Governing Board Meeting Agenda
January 17th, 2018 - HSNT HQ

	Agenda		P. 1
I.	**Call to Order**	**Glen McKenzie**	
II.	**Board Training - Guest Speaker** Planned Giving Presentation	**Ray Croff**	
III.	**Consent Agenda**	**Glen McKenzie**	
	*December 2017 Board Minutes		P. 2
	*December 2017 Financial Committee Minutes		P. 4
	*December 2017 Financials		P. 5
	*December 2017 QM Committee Minutes		P. 9
	*January 2018 Development Report (including approval of grants)		P. 11
IV.	**CEO Report** *2018 Incentive Goal Approval *Construction Grant - New Project Director change to Doreen Rue Serve Denton Project Update	**Doreen Rue**	P. 14
V.	**Committee with Reports**		
	Quality Committee 2017 HSNT Community Needs Assessment	**Louise Baldwin** **Louise Weston-Ferrill and Graham Townson**	P. 16
VI.	**Old Business/New Business**	**Glen McKenzie**	
VII.	**Important Dates and adjourn meeting** HSNT Governing Board Meeting - February 21st 2018 - HSNT HQ Cuisine for a Cure- March 25th 2018	**Glen McKenzie**	

*** Items Requiring a Vote**

Governing Board Meeting
HSNT HQ
December 20th, 2017

Call to order at 6pm by Glen McKenzie

Attendees: Clara Sanchez, Glen McKenzie, Derrell Bulls, Judge David Garcia, Louise Baldwin, Michael Foster, Herman Oosterwijk, Dale Tampke, Dean Perkins,
Absent: Randy Robinson, Jerry Garrett, Trang Dang-Le, Gloria Herron
Staff: Doreen Rue, Debra Layman

Agenda Item II: Review 2017 YTD Goals & Establish 2018 Goals

- As of the end of November, HSNT has met all our 2017 goals as well as our 2017 goals!
- Charts describing our status were handed & referenced
    - Voluntary turnover (regrettable) is staff that we wish had stayed with the agency
    - Staff that were employed 1+ yrs. had a low turnover percentage
    - Medical Assistants are the highest in turnover – they are in high demand (especially if they have bilingual skills) & will change companies based on small increases in pay
    - HSNT is rolling out a Medical Assistant development plan in 2018 that we hope will help retain this category of staff
- YTD Medical Visits by Payor Mix – Medicaid % decreased & Sliding Fee % increased
    - 52% Self/Slide
    - 39% Medicaid
    - Dale – what is the optimal mix? 55% mix of Medicaid/Medicare
- 2018 Goal Recommendations:
    - New Goals – Operating Margin & Cost per Medical Encounter
    - Staff Turnover is now on the Operational Dashboard
    - Dale – what is the optimal patient encounter number? 46-47K
    - Glen – recommendation to have our incentive be any number/% greater than our annual goal & not have two sets of data
        - This is a discussion Glen & Doreen will take offline & report at the January board meeting

Motion to approve HSNT Incentive Payout: ***Judge David Garcia***
Seconded: ***Derrell Bulls***
Motion Passed: ***9-0***

Agenda Item III: Consent Agenda - Approval of November 2017 Board Minutes, November 2017 Financial Committee Minutes, November 2017 Financials, November 2017 QM Committee Minutes, December 2017 Development Report (including approval of grants)

Motion to approve all consent items: ***Derrell Bulls***
Seconded: ***Judge David Garcia***
Motion Passed: ***9-0***

Agenda Item III: CEO Report

- Health Center Funding – asking one last time in 2017 to please reach out to the appropriate people regarding the funding
    - There are many FQ's whose funding will expire in the beginning of 2018
    - HSNT has a May start date – we estimate about 1500 of our patients could be unfunded if this is not passed
    - Medicaid CHIP is also in jeopardy
- United Way Site Visit – Herman will volunteer to attend on behalf of the board

Agenda Item IV: Committee Reports

- Personnel Committee

Motion to approve credentialing files – Dr. Jason Siegel, MD: *Judge David Garcia*
Seconded: *Derrell Bulls*
Motion Passed: *9-0*

- Quality Committee – Changes made to Emergency Preparedness Plan requiring approval
    - Added evacuation safe zone meeting places for all sites
    - Added nearest hospital for all sites
    - Updated to include Collin Co.
    - Capacity to render mass immunizations (Page 12-13) added *"By request of the Health Emergency Alert Response Team (HEART), the Collin County Department of Public Health Emergency Preparedness, or the public health department, HSNT will arrange for clinical staff to provide mass immunizations if required in the event of an emergency."*
    - Procedures for smallpox & anthrax were removed based on recommendations form the health department (recommended removing specific emergencies unless they were currently relevant)

Motion to approve Emergency Preparedness Plan: *Dale Tampke*
Seconded: *Dean Perkins*
Motion Passed: *9-0*

Agenda Item V: Old/New Business

- Incentive goals/payout decision was approved

Agenda Item VII: Important Dates

- HSNT Governing Board Meeting – January 17th 6pm

Board Secretary Approval _____ **Date** _____

Board President Approval _____ **Date** _____

HEALTH SERVICES
OF NORTH TEXAS
Medical Care for You

Finance Committee Meeting

Meeting Facilitator: Judge David Garcia
Meeting Date: December 19, 2017
Time: 7:30 a.m.
Location: HSNT HQ Conference Room

Attendees: Judge David Garcia, Dr. Bulls and Michael Foster
Staff Present: Doreen Rue, Pamela Barnes and Debra Layman
Regrets: Glen McKenzie

Agenda Item I: Review November 2017 minutes for approval

Motion to accept: Dr. Bulls
Seconded: Judge Garcia
Motion Passed: 3-0

Agenda Item II: Review November 2017 financial statements

The committee discussed progress on corporate donations for the capital campaign. Doreen provided an updated on a local business that is interested in investing in the Denton community. We are hopeful for a connection and will update the committee on progress. Discussing on the Hoblizette challenge grant for $50,000. HSNT needs to raise an additional $230,000 to meet the challenge requirements. The Development team is currently working on the challenge grant. There is no time frame the challenge, however, HSNT goals would be to raise the funds in a year. Additionally, the Development Team is working with the Foundation Board to prepare for planning giving. Dr. Bulls commented on the increase in Net Assets compared to last year and congratulated the team on the good work HSNT provides.

Motion to accept: Dr. Bulls
Seconded: Michael Foster
Motion Passed: 3-0

Agenda Item III: Meeting adjourned at 7:43 a.m.

Notes to the financials are attached and incorporated as part of the November minutes.

Board Treasurer Approval: _____

Health Services of North Texas, Inc.
Statement of Financial Position
As of 12/31/2017

	Current Period	Last Month	Prior Year End	$ Chge	% Chge
ASSETS					
Current Assets					
Restricted - Retirement	113,708.83	104,848.83	86,013.97	27,694.86	32.20%
Overnight Investment	0.00	0.00	402,595.81	(402,595.81)	100.00%
Operating Cash	768,233.75	955,228.48	548,916.35	219,317.40	39.95%
Total Current Assets	881,942.58	1,060,077.31	1,037,526.13	(155,583.55)	-15.00%
Other Current Assets					
Grant Receivables	757,809.38	675,762.14	845,820.46	(88,011.08)	-10.41%
Medical Receivables	331,874.48	348,097.45	224,249.45	107,625.03	47.99%
Campaign Receivables	57,331.49	63,931.49	39,956.67	17,374.82	0.00%
Deposits	14,599.50	14,599.50	14,599.50	0.00	0.00%
Inventory	18,195.92	18,195.92	18,195.92	0.00	0.00%
Total Other Current Assets	1,179,810.77	1,120,586.50	1,142,822.00	36,988.77	3.24%
Short Term Investments					
Investment CDs	551,884.31	549,227.41	549,227.41	2,656.90	0.48%
Total Short Term Investments	551,884.31	549,227.41	549,227.41	2,656.90	0.48%
Long Term Assets					
457b Retirement	7,687.38	7,693.62	7,704.51	(17.13)	-0.22%
Fixed Assets					
Medical Equipment	59,292.77	59,292.77	48,065.05	11,227.72	23.36%
Building Improvements	127,582.56	127,582.56	121,993.56	5,589.00	4.58%
PCMC Building	689,712.19	689,712.19	689,712.19	0.00	0.00%
4308 Mesa Denton Office	9,639.00	9,639.00	9,639.00	0.00	0.00%
4304 Mesa Medical Center	2,555,843.13	2,555,843.13	411,769.53	2,144,073.60	520.70%
Software Applications	112,081.41	112,081.41	112,081.41	0.00	0.00%
Telephone Systems	95,499.55	95,499.55	95,499.55	0.00	0.00%
IT Equipment	161,802.42	161,802.42	137,337.42	24,465.00	17.81%
Vehicles	108,748.92	108,748.92	108,748.92	0.00	0.00%
4304 Land	257,000.00	257,000.00	0.00	257,000.00	100.00%
Accumulated Depreciation	(409,346.52)	(397,910.30)	(323,687.40)	(85,659.12)	26.46%
Total Fixed Assets	3,767,855.43	3,779,291.65	1,411,159.23	2,356,696.20	167.00%
Total Long Term Assets	3,775,542.81	3,786,985.27	1,418,863.74	2,356,679.07	166.10%
Total ASSETS	6,389,180.47	6,516,876.49	4,148,439.28	2,240,741.19	54.01%
LIABILITIES					
Current Liabilities					
Accounts Payable	178,507.12	240,834.08	220,450.37	(41,943.25)	-19.03%
Accrued Payroll	183,140.99	323,707.03	176,873.73	6,267.26	3.54%
Accrued Retirement	117,128.77	97,207.71	66,385.97	50,742.80	76.44%
Payroll Liabilities	(5,383.46)	(224.70)	216.34	(5,599.80)	-2588.43%
Total Current Liabilities	473,393.42	661,524.12	463,926.41	9,467.01	2.04%
Long Term Liabilities					
Capital Loan	1,424,775.98	1,413,377.37	0.00	1,424,775.98	100.00
457b Retirement	7,687.38	7,688.90	7,704.51	(17.13)	-0.22%
Total Long Term Liabilities	1,432,463.36	1,421,066.27	7,704.51	1,424,758.85	100.00
Total LIABILITIES	1,905,856.78	2,082,590.39	471,630.92	1,434,225.86	304.10%
NET ASSETS					
Net Assets at Beginning of Year	3,676,808.36	3,676,808.36	3,770,658.13	(93,849.77)	-2.49%
Current Net Assets(Liabilities)	806,515.33	725,725.91	(93,849.77)	900,365.10	-959.37%
Total NET ASSETS	4,483,323.69	4,402,534.27	3,676,808.36	806,515.33	21.94%
TOTAL LIABILITIES & NET ASSETS	6,389,180.47	6,485,124.66	4,148,439.28	2,240,741.19	54.01%

Health Services of North Texas, Inc.
Statement of Operations
From 12/1/2017 Through 12/31/2017

	Current Month	Last Month (11/01/2017 - 11/30/2017)	Current YTD	Prior YTD	FY2017 Budget	YTD Difference	tal Budg Percent
Patient Revenue							
Net Patient Rev	586,239.32	695,426.27	7,119,270.70	6,785,230.88	8,843,784.00	334,039.82	80.50)%
Uncollectible	(158,073.66)	(185,733.41)	(2,085,274.92)	(1,873,892.94)	(2,173,033.00)	(211,381.98)	95.96)%
Total Patient Revenue	428,165.66	509,692.86	5,033,995.78	4,911,337.94	6,670,751.00	122,657.84	75.46)%
Other Revenue							
Grants	418,518.99	365,878.13	4,162,995.40	3,733,822.65	4,344,143.00	429,172.75	95.83)%
Other	69,455.57	44,655.08	706,517.57	832,589.06	798,975.00	(126,071.49)	88.42)%
Total Other Revenue	487,974.56	410,533.21	4,869,512.97	4,566,411.71	5,143,118.00	303,101.26	94.68)%
TOTAL Revenue	916,140.22	920,226.07	9,903,508.75	9,477,749.65	11,813,869.00	425,759.10	83.82)%
Expenses							
Personnel	566,870.59	555,366.59	6,254,271.51	5,572,238.02	7,422,392.00	682,033.49	84.26%
Medical Services	65,838.60	83,378.73	843,553.79	1,064,417.44	1,158,200.00	(220,863.65)	72.83%
Patient Care	51,703.35	52,796.27	655,519.34	667,473.84	641,436.00	(11,954.50)	102.19%
IT	52,676.07	53,183.15	694,099.41	503,806.22	622,341.00	190,293.19	111.53%
Occupancy	38,127.40	42,394.27	489,695.87	525,464.66	574,000.00	(35,768.79)	85.31%
Operating Costs	119,231.07	89,162.83	1,311,351.41	1,428,834.00	1,395,500.00	(117,482.59)	93.97%
Total Expenses	894,447.08	876,281.84	10,248,491.33	9,762,234.18	11,813,869.00	486,257.15	86.75%
Operating Income(Loss)	21,693.14	43,944.23	(344,982.58)	(284,484.53)	0.00	(60,498.05)	0.00%
Capital Activity							
Capital Income	1,753.85	24,796.81	1,193,003.93	270,031.02	0.00	922,972.91	0.00%
Capital Expense	(5,617.50)	(5,781.11)	(41,506.02)	(79,396.26)	0.00	37,890.24	0.00%
Total Capital Activity	(3,863.65)	19,015.70	1,151,497.91	190,634.76	0.00	960,863.15	0.00%
Capital Assets	(3,863.65)	19,015.70	1,151,497.91	190,634.76	0.00	960,863.15	0.00%
Net Assets	17,829.49	62,959.93	806,515.33	(93,849.77)	0.00	900,365.10	0.00%

Health Services of North Texas, Inc.
Statement of Cash Flows
As of 12/31/2017

	Current Period	Current Year	Prior Year YTD
Cash Flows from Operating Activities			
Medicaid	105,053.06	3,692,632.44	3,622,623.17
Medicare	6,374.21	226,156.47	326,196.98
Private/Commercial	138,639.84	305,803.25	173,818.01
Self Pay	218,256.58	744,713.50	635,957.72
Program Income	3,432.78	63,021.47	181,434.39
Grants	343,071.75	4,229,193.46	3,440,199.10
Receipts from Contributors	65,336.26	702,375.26	823,550.61
Change in Inventory	0.00	0.00	24,304.81
Interest Received	4,119.31	4,142.31	9,038.45
Payments to Employees & Suppliers	(1,063,214.47)	(10,270,946.81)	(9,602,099.77)
Total Cash Flows from Operating Activities	(178,930.68)	(302,908.65)	(364,976.53)
Cash Flows from Capital Activities			
Capital Activity/Disposal of Assets	(3,857.41)	(1,276,416.74)	(323,522.84)
Capital Loan	5,617.50	1,424,775.98	0.00
Total Cash Flows from Capital Activities	1,760.09	148,359.24	(323,522.84)
Change in Medical Liability			
Change in Medical Liability	1,622.76	1,622.76	0.00
Total Change in Medical Liability	1,622.76	1,622.76	0.00
Beginning Cash & Cash Equivalents	1,609,374.72	1,586,753.54	2,275,252.91
Ending Cash & Cash Equivalents	1,433,826.89	1,433,826.89	1,586,753.54

Health Services of North Texas, Inc.
Financial Ratios
December 2017

	FY2017 Goals	Fiscal Year 2017	Fiscal Year 2016
Quick Ratio Current Assets/Current Liabilities	9:1	2.99 : 1	6.77 :1
Debt/Equity Total Liabilities/Total Net Assets	13.0%	42.3%	10.8%
Working Capital to Expense Ratio CA/CL divided by Expense/# month in Period	3 : 1	2.49 : 1	2.79 : 1
Long Term Debt to Equity Ratio	25%	31.8%	6.9%
Percentage of Admin & Fundraising	12.0%	9.0%	9.2%
Number of Days - Cash	30	51	59
Accounts Receivable Days (Medical AR Collection Period)	50	18	14
Change In Net Assets to Expense (Net Assets/Total Expense)	3.0%	7.8%	-1.5%
Cash Flow	1.5%	-9.6%	-30.3%
		FY2017 YTD	**FY2016 YTD**
Cost per Employee this month		$5,638.03	$6,077.60
Cost per Employee YTD		$70,203.35	$68,334.96
Average Hourly Rate YTD		$33.98	$33.54
Cost Per Medical Encounter *33,734		$199.42	$231.66*
Cost Per Medical Patient *14,773		$702.04	$778.62*

* Cost per Medical Encounter and Cost per Patient calculations updated for 2017 year end financials moving forward.

HSNT Quality Management Committee Minutes 12.20.17

Attendees: Mari Bailey, Louise Weston-Ferrill, Kayla Whitworth, Jamie Taylor, Terrence Moore, Pam Barnes, Teri Johnson, Christopher Redden, Susan Saunders, Debra Layman

Topic	Discussion/Recommendations	Action	Responsible Party	Follow-Up
Welcome & Roll Call	Roll call & started meeting	N/A	N/A	N/A
Approval of minutes	Added to minutes Dr. Jason Siegel is now committee chair Minutes from 11.29.17 meeting approved	Approved	N/A	N/A
Standard Committee Reports				
Risk Management Committee/Review of Safety				
Kayla – Risk has not met yet for the month of December	• Workgroup will be formed to discuss front desk coverage during lunch hour/trainings/meetings – Anna will send out email to workgroup • Officer Hinojosa conducted safety meeting for DSC o Debra working on contacting crime prevention unit for Collin Co. • Proof of residency docs for patients to provide – Pam sent Anna list of approved docs but will follow up & provide status update next month • WCMC repairs – Anna will follow up with Debra on status	• Workgroup email • Proof of res. docs update • WCMC repairs	Anna Debra	1.17.18
Peer Review Committee				
Louise	• Agency Q3 Peer Review – 4.76 • Agency overall Peer Review – 7.4	N/A	N/A	N/A
Performance/Clinical Measures				
Louise/Debra	• 2018 Focus – HEDIS & UDS o UDS – Karishma will be training the providers once the tool kit is released, early 2018 o HEDIS – our lowest measures tracked will be our opportunities • Congrats to Kim Alambar who is the new Quality Coordinator eff 12.24.17! o Will be working on annual Quality Calendar – will keep track of what/when the board needs to see for the year • Ryan White PDSA's o Bio-psychosocial-85% compliant, Provider referrals-95% compliant • Offline discussion – eCW parameters that may need to be added to annual paperwork for patients	N/A	N/A	N/A
Areas of Concern/Trends				

All Members	• 4304 – Noise issue in rooms o Committee formed to further discuss the issue of being able to hear patient's visits in each room – Christopher, Pam, Larry, Louise & Mari to discuss/research noise machine options	• Noise options	Committee	1.17.18
Review of Financial Measures				
Pam – nothing to report this month		N/A	N/A	N/A
Review of Outreach				
Teri	• 2018 Patient Satisfaction Surveys – workgroup built to fine tune the questions for the survey • 2017 Patient Satisfaction Surveys – working on a system for staff recognition, levels for sites/team members – will report next month • 2018 Marketing & Communication Plan – will present at the next meeting • Cartoon videos – coming soon & will be a way for our patients to know more about HSNT	• Staff Recognition • Marketing Plan	Teri	1.17.18
Training Updates/Info				
All Members	• Karishma is consistently training our providers o Lab Portal training was 12/13/17	N/A	N/A	N/A
All Other Items				
All Members		N/A	N/A	N/A

Date minutes accepted: 12.20.17 Committee Chairman: Dr. Jason Siegel Next Meeting: 1.17.18

Strategic Initiatives & Development Report
January 17, 2018 Board Meeting Year in Review

1. **Current Strategic Focus Areas**:
   - **Capital Campaign**: While most foundations and corporations have been contacted at this point, 2018 will still be a year of the Capital Campaign-building relationships with potential funders that are outstanding, working with the committee and using the major donor program to identify and cultivate for additional funds.

   - **Annual Fund:** Over 2017 the core of a major donor program has been developed and implemented, with 2018 seeing the continuation of this program and adding in of components to cultivate small and mid-level donors.

   - **Community Collaborations:** In both Denton and Collin Counties, collaborations for services to patients and with other agencies (providing referrals to HSNT/PCMC) continued to grow.

   - **Partnerships** Tours of Denton and Collin County facilities at an all-time high, tours/introductions continuing spurred by agency events.

   - **Capital Campaign and Annual Fund Program:** 15 Capital Campaign formal grant requests have been submitted to Foundations (for total of $1,355,00.), with 1 Capital Campaign grants still pending decision.

   - **Dates**
     - Cuisine For A Cure: March 25, 2018
     - Hearts & Heroes, Oct 2018 (date TBD)

6 **Grants: Submitted/new:** In 2017, *79 grant requests* were submitted with *31 to new funders*.
   a. Value of grants submitted and currently still awaiting decision: $1,499,805
   b. Grants awarded in FY2017: $1,274,931.13 + $50,000 matching grant for capital campaign (will receive funds upon raising 2/3 of capital campaign budget)

7 **Grants to Be Voted on:**

*Alliance Data	PCMC computers	$28,164
*Tyler Technologies	P/WCMC computers	$12,209
*Independent Bank (LOI)	Back to School Event	$10,000
*CoServ Foundation	Denton medical visits	$20,000

HSNT Grants Update – January 17, 2018

Submitted/Pending

Majestic Realty	PCMC program support	$10,000	January
Devon Energy	More Than Med Room	$10,000	February
Quanex Foundation LOI	PCMC general operating	$5,000	January
Ryder System Foundation	Capital campaign	$25,000	January
Capital One	PCMC program support	$5,000	January
Nordstrom	HIV behavioral health	$5,000	January
Service Area Competition	FQHC	$1,317,805	May
Mitchell Foundation	P/WCMC program support	$35,000	April
United Way of Denton Co.	Denton medical/beh. Health	$87,000	April

Decisions

DIFFA	HIV behavioral health	$25,000	Awarded
Roy and Christine Sturgis	Capital campaign	$50,000	Denied
Stantec	PCMC program support	$10,000	Denied
Jack H. and William M. Light	Denton pediatric program	$10,000	Denied
Harley Davidson Foundation	PCMC program support	$10,000	Denied
Grande Communications	Bus passes	$1,000	Awarded - submitted Sept. 2016
EFSP	Utility assistance	$5,000	Awarded
CoServ Foundation	Denton More Than Med Room	$10,000	Awarded
Lightner Sams	PCMC equipment	$5,225	Awarded
HOPWA renewal	HIV Housing	$585,674	Awarded
Better Together Fund (LOI)	Dental collaboration	$58,750	Invited to submit full proposal
AIMS	Mental health expansion	$175,700	Awarded
Liberty Mutual	Capital campaign	$50,000	Denied
Denton Co. Commissioners	Primary medical	$54,000	Awarded
City of Lewisville	Medical visits	$16,000	Awarded
City of Denton	Denton medical visits	$45,000	Awarded
Moody Foundation (LOI)	Capital campaign	$400,000	Denied
Gaston Episcopal Foundation	Prescription assistance	$5,000	Awarded
Gil and Dody Weaver	PCMC general support	$5,000	Denied
Walmart Community (Denton)	Back to School event	$2,500	Denied
Andrea-Mennen Foundation	P/WCMC program support	$10,000	Denied
Better Together (full proposal)	Dental collaboration	$58,750	Denied
Florence Foundation	Capital campaign	$10,000	Denied
BBVA Compass	Capital campaign	$25,000	Denied
Communities Fndn. Of TX	Medical/Capital campaign	$50,000 (to be Listed in Giving Guide)	Approved

FQHC Change in Scope	Add zip codes to service area	n/a	Approved
Junior League of Collin Co.	More Than Medicine Room	$1,250	Awarded
Hillcrest Foundation	Capital campaign	$150,000	Denied
Nina Heard Astin	Medical visits	$8,000	Denied
WP and Bulah Luse Foundation	Medical Center	$10,000	Denied
Elizabeth Toon	P/WCMC program support	$15,000	Denied
FQHC Change in Scope	Update hours of operation	n/a	Approved
Walmart State Giving	Medical visits	$40,000	Denied
Hoblitzelle	Capital campaign	$50,000 (matching)	Approved
THR Clinic Connect	Primary medical care	$120,000	Approved
Perot Foundation	P/WCMC equipment	$1,551	Approved
Dallas Women's Foundation	Women's clinical services	$30,000	Approved
Denton Benefit League	Medical equipment	$12,505.13	Approved
Speedway Charities (full prop.)	More Than Medicine Room	$10,000	Approved
Henry Foundation (pre-app)	Capital Campaign	$10,000	Invited to submit full proposal
B.B. Owen Trust	P/WCMC vitals carts (3)	$7,260	Denied
George and Fay Young (LOI)	Capital campaign	$150,000	Denied
R.C. Baker Foundation	PCMC program support	$5,000	Denied
Anthem Foundation	Behavioral health	$80,000	Denied
Lowe Foundation	P/WCMC program support	$10,000	Denied
PACCAR	Capital campaign	$250,000	Denied
FQHC Change in Scope	Contract MH/substance abuse	n/a	Approved
Flow Foundation	Denton medical visits	$10,000	Approved
Henry Foundation (full prop.)	Capital Campaign	$10,000	Approved
Elizabeth Taylor (LOI)	HIV behavioral health	$10,000	Denied
JES Edwards	Capital campaign	$100,000	Denied
Sear Family Foundation	Capital campaign	$10,000	Denied
Communities Fndn. Of TX	Medical	$25,000 in discretionary funding	Denied

Pipeline/To Be Submitted (*** to be voted on**)

*Alliance Data	PCMC computers	$28,164	January
*Tyler Technologies	P/WCMC computers	$12,209	January
*Independent Bank (LOI)	Back to School Event	$10,000	February
*CoServ Foundation	Denton medical visits	$20,000	February
City of Denton	Medical visits	$60,000	January
Cathay Bank	PCMC program support	$5,000	January
FQHC Change in Scope	CCMC in scope for HIV/AIDS	n/a	May
Northwood Women's Club	PCMC program support	$15,000	February
Meadows Foundation	LCSW for P/WCMC	$80,000	February
Rees Jones	Tbd	Tbd	Tbd

2017 - 14,773 unique patients. Data was tracked in two electronic systems. 2018 data analysis and reporting will be more easily accessed.

