



**A STUDY OF THE COLLIN COUNTY TEXAS
BEHAVIORAL HEALTH SERVICES SYSTEM
A NorthSTAR County**

**PHASE TWO REPORT
DECEMBER 3, 2010**

***ANALYSIS AND RECOMMENDATIONS
FOR THE MANAGEMENT AND FINANCING
OF BEHAVIORAL HEALTH SERVICES
IN COLLIN COUNTY, TEXAS***

EXECUTIVE SUMMARY

A STUDY OF THE COLLIN COUNTY TEXAS BEHAVIORAL HEALTH SERVICES SYSTEM

This report concludes Phase Two of the study conducted by the University of North Texas Health Science Center aimed at 1) describing historical trends in public behavioral health services utilization, 2) predicting future public behavioral health services needs, and 3) recommending actions to improve public behavioral health services for residents of Collin County, Texas.

The primary source of data was the data warehouse at the Texas Department of State Health Services. Analyses were performed using *100% of clients served who lived in Collin County, and 10% of clients who lived in each of the other six counties at the time of service, between January 1, 2007 and December 31, 2009. For Phase Two we added services data for the same clients for the first six months of 2010 to examine the impact of changes to mental health services contract rates. We also conducted a Community Assessment of Perceived Need for Behavioral Health Services in Phase Two.*

Phase One reported fact-based expenditures and services utilization, and commented on the existing system of behavioral health care for Collin County residents under the NorthSTAR program.

Phase Two provides additional insight into the design and delivery of behavioral health services addressing the following issues in combination with the phase one findings.

- 1) Services utilization trends
- 2) Diagnostic groups
- 3) Authorizations for services
- 4) Impact of the rate change for mental health services
- 5) Estimated unmet and future needs for behavioral health services in Collin County

These two phases yielded four major findings and associated recommendations.

Finding I. Rates paid to each provider for the same service type did not differ significantly among the NorthSTAR providers. Patterns in services utilization, however, differed by county.

Recommendation Create a new model of behavioral health services delivery in Collin County using a combined Local Mental Health Authority (LMHA)/NorthSTAR structure.

Finding II. Under a “recovery” model, subscribed to by the current NorthSTAR system, many services are under-resourced within Collin County.

Recommendation Collin County should work toward creating local behavioral health services that address the full continuum of services needed to promote “recovery” for persons with serious mental illnesses and/or chemical dependency problems.

Finding III. Within the current NorthSTAR system Collin County has limited bargaining power. The recent establishment of a stakeholders’ advisory committee has considerable merit.

Recommendation Collin County should consider hiring a Behavioral Healthcare Director as soon as possible, using an independent process, not directly associated with the existing provider network or boards.

Finding IV. Collin County residents consumed an annual average of \$5,037,286 worth of NorthSTAR covered outpatient and community inpatient services (2007-2009), and \$653,357 worth of Value Options (non-Medicaid) funded medications.

Recommendation Collin County leadership should establish a business plan development team to produce a proposal for a novel model of a local behavioral health authority (LMHA).

SUMMARY DISCUSSION OF RECOMMENDATIONS

Recommendation I Create a new model of behavioral health services delivery in Collin County using a combined LMHA/NorthSTAR structure.

Under the principle of *open access*, Collin County residents have equal access to care throughout NorthSTAR. Thus Collin County residents can acquire behavioral health services anywhere in the seven counties by choice or due to insufficient locally available services. NorthSTAR open access also has an unintended consequence of certain services being centralized in Dallas County rather than distributed more equitably throughout NorthSTAR. While this can conserve costs, it also results in underserved areas for more intensive, more expensive services.

In the past year there have been two major shifts in behavioral health services in Collin County. One is that LifePath Systems is not taking new mental health clients and has had to refer a substantial number of clients to other NorthSTAR providers, including LifeNet, and Child and Family Guidance that represents a growing share of the behavioral health care market for Collin County. The Hospital Corporation of America (HCA) owned Medical Center of McKinney has reorganized its psychiatric program in cooperation with Green Oaks Psychiatric Hospital in Dallas. This opens new possibilities for local inpatient psychiatric care and should be explored.

Collin County has been perceived traditionally by the NorthSTAR system as having less demand for behavioral health services than its largest contiguous county, Dallas. Collin County's behavioral health services needs however, are apparent from the direct and synthetic estimates of need and in the historical patterns of services utilization by Collin County residents.

Services and funding distributions are currently directly controlled by Value Options (VO) in the current system. As the de-facto LMHA, VO receives state and federal dollars/authorizations from DSHS and contracts exclusively with local providers. VO thus controls the distribution of services and funding with no systematic assessment of need and no effective coordination among providers or with consumers.

The stated mission of the North Texas Behavioral Health Authority (NTBHA 2009-10 Strategic Plan) is *"To Create a Well Managed, Integrated and Quality Delivery System of Behavioral Health Services Available to Qualified Consumers in the NorthSTAR Region."* The existing structure of the NorthSTAR program however, disenfranchises NTBHA and consequently the stakeholders. This results in NTBHA being unable to implement their strategic plan.

There are many key considerations to keep in mind for establishing an independent yet necessarily interdependent LMHA. Some of the most important considerations are:

1. Texas LMHAs have authority for only the mental health component of a behavioral health system. Therefore other services such chemical dependency treatment, would have to be negotiated with appropriate state agencies.
2. Under an LMHA structure, access to care typically depends on county or defined catchment area of residence. Collin County will need to define its catchment area for eligibility purposes, and establish some inter-LMHA agreement.
3. Collin County will need to present a business plan for the requested funding, including eligibility, levels of care, fee structures and covered services, plans for community and state hospital inpatient services, management of crisis services, and a prescription drug program.
4. On the whole, in the past year the existing services system in NorthSTAR has made no progress in shifting power from VO to NTBHA. Furthermore that sort of shift at this point probably would not solve the problems for Collin County.

Recommendation II Create local behavioral health services that provide the full continuum of behavioral health services.

A behavioral health services system that truly promotes recovery is one that has a continuous range of services from prevention/education and early intervention programs, through crisis, outpatient and rehabilitation programs. Several essential behavioral health services are currently under-resourced in Collin County. Needs for these services are well documented: a) in comments at the study kick-off meeting in October 2009, b) in the NTBHA strategic plan for 2009-10, and c) in DSHS communications.

- Jail diversion (i.e. pre-adjudication); Post-incarceration reintegration (i.e. post release jail and prison); and other court-related (forensic) services (as attested to by the civil court system)
- Crisis response and stabilization including assertive community treatment models, day-hospital models, and prevention
- Transportation – public transportation systems – a constant concern of NTBHA as advocates for access to care, are notably limited outside of Dallas County
- Supported employment and rehabilitation programs
- Chemical dependency (CD) residential treatment for both adults and youth
- Age and culturally sensitive services

In the three year study window, 16% of the expenditures for community mental health and 15% for chemical dependency services for Collin County residents were paid to providers outside of Collin County.

The current system lacks commonly accepted hallmarks of effective public systems of care. The behavioral health organization managing the services and the payments has full authority in NorthSTAR. Unfortunately the corporate structure is primarily profit driven, promotes counter-productive competition in contract procedures, and lacks transparency in policy and communications. While not differential treatment, the contracting policy of VO that orchestrates a system around specialty providers rather than community needs, is neither transparent, nor community-responsive, and tends to foster system imbalances.



Recommendation III Create a position for a Behavioral Healthcare Director. Hiring a Behavioral Healthcare Director in Collin County establishes a strong foothold in a locally managed public mental health and chemical dependency services system. This individual should be charged with the responsibility of constructing the new system. The stakeholders’ advisory committee would provide excellent advice to this director. Housed in the Collin County Health Department, this administrative leadership would enable the county to establish a medical home model of integrated behavioral health services for Collin County.



