Black and 28.6% Hispanic.	

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

In-Depth County Profile

Example:

LUBBOCK COUNTY: Adult Residents Diabetes Short-term Complications PPHs (2008-2013)			
Total Hospitalizations	1,150		
Place of Hospitalizations		Expected Primary Source of Payment	
University Medical Center	66.4%	Medicaid	17.4%
Covenant Medical Center	27.3%	Medicare	21.6%
Other	06.3%	Private Health Insurance	25.0%
		Uninsured	34.5%
Average Length of Stay	4.3 Days	Other	01.5%
Average Hospital Charge	\$29,546		
Total Hospital Charges	\$33,977,801	Discharged to	
		Home/Self Care	87.2%
		Home Health	04.9%
		Skilled Nursing Facility	03.2%
		Other	04.1%

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

Thank You!