Measures	1Q 17	2Q 17	3Q 17	4Q 17	YTD	2017 Goal	2017 Incentive	Status for Incentive
Medical Encounters	9,880	7,014	8,788	6,998	**35,511**	45,000	49,000	**53,165**
Health Related Encounters	4,615	4,419	5,382	3,238	**17,654**			
Days in Cash	45	64	60	59	**51**	30 Days	30 Days	**51**
Peer Review Score	N/A	4.6	N/A	4.7	**4.7**	4.5	4.6	**4.7**
Survey Results	97%	95%	96%		**96%**	92%	94%	**96%**
Voluntary Staff Turnover*	4.5%	3.6%	3.6%	2.2%	**13.5%**	less than 15%	less than 14%	**13.5%**

Health Center Funding Update

- Keep in mind that the Community Health Center Funding was packaged with CHIP and other health care policies and presented as a whole. All communications until now have been about funding the package of health programs. This morning (January 11, 2018), House Energy and Commerce Committee Chairman Greg Walden (R-OR) announced that he is aiming to bring a six-year authorization of CHIP to the House floor for a vote next week. Extending funding for CHIP is important but the other programs need funding as well.
- NACHC contacts have confirmed that **this extension would NOT include funding for Community Health Centers or any of the other "extender" policies.** If a CHIP extension is passed next week without CHC funding and other extenders attached, it is very difficult to envision how the cliff is resolved in the near future.
- This situation is extremely fluid, and decisions are still being made about what will be included in a larger package next week and what will not.

Although we will continue to manage expenses and make appropriate adjustments, the next few weeks will be critical to determine if HSNT's federal grant will be impacted by legislation. The plan for 2018 is focused on revenue generation through planned giving and donor stewardship, pharmacy programs, enroll in quality incentive programs, operational efficiencies, and provider productivity. The data tools and analytics available through our electronic record systems will help us drive and measure these efforts. The operations key performance indicators will support the 2018 organizational goals discussed last month. Incorporating board and staff feedback, along with the analysis of 2017 year end data led to an updated recommendation on 2018 goals and will be presented for discussion and approval on January 17th.

Planned Giving Program

I have met with several financial professionals to introduce our planned giving program. In addition to the overview of this program at the board meeting, Ray Croff will provide a more detailed orientation to financial professionals on January 23, 2018. We will recruit professional for Denton and Collin County committees.

Health Services of North Texas Governing Board Meeting

Chief Executive Officer Report

January 2018

The planned giving program documents are in draft form for HSNT. I have met with several potential committee members to gauge their interest and share this opportunity with their network of professionals. Ray will provide an orientation of the program at the January Board meeting. Ray is a tremendous resource for HSNT.

Needs Assessment

Director of Programs at HSNT, Louise Weston-Ferrill, and Graham Townson from UNT Health Science Center have researched and produced a formal needs assessment for HSNT. The document is included in the board meeting materials for your review. Incorporated are the data from other sources that I summarized for the board last Fall. This needs assessment goes a step further and identifies more specific gaps in service and details the projections for changes in community composition.

The strategic planning committee will utilize this report to identify the top 5 priorities for HSNT and will align strategic direction with the strategic plan.

Louise and Graham will provide a brief summary of the HSNT needs assessment at the board meeting.

Capital Campaign

HSNT's capital proposal to PACCAR/Peterbilt was not awarded.
Although health and human services are two of their focus areas, the PACCAR Foundation is focusing on science, technology, engineering, and math education at this time.

The campaign committee will meet late January to finalize final push for donors. This is an all hands on deck moment and we need the boards help in opening as many doors as possible.

Dental

We are making progress in acquiring information and resources to plan our dental program. We have been working with Midwest Dental Services to ensure the physical design of the dental suite at Serve Denton Center incorporates appropriate dental elements and regulations. Pat Smith from Serve Denton has experience in setting up dental practices and he met with my team to present his thoughts on the expected expenses for our program. There are follow up items to research. We will visit with other FQ dental programs to build our knowledge on revenue, patient goals, and staffing.

Follow up and Information

- United Way Site visit is January 29, 2018 at 9:00 and Glen McKenzie will be participating to represent the board.

Thank you for your support,

Doreen Rue, CEO

HEALTH SERVICES
OF NORTH TEXAS
Medical Care for You

2017 Community Health Needs Assessment

United by a common philosophy:
The needs of the patient come first

Table of Contents

Who we are

Health Services of North Texas (HSNT) was established in 1988 by a volunteer group that recognized the need for support services for people with HIV, living in rural and outer-urban communities in Denton County, as well as their families. Services included support groups, transportation, food assistance, visitation, and free HIV testing. In 1997, services expanded into four surrounding counties (Collin, Rockwall, Hunt and Kaufman) and primary medical care for uninsured HIV+ individuals was established. In 2009, the agency increased the reach of its evolving mission by acquiring a full-service primary care clinic, incorporating HIV/AIDS care into the facility, and formally changing its name to Health Services of North Texas to reflect its expanded mission. During this time, HSNT became the healthcare safety net for the general population, regardless of diagnosis – particularly the uninsured and underinsured. In 2012 HSNT was designated as a Federally Qualified Health Center (FQHC). Being an FQHC strengthens our ability to provide accessible healthcare to underserved individuals and means that we meet the quality and performance standards required by the Health Resources and Services Administration. To this day, HSNT is the only full FQHC in Denton or Collin counties. In 2014, HSNT acquired Plano and Wylie Children's Medical Clinics and a women's health clinic in Denton, which expanded our services to those most vulnerable to health care barriers – children and women. In 2017, HSNT opened an additional clinic in the City of Denton to expand services more patients, and today the organization operates 8 clinics throughout Denton and Collin counties. Currently HSNT provides medical care to over 14,000 patients through over 40,000 medical or support service visits each year.

Mission - Improving the quality of life for all North Texans through medical care, support services and advocacy.

Vision - A healthy community.

Values - Client Centered Approach, Provider services in an ethical and straightforward manner while maintaining privacy and confidentiality, and operating in a fiscally responsible manner. Foster positive environment by being committed to a culture of problem-solving, a culture of learning and embracing each individual.

Executive Summary

We at Health Services of North Texas (HSNT) understand that in order to fulfill our vision of a healthy community, we must first take a comprehensive look at the needs of the communities we serve. Therefore, HSNT is presenting this comprehensive report on the quality of life for North Texans. This report examines barriers to care, health indicators, prevention and emergency department use as primary care, all of which are factors that influence and shape quality of life.

HSNT is a not-for-profit health center, with eight sites, serving North Texas communities. HSNT provides medical care, support services and advocacy in a variety of ways. Of all of our services, Medical care is at the forefront of our service array. We offer primary medical care to children, adults and seniors. We also offer women's health and family planning services. Additionally, we provide infectious disease

medical care. Our medical providers are MD's, clinical nurse practitioners and physician's assistants. We are committed to serving the whole person and offer behavioral health and care management services for our patients to ensure that all barriers to care are removed whenever possible. We also offer prescription assistance for our patients who cannot afford needed medications. In 2012, HSNT was designated as a Federally Qualified Health Center (FQHC). Being an FQHC strengthens our ability to provide accessible healthcare to underserved individuals and means that we meet the quality and performance standards required by the Health Resources and Services Administration. To this day, HSNT is the only full FQHC in Denton and Collin counties.

Information was gathered for this Community Needs Assessment to assess the current needs of HSNT's service area. Our service area is defined by the geographical region within Collin County, Denton County, Hunt County, Rockwall County and Kaufman County, Texas. This Community Health Needs Assessment focuses on the two counties where over 75% of HSNT's patients reside, Collin County and Denton County. Reported public health indicators were comparable to those of the State of Texas as well as U.S. values.

There was good news in this report. Data supports a decline in the percentage of the population without health insurance coverage and a decline in teen pregnancy rates. However, some significant health needs were identified. Some of the communities served by HSNT were worse than the state by a significant margin. The percentage of Texas physicians accepting Medicaid and CHIP patients has fallen to 31%; this decline coincides with increasing rates of child poverty. Both Collin and Denton Counties have poor air quality, with frequent ozone pollution that is a known trigger for asthma. Collin and Denton counties are experiencing population growth, with a 33% and 37% increase in Medicare enrollees expected by 2030. The current healthcare infrastructure is not adequate to meet the needs of the growing senior population.

Community needs listed below were prioritized based on the basis of data obtained and rankings from the key informant/focus groups. The needs are prioritized below:

- Access to medical care for middle and lower socioeconomic status and seniors
- Access to mental and behavioral health care
- Preventable hospital admissions
- Lack of dental providers

HSNT will identify an implementation strategy/plan based on this assessment which will be approved and implemented within 6 months of the submission of this community needs assessment.

There is work to be done to improve quality of life and HSNT will be at the forefront to collaborate, innovate and provide a pathway to healthy communities.

Community Health Needs Assessment

In accordance with the Patient Protection and Affordable Care Act (PPACA) requirements for tax-exempt organizations, the specific needs within the geographical areas (Counties) from which at least 75% of

HSNT clients lived were assessed during October and November of 2017. As required, this report describes:

- How HSNT determined its community served
- Methodology; specifically, how needs were prioritized
- How data was acquired, including sources and dates accessed
- How HSNT accounted for perceptions of those representing the interests of the HSNT community served
- Existing organizations within the community available for residents as resources
- A description and evaluation of steps taken in respect to the primary findings within the previous Community Health Needs Assessment (CHNA)

Methodology

Qualitative data is key to understanding people's own perceptions about their communities. During the process of gathering relevant data used to describe health trends within the primary service communities of Denton and Collin Counties, HSNT gathered qualitative data from secondary sources, including the 2017 Denton County Community Needs Assessment, which compiled the needs assessments conducted by Denton County Public Health, United Way of Denton County (UWDC), and Texas Health Presbyterian. HSNT also gathered primary data reported by residents living in Collin and Denton Counties from Baylor Scott and White's 2016 CHNA. The 2017 Denton County Community Needs Assessment focuses specifically on communities within the geographical borders of Denton County. The Baylor Scott and White CHNA focused on a larger geographic region, including Denton, Collin, and Dallas Counties. For the purpose of gathering data for HSNT's CHNA needs, data from the Baylor Scott and White Needs Assessment was only included when county-level qualitative data was provided, in order to keep HSNT's CHNA focus on the primary communities served by HSNT, which are Denton and Collin Counties. Within all of the needs assessments referenced in this report, the methodology used by the organization for identifying and prioritizing needs was similar and therefore comparable to one another.

In both the Denton County and Baylor Scott and White Assessments, indicator values were gathered and compared to state and national benchmarks as well as Healthy People 2020 target values for each indicator, respectively. In order to gather primary data, each of the organizations involved in the two CHNAs referenced in this report conducted focus groups, key informant interviews, and discussion with community members. Additionally, Denton County's 2017 CHNA included notable results from Texas Health Presbyterian of Denton County's online community survey. Baylor Scott and White, on the other hand, used both qualitative and quantitative data gathered by Truven Health Analytics. Truven Health is one of the largest companies involved in the collection and analysis of both clinical and non-clinical health data. In referenced external CHNA's as well as within this report, poor performing quantitative indicators were identified when values compiled ranked poorly when compared to state and/or national benchmark values as well as Healthy People 2020 target values (if applicable). Other data sources referenced in this report include the U.S. Census Bureau and the Texas Department of State Health Services. Most county-level maps provided within this report were generated from either the

Community Commons Geographical Information System (GIS) or the HRSA GIS. Community Commons is a website hosted by the University of Missouri's Center for Applied Research and Engagement System (https://goo.gl/mUww5c). Prioritized needs were chosen and submitted for board approval based on the magnitude of evidence from both qualitative and quantitative data.

Prioritized Needs, Denton County and Collin County, 2016 - 2017

	Texas Health Presbyterian Denton	Denton County United Way	Denton County Public Health	Baylor Scott and White, Collin and Denton Counties
Priority Needs	1. Mental Health, Mental Disorders, & Substance Abuse 2. Access to Health Services 3. Exercise, Nutrition, & Weight 4. Diabetes	1. Children 2. Families 3. Veterans 4. Homeless / Housing 5. Health / Mental Health	1. Preventative Care 2. Access to Care 3. Health Outcomes 4. Women's Health	1. Access to care for middle to lower socioeconomic status 2. Mental / behavioral health 3. Preventable admissions: adult uncontrolled diabetes 4. Lack of dental providers 5. Teen births 6. Drug abuse

Definitions

Health Indicator - "A measurable factor known to be related, directly or indirectly, to a community's health. The performance of these factors within a community or geographic region, relative to other communities or regions, describe health trends within the communities and helps reveal its strengths and weaknesses relative to other communities."

Need - "A health indicator value which, within the geographic area in which most of HSNT's clients reside, provides evidence that the factor measured is performing poorly within HSNT's primary geographic service community, compared to state, national, and Healthy People 2020 benchmark values."

Benchmark -

- "The average performance on a given indicator value within a given geographic location or community which serves as a reference point".
- "An indicator value set as a target or goal and serves as a reference point".

- "A baseline value for a given indicator; or, the value for the previous measurement period, which serves as a reference point".

Disparity - "differences in health outcomes that are closely linked with social, economic, and environmental disadvantage".

Health - "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" (World Health Organization)

Previous Plan to Meet Needs: Description and Evaluation

In 2014, HSNT conducted and completed its CHNA, identifying affordable dental care, access to affordable behavioral health care and access to affordable prescription medications as the area of need.

Over the last three years, the strategic planning committee, guided by the 2014 report, planned and implemented changes within HSNT with the goal of tailoring the organization to best serve the community by reducing the severity of the burden imposed by these needs. Specifically, HSNT is committed to serving those who are disadvantaged in terms of health due to socioeconomic status, race /ethnicity, or pre-existing disability and/or disease.

Actions taken included: investigating the feasibility of adding dental services to our array of services per our Strategic Plan, HSNT has entered into talks with Dental Clinics within the metroplex to discuss collaboration; HSNT has an Integrated Behavioral Health model designed to provide affordable, accessible Behavioral Health Services to our Medical Center patients; HSNT has partnered with UT Southwestern Medical Center to provide depression screens for all patients over age 12. This results in earlier detection of depression and allows Behavioral Health Providers to intervene and treat; HSNT has contracted with e-Psychiatry to provide tele-psychiatry services to our patients; HSNT has a Prescription Assistance Program and has expanded the program; HSNT has a 340-B Program which helps with obtaining needed medication and is planning to expand this program; HSNT has a long term goal to have an on-site pharmacy per the Strategic Plan.

The outcomes of the 2014 Community Needs Assessment were successful. However, there were several areas that have not expanded as of 2017, specifically dental care. HSNT does not have a dental program in its scope of services and this remains an identified need. HSNT has a small 340-B program and it continues to be a goal to expand that program. Over the past 3 years, HSNT identified internal areas of improvement, including strengthening our IT infrastructure, adding primary care providers, adding pediatric care providers, enhancing the phone system, adding a call center, changing our electronic medical record in order to accommodate increased growth and reporting requirements and joining other community partners in a regional health information exchange to promote accessible patient information.

While no formal Implementation Plan was drafted as a follow-up to HSNT's 2014 CHNA, HSNT currently plans to draft and submit for board approval an Implementation Plan in response to the findings outlined within this report. With a goal of being published by May 15th, 2018, HSNT's Implementation Plan will be drafted shortly after this report, and will be submitted for board approval and review within the first quarter of 2018.

Community Served

HSNT does not limit its services to those living within any geographic boundaries; however, for the purpose of this community needs assessment, HSNT defines its primary service community as the two counties in which 75% or more of HSNT's clients live, namely, Collin County and Denton County, Texas. These two North Texas Counties have an adjoining border and are among the top 1% of U.S. Counties in terms of growth[1]. This report conforms with HRSA's guidelines for Community Health Needs Assessment and serves all eight of HSNT care delivery sites:

Center	Address
Denton Medical Center (3 locations)	4304 Mesa Dr., Denton, TX 76207 4308 Mesa Dr., Denton, TX 76207 4310 Mesa Dr., Denton, TX 76207
Denton South Center	3537 South I-35 E, Suite 210 Denton, Texas 76210
Elm Street Center	821 North Elm Street Denton, Texas 76207
Collin County Center	2540 K Avenue, Suite 500 Plano, TX 75074
Plano Children's Medical Clinic	1407 14th Street Plano, TX 75074
Wylie Medical Center	303 S. Hwy 78, Suite 106 Wylie, TX 75098

Healthcare in the U.S.

The U.S. utilizes more advanced techniques and technologies in its medical sector than any other nation in the world; however, when it comes to the overall health of the U.S. population, the U.S. does not rank

[1] "US Cities, Metro and Counties Outlook 2017 – 2021". *Oxford Economics*. (2017).

well. In fact, among other developed nations the U.S. has the worst rank in terms of population health[2]. In order to provide service to individuals in need, primary care is starting to engage in a new approach; instead of treating illnesses as they arise, primary care doctors will begin to consider the whole-person. Primary care doctors will be involved with the overall wellbeing of an individual, including dental care, vision, hearing, and social services[3]. In their report, Ellner and Phillips found that access, continuity, comprehensiveness, and care coordination are essential requirements for a strong primary care infrastructure. In relation to other developed countries, the United States ranks poorly on all major population health indicators in spite of spending 2.5 times the amount that other nations spend on health care. According to the World Health Organization, population health outcomes should not be unequally distributed among different groups[4].

State Summary

As of the drafting of this report, among the 50 states Texas is in 33rd place in terms of health (down from 34th place previously)[5]. With 32 states considered as performing better than Texas in terms of health, there are a lot of opportunities to increase the health and wellbeing of Texas residents[6]. Poorly performing indicators influencing Texas' rank include: high obesity rate (on the rise since 1990), lack of physical activity, growing segment of uninsured, children living in poverty, lack of primary care physicians and poor air quality.

Indicators for which Texas' performance ranked in the bottom 20%, compared to other states, 2016

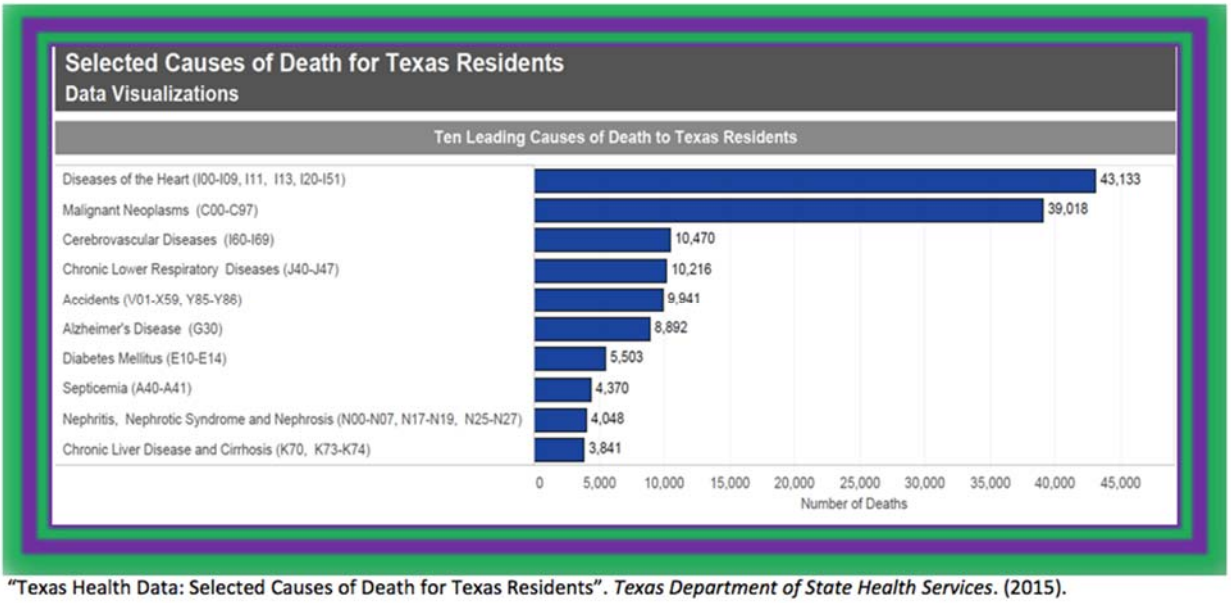
Indicator	Value	Rank	Notes
Obesity	32.4% of adults	40	Steady increase since 1990
No physical activity (PA)	29.5%	42	No PA reported in last 30 days
Exposure to fine particulate matter < 2.5 microns per cubic meter	9.4 micrograms per cubic meter	44	Trending downwards since 2004
Children in poverty	21.4%	40	None
Population without health insurance	18.1%	50	Trending downwards since 2010
Primary Care Physicians	110.3 per 100,000	45	None

"Americas Health Rankings: Texas" *United Health Foundation*. (2016).

[2] Ellner, A. L., & Phillips, R. S. "Special Symposium: Reinventing Primary Care: The Coming Primary Care Revolution". *Journal of General Internal Medicine*, *32*(4), 380–386. (2017).
[3] Ellner, A. L., & Phillips, R. S. (2017). "Special Symposium: Reinventing Primary Care: The Coming Primary Care Revolution". *Journal of General Internal Medicine*, *32*(4), 380–386. (2017)
[4] Ellner, A. L., & Phillips, R. S. (2017). Special Symposium: Reinventing Primary Care: The Coming Primary Care Revolution. *Journal of General Internal Medicine*, *32*(4), 380–386. http://doi.org/10.1007/s11606-016-3944-3
[5] *Explore Health Measures in Texas | 2016 Annual Report*. (2017). *America's Health Rankings*.
[6] Community Health Needs Assessment 2016 North Texas Zone 1. *Baylor Scott & White.* (2016).

Indicators for which Texas' performance ranked in the bottom 20%, compared to other states, 2017		
Indicator	**Value**	**Rank**
Adults who went without care because of cost in the past 12 months	18%	50
Children (0 - 18) without health insurance	10%	48
Adults (19 - 64) without health insurance	23%	51
Adults without dental care in the past year	20%	48
Adults with a usual source of care	67%	49
Adults with age and gender appropriate cancer screenings	64%	40
Children with a medical home	52%	42
Children (age 0 - 17) who are overweight or obese	37%	47

"Health System Data Center: Texas". *The Commonwealth Fund*. (2017).



"Texas Health Data: Selected Causes of Death for Texas Residents". *Texas Department of State Health Services*. (2015).