Recommendation IV Establish a business plan development team. Creation of a traditional LMHA may further fragment the system and create locally adversarial relationships. Collin County has an advantage in the dynamics of its local stakeholders interacting enthusiastically with a client/services focus. This is an opportunity to create a truly blended model of services within a medical home, wrap-around methods for service, and local management of court-related and inpatient-related systems. This strategy brings behavioral health services home to Collin County.

Conceptual Issues in Per Capita Funding Distribution

As discussed in the Phase One report the NorthSTAR system is complex. Unlike other LMHAs in Texas, NorthSTAR benefits from a blended funding mechanism. The table below reflects how each financing component of the system can be interpreted from a “per-capita” funding perspective.

Summary and Scenarios on Per Capita Expenditures for Calendar Year 2009 NorthSTAR Services Utilized By Collin County Residents		
	<u>Total Expensed</u>	<u>Financial Grouping</u>
A	\$ 5,551,499	Community based care (Outpatient and Inpatient)
B	\$ 2,626,411	All Medicaid and Non-Medicaid Prescription Drugs
C	\$ 507,977	Other Attributed Invoiced Services
D	\$ 1,912,280	St Hospital Bed Days Allocated Value
E	\$ 10,598,167	Total All Types of Expenditures
F	\$ 8,893,649	Sub-Total - Minus Medicaid Prescriptions
G	\$ 6,981,369	Sub-Total - Minus State Hospital Value
H	\$ 8.82	Per Capita based only on cash expenditure MH and CD
I	\$ 5,800,000	Estimated (DSHS projections) VO retained funds
J	\$ 385,700	Estimated proportion Collin County of VO retained funds
K	\$ 7,367,069	Community Cash Services Plus % of VO retained funds
L	\$ 9.31	Per Capita based on all cash expenditures plus % of VO retained funds
M	\$ 6,145,773	Mental Health Services Cash
N	\$ 7.76	Per Capita based on Line M
O	\$ 6,531,473	Mental Health Only Plus % of VO retained funds
P	\$ 8.25	Per Capita based on Line O

Row E provides the total dollar amount attributed to all NorthSTAR services utilized by Collin County adults and children reported to the Department of State Health Services for 2009.

Medicaid prescription drug costs are not cash funded by DSHS, and are subtracted from the Total in Line E, resulting in Line F.

State Hospital bed utilization is a dollar value attributed to a county based on historical utilization by the residents. This is subtracted leaving a remainder in line G.

The remainder, divided by the Collin County 2009 estimated population (791,631) results in a per capita calculation of \$8.82.

The proportion of all NorthSTAR services expenditures attributed to Collin County is 6.85%. On Line J this is applied to the approximate amount of state funding retained by VO. With Line J added to Line G, and the sum divided by the Collin County population, the per capita figure increases to \$9.31.

Per capita distributions to LMHAs in Texas cover only mental health services. Line M shows only MH expenditures for Collin County, thus does not include State Hospital beds, Medicaid prescription drug costs, or chemical dependency services expenditures. On line P the per capita allocation is based on Mental Health expenditures only plus the percent of VO retained funding calculated in this table.

The most reliable prediction of future utilization is past utilization. However, if Collin County elected to establish a new system, and future risks were estimated, Collin County behavioral health services financing could be argued to compare to similarly sized counties. However, a major challenge persists: Collin County is unique. Although there are some Texas Counties with similar growth rates, their population demographics are sufficiently different so as to render any per capita funding estimates highly speculative when based on those counties' mental health or chemical dependency services.

Cautions are important when attempting to estimate a LMHA per-capita funding based on historical data.

1. **The current system promotes centralization of public behavioral health services in Dallas.**
2. **The existing program structure of NorthSTAR does not provide for effective coordination of community based services, and operates independently of local interests.**
3. **Calculations of “per-capita” distribution of behavioral health services funds in Texas are complicated.**
4. **The county would assume certain administrative management responsibilities currently assigned to VO and NTBHA.**



The “interim report”, contained in Appendix III, was submitted to the Collin County administration on October 11, 2010, to respond to five questions raised by the County Commissioners on June 7th, 2010.

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SECTION ONE

Clinical Characteristics of NorthSTAR Clients

Serious Mental Illness

Most public mental health systems in the U.S. determine services eligibility using a diagnosis of a “serious mental illness” (SMI). Although there is pre-legislative session discussion regarding the definition of eligibility for publically funded mental health services, the current definitions are clinical in nature as presented below.

SMIs include schizophrenia, bipolar disorders and major depressive disorders (MDD).

- Schizophrenia is a thought disorder and considered to be the most damaging mentally and socially.
- Bipolar disorder and MDD are mood disorders, and may be chronic and debilitating.

None of these disorders are scientifically linked to, although an individual may be at risk for dangerousness or diminished mental capacity. “Competency” is a legal, not a clinical status.

- Mental Health Authorities in Texas¹ are funded by the legislature as direct and federal matching funds, to serve persons with a SMI in a designated catchment area (a single county or group of counties).
- Persons with a SMI and a co-occurring diagnosis of a substance abuse disorder (also referred to as chemical dependency or substance use) are considered dually diagnosed MI/SA.
- Some persons with a SMI may also have a developmental disability also referred to historically as mental retardation thus sometimes referred to as dually diagnosed MI/DD or MI/MR.

Despite many attempts at the national and state levels to combine systems of care for all of these individuals, advocacy groups, funding authorities and policy makers, agencies continue to specialize in the services they provide. Although VO receives all of the funds for MH, CD, criminal offender programs, Medicaid and indigent care, and refers to this as “blended” funding, the services themselves are not integrated at the community level. Thus the structure of the services delivery system at the provider level in NorthSTAR is no different than other MHMR systems in Texas.

Diagnoses of NorthSTAR Clients

NorthSTAR has a complex data management system. Clients in NorthSTAR are best be defined by “encounters” which are contacts or visits with a provider.

Diagnostic codes may differ per encounter or provider. Thus, although there are groups of individuals who may be characterized as “sicker” or “more severe” or “at higher risk for utilizing more expensive/intensive services,” one cannot easily characterize “a client” with “a diagnosis.”

Figure 1 on the page 2, and its companion Table F1 in Appendix I, page 27, display information about encounters by diagnostic groups for Collin County residents for calendar year 2009, and for all three study years, respectively.

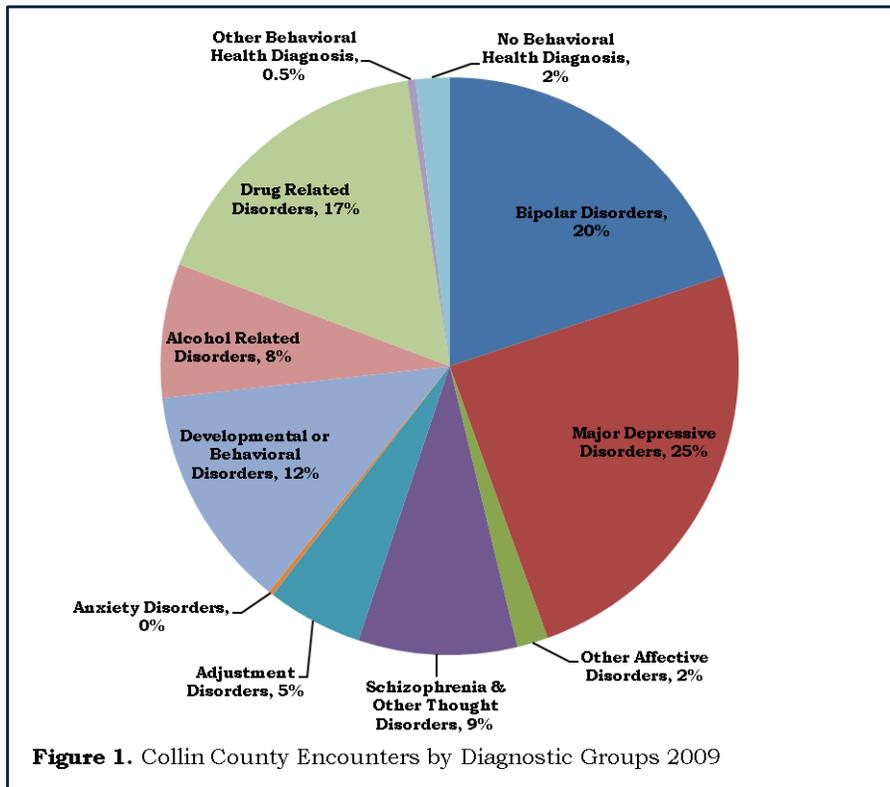
Some observations are:

- 1. There were 139,878 encounters by ~10,000 Collin County children and adults in the three-year study window with an expenditure of >\$15 million, at an average of \$107 per encounter.**
- 2. Most visits were for major depression, followed by problems with bipolar disorders (both affective disorders), and other affective disorders next.**
- 3. Encounters for developmental or behavioral disorders outpaced those for person with schizophrenia or thought disorders.**
- 4. Alcohol and Drug problems represented 23.7% of all encounters**

¹ <http://www.statutes.legis.state.tx.us/Docs/HS/htm/HS.533.htm>

Distribution of Services

The proportionate distribution of services by diagnostic groups is important because it helps to understand whether the system is balanced according to indicators of need. It may also reveal gaps in the system, and help to explain expenditure patterns.



This distribution of encounters by diagnostic groups in Collin County is not typical of most public mental health systems in which persons with thought disorders represent a larger proportion of the patient population. In Collin County more services are provided to clients with Depressive Disorders or Chemical Dependency Disorders than in the typical public mental health system.

Research suggests that schizophrenia is under-diagnosed in all systems of care nationally, and the base rate of 1% to 2% is too low for several reasons.

Table 1 compares the proportion of diagnostic groups served by Collin, Dallas, and the other five counties combined, for each of the three years of the study window and all years total. The importance of Table 1 is in the way it reflects the types of individuals from each county who used NorthSTAR services.

Diagnostic Categories	2007			2008			2009			Total 3 Years		
	Collin County	Dallas County	Other North-STAR	Collin County	Dallas County	Other North-STAR	Collin County	Dallas County	Other North-STAR	Collin County	Dallas County	Other North-STAR
Bipolar Disorders	19.5%	23.9%	26.6%	20.6%	26.6%	30.2%	19.9%	28.2%	26.4%	20.0%	25.8%	27.6%
Major Depressive Disorders	26.8%	22.0%	22.8%	26.0%	20.1%	18.5%	24.8%	17.4%	17.3%	25.8%	20.3%	20.2%
Other Affective Disorders	1.7%	1.0%	3.5%	1.9%	1.3%	4.2%	1.8%	1.1%	4.3%	1.8%	1.1%	3.9%
Schizophrenia & Other Thought Disorders	10.4%	21.6%	17.8%	11.2%	26.1%	22.3%	8.8%	25.7%	23.5%	10.0%	23.9%	20.5%
Adjustment Disorders	3.2%	1.5%	3.0%	5.1%	1.1%	3.5%	5.3%	1.8%	3.7%	4.6%	1.5%	3.3%
Anxiety Disorders	.4%	.2%	.1%	.3%	.0%	.2%	.3%	.1%	.2%	.3%	.1%	.1%
Developmental or Behavioral Disorders	10.5%	5.9%	13.9%	12.1%	5.0%	17.0%	12.3%	4.6%	20.1%	11.7%	5.3%	16.3%
Alcohol Related Disorders	5.0%	2.4%	.8%	5.7%	1.6%	.7%	7.4%	1.6%	1.0%	6.2%	1.9%	.8%
Drug Related Disorders	18.1%	19.9%	8.5%	16.5%	17.6%	3.1%	17.0%	18.5%	2.5%	17.2%	18.9%	5.5%
Other Behavioral Health Diagnosis	.4%	.7%	.9%	.4%	.5%	.2%	.4%	.7%	.4%	.4%	.7%	.6%
No Behavioral Health Diagnosis	4.0%	1.0%	2.1%	.3%	.1%	.1%	1.9%	.4%	.5%	2.0%	.6%	1.1%
Columns total 100%												

* This table utilizes updated encounter information received in August 2010

Collin County residents:

- ◆ Had a lower proportion of encounters for problems with schizophrenia/thought disorders and bipolar disorders than the other counties
- ◆ Had a higher proportion of encounters for major depressive disorders than either Dallas County or the other five counties combined
- ◆ Had a higher proportion of encounters for adjustment disorders and developmental or behavioral disorders than Dallas County; but fewer than the other five counties combined
- ◆ Utilized a slightly larger proportion of all encounters for CD related problems than any of the comparison groups

In a balanced system, services distributions would be consistent with the diagnostic groups most likely to need and use those services. Table 3 in Appendix I, page 28, provides details of which diagnostic groups utilized each service type. Overall there is consistency in expected utilization of services by various diagnostic groups. However, these data suggest the system could be modified to optimize more efficient and effective services utilization.

Generally those groups most likely to need assertive community treatment did receive those services.

- ◆ Most of the outpatient counseling was provided to encounters for MDD.
- ◆ Fifty-seven percent of the crisis intervention services encounters were for persons with adjustment disorders first (youth), and persons with bipolar disorders second.
- ◆ Fifty-two percent of the encounters at the Green Oaks 23-hour observation unit were for persons with bipolar disorders first, and MDD second.
- ◆ Only 12.5% of the 23-hour observation encounters were for persons with schizophrenia and thought disorders.

One example of how the system could be rebalanced would be to provide more appropriate services to those who use the crisis and inpatient programs the most frequently, to avert this need.

Types of services utilized by Collin County NorthSTAR clients represent a descriptive profile as a quantity of services used, and should not be interpreted as a level of expressed, met or unmet need or demand, but only as a service authorized and paid.

In addition to encounters by diagnostic groups, it is also important to consider how the services are distributed within each county's population.

Table 2. Service Types for All Encounters (Adult and Children) By Year By County

Service Categories	2007			2008			2009			Total 3 Years		
	Collin County	Dallas County	Other NorthSTAR	Collin County	Dallas County	Other NorthSTAR	Collin County	Dallas County	Other NorthSTAR	Collin County	Dallas County	Other NorthSTAR
Case Management	11.3%	10.2%	13.9%	12.6%	10.1%	14.3%	13.8%	6.3%	14.0%	12.7%	9.2%	14.0%
Medication Services	26.8%	29.1%	24.1%	23.7%	31.9%	22.7%	23.6%	32.1%	23.9%	24.6%	30.7%	23.6%
Outpatient Counseling - Adult or Child	10.3%	4.0%	7.6%	8.7%	3.0%	5.8%	7.7%	2.4%	5.6%	8.8%	3.3%	6.6%
Clinical Assessment	4.3%	2.8%	3.1%	5.4%	2.3%	1.6%	4.9%	3.1%	1.6%	4.9%	2.7%	2.3%
Rehab	20.0%	26.4%	38.9%	21.6%	27.6%	48.2%	20.8%	27.1%	47.3%	20.8%	26.9%	43.6%
ACT	.1%	.7%	.3%	.1%	1.2%	.4%	.1%	1.8%	.7%	.1%	1.2%	.4%
MH Intensive Outpatient	.0%	.0%	.0%	.0%	.0%	.1%	.0%	.0%	.1%	.0%	.0%	.1%
Community Inpatient	3.4%	2.2%	1.7%	4.1%	2.4%	1.5%	3.4%	3.0%	1.8%	3.6%	2.4%	1.7%
23 Hour Observation Room	1.6%	1.8%	.9%	1.6%	1.9%	1.0%	1.5%	1.7%	.9%	1.6%	1.8%	.9%
Emergency Room Services	.5%	1.5%	.2%	.4%	1.2%	.3%	.4%	1.4%	.3%	.4%	1.4%	.2%
Crisis Intervention/Stabilization	.2%	.2%	.6%	1.3%	.9%	.9%	.8%	.5%	.6%	.8%	.5%	.7%
Intensive Crises Residential Treatment	.0%	.0%	.0%	.0%	.0%	.0%	.1%	.0%	.0%	.0%	.0%	.0%
CD Non Residential	19.4%	17.6%	8.1%	18.6%	15.1%	2.8%	20.8%	15.5%	2.1%	19.7%	16.3%	5.1%
CD Residential	2.1%	3.0%	.5%	1.9%	2.0%	.5%	2.0%	3.9%	1.1%	2.0%	3.0%	.7%
Other	.0%	.3%	.0%	.0%	.3%	.0%	.2%	1.2%	.0%	.1%	.6%	.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

- ◆ Case management has increased and medication management remained stable for Collin County compared to Dallas County where medication services have increased but case management has decreased.
- ◆ Outpatient mental health counseling and clinical assessments have declined proportionately, while rehabilitation services have increased in all counties except Collin.
- ◆ Outpatient CD services have increased for Collin County; but decreased for all other counties.