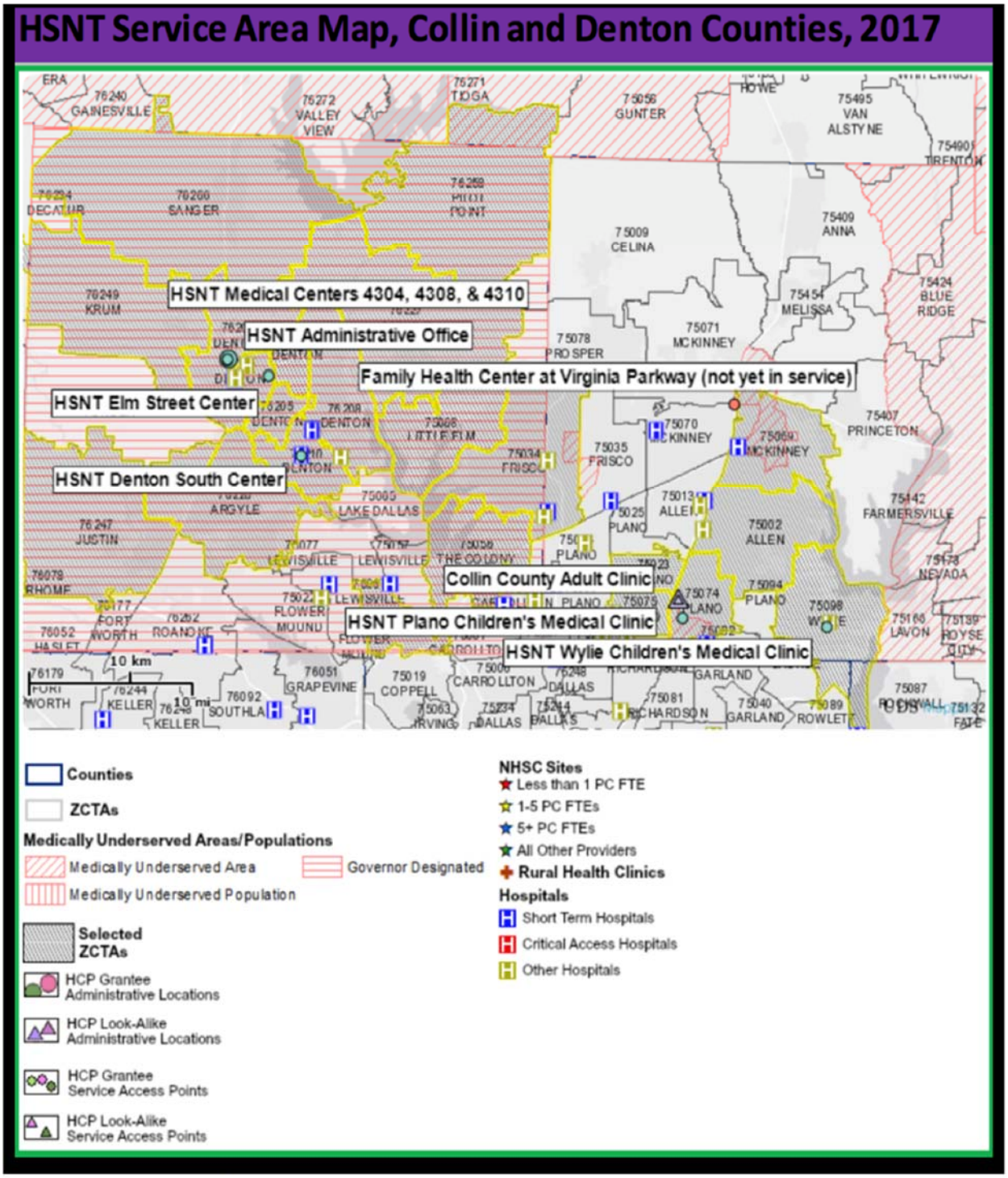
Behavioral Risk Factors Surveillance System Data from Health Service Region 2 / 3					
Category	Race	Values	Area	Year	Notes
Immunizations - Adult	White Black Hispanic Other	51.0% 56.5% 62.3% 56.2%	Health Service Region 2 / 3	2015	Flu shot in past year
Body Mass Index - Adult	White Black Hispanic Other	63.9% 78.2% 68.4% 52.3%	Health Service Region 2 / 3	2015	Overweight or obese
Cancer - Adult	White Black Hispanic Other	14.0% 8.4% 2.6% 2.0%	Health Service Region 2 / 3	2015	Any Cancer
Cardiovascular Disease - Adult	White Black Hispanic Other	9.4% 12.0% 5.3% 4.9%	Health Service Region 2 / 3	2015	
Chronic Obstructive Pulmonary Disease - Adult	White Black Hispanic Other	6.2% 4.1% 2.6% 2.4%	Health Service Region 2 / 3	2015	
Cognitive Impairment - Adult	White Black Hispanic Other	15.1% 29.5% 13.2% --	Health Service Region 2 / 3	2015	Cognitive decline in past year
Depression - Adult	White Black Hispanic Other	19.1% 20.7% 12.0% 9.3%	Health Service Region 2 / 3	2015	Ever diagnosed with depression

Disability - Adult	White Black Hispanic Other	24.2% 41.2% 22.8% 17.8%	Health Service Region 2 / 3	2015	Currently have a disability
Physical Activity - Adult	White Black Hispanic Other	25.4% 37.4% 30.1% 26.5%	Health Service Region 2 / 3	2015	Without leisure time physical activity
Fruits and Vegetables - Adult	White Black Hispanic Other	41.1% 32.5% 32.7% 34.2%	Health Service Region 2 / 3	2015	Did not consume fruits at least 1 time per day
Health Care Access - Adult	White Black Hispanic Other	24.5% 24.0% 49.0% 36.9%	Health Service Region 2 / 3	2015	Does not have a doctor
Health Care Access - Adult	White Black Hispanic Other	12.5% 17.6% 50.8% 26.4%	Health Service Region 2 / 3	2015	Did not have health insurance coverage
Health Care Access - Adult	White Black Hispanic Other	12.4% 23.8% 22.4% 11.9%	Health Service Region 2 / 3	2015	Did not see doctor at least once during the past year due to cost
Health Care Access - Adult	White Black Hispanic Other	32.5% 22.6% 44.2% 42.4%	Health Service Region 2 / 3	2015	Did not have routine checkup in past year
Health Status - Adult	White Black Hispanic Other	13.1% 20.9% 21.6% 11.8%	Health Service Region 2 / 3	2015	General health fair-to-poor

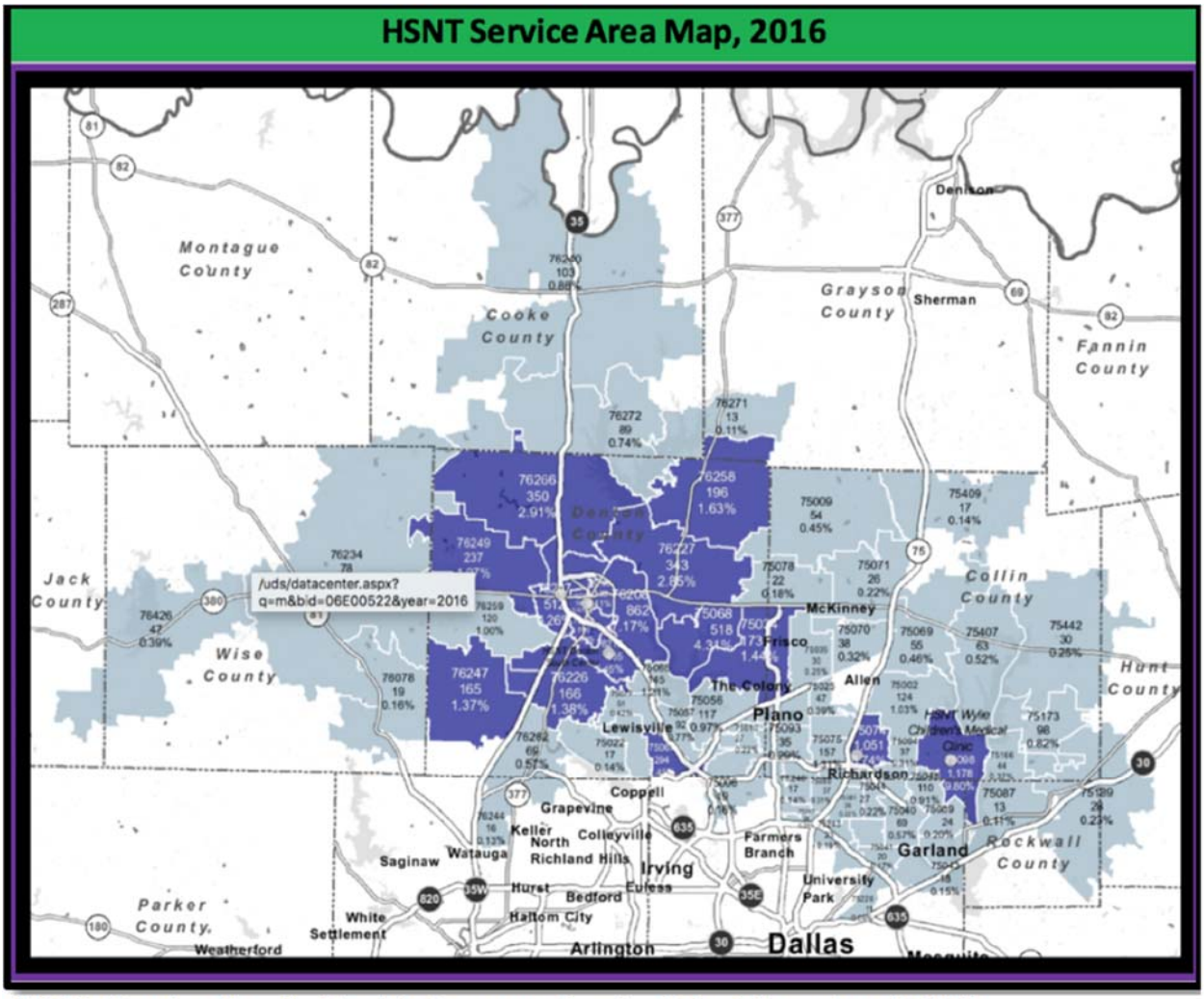
Texas Department of State Health Services

HSNT service area health indicators			
Health Indicators	**National Benchmark**	**Service Area***	**Source and Date**
Age-adjusted diabetes prevalence	8.1%	8.4%	Centers for Disease Control and Prevention website, 2013
Adults who have not had their blood cholesterol checked within the last 5 years	23.1%	27.4%	Centers for Disease Control and Prevention website, 2015
Cancer screening – percent of adults, 50 and older, with no Fecal Occult Blood Test within the past 2 years	83.3%	87.0%	Centers for Disease Control and Prevention website, 2014
Cancer Screening - percent of women 18 years and older with no Pap test in past 3 years	18.4%	27.4%	Centers for Disease Control and Prevention website, 2014
Late entry into prenatal care	16.4%	28.2%	Centers for Disease Control and Prevention website, 2015
Children not receiving recommended immunizations	30%	36%	Centers for Disease Control and Prevention website, 2014
Adults age 65 and over who have not had a flu shot in the past year	28.4%	32.4%	Centers for Disease Control and Prevention website, 2015
Medicare beneficiaries who were treated for depression	16.7%	18.3%	Healthy North Texas website, 2015
Adults with at least 1 major depressive episode in the past year	6.6%	6.2%	SAMHSA website, 2013-14

*Including Collin, Rockwall, Denton, Hunt, and Kaufman Counties and is an average overall for counties queried



"HSNT Service Area". *Health Resource Service Administration.* (2017



"HSNT Service Area". *Health Resource Service Administration*. (2017)

Population Change and Projections

By 2050, both the population in Collin and Denton Counties, respectively, are expected to double in size. Between 2015 and 2020, Collin and Denton Counties had a higher projected growth rate than that of Dallas County[7]. Additionally, growth within minority-status populations in both Denton and Collin Counties was expected to outpace that in Dallas County between during this same time period[8]. Race or ethnicity groups that are expected to grow at a faster rate than the white population include Asians, Black/African Americans, Hispanics, and Latinos. The Asian/Pacific Islander and Black/ African American populations were expected to grow at the highest rate, with a projected population increase in both populations of 20% between 2015 and 2020[9]. Both the Hispanic and Latino communities have already

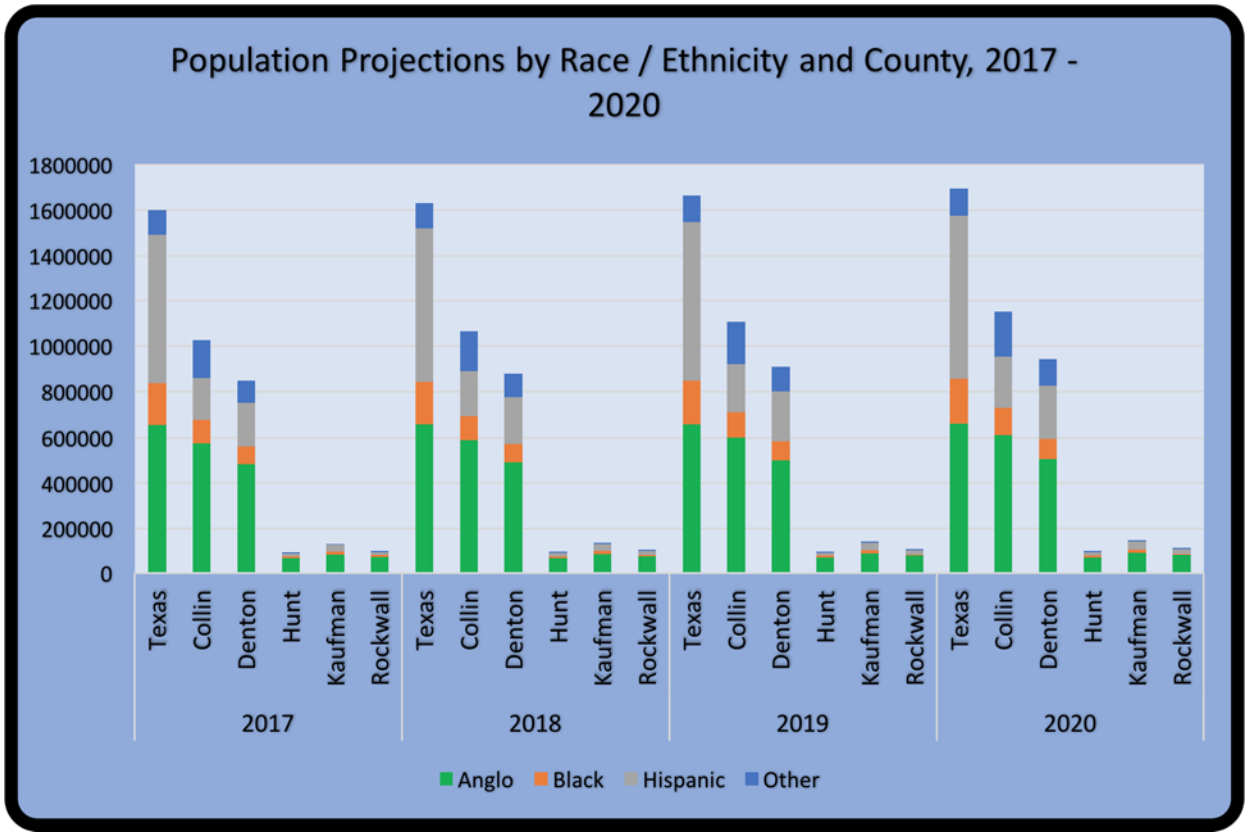
[7] Potter, L. B., & Hoque, N. (2014). *Texas Population Projections, 2010 to 2050*.
[8] *Population Projections (2014 - 2030)*. (2017).
[9] *Community Health Needs Assessment 2016 North Texas Zone 1*. (2016).

experienced tremendous growth; in Denton County, these communities grew 7% between 2000 and 2015[10].

2014 - 2015 Population Change Due to Migration and Natural Increase

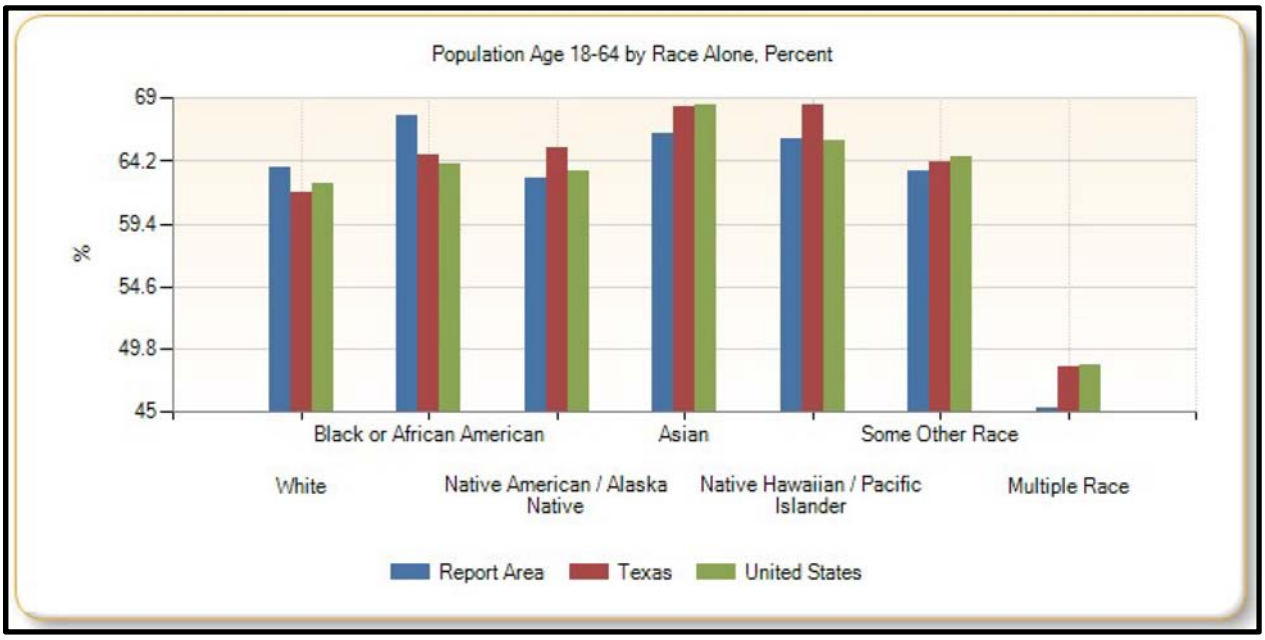
County	County Rank (Population Change)	Population Change	Change from Natural Increase (%)	Change from Migration (%)	Migration that is international (%)
Collin	14	28,075	25.7%	74.3%	21.0%
Denton	16	25,820	25.9%	74.1%	15.7%

Because of the overall economic prosperity in many areas, many are moving into Collin and Denton Counties. From 2014 - 2015, the population increase due to migration was three times greater than that due to natural increase. People came from other areas of Texas, other states, and even other countries.



U.S. Census Bureau
Texas value scaled to 1/18

[10] Healthy North Texas. (2017). Demographics. County: Denton.



"American Community Survey". *U.S. Census Bureau*. (2015)

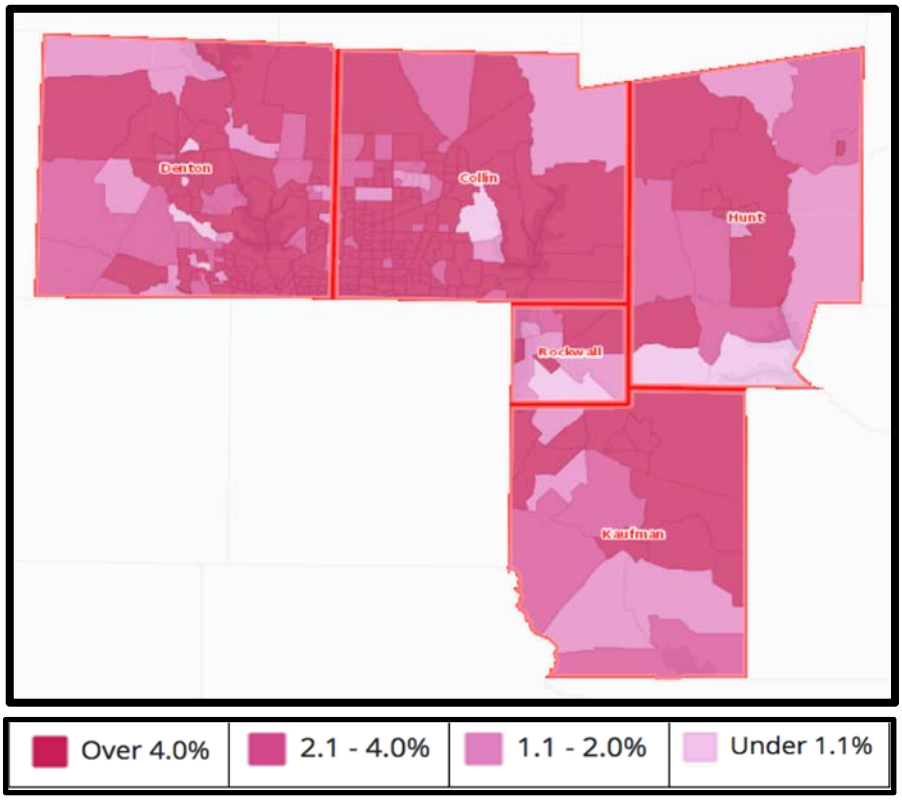
Barriers to Access to Care and Services

Limited English Proficiency

Barriers to care include differing cultural backgrounds and limitations in speaking or understanding English. It has been estimated that over 20% of Denton County residents spoke a language other than English at home during 2011-2015[11, 12]. However, only 4% of Denton County residents report that they are not proficient in English. In terms of health education, the percentage of individuals who have difficulty understanding a health professional was reportedly over 30%, according to Texas Health Presbyterian's online survey results[13].

[11] "Healthy North Texas: Demographics: Denton County". *DFWHC Foundation*. (2017).
[12] "County Health Rankings & Roadmaps: Denton". *Kaiser Family Foundation*. (2017).
[13] "2016 Community Health Needs Assessment". *Texas Health Presbyterian Hospital*. (2016).

Population with limited English proficiency, percent by tract, 2011 - 2015



"American Community Survey". *U.S. Census Bureau*. (2015).

Education

United Way of Denton County has reported that the percentage of school age children who are economically disadvantaged is increasing. For the 2015 - 2015 school year, this percentage was 33%, this equates to 41,544 economically disadvantaged students in Denton County. Of this 41,544 for the 2015 - 2016 school year, 2,096 were homeless[14].

Housing and Homeless Population

Over 33,000 (16,070 homeowners and 17,205 renters) in Collin County and over 29,000 (11,135 homeowners and 18,405 renters) in Denton County are over 50% cost burdened[15]. Cost burden refers to the percentage of income that is required to cover costs associated with rent, mortgage, utilities, association fees, insurance, and real estate taxes[16].

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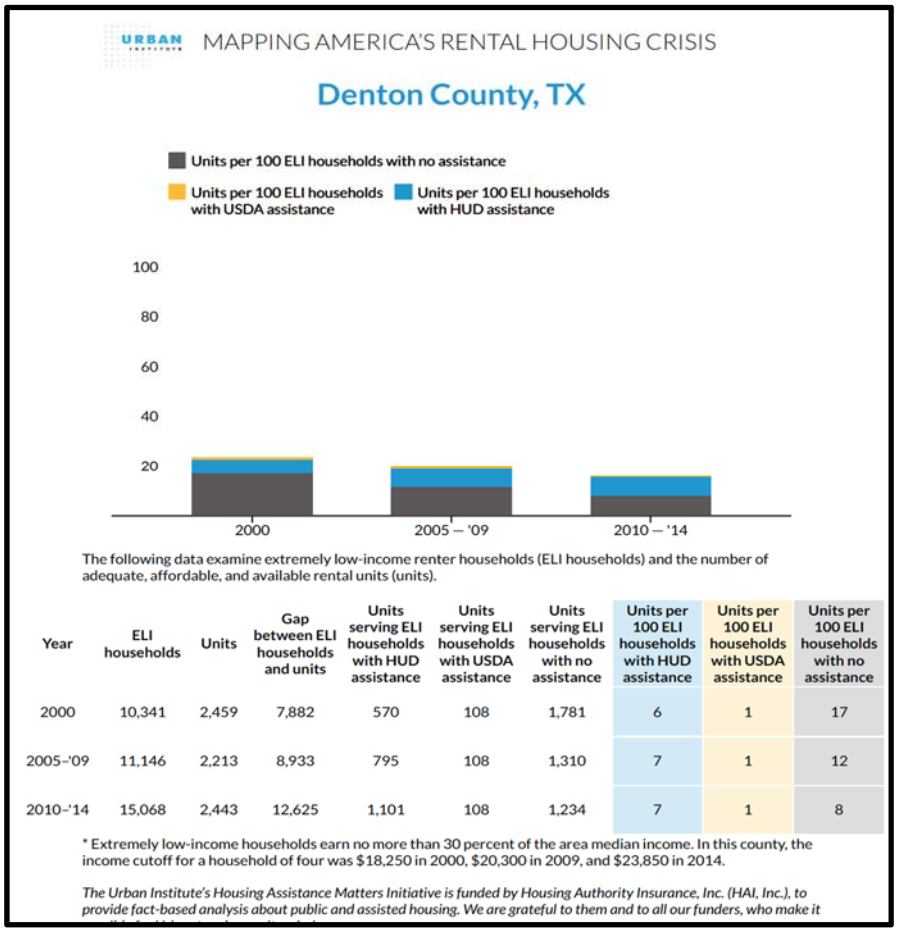
[14] *Beyond A B C: Assessing the WellBeing of Children in Dallas County and the North Texas Corridor*. (2015).

[15] *Consolidated Planning/CHAS Data | HUD USER*. (2017). *Huduser.gov*.

[16] *Consolidated Planning/CHAS Data | HUD USER*. (2017). *Huduser.gov*.

The average Fair Market Rent (FMR) in Texas is the 27th highest in the nation. However there is a high amount of variance in FMR rates within Texas. This variance is related to numerous factors, including location. Different FMR rates are calculated for each zip-code, depending on the number of bedrooms the residence has and whether it is a standalone house or an apartment[17]. The FMRs for a two bedroom home in Collin, Denton, and Rockwall counties all equal $1,031. An individual earning minimum wage ($7.25 per hour) would have to work 108 hours per week in order to pay this FMR without spending over 30% of their monthly income[18].

In 2014, the number of Extremely Low Income (ELI) renter households was greater in Denton County (15,068) households, than Collin County (13,085 households)[19]. The 2017 (2nd Quarter) vacancy rates for residential housing was low, compared to nation-wide and state averages. HSNT Service area: 0.42%, Denton County: 0.38%, Collin County: 0.28% and Texas: 1.94%. There are 21 assisted housing units for every 100 ELI renters in Collin County, 16 for every hundred in Denton County, and 46 nationwide[20].



The following data examine extremely low-income renter households (ELI households) and the number of adequate, affordable, and available rental units (units).