In the three year study window, 96% of service encounters were for the following problems. Details are provided in Figure 2 in Appendix I.

1. **Medication services and rehabilitation ~46%**
2. **Chemical Dependency non-residential and residential ~22%**
3. **Outpatient counseling and case management ~21.5%**
4. **Community Inpatient ~3.6%**
5. **Crisis Management~2.9%**

Key Trends in Services Utilization

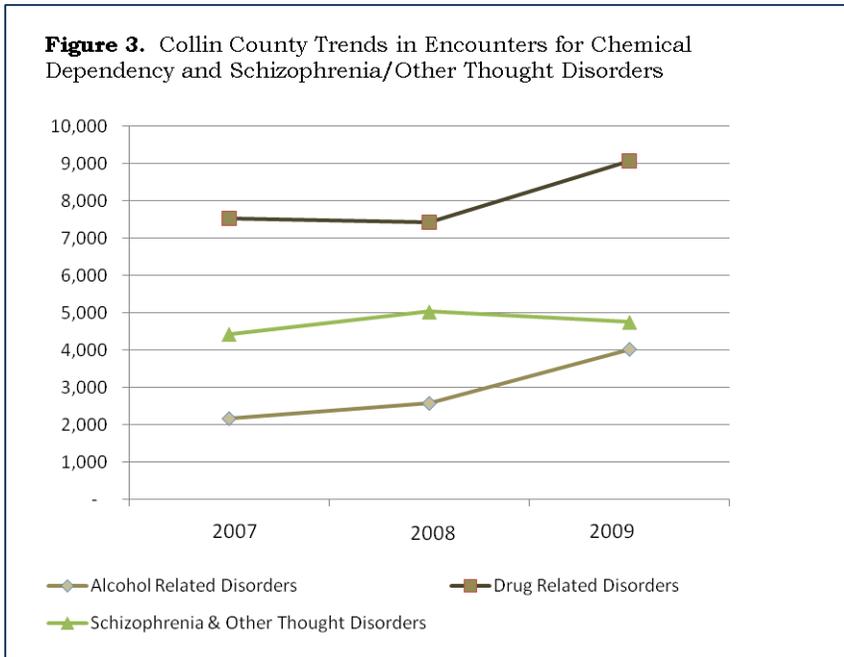


Figure 3 illustrates trends from the detailed Table 3 in Appendix I, using the number of persons served rather than a proportion of the services array.

Numbers of persons with schizophrenia and other thought disorders have remained rather stable, while numbers of persons receiving services for drug related disorders has increased.

Services for bipolar and major depressive disorders have remained relatively stable over the three year period.

In Appendix I Table 3 displays detailed data for Collin County services trends across the three year study window.

While increasing numbers of persons are served in NorthSTAR, they are not from the priority populations defined earlier in this report. Overall, encounters for alcohol disorders have nearly doubled and the number of drug disorder encounters increased between 2008 and 2009, but the relative proportion of encounters in the system for CD services remained generally stable. NorthSTAR is serving more persons who meet the poverty requirements at 200% but are not living in poverty.

Medicaid versus non-Medicaid (otherwise eligible in NorthSTAR) expenditure patterns are important to consider in requesting state appropriated funding directly to Collin County.

In calendar year 2009:

- **64% of all services expenditures were for non-Medicaid clients**
 - 65% of the >\$783,000 spent for Medication Services was for non-Medicaid clients
 - 91% of the >\$589,000 spent for outpatient CD services was for non-Medicaid clients
 - 66% of the Crisis related dollars was spend for non-Medicaid clients
 - **Medicaid clients received 60% of the Rehab services expenditures**
- **72% of all expenditures (>\$5.5 million) for services encounters were spent for persons who received a complete universal assessment.** Not all clients with a complete universal assessment were Medicaid clients. Furthermore it does not follow diagnostic indicators. Section II of this report outlines issues associated with the universal assessment and the decision on the level of care to be provided.

Table 4 presents information for each county for expenditures and individuals served for all NorthSTAR counties using the published DSHS reports for State Fiscal Year 2009 which includes information for all clients seen in all NorthSTAR service counties and presents per client and per capita expenditures.

County	Total Expenditure	Percent of Total Expenditures	County General Population	Number Receiving at Least One Service	County Population Per Capita Expenditure	Per Enrollee Expenditure	2007 Proportion of Residents Under <200% Federal Poverty Level Represented Enrollees
COLLIN	\$ 8,909,573.50	6.65%	762,489	4,770	\$ 11.68	\$ 1,867.84	9.52%
DALLAS	\$ 107,395,201.20	80.13%	2,388,376	48,643	\$ 44.97	\$ 2,207.82	78.05%
ELLIS	\$ 4,407,347.44	3.29%	148,270	2,487	\$ 29.73	\$ 1,772.15	3.65%
HUNT	\$ 5,027,065.36	3.75%	87,312	2,376	\$ 57.58	\$ 2,115.77	2.93%
KAUFMAN	\$ 4,648,232.88	3.47%	99,321	1,873	\$ 46.80	\$ 2,481.70	2.60%
NAVARRO	\$ 2,411,563.56	1.80%	50,171	1,308	\$ 48.07	\$ 1,843.70	2.13%
ROCKWALL	\$ 1,229,664.64	0.92%	74,608	618	\$ 16.48	\$ 1,989.75	1.12%
Totals/Averages	\$ 134,028,648.58	100.00%	3,610,547	62,075	\$ 37.12	\$ 2,159.14	100.00%

- Collin County residents represented almost 8% of all NorthSTAR clients in the three year study window.
- The average per-capita expenditure reported for the entire Collin County population is significantly lower than all other counties.
- Actual services delivered and the associated expenditures represent consumption only. This illustrates the limitations associated with interpreting “per capita” or distribution of expenditures as a measure of demand, need, costs, or utilization.
- This wide range of expenditures calculated on a general population per-capita distribution is balanced by the observation that the average per client expenditure is \$2,160 for all enrollees; with an average of \$1,868 having been spent for Collin County clients versus a range of \$1,772 (Ellis) to \$2,208 (Dallas).
- Overall, Collin County residents used more of the moderate cost versus very low or high cost services. This is reflected in the detailed analysis of diagnostic groups’ services utilization data performed using the DSHS data examined for this study.

NOTE: If Collin County considers seeking a per-capita/formula distribution of appropriated behavioral health funds based on the NorthSTAR model, multiple administrative and political issues would ensue. If Collin County proposes a NEW MODEL, it will be important for the county to have an official county behavioral health director appointed to the NTBHA board to represent the county in planning and negotiating services.

SECTION TWO Authorizations for Care

Authorization for Care Procedures

NorthSTAR enrollees do not all receive a complete “universal assessment” (UA) to acquire an authorization for services. Those who did receive a UA (UA client) generally also receive an authorization for a level of care referred to as a Level of Care Authorized (LOC-A) with authorizes a specific “service package.” Generally, patients receiving CD only services or emergency psychiatric care only do not participate in this assessment. Historically, patients who received medication management only were also excluded.