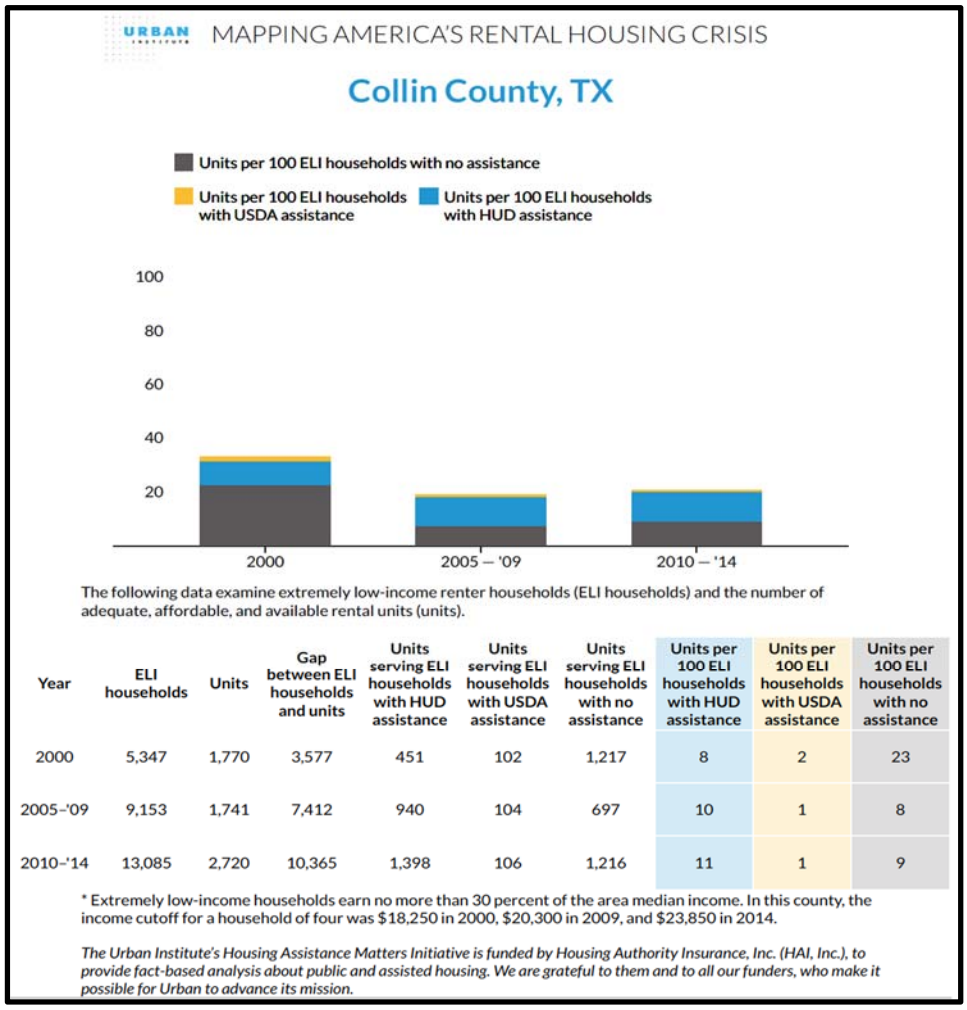
Year	ELI households	Units	Gap between ELI households and units	Units serving ELI households with HUD assistance	Units serving ELI households with USDA assistance	Units serving ELI households with no assistance	Units per 100 ELI households with HUD assistance	Units per 100 ELI households with USDA assistance	Units per 100 ELI households with no assistance
2000	10,341	2,459	7,882	570	108	1,781	6	1	17
2005–'09	11,146	2,213	8,933	795	108	1,310	7	1	12
2010–'14	15,068	2,443	12,625	1,101	108	1,234	7	1	8

* Extremely low-income households earn no more than 30 percent of the area median income. In this county, the income cutoff for a household of four was $18,250 in 2000, $20,300 in 2009, and $23,850 in 2014.

The Urban Institute's Housing Assistance Matters Initiative is funded by Housing Authority Insurance, Inc. (HAI, Inc.), to provide fact-based analysis about public and assisted housing. We are grateful to them and to all our funders, who make it

[17] Wage Facts About Texas. *The Urban Institute.* (2017).
[18] Wage Facts About Texas. *The Urban Institute.* (2017).
[19] "Mapping America's Rental Housing Crisis". *Urban Institute*. (2017)
[20] "Mapping America's Rental Housing Crisis". *Urban Institute*. (2017)

"Mapping America's Rental Housing Crisis: Denton County, TX". *Urban Institute*. (2014)



The following data examine extremely low-income renter households (ELI households) and the number of adequate, affordable, and available rental units (units).

Year	ELI households	Units	Gap between ELI households and units	Units serving ELI households with HUD assistance	Units serving ELI households with USDA assistance	Units serving ELI households with no assistance	Units per 100 ELI households with HUD assistance	Units per 100 ELI households with USDA assistance	Units per 100 ELI households with no assistance
2000	5,347	1,770	3,577	451	102	1,217	8	2	23
2005–'09	9,153	1,741	7,412	940	104	697	10	1	8
2010–'14	13,085	2,720	10,365	1,398	106	1,216	11	1	9

* Extremely low-income households earn no more than 30 percent of the area median income. In this county, the income cutoff for a household of four was $18,250 in 2000, $20,300 in 2009, and $23,850 in 2014.

The Urban Institute's Housing Assistance Matters Initiative is funded by Housing Authority Insurance, Inc. (HAI, Inc.), to provide fact-based analysis about public and assisted housing. We are grateful to them and to all our funders, who make it possible for Urban to advance its mission.

"Mapping America's Rental Housing Crisis: Denton County, TX". *Urban Institute*. (2014)

The 2016 Collin County homeless census identified 501 homeless people in the county; approximately one third of these individuals were children[21]. In 2014, the Denton County Homeless Coalition estimated that 1,595 people in the county were homeless or transient[22]. The Denton County Homeless Coalition administers point-in-time surveys to homeless populations on a yearly basis, but a more recent annualized estimate of the total number of homeless individuals in Denton County is not available. Additionally, the 2017 United Way of Denton County Community Needs Assessment cites that 2,096 Denton County students experienced homelessness during the 2014-2015 school year[23]. This assessment's definition of homelessness includes individuals who are living with others or residing in temporary housing. Denton County

[21] Valerie Wigglesworth. "Tacking Collin County's homeless problem: 'You will not see them on a corner – they're invisible'". *Dallas News*. (2016).
[22] "Point-in-Time Homeless Count". *Denton County Homeless Coalition*. (2017).
[23] "2017 Community Needs Assessment". *United Way of Denton County*. (2017).

contains two universities, and the transient living situations experienced by many low-income students creates a unique need for accessible healthcare.

Medicare/Medicaid Access:

The proportions of the population comprised of individuals over 65 years of age are expected to increase 34% in Collin County and 37% in Denton County[24]. The percentage of the population over 65 in Denton County, is expected to increase from 10% in 2017, to 17% by 2030[25]. In Collin County, the population ages 65 and older is projected to increase from 11% in 2017 to 19% by 2030[26]. Rockwall County residents, especially those nearing or over 65 years of age, are worried because according to focus group respondents, there are "no resources for Medicare beneficiaries in Rockwall County"[27]. Compared to the general population, individuals over 65 years of age have more health-related needs. These needs nearly always result in increased medical costs, putting a strain on seniors living on fixed incomes. With many expected to enroll in Medicare, it is likely that demand for healthcare services by enrollees will increase dramatically. The number of Medicare beneficiaries in Collin and Denton Counties was expected to increase by 33% and 37%, respectively[28].

While Collin and Denton Counties are generally viewed as healthy communities, the number of healthcare providers serving those insured by Medicare is limited. Strained by the projected growth in the number of Medicare beneficiaries, trends show that many healthcare professionals are electing not to become a participating Medicare provider thereby reducing much-needed healthcare access for the senior citizen population within Collin County and Denton County.

Several factors contribute to the erosion of both the Medicare and Medicaid programs. Physicians say government insurance reimbursement does not cover the cost of care. Medical providers also have faced the threat of steep Medicare payment cuts every year for the past decade. Texas is the fastest-growing U.S. state and, especially in suburban areas, doctors have been able to replace government-insurance patients with those who have higher-paying commercial insurance.

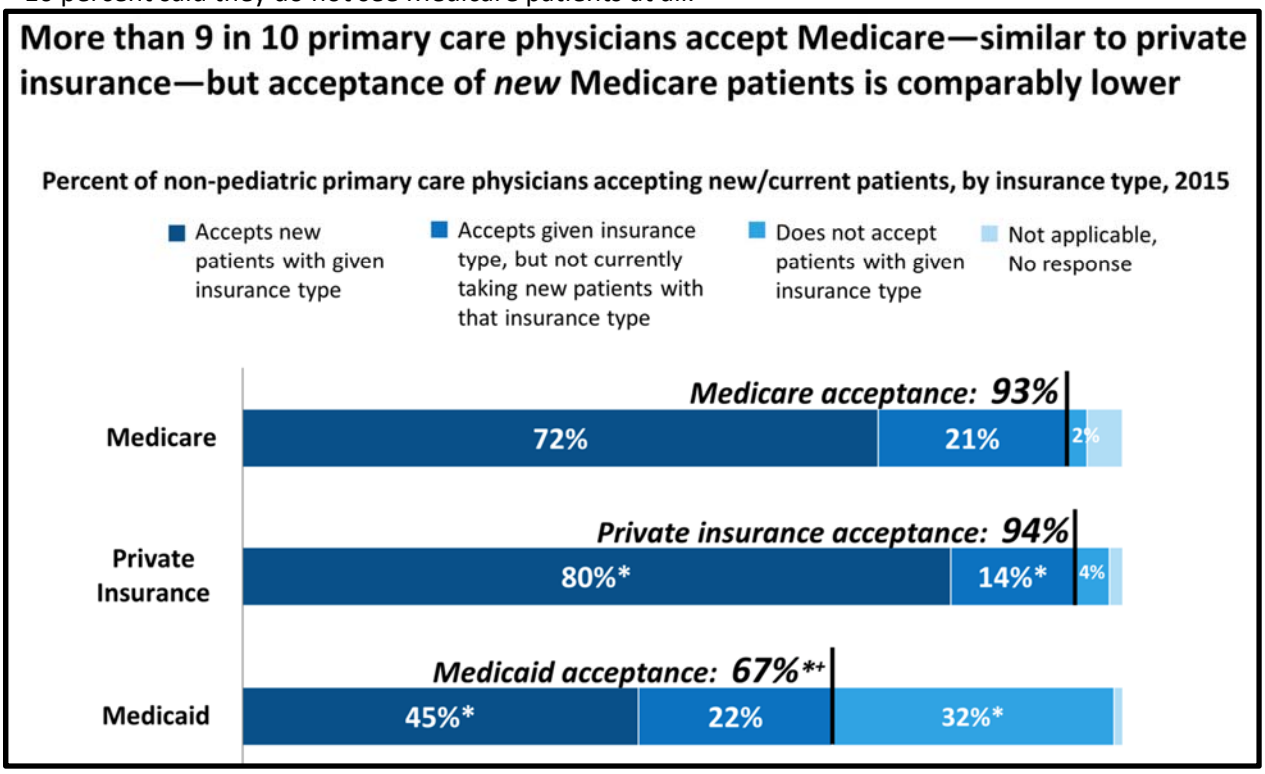
According to the Centers for Medicare and Medicaid Services (CMS) Office of the Actuary, Medicare payments are about 80 percent of private health insurance payments, while Medicaid payments are 58 percent of private insurance. However, those gaps may be significantly greater for dominant medical groups that can negotiate better rates[29].

The Jackson Healthcare's 2012 Physician Practice Trends Survey[30] recently reported that, of all U.S. physicians:

- 36 percent said they were unable to accept new Medicaid patients
- 26 percent said they do not see Medicaid patients at all.

[24] "Community Health Needs Assessment 2016 North Texas Zone 1". *Baylor Scott and White*. (2016).
[25] "TDC - Texas Population Projections Program". *The Texas Demographer Center*. (2017).
[26] "TDC - Texas Population Projections Program". *The Texas Demographer Center*. (2017).
[27] "Community Health Needs Assessment 2016 North Texas Zone 1". *Baylor Scott and White*. (2016).
[28] "Community Health Needs Assessment 2016 North Texas Zone 1". *Baylor Scott and White*. (2016).
[29] "Private Carriers' Physician Payment Rates Compared With Medicare and Medicaid*". Texas Medical Association*. (2017)
[30] "Drop in Physician Acceptance of Medicaid, Medicare Patients". *Texas Medical Association*. (2017)

• 17 percent said they were unable to accept new Medicare patients.
• 10 percent said they do not see Medicare patients at all.



Among all Texas Counties, Denton ranks 3rd in terms of health. However, 13% of residents indicated that their health is "poor or fair" in 2015. Poor or fair health, as described in secondary data, and community interviews, focus groups, and surveys, is not equally distributed among population groups. Instead, poor health is heavily concentrated within minority groups, low wage earners, and uninsured individuals[31].

According to United Way of Denton County, there are over 45,000 Denton County residents living below 200% of the Federal Poverty Level (FPL) and have a diagnosable mental illness[32]. These individuals are at an increased risk of experiencing a myriad of negative health outcomes[33].

Income and Gender Equity

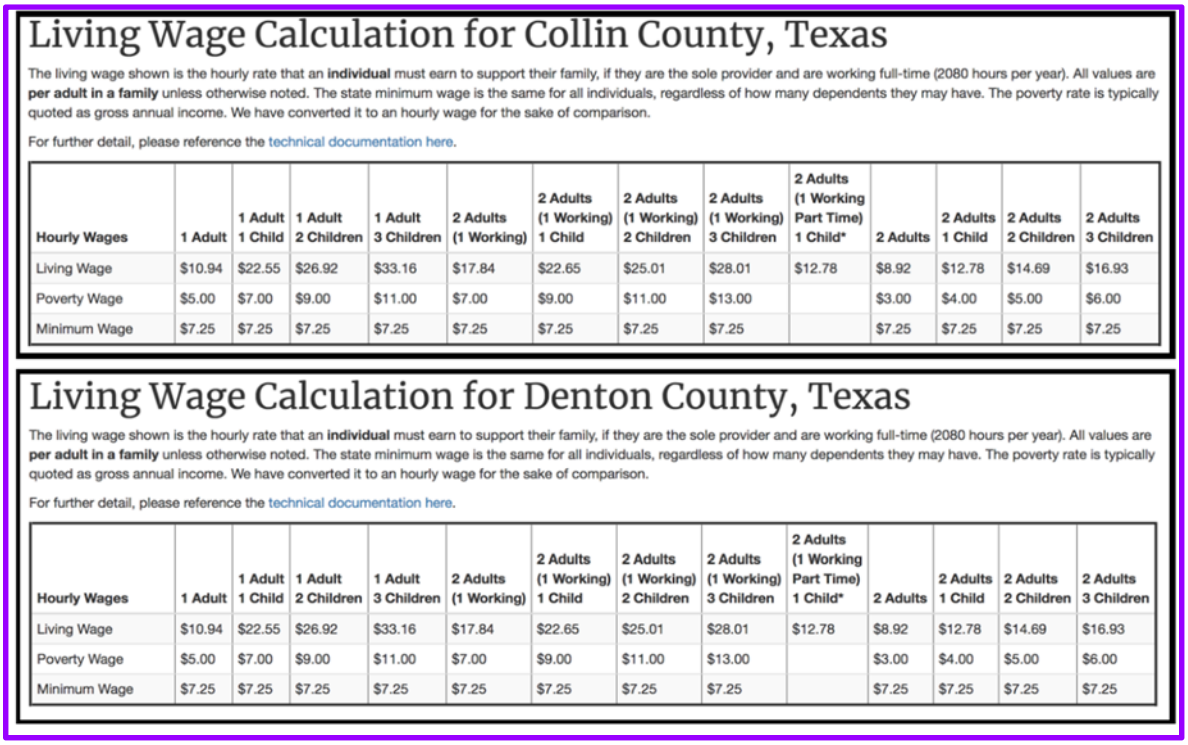
United Way of Denton County, partly from conclusions drawn from focus group discussion, views housing, especially for the Hispanic population, as a need in Denton County. Without income, only 68% of Denton County households could sustain themselves at the FPL for three months[34]. While a poverty

[31] "2017 Community Needs Assessment". *United Way of Denton County*. (2017).
[32] "2017 Community Needs Assessment". *United Way of Denton County*. (2017).
[33] "Distribution of the Total Population by Federal Poverty Level (above and below 200% FPL)". *Kaiser Family Foundation.* (2015).
[34] "2017 Community Needs Assessment". *United Way of Denton County*. (2017).

rate of less than 9% is an achievement, it also means that an estimated 72,000 individuals in Denton County are living in poverty[35].

Since 2010, the percentage of workers earning minimum wage in Texas has steadily decreased. However, in 2016 1.3% of male workers earned minimum wage and an additional estimated 1.6% earned less than minimum wage[36]. Among female workers in 2016, 2.0% earned minimum wage and an additional estimated 3.1% earned less than minimum wage[37]. County-level data is lacking; however, there is County-level information on individuals earning 50% of the FPL. In Denton County, according to the 2011 - 2015 ACS survey, 19,463 residents between the ages of 18 and 64 lived below 50% of the FPL. In Collin County, 17,824 residents ages 18 - 64 lived below 50% of the FPL.

For Collin, Denton, and Rockwall Counties, the percent of females living below the FPL was greater than that of males[38]. Denton County had the widest gap in respect to the percentage of each gender living under the FPL. The percentage of females living under the FPL in Denton County, measured over the years 2011 - 2015, was over 20% greater than the percentage of males living under the FPL in this County[39].



Living Wage Calculation for Collin County, Texas

The living wage shown is the hourly rate that an **individual** must earn to support their family, if they are the sole provider and are working full-time (2080 hours per year). All values are **per adult in a family** unless otherwise noted. The state minimum wage is the same for all individuals, regardless of how many dependents they may have. The poverty rate is typically quoted as gross annual income. We have converted it to an hourly wage for the sake of comparison.

For further detail, please reference the technical documentation here.

Hourly Wages	1 Adult	1 Adult 1 Child	1 Adult 2 Children	1 Adult 3 Children	2 Adults (1 Working)	2 Adults (1 Working) 1 Child	2 Adults (1 Working) 2 Children	2 Adults (1 Working) 3 Children	2 Adults (1 Working Part Time) 1 Child*	2 Adults	2 Adults 1 Child	2 Adults 2 Children	2 Adults 3 Children
Living Wage	$10.94	$22.55	$26.92	$33.16	$17.84	$22.65	$25.01	$28.01	$12.78	$8.92	$12.78	$14.69	$16.93
Poverty Wage	$5.00	$7.00	$9.00	$11.00	$7.00	$9.00	$11.00	$13.00		$3.00	$4.00	$5.00	$6.00
Minimum Wage	$7.25	$7.25	$7.25	$7.25	$7.25	$7.25	$7.25	$7.25		$7.25	$7.25	$7.25	$7.25

Living Wage Calculation for Denton County, Texas

The living wage shown is the hourly rate that an **individual** must earn to support their family, if they are the sole provider and are working full-time (2080 hours per year). All values are **per adult in a family** unless otherwise noted. The state minimum wage is the same for all individuals, regardless of how many dependents they may have. The poverty rate is typically quoted as gross annual income. We have converted it to an hourly wage for the sake of comparison.

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Living Wage	$10.94	$22.55	$26.92	$33.16	$17.84	$22.65	$25.01	$28.01	$12.78	$8.92	$12.78	$14.69	$16.93
Poverty Wage	$5.00	$7.00	$9.00	$11.00	$7.00	$9.00	$11.00	$13.00		$3.00	$4.00	$5.00	$6.00
Minimum Wage	$7.25	$7.25	$7.25	$7.25	$7.25	$7.25	$7.25	$7.25		$7.25	$7.25	$7.25	$7.25

"Living Wage Calculator". *Massachusetts Institute of Technology*. (N.d.).

[35] "Public Health Assessment and Wellness. Social determinants of health." *Denton County Network of Care. (2017).*

[36] "Minimum Wage Workers in Texas – 2016". *Southwest Information Office: U.S. Bureau of Labor Statistics*. (2017).

[37] "Minimum Wage Workers in Texas – 2016". *Southwest Information Office : U.S. Bureau of Labor Statistics*. (2017).

[38] "Healthy North Texas: Indicators". *DFWHC Foundation. (2017).*

[39] "Healthy North Texas: Indicators". *DFWHC Foundation. (2017).*

Health Insurance

In 2014, 90,000 adults and 18,700 children were uninsured in Denton County. With the goal set at 100% insured, Healthy People 2020 considers health insurance a prime indicator of overall health[40]. Collin and Denton Counties have been working to reduce the number of uninsured children and adults. Still, areas of both Denton and Collin Counties have high rates of uninsured people and do not meet national benchmarks or the Healthy People 2020 target value. For example, in Collin County Census Tract 320.03, 37.83 percent of population is uninsured. In Denton County, 30.92% of the population of census tract 216.19 are uninsured[41]. Individuals going without health insurance are less likely than the population at large to utilize preventative care services, disease management, and screening examinations; this increases the risk for disease(s) which could result in health emergencies[42]. Most people go without health insurance due to cost; in Texas Health Presbyterian's community survey, over 70% of respondents reported that they themselves or someone they knew avoided health care due to cost[43]. Roughly 91% of children and 83% of adults under age 65 have health insurance in Denton County[44].

Communities with enough easily accessible primary care doctors tend to be healthier due to more people receiving comprehensive care, including screenings and health education. Additionally, the residents in communities with sufficient primary care access tend to be less cost-burdened due to decreases in non-urgent emergency department use. Denton County's primary care provider rate was less than that of Collin and Dallas Counties and has mirrored the state value for much of the past decade.

In 2015, the Hispanic population overall had the highest uninsured rate, which was estimated to be between 35% and 40%[45]. This rate among the Black population residing in Texas was estimated to be slightly above 20%, for the same time period. Within all groups measured, slightly more females carried health insurance than did males, in 2015. And, between 2006 and 2015, the percentage of the population insured, for all groups measured, increased overall[46]. The population potentially at the most disadvantage in terms of obtaining or carrying health insurance are Hispanic individuals who generally earn at or below 138% of the Federal Poverty level. In 2015, less than half of all individuals earning at or below 138% of FPL, regardless of race, carried health insurance[47].

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[40] "Community Dashboard. County: Denton". *Healthy North Texas*. (2017).

[41] "American Community Survey (ACS)". *U.S. Census Bureau*. (2011 - 2015).

[42] "Key Facts about the Uninsured Population. Barriers to health care among nonelderly adults by insurance status, 2015". *Kaiser Family Foundation.* (2016).

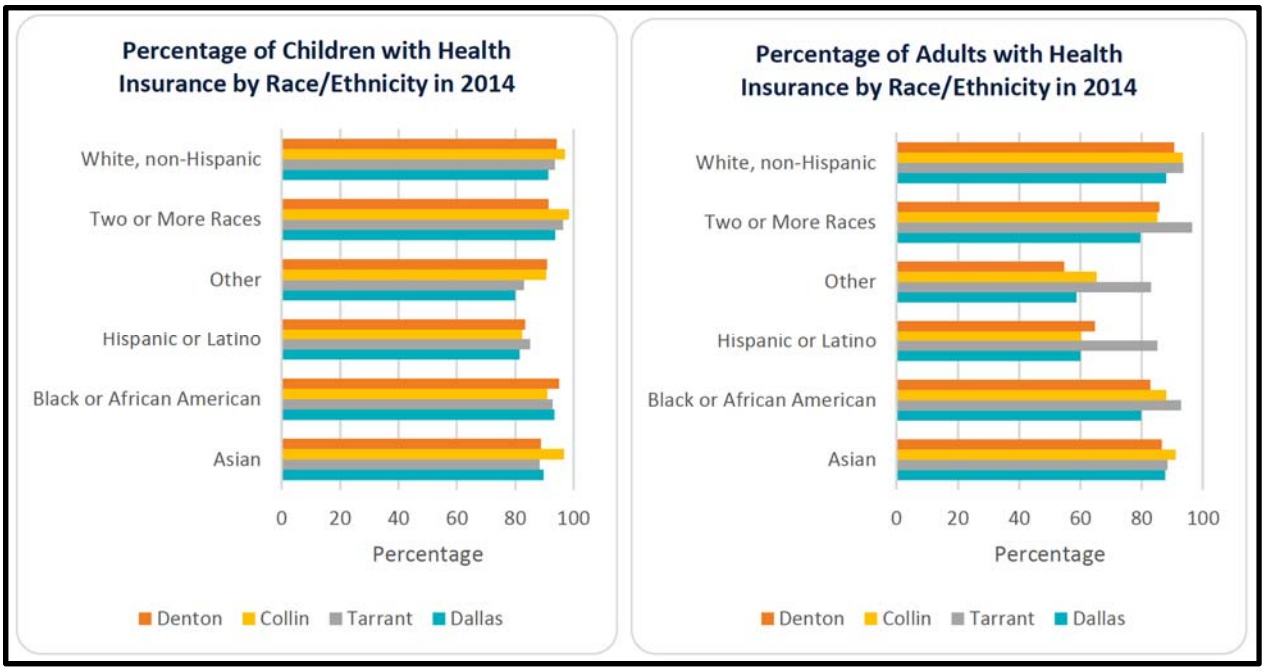
[43] "2016 Community Health Needs Assessment". *Texas Health Presbyterian Hospital Denton*. (2016).

[44] "2017 Community Needs Assessment". *United Way of Denton County*. (2017).

[45] "Small Area Health Insurance Estimates - Interactive Data and Mapping". *U.S. Census Bureau: Small Area Health Insurance Estimates Program.* (2017).

[46] "Small Area Health Insurance Estimates - Interactive Data and Mapping". *U.S. Census Bureau: Small Area Health Insurance Estimates Program.* (2017).

[47] "Small Area Health Insurance Estimates - Interactive Data and Mapping". *U.S. Census Bureau: Small Area Health Insurance Estimates Program.* (2017).



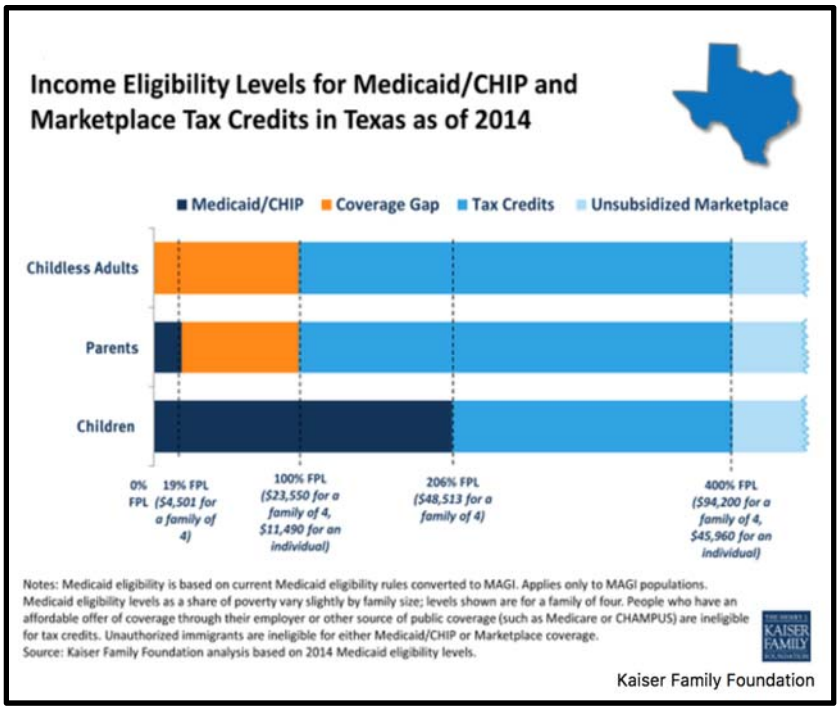
"2017 Community Needs Assessment". *United Way of Denton County*. (2017).

Within HSNT's service area, the percentage of the population that does not have health insurance decreased between the years 2010 and 2015. However, insurance rates vary widely by socioeconomic status. Only 55% - 60% of those who lived under 138% of the Federal Poverty Level in either Collin or Denton Counties in 2015 carried health insurance[48].

In Texas, those earning between 20% and 100% of the Federal Poverty Level are in what is referred to as "the coverage gap" [49]. These individuals are ineligible for Health Insurance Marketplace subsidies because they make less than the Federal Poverty Level, and they do not qualify for Medicaid coverage as an adult because they live at or above 20% of the Federal Poverty Level. Without the subsidy, the annual premium for mid-level family coverage came to around $5,000 in 2014[50].

Thanks to organizations such as HSNT, those in the coverage gap have increasing access to primary care services. However, when it comes to surgery, cancer treatments, and other treatments, individuals in the coverage gap have very limited resources.

[48] "Small Area Health Insurance Estimates - Interactive Data and Mapping". *U.S. Census Bureau: Small Area Health Insurance Estimates Program.* (2017).
[49] Khazan, O. "Living Poor and Uninsured in a Red State". *The Atlantic*. (2014).
[50] Khazan, O. "Living Poor and Uninsured in a Red State". *The Atlantic*. (2014).



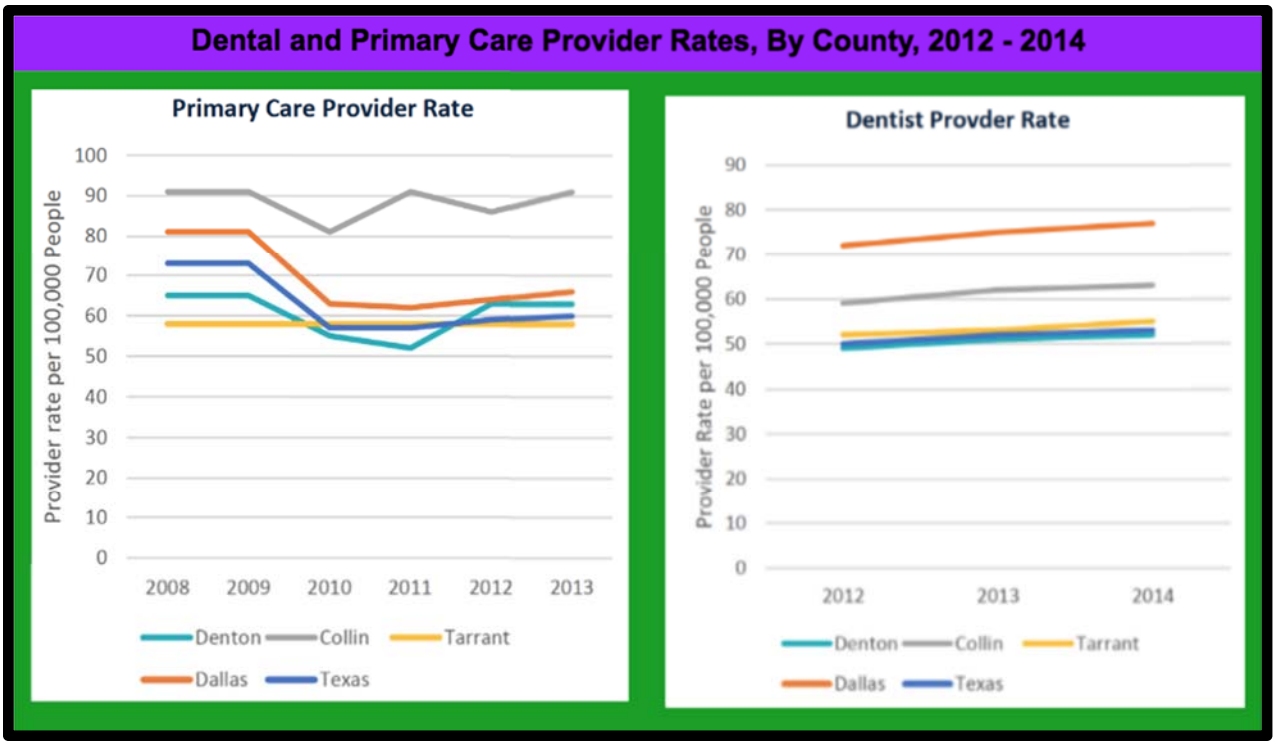
Khazan, O. "Living Poor and Uninsured in a Red State". *The Atlantic*. (2014).

Primary Health Care

Provider Shortage

It has been estimated that, nationally, 19% of primary care physicians are not taking any new patients[51]. Texas is ranked 42nd among the 50 states in its ratio of primary care physicians relative to the population. The number of medical students choosing to study family practice has declined during the past decades due to the increased workload and reduced financial incentive experienced by the majority of primary care physicians. The fact that many primary care physicians have reached their limit in terms of the number of patients that they can, or want to, take on, coupled with the fact that many of these physicians are nearing their expected retirement age, compounds the issue[52]. Students electing to become family practice physicians has fallen considerably due, in part, to a decrease in real pay for family practice compared to medical specialties. Many medical students are choosing specializations which allow more regular working hours and better pay. Compounding the issue is the fact that many family physicians are nearing retirement age. The region already has a medical school, a dental school and nursing programs as well as several universities. The region needs to train and attract quality health care workers to ensure the continued vitality of the region.

[51] "Primary Care Physicians Accepting Medicare: A Snapshot". (2015). *The Henry J. Kaiser Family Foundation*.
[52] "Understanding Our Options For Growth". *Vision North Texas*. (2017)



Dental Health Provider Shortage

Oral health is essential, and is directly related to overall health. Approximately one third of U.S. residents have limited or no access to dental care[53]. Ethnic minorities, elderly individuals, low income wage-earners, and individuals with pre-existing chronic diseases, have both the most need for and most limited access to dental care[54]. This issue is compounded among those with limited knowledge of the importance of dental care, among those who choose not to prioritize dental care in times of need, and among those who have lost their dental insurance post-retirement[55]. In Denton County in 2014, there were 52 dentists per 100,000 residents. This rate is lower than that of Collin and Dallas Counties[56].

Mental Health

During focus groups hosted by United Way of Denton County, Denton County Public Health, and Texas Health Presbyterian, mental health was a frequently referenced community need. Specifically, 57% of United Way's focus group participants stated that mental health was a need; mental health was mentioned 26 times during Texas Health Presbyterian focus groups, and 57% of Denton County Public Health focus group participants viewed mental health as a health need[57]. According to Mental Health

[53] "Oral Health in America: A Report of the Surgeon General". *U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health*. (2000).
[54] "Oral Health in America: A Report of the Surgeon General". *U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health*. (2000).
[55] "Oral Health in America: A Report of the Surgeon General". *U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health*. (2000).
[56] "Denton". *Robert Wood Johnson Foundation: County Health Rankings & Roadmaps*. (2017).
[57] "2017 Community Needs Assessment". *United Way of Denton County*. (2017).

America, nearly 60% of Texans with a diagnosable mental illness did not receive mental health-related care in 2017[58]. The proportion of individuals with a mental health condition who are receiving care is significantly smaller than the proportion of individuals with a mental health condition who are not receiving care. Over 50% of Denton County's homeless population has a mental illness, according to Denton County Homeless Coalition[59]. Mortality directly-related to mental disorders and substance abuse increased 266% among females and 240% among males in Collin County between 1980 and 2014[60]. Within Denton County, these mortality rates increased 273% among females and 308% among males between 1980 and 2014[61].

House Select Committee on Mental Health Findings[62]

Population groups in Texas showing increased need for mental health services include:

- Individuals with Intellectual and / or Developmental Disabilities
- Individuals involved within the criminal justice system
- School-age children
- Veteran, military populations, and their families
- Children and adolescents in foster care
- Individuals experiencing or at risk for homelessness
- Individuals with one or more physical illnesses
- Individuals with limited English proficiency
- Aging populations

Notable trends and statistics include:

- One in five adults experiences a mental health condition every year.
- One in seventeen lives with a serious mental illness, such as schizophrenia or bipolar disorder.
- Half of mental health conditions begin before age fourteen; 75% of mental health conditions develop by age twenty-four.
- Just over 500,000 adults in Texas live with a serious and persistent mental illness.
- Nearly 250,000 children have a serious emotional disturbance (an estimate half of these children live below 200% of the FPL).
- Adults with untreated mental health conditions are eight times more likely to be incarcerated than the general population, and are more likely to have comorbid conditions.

Transportation

[58] "Mental Health America Access to Care". *Mental Health America*. (2017).
[59] "Denton County Homeless Coalition 2017 Point-In-Time Survey Results". *Denton County Homeless Coalition*. (2017).
[60] "County Profile: Denton County , Texas". *Institute for Health Metrics and Evaluation.* (2014).
[61] "County Profile: Denton County , Texas". *Institute for Health Metrics and Evaluation.* (2014).
[62] "House Select Committee on Mental Health: Interim Report". *House Select Committee on Mental Health*. (2016).

While low-cost public transportation options remove barriers to healthcare for some; Denton County's public transportation system is inadequate, especially for the indigent and elderly[63]. Ranked by some as the community's top need and as a social determinant of health by 29% of Texas Health Denton survey respondents, Denton County can make improvements by finding ways to lower costs associated with using Denton County's public transportation services[64]. The Point-in-Time Homelessness Survey results show that an estimated 19% of the homeless community believe public transportation is a need[65]. Additionally, public transportation inadequacies may be a barrier to employment for many without transportation alternatives as well as those experiencing intermittent access to transportation.

While 1.6% of Texans commute to and from work by public transportation, this percentage is even less among Denton County residents, at a mere 1%. Additionally, over 45% of those who drive alone to work (the most frequently referenced commute type) have to drive at least 30 minutes to reach their workplace. This means that each of these individuals who work a normal work week outside of their home spend at least 130 hours, alone, in their vehicle, each year[66, 67]. A higher proportion of Denton and Collin County residents have a long commute, alone, to work than this proportion within the state at large[68]

Behavioral Indicators of Health

Physical Activity and Obesity

Residents of Denton and Collin Counties who have a Body Mass Index (BMI) of 25 and over, are at increased risk of acquiring chronic diseases such as type II diabetes, hypertension, and even cancer[69]. Approximately 16% of Denton County residents are obese (having a BMI over 30); Denton County did not meet the state benchmark value for this measure[70]. Over 50% of Texas Health Presbyterian survey respondents prioritized being overweight or obese as a community health need[71]. The health indicator report generated for Denton County via the County Health Rankings website stated that 95% of Denton County residents lived "reasonably close" to physical-activity-promoting locations, including parks[72]. In both Collin and Denton Counties, 19.5% of persons over 20 year's old report having no leisure time physical activity[73].

63 "2017 Community Needs Assessment". *United Way of Denton County*. (2017).

64 "2016 Community Health Needs Assessment". *Texas Health Presbyterian Hospital Denton*. (2016).

65 "Denton County Homeless Coalition 2017 Point-In-Time Survey Results". *Denton County Homeless Coalition*. (2017).

66 "2017 Community Needs Assessment". *United Way of Denton County*. (2017).

67 "Public Health Assessment and Wellness. Population." *Denton County Network of Care*. (2017).

68 "Denton". *Robert Wood Johnson Foundation: County Health Rankings & Roadmaps*. (2017).

69 Pi-Sunyer, Xavier. "The Medical Risks of Obesity." *Postgraduate medicine.* 121.6 (2009): 21–33. *PMC.*

70 "Community Dashboard. County: Denton". *Healthy North Texas*. (2017).

71 "2016 Community Health Needs Assessment". *Texas Health Presbyterian Hospital Denton*. (2016).

72 "Denton". *Robert Wood Johnson Foundation: County Health Rankings & Roadmaps*. (2017).

73 "Denton". *Robert Wood Johnson Foundation: County Health Rankings & Roadmaps*. (2017).

Texas ranks 46th of the 50 states in its adult diabetes incident rate. While North Texas may score better than the state as a whole on this measure, it is still of concern, partly due to the high cost associated with diabetic emergencies. If trends continue, there will be greater health care challenges and a lower quality of life for residents. Curbing chronic disease such as diabetes involve community development plans that focus on providing a health-promoting community for residents[74]. A health-promoting community is one that is safe, provides for access to healthcare, is walkable, is clean, and contains easily accessible healthy food options such as fruits and vegetables.

Food Choices and Nutrition

Access to fast food has increased in Denton County over the past decade. Also in Denton County, fast food outlet density is sixty-five times greater than farmer's market density[75]. Some areas of Denton County have low access to healthy food options; also, in some of these same areas, a relatively high percentage of households rely heavily on public transit as they do not have a car[76]. While healthy dietary habits are increasing overall, those already experiencing health disparity due to social determinants of health are at increased risk of eating a diet high in sugar and low in nutritional value when compared to the population-at-large[77, 78].

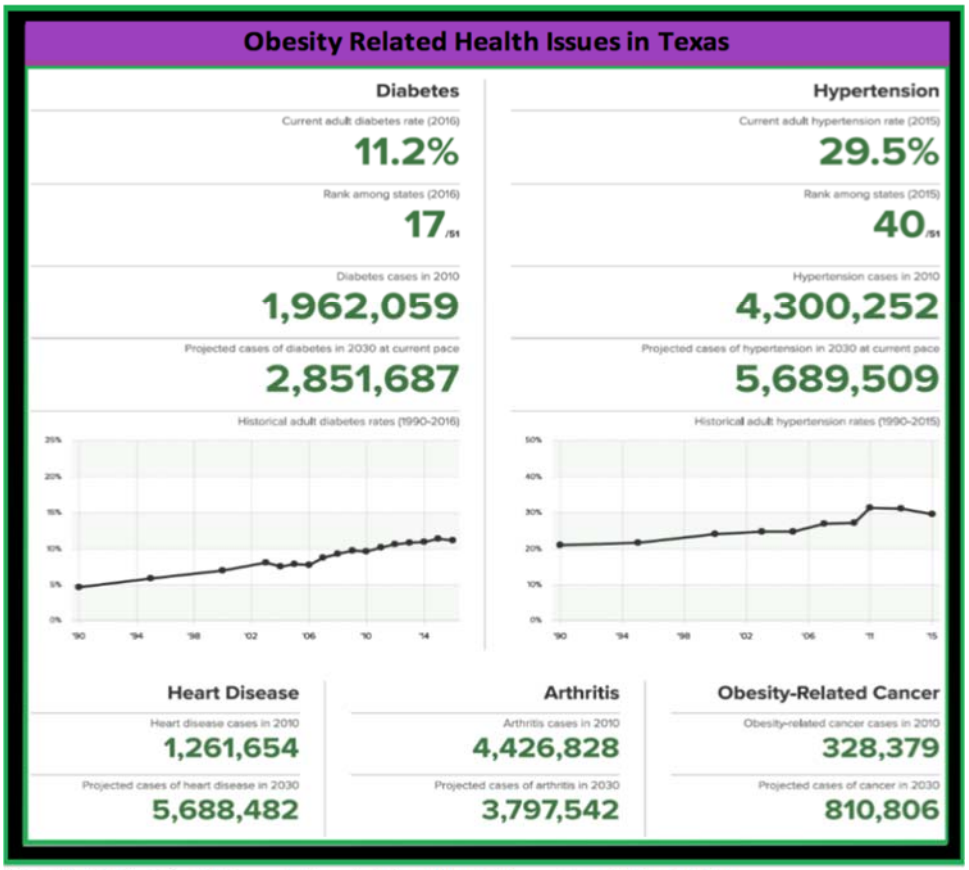
[74] "Understanding Our Options For Growth". *Vision North Texas*. (2017)

[75] "Denton". *Robert Wood Johnson Foundation: County Health Rankings & Roadmaps*. (2017).

[76] "American Community Survey (ACS)". *U.S. Census Bureau.* (2017).

[77] "Food Access Atlas". *United States Department of Agriculture*. (2017).

[78] "2020 Topics & Objectives: Nutrition and Weight Status". National Health and Nutrition Examination Survey. (2015).



"Obesity-Related Health Issues in Texas". *Robert Wood Johnson Foundation*. (2015).

Individuals earning below 200% FPL are more likely than those earning above this threshold to have a diet high in processed sugars[79]. Access to affordable fruit and vegetable options is an important health determinant[80]. The United States Department of Agriculture recommends that individuals over 14 consume an average of 2,000 calories per day in their diet, including at least 2 cups of fruit and 2.5 cups of vegetables[81]. In Denton County, the percentage of adults eating less than 5 servings of fruits and vegetables per day has declined over the past two decades; however, over 50% of the adult population still does not eat these recommended servings[82]. Results from Texas Health Presbyterian online community survey show that 50% of respondents felt that nutrition was a social determinant of health[83]. Denton and Collin Counties are ranked better than the state on nutrition-related indicators; however, nutrition disparity remains. According to the report generated by County Health Indicators, a website operated by the Robert Wood Johnson Foundation, 16% of the Denton County population is food insecure[84]. The term food insecurity infers that people do not have access to a variety of nutritious and

79 "Health Resources & Services Administration Data Warehouse". *U.S. Department of Health and Human Services.* (2016).

80 "2020 Topics & Objectives: Nutrition and Weight Status". *National Health and Nutrition Examination Survey*. (2015).

81 "MyPlate Daily Checklist". *U.S. Department of Agriculture*. (2015).

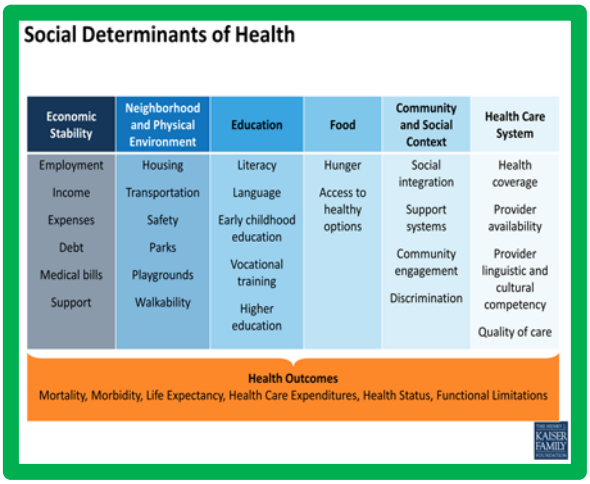
82 "Denton". *Robert Wood Johnson Foundation: County Health Rankings & Roadmaps*. (2017).

83 "2016 Community Health Needs Assessment". *Texas Health Presbyterian Hospital Denton*. (2016).

84 "Facebook – Denton Hunger Coalition". *Denton Hunger Coalition*. (2017).

quality foods. Food insecurity is caused by factors including poverty and proximity, and infers that access to a variety of nutritious and quality foods is limited[85].

Social Determinants of Health



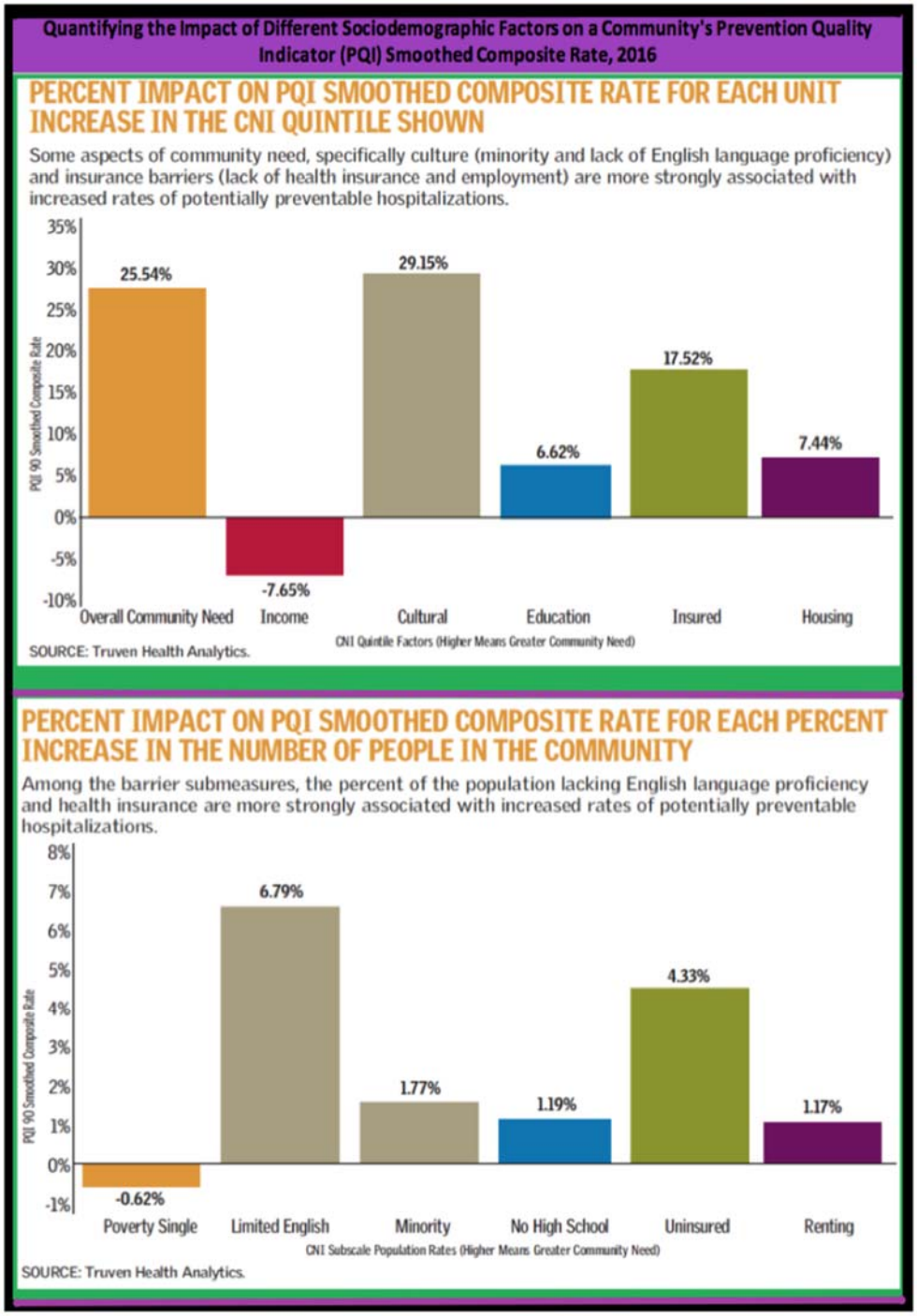
The term "social determinants of health" refers to "the structural determinants and conditions in which people are born, grow, live, work and age, including factors such as: socioeconomic status, education, the physical environment, employment, and social support networks, and access to health care"[86]. Results from numerous studies supports the theory that social determinants of health account for over 33% of deaths in the U.S.[87]. annually. Income is a significant social determinant of health; premature death has an inverse relationship with poverty. Similarly, lower educational attainment, specifically, not finishing high school, is a significant predictor of both income and negative health behaviors such as smoking. Social determinants affecting parents often "spill over" to the children and thereby affect entire families. Poor members of racial and ethnic minority communities are more likely to live in neighborhoods with concentrated poverty than individuals who are poor and white. A growing body of evidence supports the idea that stress negatively impacts health in a variety of ways; many social determinants of health are known causes of stress[88]. Addressing social determinants of health within HSNT's service area is essential for public health**.** The history of health disparities disproportionately affecting vulnerable groups, including minorities and low-income wage-earners, is well established in the United States[89]. Health disparities are rooted in the social, economic, and environmental context in which people live. Fourteen-percent of Texas Health Presbyterian community health survey respondents believed that the environment is an important social determinant of health[90].

Refugee-status is also an important health determinant. In his research article published in the Journal of the American Board of Family Practice in 1997, Ackerman stated that rates of tuberculosis, nutritional deficiency, intestinal parasites, chronic hepatitis B infection, and depression are much higher within

85 "USDA ERS - Definitions of Food Security". *U.S. Department of Agriculture*. (2017).
86 "Beyond Health Care: The Role of Social Determinants in Promoting Health and Health Equity". *The Henry J. Kaiser Family Foundation*. (2015).
87 "Beyond Health Care: The Role of Social Determinants in Promoting Health and Health Equity". *The Henry J. Kaiser Family Foundation*. (2015).
88 "Beyond Health Care: The Role of Social Determinants in Promoting Health and Health Equity". *The Henry J. Kaiser Family Foundation*. (2015).
89 "Beyond Health Care: The Role of Social Determinants in Promoting Health and Health Equity". *The Henry J. Kaiser Family Foundation*. (2015).
90 "2016 Community Health Needs Assessment". *Texas Health Presbyterian Hospital Denton*. (2016).

refugee populations than within the overall U.S. population[91]. The city of Lewisville, located within Denton County, produced an assessment of fair housing within the city; included in this report were several references to a growing population of Chin refugees currently residing in Lewisville[92]. This population faces specific challenges due to difficulty integrating into society due to language barriers; this barrier, along with the lower-than-average educational attainment within the Chin refugee population, hinder access to healthcare from both a cost and a healthcare system navigation prospective[93]. The fair housing assessment prioritized healthcare access for the Chin population, stating that currently, there are not enough services for this community to meet its needs[94]. While the City of Lewisville is strong economically, apartment rental rates are high and many Chin households are cost-burdened even after working multiple jobs[95]. Currently, there is not an FQHC located within the City of Lewisville; additionally, travel to HSNT's sites in Denton County is difficult for refugees who lack transportation. With Lake Lewisville being a known psychological barrier to travel between Lewisville and the city of Denton, there is a need to develop healthcare infrastructure in Lewisville that is both affordable and culturally-appropriate.