Service packages are defined on the DSHS web site: <http://www.dshs.state.tx.us/mhsa/umguidelines/>.

In the three-year study window 10,000 Collin County residents received at least one service from a NorthSTAR provider. 4,353 clients did not receive an UA or were never assigned a level of care authorization. For the clients who did receive a complete assessment:

- ◆ Average adult age: 34 ± 12 years; range 17 – 89.
- ◆ Average child age: 11 ± 4 years; range 2 – 17.
- ◆ Females were 61% of the adult clients; 39% of children.
- ◆ 5,647 received a full assessment, a level of care (LOC), and at least one service package authorization.
- ◆ Authorized clients made an average of 20 visits during the 3 year period (median 12 visits) compared to non UA clients with an average of 10 visits (median 3 visits).

In the three year study window, there were 18,347 total **authorization actions** for Collin County clients for 5,647 individuals

- ◆ Adults: 4,335 clients with 14,273 authorizations
- ◆ Children: 1,312 clients with 4,074 authorizations

Table 5. Collin County NorthSTAR Clients with a LOC-A Three-Year Study Window

Adults (n = 4,335)			Children (n = 1,312)		
Level of Care Authorized	Number	Percent	Level of Care Authorized	Number	Percent
Not Eligible	4	< 1%	Aftercare	1,053	26%
Limited Outpatient	11,270	79%	Brief Outpatient (Internalizing Disorders)	651	16%
Limited plus counseling	1,084	8%	Brief Outpatient (Externalizing Disorders)	2,197	54%
Intensive services (Team Approach)	1,739	12%	Intensive Outpatient (Internalizing Disorders)	21	< 1%
Assertive Community Treatment	140	1%	Intensive Outpatient (Externalizing Disorders)	97	2%
Crisis Services	29	< 1%	Intensive Outpatient (Schizophrenia/Bipolar)	55	1%
Transitional services (post inpatient)	2	< 1%	--	--	--
Total	14,268	100%	Total	4,074	100%
Missing	5		Missing	0	

In **Appendix I, Table 6A** displays details for encounters in each service type for clients who did not receive an Universal Assessment (“Non-UA” clients) and those individuals that did receive an assessment (“UA” clients).

For the UA clients,

- ◆ **Adult Primary diagnosis most often seen:** Depression (54%) followed by Bipolar disorders (31%) and Schizophrenia and related disorders (13%)
- ◆ **Child Primary diagnosis most often seen:** developmental disorders (57%) followed by adjustment disorders (21%) and depression (11%)

Table 6. Collin County Adults and Children with Complete Assessments by Diagnostic Groups

Adults (n = 4,335)			Children (n = 1,312)		
Primary Diagnosis	Number	Percent	Primary Diagnosis	Number	Percent
Schizophrenia & Related Disorders	573	13%	Schizophrenia & Related Disorders	10	1%
Bipolar Disorders	1,348	31%	Bipolar Disorders	75	6%
Depression	2,337	54%	Depression	142	11%
Other Affective Disorders	57	1%	Other Affective Disorders	35	3%
Other Psychotic Disorders	1	< 1%	Other Psychotic Disorders	4	< 1%
Primary Drug Related Disorders	4	< 1%	Primary Drug Related Disorders	3	< 1%
Developmental Disorders	3	< 1%	Developmental Disorders	746	57%
Cognitive Disorders	1	< 1%	Anxiety Disorders	23	2%
Other	2	< 1%	Adjustment Disorder	268	21%
--	--	--	Other	3	< 1%
Total	4,326	100%	Total	1,309	100%
Missing	9		Missing	3	

UA Enrollees with more than one behavioral health diagnosis:

- 1,057 (24%) adults
- 352 (27%) children

UA Enrollees with co-morbid or co-occurring mental illness and chemical dependency diagnoses:

- 513 (12%) adults
- 25 (2%) children

A GAF of 60 or above indicates a generally satisfactory **level of functioning** for persons with a SMI.

Average GAF scores at first assessment:

- Adults mean of 45 ± 4, range 1 to 75
- Child mean of 47 ± 6, range 20 to 80

There are two different sub-groups of consumers of NorthSTAR services who are and are not similar to the more typical public mental health system patient. For example, in counties with county operated hospital districts, the local MHMR serves certain populations, and the hospital district may serve another group of psychiatric patients. Two good examples are Tarrant and Harris Counties. Generally those who have a complete UA in the NorthSTAR system may be more typical of MHMR psychiatric patients, while those who did not have a complete UA or service package authorization used less of the services and may be more like hospital district patient populations, with less severe and persistent conditions.

Criteria involved in the level of care (LOC) authorization process The authorization process operates like most other managed care processes to acquire approval for a service or treatment.

- Generally only those individuals with a condition that likely requires continuous care over an extended time period, who also have a low **level of functioning** (see GAF), indicating risk for a higher level of services need, would typically receive a complete UA and subsequently an authorized “service package” (a LOC-A).
- Persons whose problems are predicted to resolve with brief therapies, or who were seen once and never returned, would typically not receive a UA or LOC-A.
- Other information considered in addition to the diagnosis include co-morbidity (multiple diagnoses co-existing), dual diagnoses of a substance use disorder, and GAF contribute to Level of Care Recommended (LOC-R) and LOC-A.
- Service authorization is strongly related to patient problem, and ultimately to number or intensity of services received, and hence expense.
- **Under the Resiliency Disease Management (RDM) process for mental health clients**, persons with more serious disabilities may occasionally need a higher level of service to prevent relapse or avert hospitalization.
- **Chemical dependency is not part of the RDM process**, nor are emergency inpatient care, emergency room care, or medication management

There are two main parts to issuing a LOC authorization.

Part 1) Factors are manipulated in an algorithm that automatically assigns a LOC-RECOMMENDED. These factors include a clinical assessment and diagnosis; assessment of risk of harm to self or others, social or physical support needs, history of hospitalizations, and level of functioning measures.

Part 2) VO determines the LOC-AUTHORIZED based on the LOC-R. If a provider or client requests a different level of service than the one authorized by VO an appeal may be made. Appeals may occur very quickly and providers or clients may provide additional data.

- If a LOC-A does not match a LOC-R, EITHER the provider agency OR the client has requested a lower or a higher level of care.
- If the LOC-A and LOC-R are not in agreement, one could infer EITHER that a client is at risk for not receiving sufficient services, OR the provider has been instructed to provide the client with more services than the provider thought was needed.
- In study data, LOC-A and LOC-R agreed in about 85% of the cases.
- As a quality metric, DSHS monitors agreement between LOC-A and LOC-R, and any related appeals.

The number of separate authorizations is driven by entry of the client into and out of the NorthSTAR system, as well as the time limit for authorization.

Collin County residents with LOC-A received between 1 and 29 separate authorizations each

- The average number of authorizations was 3.5 (\pm 2.8).
- The total duration for each authorization ranged from 6 to 45 months
- The average duration for an authorization was 17 (\pm 12) months.

NOTE: There are multiple authorizations for many individuals, because there is generally a time frame associated with authorizations, and the clients who receive services over extended periods of time may need to be “re-authorized” as circumstances change. LOC-A is influenced primarily by the diagnosis of the individual at the time of assessment, as well as any additional information about functioning and specific treatment needs. For the sample of Collin County residents described here, we used the primary behavioral health diagnosis made at their first authorization for care during the study window (index authorization).

Level of Care Requested vs. Level of Care Authorized

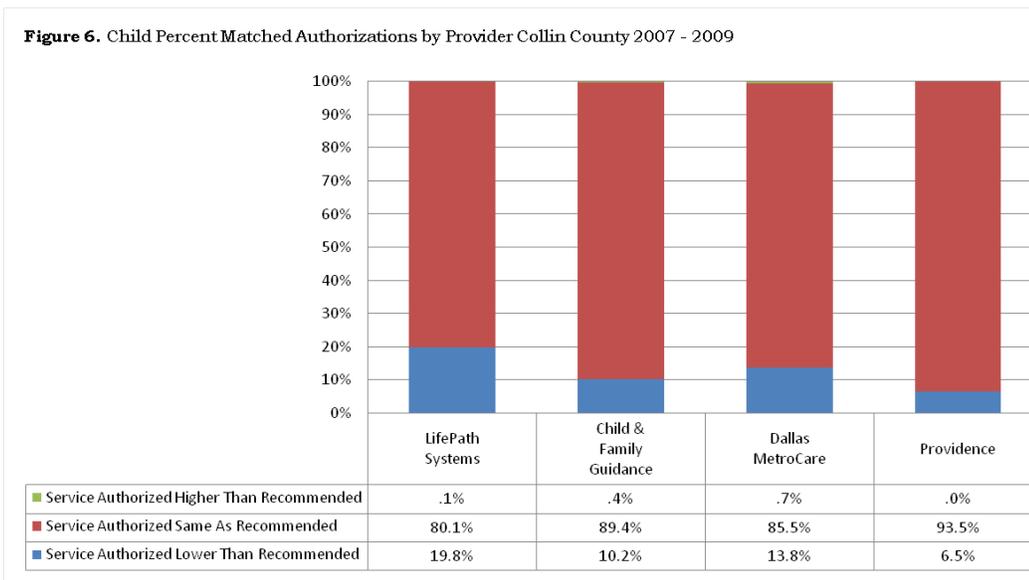
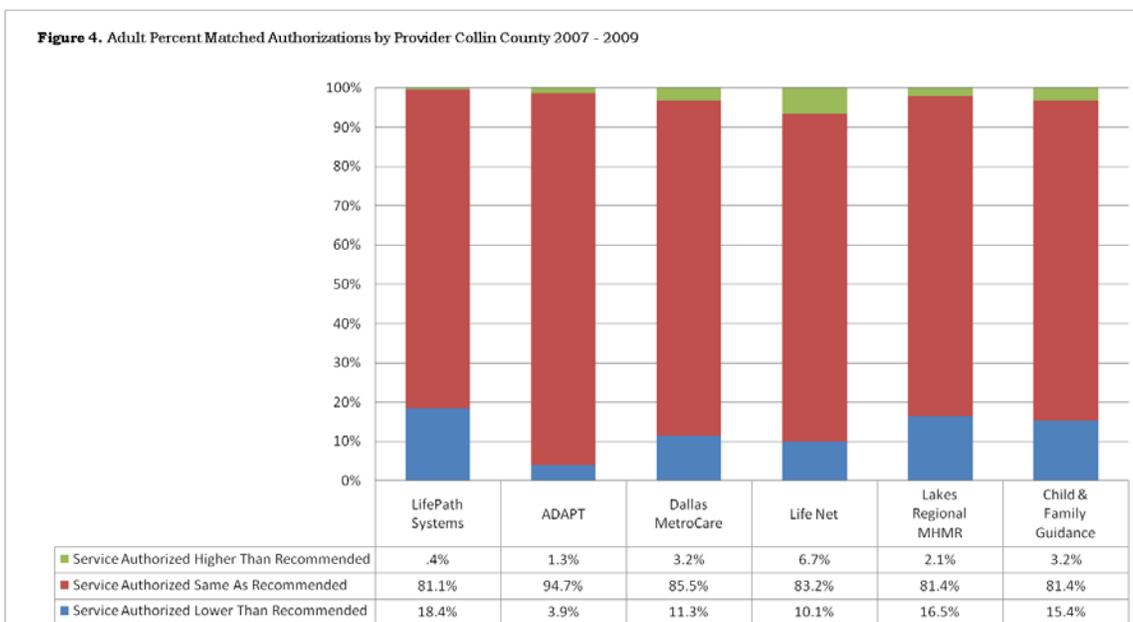
The concept of “Level of Care” (LOC) and how it has been determined by VO has been the subject of controversy and anecdotal reports by service providers and clients.

Under Authorization means the LOC-A was LOWER than the LOC-R; (i.e. level of care recommended during assessment was more intensive than what was ultimately authorized for the client) occurred 14% and 15% in adults and children, respectively.

Over Authorization mean the LOC-A was HIGHER than the LOC-R; (a request may have been made to increase the intensity of service recommended by the assessment) occurred infrequently—1% of cases in adults and <1% in children.

Figure 4: For LifePath Systems 81% for adults and 80% for children; a lower match rate than ADAPT and Metro Care, but similar to Life Net, Lakes Regional MHMR and Child and Family Guidance. **Figure 6** displays children’s authorizations. LifePath had a lower rate of match than Child and Family Guidance.

In Appendix I, Figures 3 and 5 present the same data using raw numbers.



Analysis is based on data obtained from the DSHS data warehouse for Collin County residents January 1, 2007 thru December 31, 2009. DSHS records indicate that approximately 90% of the non-matched authorizations are related to client preference or request. Only a small proportion of these non-matches are due to mismatched VO-Provider perspectives.

SECTION THREE

Impact of the Mental Health Services “Case Rate”

In January 2010 Value Options initiated a new method of payment for services. Between October 1, 2009 and February 1, 2010 several agencies changed to the new “case rate.” LifePath, Dallas Metro Care, Adapt, Child and Family Guidance, and Life Net were the largest providers of mental health services to Collin County residents. Providers continue to “bill” VO for the “actual charge” for the service; but for patients with a LOC-A receive a negotiated flat rate per month. VO and DSHS are examining differences overall in “charges” and “paid rates” to evaluate the impact of the flat rate. These data provide only a glimpse of the three months immediately preceding and immediately following the institution of the flat rate for mental health services.

- ◆ The basic rate has been described in meetings, but unavailable per contract, as “\$140” per month per client.
- ◆ Negotiated rates are based on the relative intensity of the services at that agency.
- ◆ ACT services and CD services, for example are not included in the flat rate.
- ◆ This “rate” is not based on a formula or any defined level of service or need*.

*Diagnosis-based case-mix adjustment systems used in other systems have been developed using sophisticated statistical models that consider various health status indicators. *It is generally acknowledged that with financial incentives paid to managed-care organizations to limit services, communities should have the authority to closely scrutinize the quantity and quality of care.*

Data for the mental health (not chemical dependency) services agencies contracting under the negotiated “case rate” reflect changes in the number of services and the number of Collin County residents served.

- ◆ Numbers of individuals served and number of encounters provided have changed at all agencies.
- ◆ Some provide the same amount of services for fewer individuals.
- ◆ Conversely, some provide fewer services per individual.
- ◆ Behavioral health outreach services have increased at the four agencies Collin County residents use most often for outpatient services.

Graphs and tables containing DSHS reported pre-rate and post-rate individuals served, encounters, and expenditures/paid for Dallas Metro Care, ADAPT, and LifeNet are provided in Appendix I pages 30-31 (complete data for Child and Family Guidance was unavailable at the time of the data acquisition from DSHS). Below we provide LifePath System details and observations of overall trends for Collin County residents served at these four agencies.

Table 7A. Impact of Rate Change LifePath Systems

	Pre-Rate	Post-Rate
LifePath: Contract Effective Date 02/01/2010		
<u>Number of Persons Served</u>	1,482	1,325
<u>Number of Encounters</u>	4,883	4,821
<u>Average Expenditure per Encounter*</u>	\$65.69	\$56.92

For these three months before and after the rate change, Life Path has decreased the number of individuals served by 10.6%, but with similar numbers of encounters per person (3.3 pre-rate change, versus 3.6 post-rate change). On average each encounter after following the contract change is billed lower than the pre-rate. Overall, case management, CD non residential and “other” increased. Crisis related services doubled in proportion of all services encounters. Decreases are noted in rehab services, outpatient counseling, clinical assessments and mediation services.