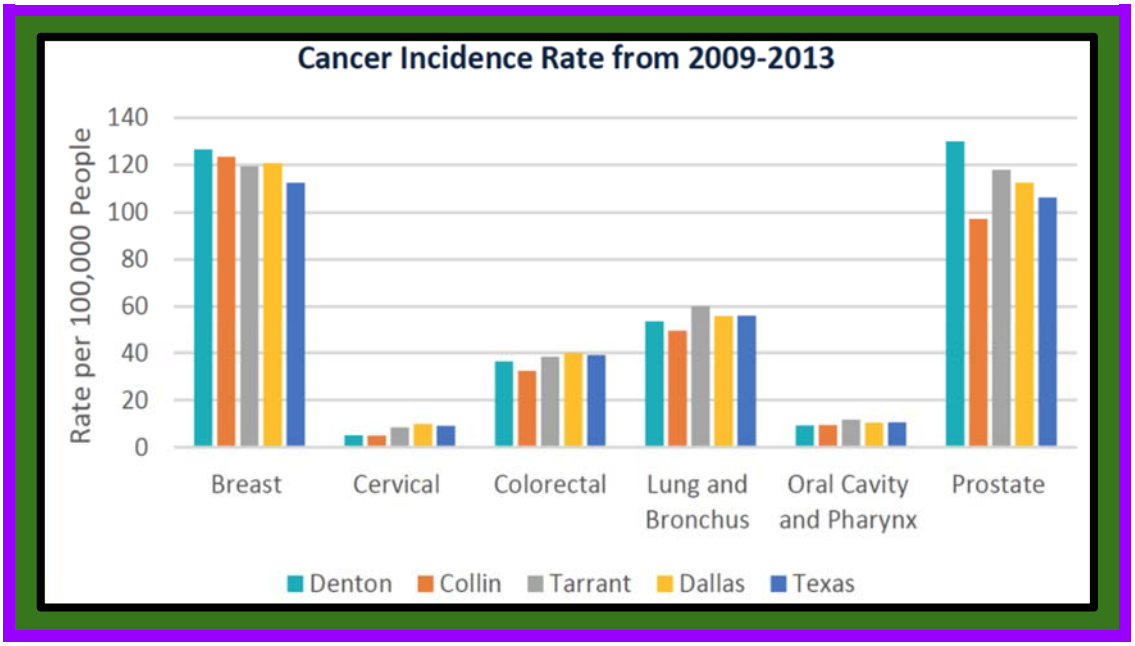
[91] Ackerman, Lani Kay. "Health Problems of Refugees." *Journal of the American Board of Family Practice* 10.5: 337–348. (1997).
[92] "2017 City of Lewisville Assessment of Fair Housing". *The City of Lewisville.* (2017).
[93] "2017 City of Lewisville Assessment of Fair Housing". *The City of Lewisville.* (2017).
[94] "2017 City of Lewisville Assessment of Fair Housing". *The City of Lewisville.* (2017).
[95] "2017 City of Lewisville Assessment of Fair Housing". *The City of Lewisville.* (2017).



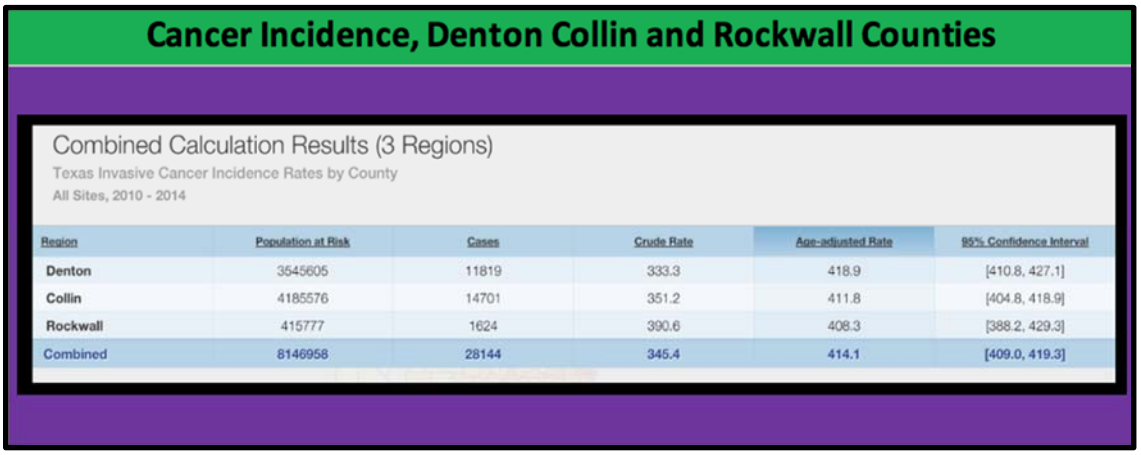
"Community Need and Preventable Hospitalizations". *Truven Health Analytics*. (2016).

Cancer

In the U.S., cancer is one of the leading causes of death; at times, it is the leading cause of death. While HIV incidence is highest within the Black population in Denton and Collin Counties, incidence of most cancers is greatest within the white population[96].



Cancer rates in much of North Texas are above those of Texas overall[97]. Within North Texas, cancer rates within Denton and Collin Counties were expected to increase 24% and 22% between 2015 and 2020, respectively. This rate in Dallas County was expected to increase 14%[98].



Region	Population at Risk	Cases	Crude Rate	Age-adjusted Rate	95% Confidence Interval
Denton	3545605	11819	333.3	418.9	[410.8, 427.1]
Collin	4185576	14701	351.2	411.8	[404.8, 418.9]
Rockwall	415777	1624	390.6	408.3	[388.2, 429.3]
Combined	8146958	28144	345.4	414.1	[409.0, 419.3]

"Age-Adjusted Invasive Cancer Incidence Rates by County in Texas, 2010 - 2014". *Texas Cancer Registry*. (2017)

Opioid Prescription Rate

96 "Community Dashboard. County: Denton". *Healthy North Texas*. (2017).

97 "Community Health Needs Assessment 2016 North Texas Zone 1". *Baylor Scott & White.* (2016).

98 "Community Health Needs Assessment 2016 North Texas Zone 1". *Baylor Scott & White.* (2016).

Among Medicare part D beneficiaries in 2014, the national opioid rate was 5.74%. In Texas, 5.97% of part D beneficiaries were prescribed opioids in 2014[99]. Opioid-related data is often not included in reports for regions not known to have an large problem with opioid misuse. However, searching directly for opioid prescribing data reveals that in 2014 over 25% of Medicare part D beneficiaries living in zip codes 75407 (Collin County) and 76226 (Denton County) were prescribed opioids[100]. This rate is over 4 times greater than both the state and national averages.

Infant Mortality

The infant mortality rate, which is based off of the number of infants who die before reaching their first birthday. Denton County's infant mortality rate in 2013, at 4.6 per 1000 infants, fell below and therefore met the Healthy People 2020 target value of 6 infant deaths for every 1000 live births[101]. However, in 2013 the rate of infant mortality among Black mothers in Denton County in 2013 was 7.9, which does not meet the Healthy People 2020 target[102, 103]. Considering the infant mortality rate as a proxy indicator for the overall health of a community, Denton County as a whole is performing well health-wise. However, health disparity remains in Denton County, especially within the Black population[104].

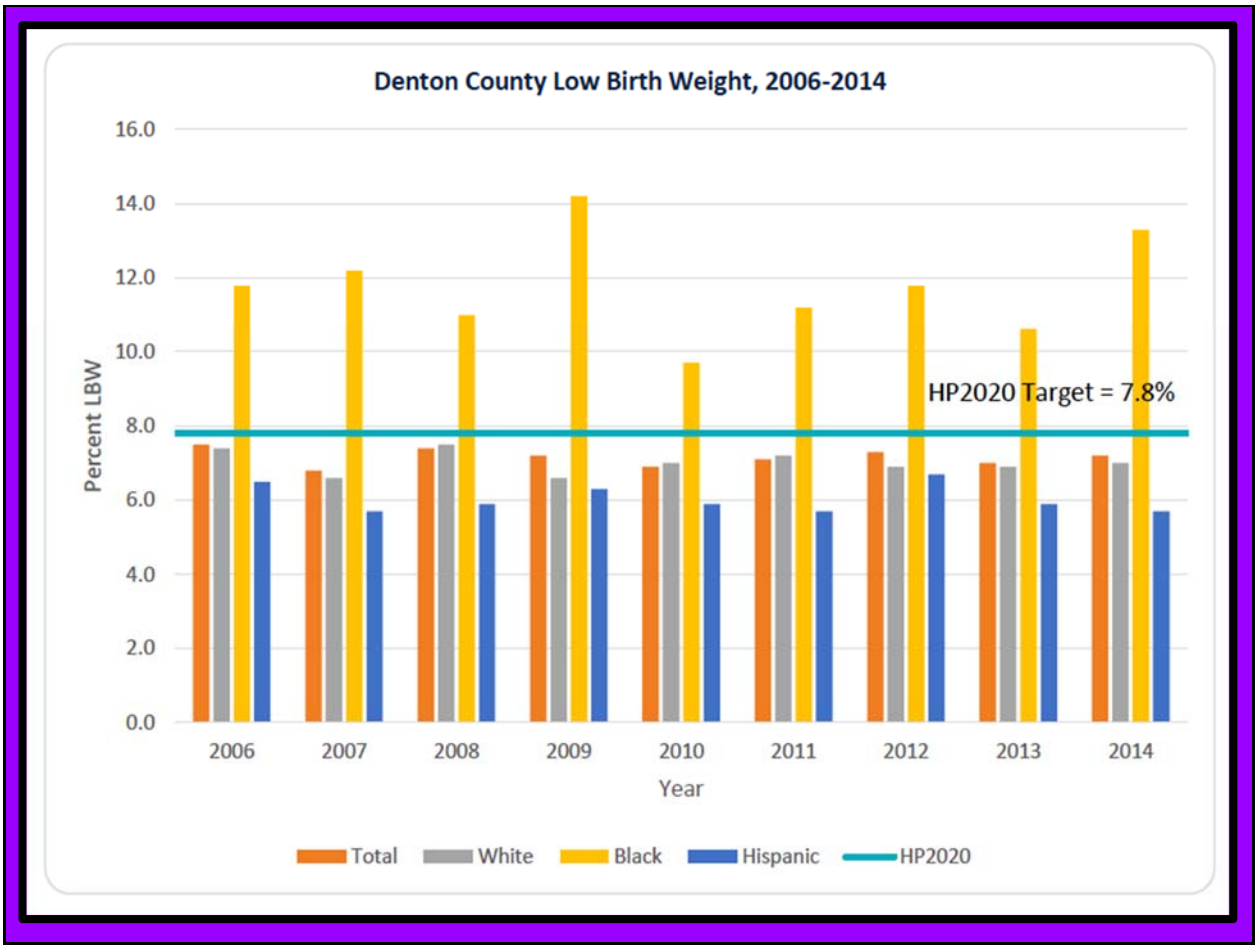
Teen Pregnancy

Women under twenty years of age are less likely to access early prenatal care than pregnant women who are over 20 years of age[105]. At slightly over 18 births per 1,000 women under 20 years of age, the teen pregnancy rate in Denton County is less than the state average, according to the March of Dimes[106].

Low Birth Weight

Infants born weighing under 2500 grams are at higher risks for morbidity as well as premature mortality[107]. A trajectory towards health and wellbeing is important for the long-term health of an infant. While low birthweight is not a determining factor 100% of the time, and while low birthweight can occur for numerous reasons not all of which are understood, ensuring that mothers are healthy and receive adequate and timely prenatal care increases the chance of infants born with a healthy weight[108, 109].

[99] "Medicare Part D Opioid Prescribing Mapping Tool". Centers for Medicaid and Medicare Services. (2017).
[100] "Medicare Part D Opioid Prescribing Mapping Tool". Centers for Medicaid and Medicare Services. (2017).
[101] "Birth/Infant Death Records, Denton County". *Centers for Disease Control and Prevention: CDC Wonder*. (2016).
[102] "Birth/Infant Death Records, Denton County". *Centers for Disease Control and Prevention: CDC Wonder*. (2016).
[103] "Maternal, Infant, and Child Health". *Healthy People 2020.* (2017).
[104] "2017 Community Needs Assessment". *United Way of Denton County*. (2017).
[105] "Barriers to Prenatal Care". *Child Health USA*. (2013)
[106] "Prenatal Care". *March of Dimes*. (2017)
[107] "2020 Topics & Objectives: Maternal, Infant and Child Health". *Healthy People 2020*. (2017).
[108] "2020 Topics & Objectives: Maternal, Infant and Child Health". *Healthy People 2020*. (2017).
[109] "Vital Statistics Annual Reports". *Texas Department of State Health Services.* (2015).

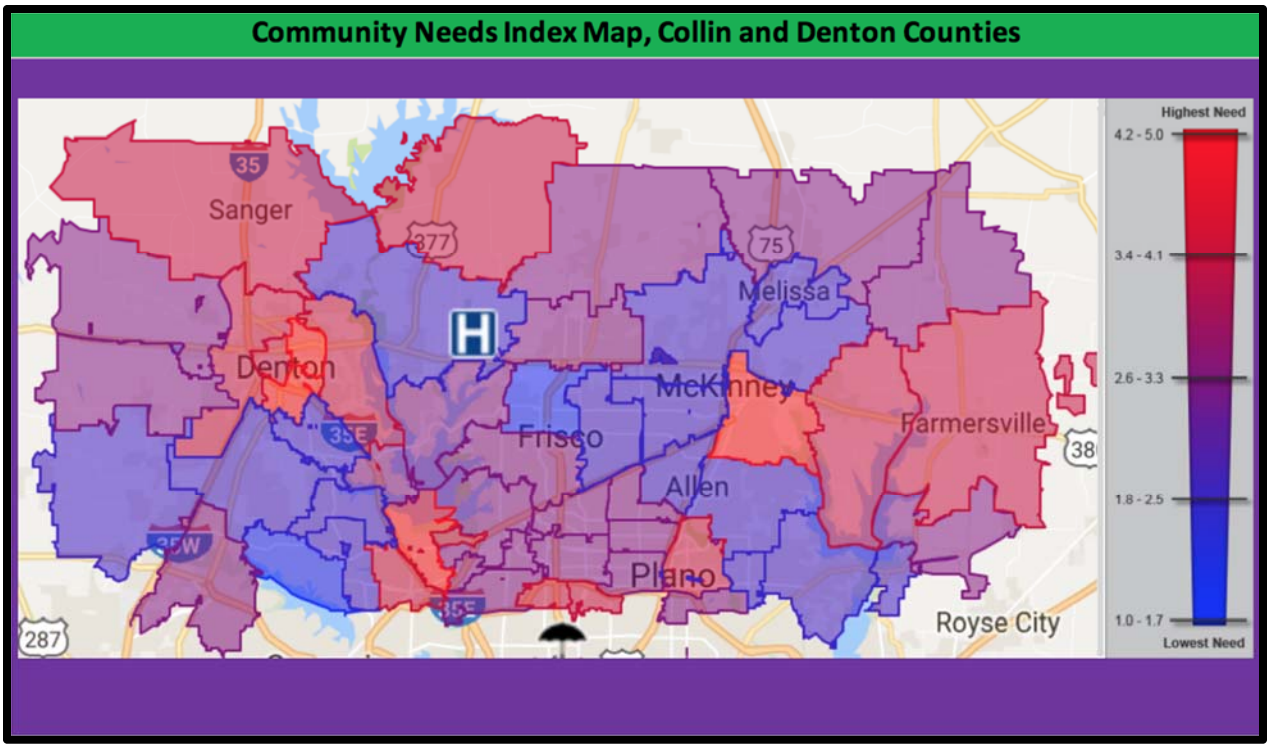


Denton County as a whole meets the 2020 target value for low birthweight births of 7.8%; however, disparity exists. Considering only infants born to Black mothers, the percentage of low birthweight births are much higher than the that within the general population[110]. In fact, in Denton County, the Black population is the only race that does not meet the Healthy People 2020 target of 7.8%[111]. The graph above does not include information regarding babies born above healthy weight limits.

Community Needs Index

Developed by Truven Health Analytics, the Community Needs Index (CNI) scores every populated zip-code in the nation. Scores are based on the community's income, cultural acceptance, education, insurance, and housing, all of which are important socio-economic indicators of a given community's health[112]. Areas with a comparatively high CNI scores potentially have greater needs overall and a high demand for health-related services[113].

[110] "Community Dashboard. County: Denton". *Healthy North Texas*. (2017).
[111] "Community Dashboard. County: Denton". *Healthy North Texas*. (2017).
[112] "Community Health Needs Assessment 2016 North Texas Zone 1". *Baylor Scott & White.* (2016).
[113] "Community Health Needs Assessment 2016 North Texas Zone 1". *Baylor Scott & White.* (2016).



"Community Needs Index". *Truven Health*. (2017).

Human Immunodeficiency Virus (HIV)

HIV, a disease of disparity, impacts the population disproportionately. In the Dallas Eligible Metropolitan Area (EMA), which includes Collin and Denton Counties, the Black population represented just 16% of the total population in 2015; however, 41.3% of those living with HIV in the Dallas EMA during this period were Black, 31.6% were white, and 29% were Hispanics[114].

The median age of a Person Living With HIV (PLWH) in both the Dallas EMA and Sherman-Denison EMA is increasing. While new infections continue among all age groups, the increase in prevalence within the older population is at least partially due to the continued effect of improved treatment therapies[115, 116]. From 2011 to 2015, in the Dallas EMA, the share of PLWH that were age 55+ increased by 5.5%. During the same time period, the share of PLWH in the 35-44 and 45-54 age groups fell 4.4 and 2.1 percentage points, respectively[117]. Between 2011 and 2015, the number of people living with HIV over 55 years of age increased by 63.9% in the Dallas EMA[118].

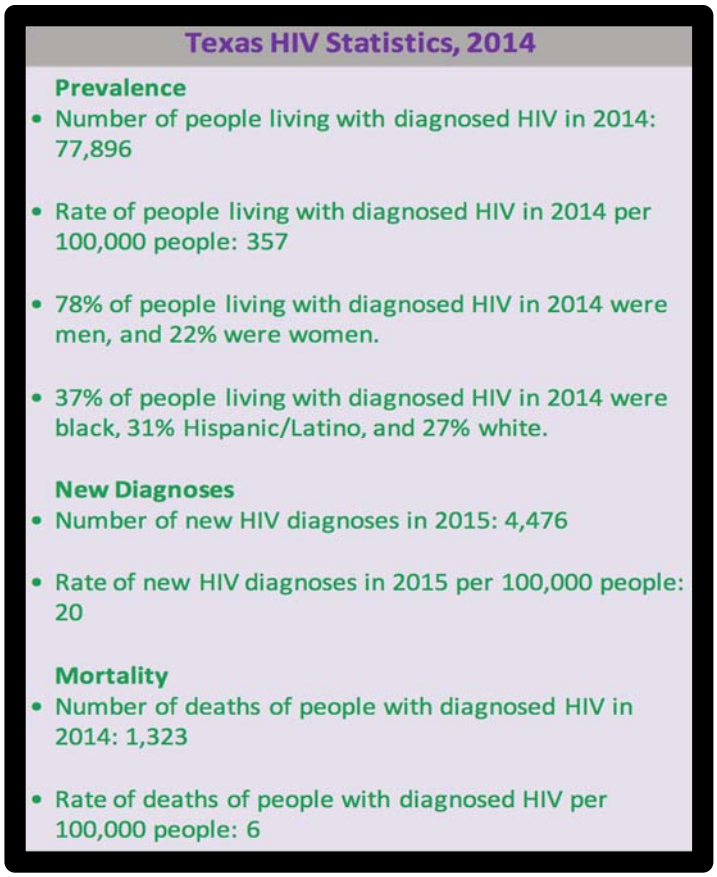
[114] "Ryan White Planning Council of the Dallas Area 2016 Comprehensive HIV/AIDS Needs Assessment" *Ryan White HIV/AIDS Program.* 2016

[115] "Ryan White Planning Council of the Dallas Area 2016 Comprehensive HIV/AIDS Needs Assessment" *Ryan White HIV/AIDS Program.* (2016).

[116] "Dallas Eligible Metropolitan Area Integrated HIV Prevention and Care Plan CY 2017 - 2021". *Dallas County*. (2017).

[117] "Ryan White Planning Council of the Dallas Area 2016 Comprehensive HIV/AIDS Needs Assessment" *Ryan White HIV/AIDS Program.* (2016).

[118] "Ryan White Planning Council of the Dallas Area 2016 Comprehensive HIV/AIDS Needs Assessment" *Ryan White HIV/AIDS Program.* (2016).



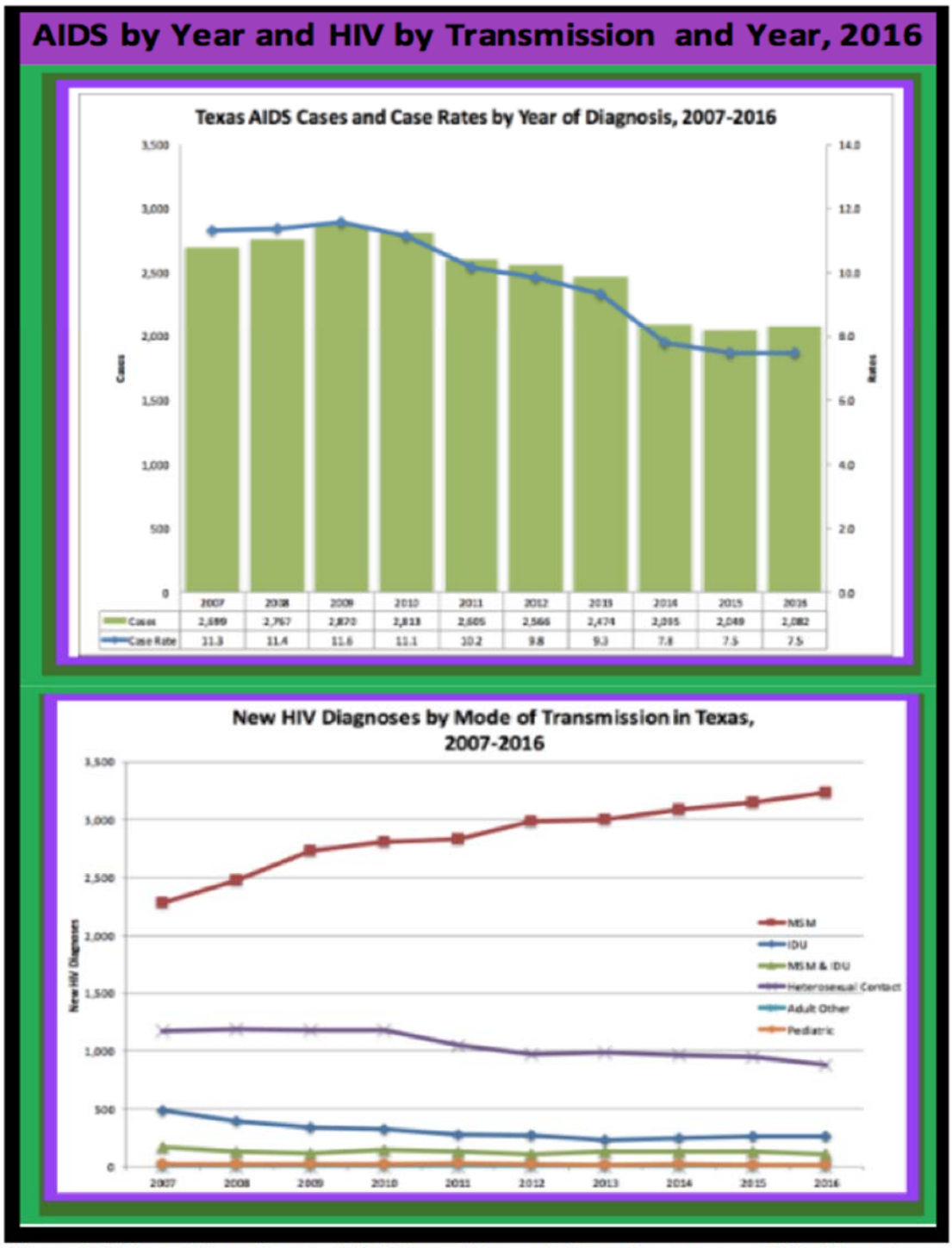
Historically, men identifying as homosexual have been at higher risk for contracting HIV and other STDs, including Gonorrhea, and Syphilis, compared to the general population[119]. Males, especially those who have unprotected sexual contact with other males, remain the largest group at high risk of acquiring HIV[120]. Homosexual males are also more likely to be diagnosed with a mental illness, to abuse substances (including alcohol, medication, and illicit drugs), to experience domestic violence, and to be homeless, compared to their heterosexual counterparts[121]. Within the HSNT service area in 2014, a greater percentage of male HIV cases were attributed to unprotected sex with other males than were male HIV cases not attributed to unprotected sex with other males[122]. Given the fact that the Lesbian/Gay/Bisexual/Transgender (LGBT) community is subjected to a myriad of social and physical threats, it is important to continue reaching out and offering support to this vulnerable community.

[119] Campagna, Jesse et al. "Estimating the Number of Men Who Have Sex with Men by Race/Ethnicity at the County Level in Texas." *Journal of Urban Health : Bulletin of the New York Academy of Medicine* 92.1 (2015): 168–181. *PMC*.

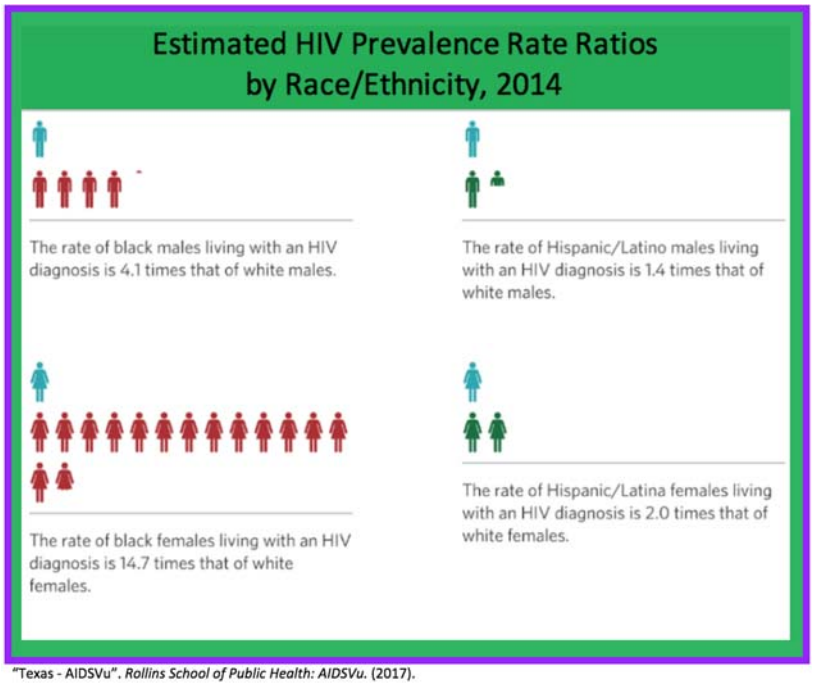
[120] Campagna, Jesse et al. "Estimating the Number of Men Who Have Sex with Men by Race/Ethnicity at the County Level in Texas." *Journal of Urban Health : Bulletin of the New York Academy of Medicine* 92.1 (2015): 168–181. *PMC*.

[121] Campagna, Jesse et al. "Estimating the Number of Men Who Have Sex with Men by Race/Ethnicity at the County Level in Texas." *Journal of Urban Health : Bulletin of the New York Academy of Medicine* 92.1 (2015): 168–181. *PMC*.

[122] "Texas - AIDSVu". *Rollins School of Public Health: AIDSVu.* (2017).



"Texas HIV Surveillance Report: 2016 Annual Report". *Texas Department of Health and Human Services: Texas Department of State Health Services.* (2017).



"Texas - AIDSVu". *Rollins School of Public Health: AIDSVu.* (2017).

HIV is a major cause of health disparity between white individuals and racial minorities[123]. From 2010 to 2012, within HSNT's primary service counties, males identifying as being "gay" were more likely to be white than they were to belong to a different race[124]. This statistic could be biased, due to stigma-induced underreporting among minorities; however, it does not fully answer the question as to why the HIV incidence and prevalence rates in the Black population are so much higher in the Black community than they are among white individuals. In Texas in 2014, the HIV prevalence rate among Black males was 4.1 times higher than it was among white males[125]. In Texas in 2014 it was estimated that the majority of gay individuals were either white, Hispanic, or Latino. In 2010 - 2012, it was estimated that less than 10% of the gay community in Texas during the years 2010-2012 was Black[126].

In 2014, the HIV prevalence rate within the Black and Hispanic populations were highest in Collin County[127]. This rate among Black individuals (male and female) was 865 per 100,000 residents; and, this rate among Hispanic or Latino individuals was 251 per 100,000 residents. Compared these rates to that of the white population in Collin County in 2014, Black individuals were over 7 times as likely to be living with HIV and Hispanic / Latino individuals were over twice as likely[128]. Between Denton and Collin Counties, Collin County is also expected to have the most individuals identifying as either Hispanic or Black in 2020; these numbers are 225,614 and 116,997, respectively[129].
The HIV incidence rate in 2015 in Denton County was 9.7 cases per 100,000 people; this rate is higher than the incidence rate in Collin County. Compared to other Texas Counties, Collin and Denton Counties rank in the bottom quartile for HIV[130]. The 2015 rate exceeded the 2014 rate; however, over time this

123 "Texas HIV Surveillance Report: 2016 Annual Report". *Texas Department of Health and Human Services: Texas Department of State Health Services.* (2017).

124 Campagna, Jesse et al. "Estimating the Number of Men Who Have Sex with Men by Race/Ethnicity at the County Level in Texas." *Journal of Urban Health : Bulletin of the New York Academy of Medicine* 92.1 (2015): 168–181. *PMC*.

125 "Texas - AIDSVu". *Rollins School of Public Health: AIDSVu.* (2017).

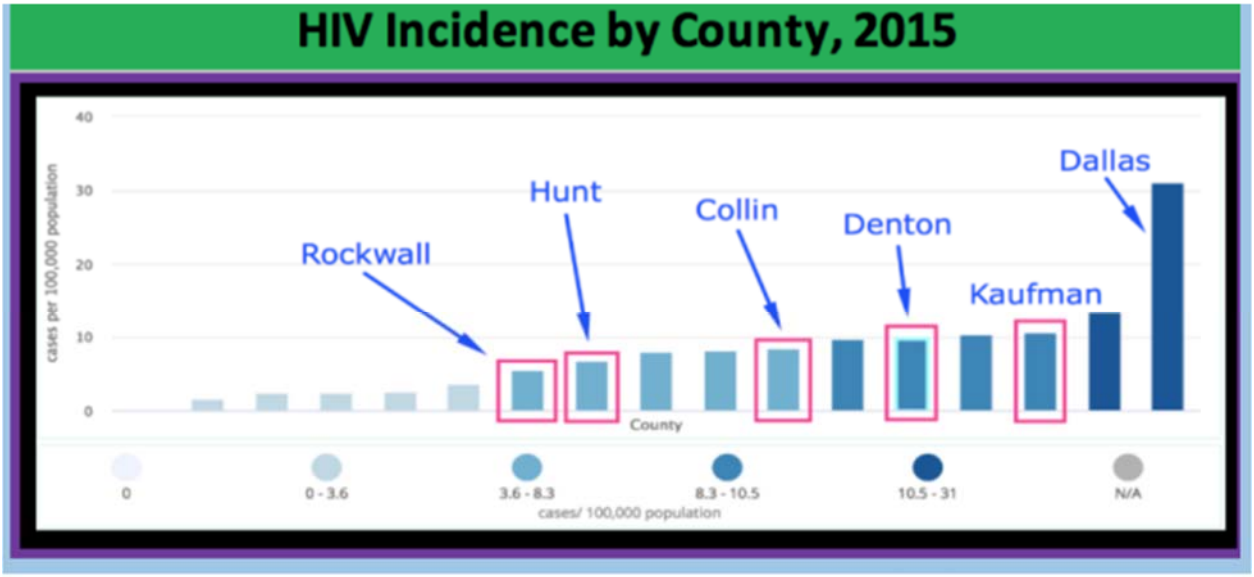
126 Campagna, Jesse et al. "Estimating the Number of Men Who Have Sex with Men by Race/Ethnicity at the County Level in Texas." *Journal of Urban Health : Bulletin of the New York Academy of Medicine* 92.1 (2015): 168–181. *PMC*.

127 "Texas - AIDSVu". *Rollins School of Public Health: AIDSVu.* (2017).

128 "Texas - AIDSVu". *Rollins School of Public Health: AIDSVu.* (2017).

129 "Population Data (Projections) For Texas Counties, 2020." *Texas Department of State Health Services* (2017).

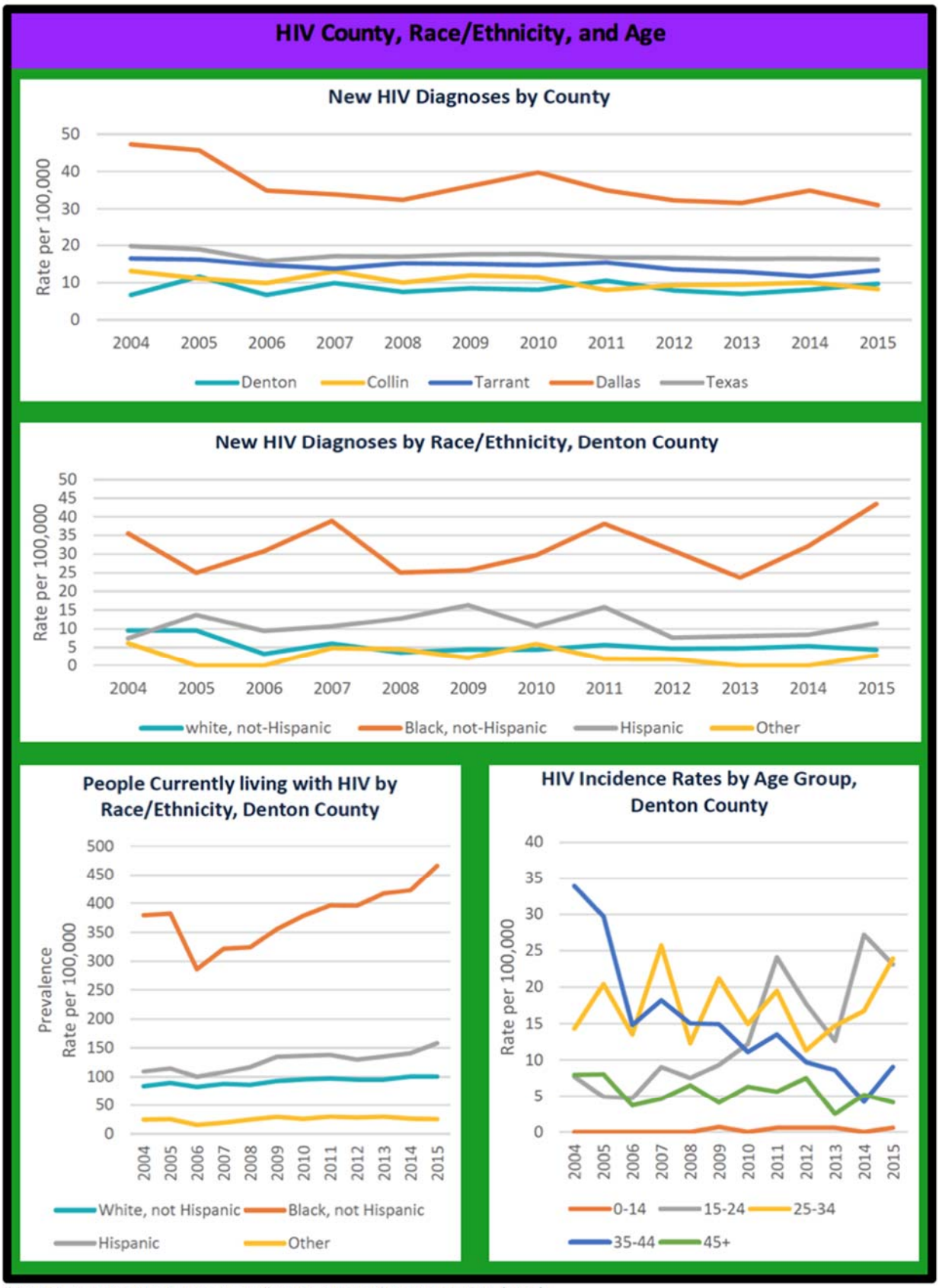
130 "Texas New HIV Diagnoses Summary". *Texas Department of State Health Services*. (2015).



Texas New HIV Diagnoses Summary". *Texas Department of State Health Services*. (2015).

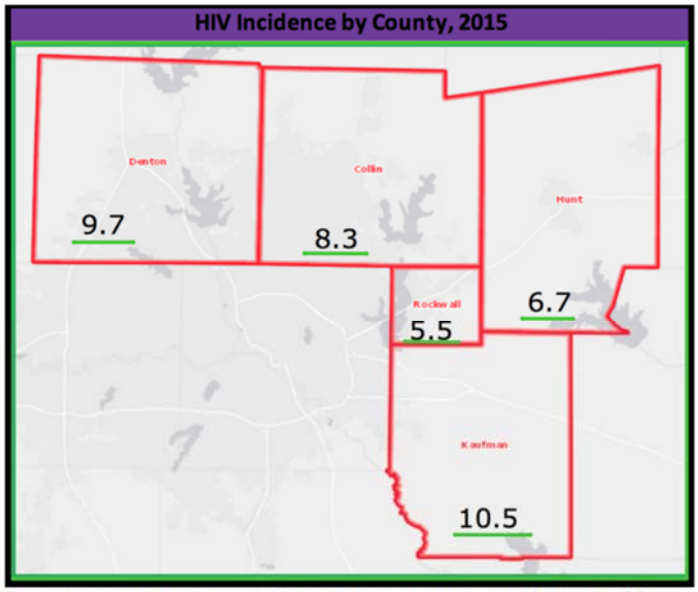
rate is trending downward. Additionally, Denton fell below the average HIV incidence rate for Texas overall, which was 16.3 cases per 100,000 residents in 2015[131].

131 "Texas New HIV Diagnoses Summary". *Texas Department of State Health Services*. (2015).

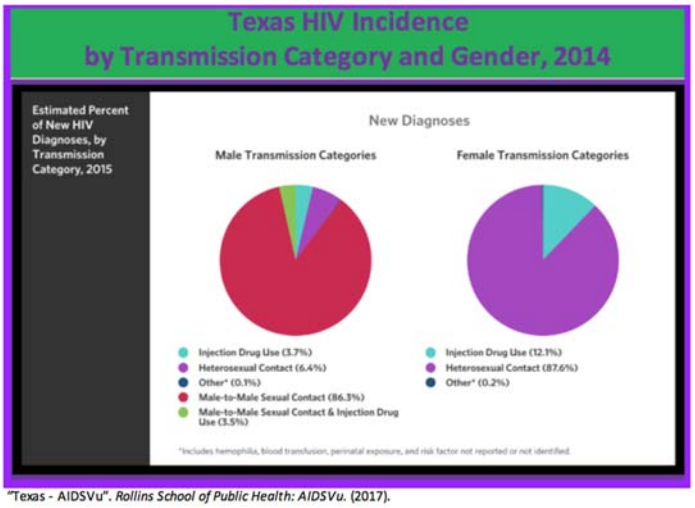


"2017 Community Needs Assessment". *United Way of Denton County*. (2017).

All five of the Counties in which the majority of HSNT's patients reside had HIV incidence rates below that of the State. From 2007 to 2015, the HIV incidence rates for Denton, Collin, and Hunt Counties decreased while the incidence rates for Kaufman and Rockwall Counties increased[132]. Within the HSNT service area, Kaufman County ranked the worst in terms of HIV incidence. In 2015, Kaufman had an HIV incidence rate of 10.5 cases per 100,000 people[133].



"Texas New HIV Diagnoses Summary". *Texas Department of State Health Services*. (2015).



"Texas - AIDSVu". *Rollins School of Public Health: AIDSVu*. (2017).

While Kaufman County did have the highest reported HIV incidence rate within HSNT's service area for 2015, there are many more residents (including residents with minority status) in Collin County[134]. By 2020, Kaufman County is expected to have 149,063 residents and Collin County is expected to have 1,150,398 residents[135]. In Dallas County, HIV is a big issue. However, it is also an issue for Denton County, Collin County, Kaufman County, Rockwall County, and Hunt County. Texas Health and Human Services lists 20 organizations that serve those struggling with STDs (including HIV) in Dallas County; however, Health Services of North Texas is listed as the only service provider in Denton County[136].

While the primary risk factor for HIV in 2015 for males was male-to-male sexual contact; for females, the primary risk factor was heterosexual contact.

Within HSNT's service area, there are both urban and rural counties. Reportedly, HIV may be undiagnosed within rural communities, such as Hunt and Kaufman Counties, due to stigma and the desire to remain anonymous[137]. In fact, the HIV

132 "Texas New HIV Diagnoses Summary". *Texas Department of State Health Services*. (2015).
133 "Texas New HIV Diagnoses Summary". *Texas Department of State Health Services*. (2015).
134 "Population Data (Projections) For Texas Counties, 2020." *Texas Department of State Health Services* (2017).
135 "Population Data (Projections) For Texas Counties, 2020." *Texas Department of State Health Services* (2017).
136 "Texas DSHS HIV/STD Program - HIV/STD Service Providers D." *Texas Department of Health and Human Services*. (2017).
137 Kellar, Brad. "HIV/AIDS On The Rise In Hunt County." *Herald-Banner*. (2006).

incidence in Hunt County increased from 2015 - 2016 and, in 2016, this rate was equal to that reported in Collin County. In fact, Hunt County had the 25th highest HIV incidence rate of all 254 Texas Counties, which was 9.8 new HIV cases per 100,000 residents[138].

Data collected between January 1 and March 31, 2017 show that, among males, the Hispanic population had the highest rate of HIV/AIDS diagnosis[139]. The Black female population also carries a disproportionate health burden due to HIV/AIDS. In early 2017, 68% of females diagnosed were Black, while the diagnosis rate among white and Hispanic women were 15% and 14%, respectively[140]. The age group diagnosed with the most HIV infections was the 25 - 29 age group. In Denton County, the AIDS diagnosis rate between January 1 and March 31, 2017 was over 3 times higher than this rate during the same time period a year earlier[141]. HIV incidence is rare among individuals younger than 15 years old, and is most common among young and middle-age adults[142]. Within the Dallas EMA, HIV incidence rates among those 55 and older increased 63.9% between 2011 and 2015[143]. Between 2004 and 2015, HIV incidence in Denton County increased the most among individuals ages 15 – 24; during this same time period, the greatest decrease occurred among individuals ages 25 - 44[144].

While the number of people living with HIV, also known as the HIV prevalence rate, is increasing in the U.S., including HSNT's service area, this is be due to multiple factors. Within the last two decades, great progress in HIV research has enabled the pharmaceutical industry to develop medication enabling individuals with HIV to live longer and more normal lives. Because of this, HIV is now considered a chronic disease. However, these medications come at a very high cost and are out of reach for many with HIV who are uninsured or low income.

Housing Opportunities for Persons with AIDS (HOPWA) is a State Health Services- sponsored program which offers placement services, supportive services, and financial assistance to low-income individuals with HIV/AIDS in order to help provide stable housing, reduce the risk of homelessness, and increase the ability of low-income persons living with HIV/AIDS to receive routine care, to receive case-management, and to adhere to medication protocol[145].

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138 "Texas HIV Surveillance Report: 2016 Annual Report". *Texas Department of Health and Human Services: Texas Department of State Health Services.* (2017).

139 "Texas HIV Surveillance Report: 2016 Annual Report". *Texas Department of Health and Human Services: Texas Department of State Health Services.* (2017).

140 "Texas HIV Surveillance Report: 2016 Annual Report". *Texas Department of Health and Human Services: Texas Department of State Health Services.* (2017).

141 "Texas HIV Surveillance Report: 2016 Annual Report". *Texas Department of Health and Human Services: Texas Department of State Health Services.* (2017).

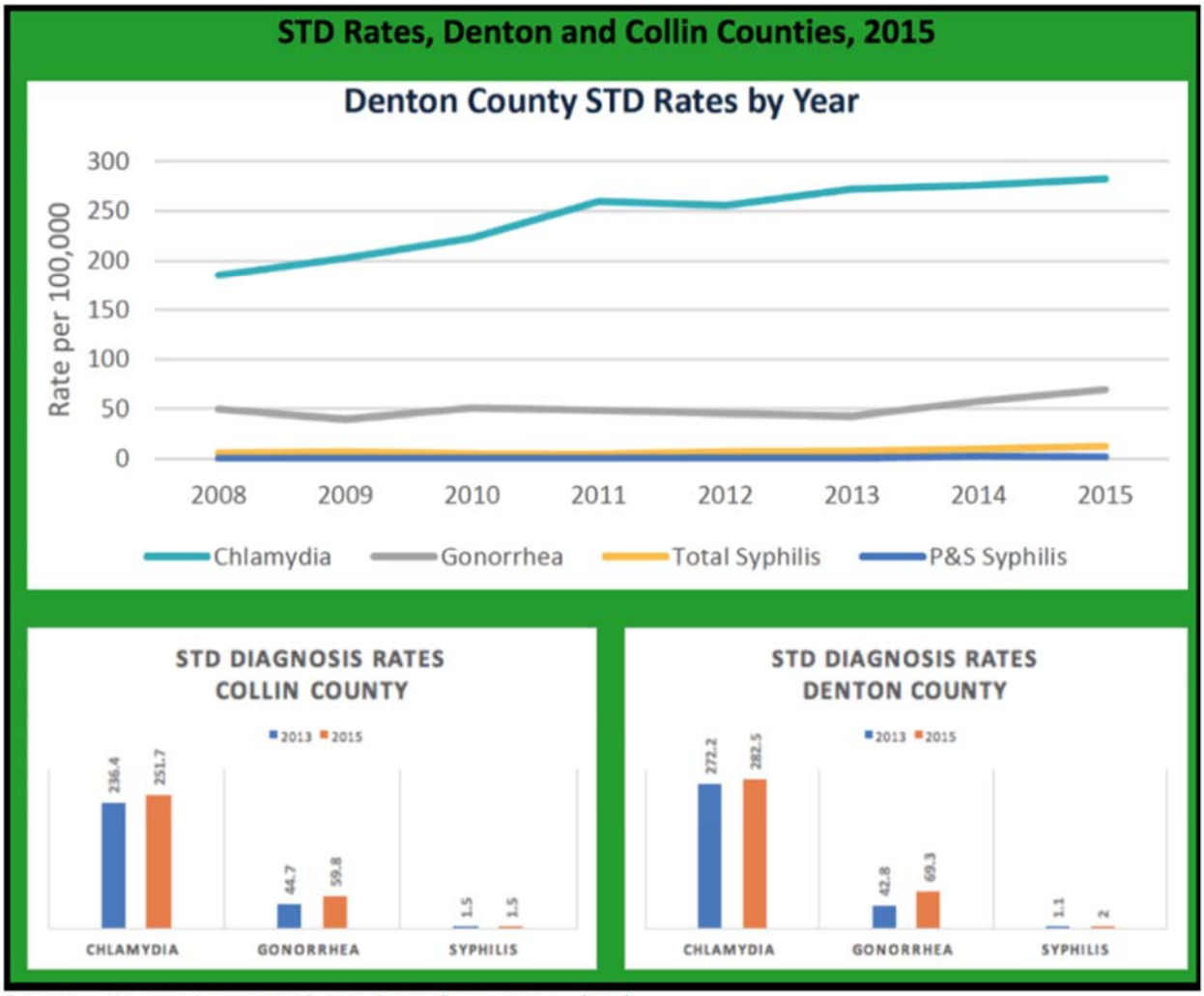
142 "Texas HIV Surveillance Report". *Texas Department of Health and Human Services*. (2016).

143 "Ryan White Planning Council of the Dallas Area 2016 Comprehensive HIV/AIDS Needs Assessment" *Ryan White HIV/AIDS Program.* (2016).

144 "Ryan White Planning Council of the Dallas Area 2016 Comprehensive HIV/AIDS Needs Assessment" *Ryan White HIV/AIDS Program.* (2016).

145 "Texas DSHS HIV/STD Program - HOPWA." *Texas Department of State Health Services*. (2017).

Sexually Transmitted Diseases (STDs)



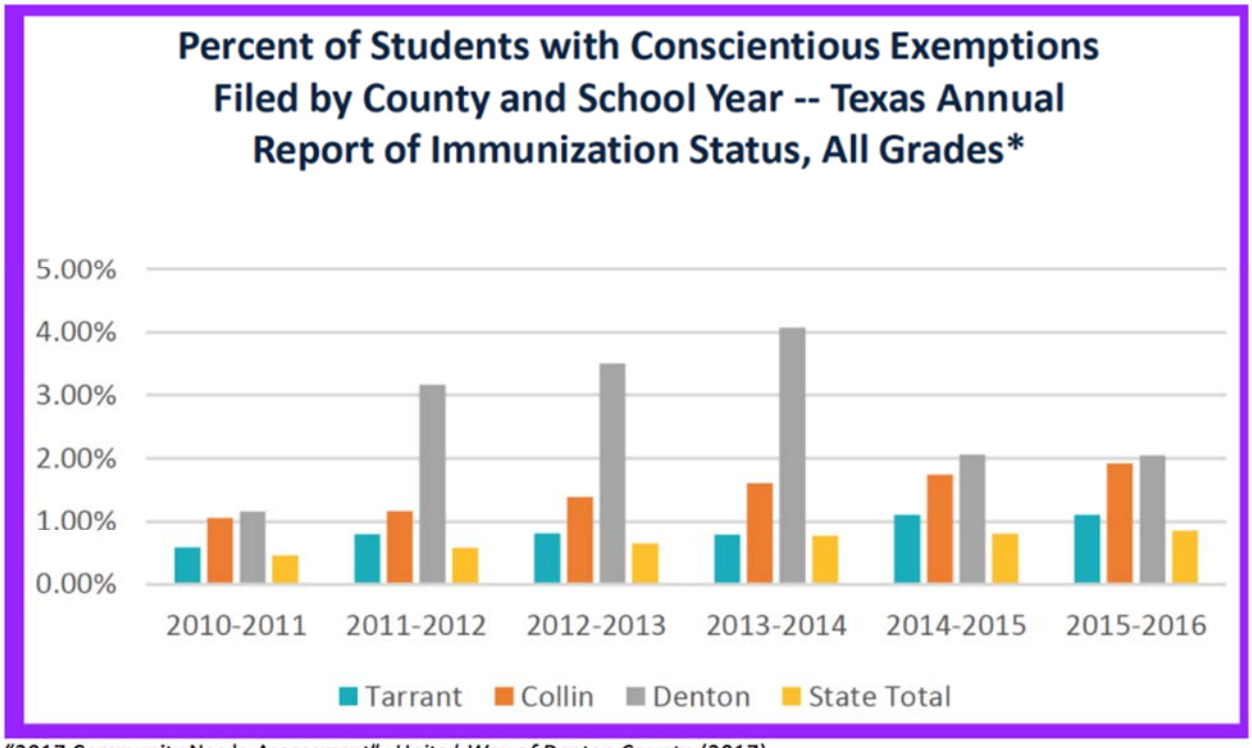
"2017 Community Needs Assessment". *United Way of Denton County*. (2017).
"Healthy North Texas: Gonorrhea Incidence Rate". *DFWHC Foundation*. (2015).
"Healthy North Texas: Chlamydia Incidence Rate". *DFWHC Foundation*. (2015).
"Healthy North Texas: Syphilis Incidence Rate". *DFWHC Foundation*. (2015).