Figure 7A. LifePath Service Distribution Pre-Contract Rate Change

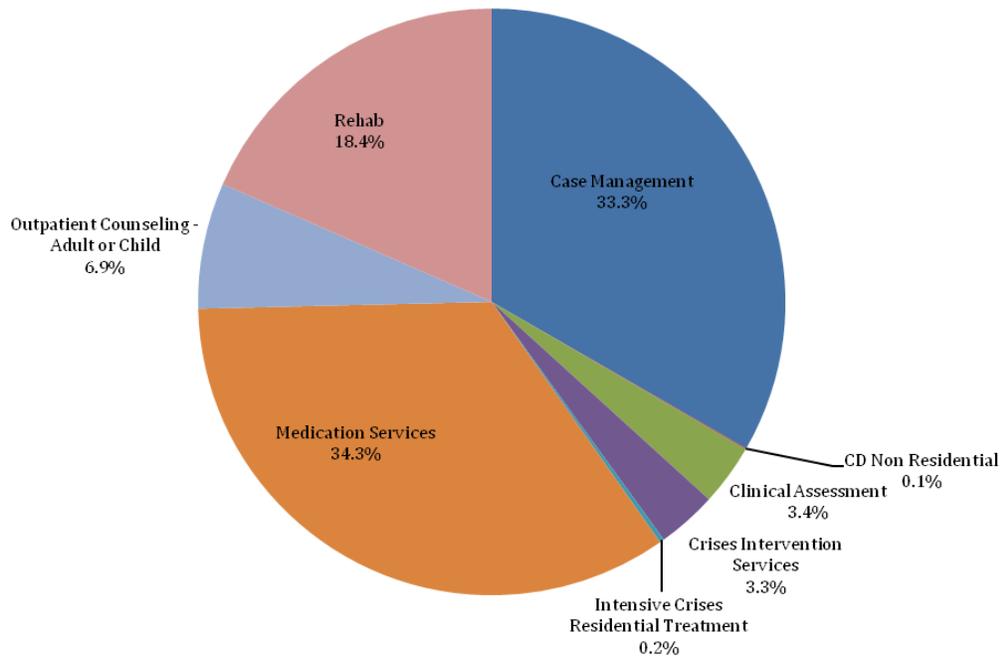
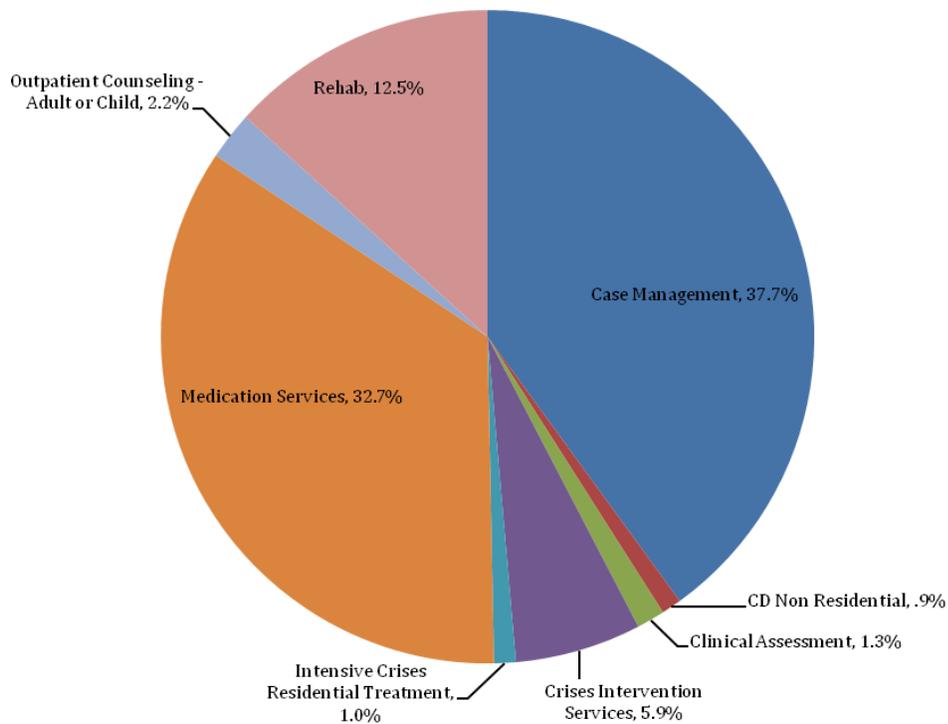


Figure 7B. LifePath Service Distribution Post-Contract Rate Change



Contract change impact varied by providers for the short window of this analysis, however there are some important trends.

- ◆ For example, at LifePath, outpatient counseling for children and adults comprised 7% of their services prior to the contract change; but 2% following the contract change.
- ◆ For example, at LifePath, Case Management services comprise a greater proportion of services% following the contract change.

In addition to changes in individuals and encounters, the distribution of services changed significantly for all agencies reported here. Details provided in Appendix I are summarized as:

- ◆ Average encounter expenditures/billed amounts have increased for all providers except LifePath Systems that has decreased.
- ◆ Dallas MetroCare reported fewer individuals served, with 16% fewer encounters to Collin County residents.
- ◆ ADAPT reported fewer individuals and encounters while maintain a similar number of encounters per individual.
- ◆ Life Net reported a 13% reduction in individuals served and a 15 % reduction in encounters – fewer persons more encounters (in contrast to LifePath).

SECTION FOUR

ESTIMATED BEHAVIORAL HEALTH NEEDS AND GAPS

SUMMARY OBSERVATIONS AND CONCLUSIONS

Using historical utilization trends, and direct and synthetic estimates of risks and needs to identify future risks and needs the following observations are of importance in Collin County.

Historical Utilization Trends

10,113 Collin County residents for whom we have complete demographic information (8,005 adults and 2,108 children) used at least one NorthSTAR service in 2007-2009. Rates for services utilization trends are:

- 1.4%[†] of adult county residents used at least one community based behavioral health service in the three year study window.
- 0.75%[†] of adult county residents have been documented as having a complete diagnostic assessment and a SMI diagnosis (4,275)
- 0.95% of Collin County children used at least one community based behavioral health service in the three year study window.
- 0.59% of child county residents have been documented as having a complete diagnostic assessment

Directly Assessed Needs

Based on income and family size reported by 465 of the 576 adult respondents to the Collin County Community Survey, approximately 171 (36.8%) of those adults are likely NorthSTAR eligible.

- 12% of respondents likely eligible for NorthSTAR reported being unable to get needed mental health care in the previous 12 months
- 3% of respondents likely eligible for NorthSTAR reported being unable to get needed drug or alcohol abuse services in the previous 12 months
- 64% of likely eligible respondents had not heard of NorthSTAR
- NorthSTAR likely eligible respondents reported having significantly more (7.9) behavioral health problems on average, than ineligible respondents (3.7).

Synthetic Estimated Needs

- Up to 2.51% (13,267)* of adult Collin county residents are currently at risk of having a SMI.
- About 0.61% of Collin County adults (3,250 (25%) of these at-risk adults) likely have incomes at or below 200% of the Federal Poverty Level (FPL), and just under half of these will have incomes at or below 100% of the FPL.* This estimate is slightly lower than the pure NIH risk rates suggest (see phase one report).
- As many as 0.43% (2,249)* of Collin County adults are at risk for having a dual mental health – substance abuse disorder
- For every additional 25,000 adults in Collin County, approximately 628* will be at risk for a SMI (153* with incomes at or below 200% of FPL)
- Nationally there is a gap of almost 4% between persons estimated to need and those receiving treatment for chemical dependency problems.

*Based on 2007 census bureau estimates

†Based on 2009 Collin County Population Estimates of 569,974 adults

There are estimated gaps between services utilization and directly assessed and estimated needs.