In Texas, most STD cases occur in individuals ages 15 - 24[146]. As with HIV, the Black population experiences a disproportionately high rate of chlamydia, gonorrhea, and syphilis[147]. Nationally, women tend to report a greater intensity and complexity of negative health experiences due to STD-related complications than do men[148]. From 2013 to 2015, the rates of gonorrhea and chlamydia cases increased among both Denton County and Collin County residents[149, 150].

[146] "Texas STD Surveillance Report: 2015 Annual Report". *Texas Department of Health and Human Services*. (2016).
[147] "Texas STD Surveillance Report: 2015 Annual Report". *Texas Department of Health and Human Services*. (2016).
[148] "2020 Topics & Objectives: Sexually Transmitted Diseases". *Healthy People 2020*. (2017).
[149] "Healthy North Texas: Gonorrhea Incidence Rate". *DFWHC Foundation*. (2015).
[150] "Healthy North Texas: Chlamydia Incidence Rate". *DFWHC Foundation*. (2015).

Prevention

Immunization



"2017 Community Needs Assessment". *United Way of Denton County*. (2017).

While the North Texas counties generally report high levels of immunization coverage, some counties still trail the state benchmark for child immunizations. In Denton County and Collin Counties, the percentage of students with a conscientious exemption from school immunization requirements is higher than the state average; specifically, Denton Counties rate of conscientious exemption has been over two times higher than the average rate in Texas overall[151]

Prenatal Care

In Texas, prenatal care is a need. In fact, a 2014 article in *Obstetrics and Gynecology* stated that at 35.8 deaths per 100,000 births, Texas has the highest maternal mortality rate of any state, territory, or country in the developed world[152]. This is an important consideration, as prenatal care is associated with reduced morbidity and mortality for both the mother and the infant. Denton County's joint CHNA identified maternal, infant, and child health as an important area of focus because it reduces health complications for the infant, including being born with low birth weight and/or prematurely, as well as complications for the mother[153]. Women with adequate prenatal care are three-to-four times less likely to die from complications of giving birth than are those who received adequate care. The risk of

[151] "2017 Community Needs Assessment". *United Way of Denton County*. (2017).
[152] "ABC Report - Beyond A B C: Assessing the Wellbeing of Children in Dallas County and the North Texas Corridor". *Children's Health*. (2015).
[153] "2017 Community Needs Assessment". *United Way of Denton County*. (2017).

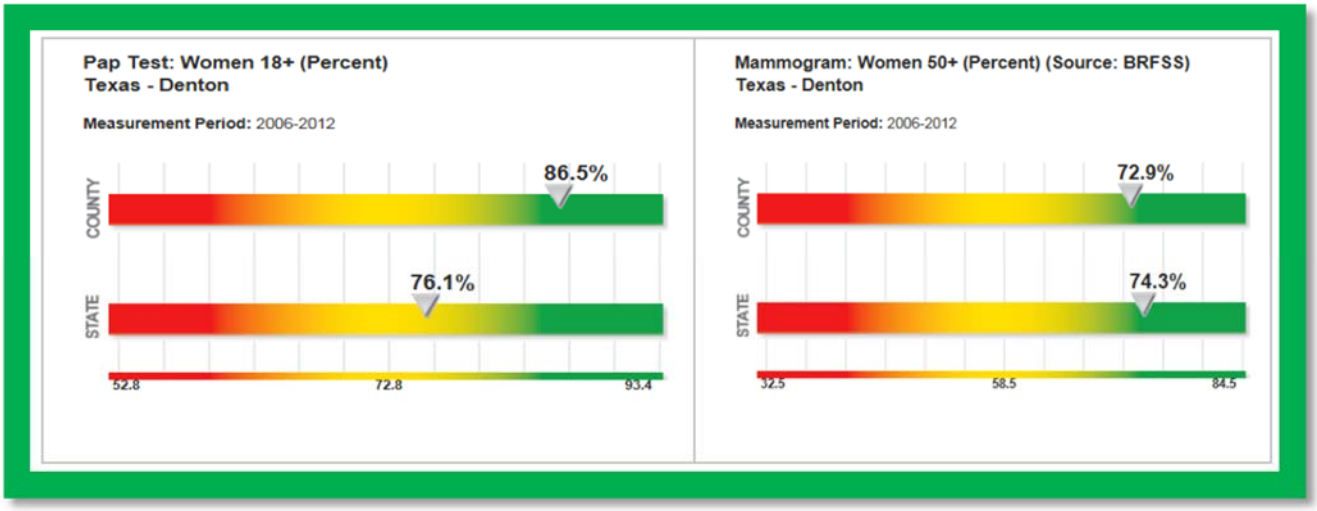
mortality associated with giving birth is nearly 4 times higher for Black women that for white women, even after age, socioeconomic status, and education are controlled for[154]. Prenatal care should involve education on topics including nutrition, breastfeeding, and illness prevention[155]. Even though Federal Law mandates that states expand Medicaid coverage to pregnant women until 60 days after giving birth, this does not ensure that pregnant and nursing mothers will be able to access services[156]. In 2015 in both Denton and Collin Counties, over 65% of mothers received prenatal care during the first trimester of pregnancy[157]. These counties are not meeting the Healthy People 2020 benchmark value of 77.6%[158].

Infant mortality is over five times less likely when the mother receives adequate and timely prenatal care. United Way of Denton County reported that 33% of pregnant women in Denton County in 2014 did not receive adequate prenatal care; this value falls short of the Health People 2020 target value of 77.6% of women receiving adequate prenatal care. Compared to all mothers in Denton County, Hispanic or Latino mothers are 14.6% less likely to access early prenatal care[159]. The cost of prenatal care is a significant barrier, especially for low-income mothers. Several organizations in Denton County serve qualifying mothers, offering care at no or reduced cost[160].

Preventative Screenings

The United States Preventive Services recommends that certain groups get screened for breast, cervical, colorectal, and lung cancer[161]. Denton County met the Healthy People 2020 target values for colorectal cancer screenings. However, target values both for pap tests and mammograms for women over 50 years of age were not met[162]. Over 25,000 females over 18 have not been screened via pap test and over 40,000 have not been screened for breast cancer via mammography[163]. Several local organizations provide screening services to Denton County residents; these include Denton Community Health Clinic, Denton County Public Health, Health Services of North Texas, and First Refuge Ministries[164].

[154] "ABC Report - Beyond A B C: Assessing the Wellbeing of Children in Dallas County and the North Texas Corridor". *Children's Health*. (2015).
[155] "ABC Report - Beyond A B C: Assessing the Wellbeing of Children in Dallas County and the North Texas Corridor". *Children's Health*. (2015).
[156] "ABC Report - Beyond A B C: Assessing the Wellbeing of Children in Dallas County and the North Texas Corridor". *Children's Health*. (2015).
[157] "ABC Report - Beyond A B C: Assessing the Wellbeing of Children in Dallas County and the North Texas Corridor". *Children's Health*. (2015).
[158] "Maternal, Infant, And Child Health | Healthy People 2020". *Office of Disease Prevention and Health Promotion*. (2017).
[159] "2017 Community Needs Assessment". *United Way of Denton County*. (2017).
[160] "2017 Community Needs Assessment". *United Way of Denton County*. (2017).
[161] "Cancer Prevention and Control. Cancer screening tests". *Centers for Disease Control and Prevention*. (2016).
[162] "Public Health Assessment and Wellness. Prevention through healthcare". *Denton County Network of Care*. (2017).
[163] "Public Health Assessment and Wellness. Prevention through healthcare". *Denton County Network of Care*. (2017).
[164] "2017 Community Needs Assessment". *United Way of Denton County*. (2017).



United Way of Denton County. (2017). 2017 Community Needs Assessment.

Using the Emergency Department (ED) as Primary Care

Non-emergent ED use places significant strain on already-limited ED resources. Emergency departments are designed to provide life-supporting care in the case of an emergency. Due to lack of education, barriers to primary care access, and other factors, ED use for non-emergent care is increasing nationally. Between 2014 and 2017, ED use increased by roughly 20%, nationwide[165]. As an increasing proportion of the population is dropping health insurance coverage or deciding not to take coverage due to its increasing unaffordability, more are going without preventative care, including disease screening services, behavioral health modification, and health education. Diseases which are easily identified and for which effective management strategies exists, can result in an emergency situation if a disease-bearing individual goes without a regular source of healthcare. Therefore, what was initially intended to be a cost-savings in the mind of the individual potentially becomes a much higher cost to the community-at-large. On average, clinical outcomes are better for those treated for non-emergent conditions in the primary care setting than those treated for the same conditions in emergency departments. This is partly because emergency departments are not designed to provide comprehensive care.

[165] Rich Daly. “No-Pay Policy For Non-Emergent ED Use Spreading | HFMA." *Healthcare financial Management Association*. (2017)

Primary Care Functions Associated with Improved Health Outcomes

Function	Outcome evidence
Access (first contact care for new health needs)	Reduces unnecessary hospitalizations,[59] improves health, reduces non-urgent ED and specialist visits,[60] improves rates of immunization, preventive services, and counseling[61]
Continuity (long-term person-focused care)	Improves chronic disease management and use of preventive services,[62] reduces ED use and hospitalizations,[63,64] improves quality of care and reduces cost[65]
Comprehensiveness (care for most health needs)	Reduces cost,[66,67] subspecialty visits[66] and hospitalizations,[67,68] improves rates of immunizations, preventive screening and counseling[61]
Coordination of care (when required outside the practice)	Reduces costs and hospitalizations,[67,69] improves specialty referrals[70]

Ellner, Andrew L, and Russell S Phillips. "Special Symposium: Reinventing Primary Care: The Coming Primary Care Revolution." *Journal of General Internal Medicine*. (2017).

ED use as an alternative to primary care, as well as ED use because of unmanaged disease due to lack of routine medical care from a primary care provider, can be predicted by low socioeconomic status, higher burden of chronic disease, lower perceived organizational accessibility, a higher number of reported healthcare coordination problems, and lack of an annual checkup[166]. Many frequent emergency department users report having difficulty accessing sources of continued and comprehensive care[167].

[166] Hudon, Catherine, Steven Sanche, and Jeannie L Haggerty. "Personal Characteristics and Experience of Primary Care Predicting Frequent Use of Emergency Department: A Prospective Cohort Study." *Plos One* (2016): 1–14. Web.

[167] Ganelin Enard - Enard, K. R., & Ganelin, D. M. "Reducing Preventable Emergency Department Utilization and Costs by Using Community Health Workers as Patient Navigators". *Journal of Healthcare Management*, *58*(6), 412–428. (2013).

BCBS found that uninsured individuals are not the primary factor increasing incorrect ED use. In fact, those with public health insurance are nearly twice as likely to use the ED as their first line of health care than are uninsured individuals[168]. Individuals with Medicaid coverage are over twice as likely as privately insured individuals to use the ED for non-emergencies[169]. A 2010 survey conducted in New Orleans found that over 50% of individuals who did not have health insurance reported using the ED as their primary source of medical care[170]. Results from the National Ambulatory Medical Care Survey support the estimation that around 10% of ED visits do not involve emergencies. Estimates of this value vary widely; Hwang, Liao, Griffin, and Foley estimated that the percentage of unnecessary ED visits that are unnecessary range from 33% to 81%[171]. Enard and Ganelin estimate that this percentage is between 13% and 27%[172].

Inappropriate ED use is not free, even for those who cannot pay[173]. The average ED cost per visit has increased six times as fast as the average U.S. salary[174]. The fact that health insurance has been and still is becoming increasingly unaffordable is partly due to the increasing cost of uncompensated care[175]. This cost is generally not paid by those who utilize the ED as a primary care source; however, it affects their community, their neighbors, and their relatives. No one should be blamed for taking necessary measures to keep themselves well; however, there is much opportunity and reason to educate frequent ED users about ways they can utilize a primary care provider, receive better care and consequently, experience better health outcomes, while not over-spending in the process. Contrary to popular belief, a visit to the local ED does not guarantee prompt care. Patient navigators, as well as data-sharing between emergency departments and Federally Qualified Health Centers (FQHC), can lead to more-effective, comprehensive, and continued care with better outcomes for frequent ED users[176].

In Texas, there were an estimated 10,479,660 ED visits in 2014[177]. Using Enard and Ganelin's estimates, between 1,362,355 and 2,829,508 of these ED visits were preventable[178]. Gallaraga, Mutter, and Pines

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[168] Rich Daly."No-Pay Policy For Non-Emergent ED Use Spreading | HFMA." *Healthcare financial Management Association*. (2017)
[169] Wagner, Carol, and Susan Callahan. *Reducing Preventable Emergency Room Visits*. N.p., 2012. Print.
[170] Robinson, Melody M et al. "Utilizing Actionable Data Analytics to Support Patient Navigation Enrollment and Retention Within Federally Qualified Health Centers." *Journal of Public Health Management and Practice* 23.6 (2017): 54–58. We
[171] Ellner, Andrew L, and Russell S Phillips. "Special Symposium: Reinventing Primary Care: The Coming Primary Care Revolution." *Journal of General Internal Medicine* 32.4 (2017): 380–386. Web.
[172] Ganelin Enard - Enard, K. R., & Ganelin, D. M. "Reducing Preventable Emergency Department Utilization and Costs by Using Community Health Workers as Patient Navigators". *Journal of Healthcare Management*, *58*(6), 412–428. (2013).
[173] Rich Daly."No-Pay Policy For Non-Emergent ED Use Spreading | HFMA." *Healthcare financial Management Association*. (2017)
[174] Marshall, Kyle. "Let's Talk Cost: The High Cost Of Health Care | Point Of Blue." *Blue Cross Blue Shield of North Carolina*. (2014).
[175] Marshall, Kyle. "Let's Talk Cost: The High Cost Of Health Care | Point Of Blue." *Blue Cross Blue Shield of North Carolina*. (2014).
[176] Robinson, Melody M et al. "Utilizing Actionable Data Analytics to Support Patient Navigation Enrollment and Retention Within Federally Qualified Health Centers". *Journal of Public Health Management and Practice* 23.6. (2017).
[177] "Hospital Emergency Room Visits Per 1,000 Population By Ownership Type." *The Henry J. Kaiser Family Foundation*. (2017).
[178] Ellner, Andrew L, and Russell S Phillips. "Special Symposium: Reinventing Primary Care: The Coming Primary Care Revolution." *Journal of General Internal Medicine* 32.4 (2017): 380–386. Web.

estimated the average cost per visit to the ED for non-emergent care to be $2,563[179]. The cost per patient encounter at HSNT in 2016 was $231.66. If the individuals who went to the emergency department for services that could have been performed at a primary care office had been diverted to the primary care setting with the same cost-per-encounter as HSNT in 2017, Texas could have potentially saved between $2,705,900,000 and $6,389,200,000 in 2014. Estimating the total operating cost of an FQHC that provides 40,000 patient encounters annually at $10,000,000, and using the middle value of the difference between $2,705,900,000 and $6,389,200,000 as an estimate of cost savings, 7,366,600 patient encounters could have been provided with the amount that would have been saved had individuals using the ED for non-emergent use been diverted to a primary care setting. This number equates to over 27% of the population in 2014, and would have provided every uninsured individual with at least one visit to a primary care doctor.

According to the Texas Department of State Health Services, there were 246,680 Potentially Preventable Hospitalizations (PPH) in Texas during 2014. Gallaraga, Mutter, and Pines estimated the average cost per preventable hospitalization at $11,414[180]. However, this is probably an underestimate; the Texas Department of State Health Services presented a breakdown of the total cost of PPHs by the average hospital charge for the treatment of each condition considered to be preventable. The average charge for a PPH in Texas in 2014 was $36,485[181]. Of the most common causes of potentially preventable hospitalizations in Texas, congestive heart failure had the highest total charge of $135 per resident, or $2.6 billion[182]. Including both the potential savings from eliminating non-emergent ED use, and that of eliminating preventable hospital admissions, the total amount exceeds $10 billion and the higher end of the estimate exceeds $15 billion[183].

In Collin and Denton Counties, nearly 60% of the preventable hospitalizations in 2014 were among females[184]. Seventy-six percent of preventable hospitalizations in these counties were among individuals over 55 years of age. The average hospital charge for a preventable hospitalization in Collin and Denton Counties was over $44,000, with an average length of hospital stay of 4.7 days. In these counties in 2014, the Department of State Health Services estimated that the cost of preventable hospitalizations totaled over $440 million[185]. Medicare was the primary payer source for these hospitalizations, covering 63.3% of the costs. Private insurance companies were the 2nd most common payer source, covering 23.9% of the costs[186].

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[179] Galarraga J.E., Mutter R., and Pines, JM. "Costs associated with ambulatory care sensitive conditions across hospital-based settings". *National Institute of Health: Pubmed*. (2017).

[180] Galarraga J.E., Mutter R., and Pines, JM. "Costs associated with ambulatory care sensitive conditions across hospital-based settings". *National Institute of Health: Pubmed*. (2017).

[181] "Potentially Preventable Hospitalizations Program Surveillance Report - Texas June 2016". *Texas Department of State Health Services*. (2016).

[182] "Potentially Preventable Hospitalizations Program Surveillance Report - Texas June 2016". *Texas Department of State Health Services*. (2016).

[183] "Potentially Preventable Hospitalizations Program Surveillance Report - Texas June 2016". *Texas Department of State Health Services*. (2016).

[184] "Texas Health Data - Potentially Preventable Hospitalizations." *Texas Department of State Health Services*. (2017)

[185] "Texas Health Data - Potentially Preventable Hospitalizations." *Texas Department of State Health Services*. (2017)

[186] "Texas Health Data - Potentially Preventable Hospitalizations." *Texas Department of State Health Services*. (2017)

Preventable Hospitalizations in Texas, by Length of Stay, Race/Ethnicity, and Gender, 2014

Hospital Charges and Length of Stay of Potentially Preventable Hospitalizations (PPH), Texas, 2014

Hospital Charges and Length of Stay of PPH, Texas, 2014

PPH Conditions	Average Charge ($)	Median Charge ($)	Total Charge ($)	Charge per Adult Texas Resident ($)	Average Length of Hospital Stay (Days)
Diabetes Short-term	31,713	22,883	424,155,865	22	3.5
Diabetes Long-term	61,142	38,642	1,429,864,291	74	6.9
COPD/Asthma in Older Adults	39,047	28,390	1,695,197,226	87	4.5
Hypertension	30,546	24,445	311,604,513	16	2.9
CHF	44,474	31,770	2,619,009,730	135	5.1
Dehydration	30,129	23,092	684,942,961	35	3.8
Bacterial Pneumonia	42,863	30,198	1,758,236,908	91	5.0
UTI	29,901	23,671	953,616,435	49	4.0
Angina	32,872	28,530	58,151,267	3	2.3

Note: The four highlighted conditions were selected for FY 2016 - 2017.

PPH Demographics by Race/Ethnicity and Gender, 2014

	White Non-Hispanic		Black Non-Hispanic		Hispanic		Other		Male		Female	
PPH Conditions	N	%	N	%	N	%	N	%	N	%	N	%
Diabetes Short-term	5,737	43.1	3,316	24.9	3,576	26.9	683	5.1	6,337	47.4	7,038	52.6
Diabetes Long-term	9,164	39.4	4,223	18.1	8,591	36.9	1,298	5.6	13,400	57.3	9,986	42.7
COPD/Asthma in Older Adults	28,542	66.2	6,152	14.3	6,276	14.6	2,141	5.0	16,631	38.3	26,783	61.7
Hypertension	3,963	39.0	3,126	30.8	2,510	24.7	561	5.5	3,967	38.9	6,234	61.1
CHF	30,090	51.3	12,418	21.2	12,731	21.7	3,370	5.8	29,271	49.7	29,618	50.3
Dehydration	13,322	59.1	3,203	14.2	4,853	21.5	1,183	5.2	9,673	42.6	13,061	57.5
Bacterial Pneumonia	25,404	62.5	4,453	11.0	8,315	20.4	2,509	6.2	18,247	44.5	22,773	55.5
UTI	18,001	56.9	3,376	10.7	8,434	26.6	1,845	5.8	8,023	25.2	23,869	74.8
Angina	886	50.3	250	14.2	523	29.7	103	5.9	812	45.9	957	54.1

Note: The four highlighted conditions were selected for FY 2016 - 2017.

"Potentially Preventable Hospitalizations Program Surveillance Report - Texas June 2016". *Texas Department of State Health Services*. (2016).

Increasing the Efficiency of Healthcare Delivery Systems by Empowering Individuals through Education Focused on Patient Navigation and Awareness of Community Health Resources

Increasing accessibility to primary care, especially for individuals of low socioeconomic status and those with a high burden of disease, and working to provide well-coordinated comprehensive care, will benefit communities all over Texas[187]. According to several research publications, socioeconomic status is the largest predictor of frequent non-emergent emergency department use[188]. Those of lower socioeconomic status were nearly twice as likely to use an emergency department as a substitute for office-based primary care as those of high socioeconomic status[189]. Minority status individuals, as well as those at increased health risk due to behavioral and chronic disease comorbidity, are at an increased risk of using the ED instead of a primary care office visit[190]. Recent immigrants are also more likely to use the ED as their first method of care[191].

Many uninsured frequent ED users have underlying mental health issues, and have a primary complaint relating to injury, pain, or dental problems, all of which can be treated in a primary care setting[192]. The primary care setting facilitates more comprehensive and continued care, and at an estimated 10% of the cost of an ED visit, FQHCs are a viable solution to the growing problem of improper ED use[193]. FQHCs that have adopted the medical home care method provide comprehensive care and, therefore, reduce low-complexity ED visits within the uninsured population[194]. Non-emergent ED use by uninsured individuals under 19 years of age reduces by an estimated 40% when geographic access to FQHCs is increased[195]. There is a need for FQHCs and EDs to foster relationships in order to better serve their community. Patients who can be cared for in a primary care setting will often have better health outcomes if treated in that setting as opposed to getting care in an ED.

FQHC access in and of itself may not be a significant predictor of ED visits; however, FQHC enrollees admitted to an ED generally require more complex care than do non-FQHC enrollees[196]. Additionally, those enrolled at an FQHC were more likely to be admitted after receiving treatment at an emergency

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187 Hudon, Catherine, Steven Sanche, and Jeannie L Haggerty. "Personal Characteristics and Experience of Primary Care Predicting Frequent Use of Emergency Department: A Prospective Cohort Study." *Plos One* (2016): 1–14. Web.

188 Hudon, Catherine, Steven Sanche, and Jeannie L Haggerty. "Personal Characteristics and Experience of Primary Care Predicting Frequent Use of Emergency Department: A Prospective Cohort Study." *Plos One* (2016): 1–14. Web.

189 Hudon, Catherine, Steven Sanche, and Jeannie L Haggerty. "Personal Characteristics and Experience of Primary Care Predicting Frequent Use of Emergency Department: A Prospective Cohort Study." *Plos One* (2016): 1–14. Web.

190 Robinson, Melody M et al. "Utilizing Actionable Data Analytics to Support Patient Navigation Enrollment and Retention Within Federally Qualified Health Centers". *Journal of Public Health Management and Practice* 23.6. (2017).

191 Basu, Sanjay et al. "Benchmarks for Reducing Emergency Department Visits and Hospitalizations Through Community Health Workers Integrated Into Primary Care: A Cost-Benefit Analysis." *Medical Care* 55.2 (2017): 140–147. Print.

192 Liao, Kimberly et al. "Do Free Clinics Reduce Unnecessary Emergency Department Visits? The Virginian Experience." *Journal of Health Care for the Poor and Underserved* 23 (2012): 1189–1204. Print.

193 Basu, Sanjay et al. "Benchmarks for Reducing Emergency Department Visits and Hospitalizations Through Community Health Workers Integrated Into Primary Care: A Cost-Benefit Analysis." *Medical Care* 55.2 (2017): 140–147. Print.

194 Liao, Kimberly et al. "Do Free Clinics Reduce Unnecessary Emergency Department Visits? The Virginian Experience." *Journal of Health Care for the Poor and Underserved* 23 (2012): 1189–1204. Print.

195 Nath, Julia B et al. "Federally Qualified Health Center Access and Emergency Department Use Among Children." *Pediatrics* 138.4. (2017).

196 Liao, Kimberly et al. "Do Free Clinics Reduce Unnecessary Emergency Department Visits? The Virginian Experience." *Journal of Health Care for the Poor and Underserved* 23 (2012): 1189–1204. Print.

department[197]. By offering timely and appropriate preventative care, chronic disease management, and health behavior modification strategies, FQHCs can prevent hospitalizations for preventable conditions from occurring in the first place. During a time of healthcare reform, limited resources, an overworked medical workforce, and increasing demand for health services, prevention is essential.

In fact, 1,400 FQHCs are currently in operation in the U.S. Continued support of these centers is essential for public health, increased health equity, and sustainability of the medical system as a whole. Many FQHCs, such as HSNT, provide high quality and affordable primary care to vulnerable groups, including minorities and low income populations.

In the Future

This report is an important guide for decision making. Specifically, the Strategic Committee will use this report to fine-tune HSNT, increasing its ability to be the primary comprehensive healthcare provider for both Collin and Denton Counties' uninsured, underinsured, low income, and all-cause disadvantaged populations.

[197] Liao, Kimberly et al. "Do Free Clinics Reduce Unnecessary Emergency Department Visits? The Virginian Experience." *Journal of Health Care for the Poor and Underserved* 23 (2012): 1189–1204. Print.