Some estimates are complicated by the fact that nationally risk rates for mental health and chemical dependency problems are inter-related. For example, youth who report an episode of major depression may also have chemical dependency problems and the rates of chemical dependency problems differ for those with and without a depressive episode.

Adult Mental Health

About 3,250 (0.61%) Collin County adults are estimated to need a mental health service for a SMI, AND be eligible for NorthSTAR. Historically, an additional 4,750 adults have used at least one mental health or chemical dependency service and met eligibility criteria. From this perspective there is no gap in estimated need and services available, but there is a risk for new clients entering the system.

An additional number of Collin County adults with incomes above 200% of poverty may be uninsured, and thus at risk of needing public services. Per our comments in the Phase One report, nearly 68,000 adults fit into this category, placing another 1,700 at risk for developing a SMI, about 10% of whom will have a dual MH/CD diagnosis. Further, a serious mental illness quickly places the individual and the family at the threshold of financial need. Uninsured youth tend to enter the system through the criminal justice system, and young adults with a first psychotic episode tend to remove themselves from the family. Thus family income is of little consequence in protection against public services demands.

Youth Mental Health and Chemical Dependency

Youth under age 18 represent about 21% of the Collin County residents served by NorthSTAR and 28% (or 221,657*) of the overall Collin County population.

According to the national Survey on Drug Use and Health (May 2009) 8.1% of adolescents experienced at least one major depressive episode in 2007; 35% of them used illicit drugs, and only 39% of them received treatment. The same report found that 18% of youth with no episode of depression had used illicit drugs. Fact sheets are available from a number of sources. One useful source is the national Center for Children in Poverty: http://www.nccp.org/publications/pub_929.html. One accepted national risk estimate for youth needing mental health and chemical dependency treatment is 9%. Youth are typically underserved because they do not come to the attention of schools or families without a precipitating event usually violent. Many youth enter the public mental health system through the juvenile justice system. Family courts need more resources for referrals for troubled youth and families ordered for evaluation and possible counseling to avoid the child being removed from the home and placed in supervised living or foster care.

If the risk rate in Collin County is lower than the national rate, the gap would still be large. This gap would be approximately 4,000 between youth served and youth in need and eligible.

Adult and Child Chemical Dependency

Lifetime prevalence estimates of any substance abuse or dependence is as high as 26.6% (the National Institute on Drug Abuse), with risk for alcohol abuse being higher than for illicit drug use. Texas rates for alcohol use are higher than the national average. In the three year study window, there were 1,649 adult Collin County residents who used a CD service, 1,330 of whom used CD AND other mental health services. Using the nationally estimated gap of almost 4% between persons needing and those receiving CD services and the number of Collin County residents eligible for NorthSTAR based on 200% or less of poverty, there is an estimated gap of ~2,700 Collin County adults that may need CD treatment sometime in their lives, but not receive them.

Financial Risk

Using the 2007-2009 expenditures, the average annual expenditure per individual (not including State Hospital allocation or Medicaid funded prescriptions) to provide the **same services** to the **same types of individuals** historically served, is ~\$602.

To provide the same level of services to similar individuals in the future not accounting for inflation or economic downturns:

Using historical expenditures, the one year cost to provide the same services to the same types of individuals, would be approximately ~\$602 per person per year.

Additional Collin County population growth of 25,000 would add an estimated 150* to 350† individuals with behavioral health needs at or below 200% of poverty.

This would mean an additional annual financial risk for the public behavioral health services for Collin County between \$90,300* to \$210,700† as the population increases.

*150 conservative estimate based on synthetic estimates for SMI in adults, †350 based on historical utilization rates for adults with at least one NorthSTAR service

A more precise estimate of the number of Collin County residents at risk for mental illness or substance abuse disorders requires an epidemiological survey using a representative random sample of all Collin County residents. Funds should be provided by the DSHS or by VO for example, for such a study.

Direct Method of Assessment of Perceived Need for Behavioral Health Services

A 61-item survey (Appendix III) was distributed in Collin County through e-mail, web-sites, mail, and personal delivery methods. The survey was available electronically and by printed booklets. We distributed these surveys over a three month period of time (May – July 2010) to libraries, schools, services agencies, and individuals throughout the county. We received 599 surveys. Of these, 576 were from Collin County residents and met adult criteria.

Table 8. Collin County Demographic Comparisons* With Needs Assessment Respondents

Race- Ethnicity - Gender	Collin Population Estimates 2009	Collin Residents Served by NorthSTAR (2007-2009)	Community Needs Assessment Survey
White	73.3%	55.5%	55.6%
Black	5.5%	10.6%	4.5%
Hispanic	12.5%	8.5%	31.8%
Asian	6.6%	1.7%	2.8%
Other	2.0%	23.7%	2.1%
Female	49.6%	55.2%	62.1%

* Ages 18-80 only

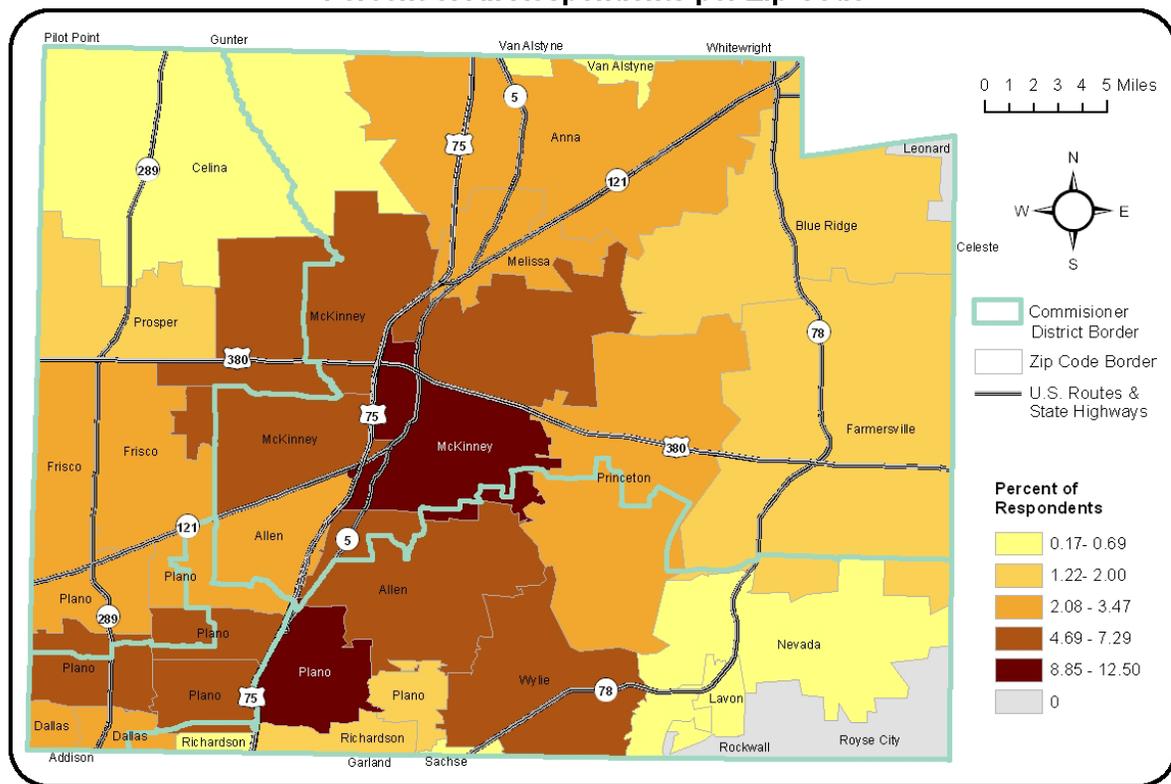
We deliberately over sampled Hispanic residents because of the growth in the Hispanic community and the generally recognized problems with access to care among Hispanic populations in the US.

Differences between the county demographics and the proportions of each race and ethnic group served by NorthSTAR may be explained by the “other” category that includes “unreported.”

The Hispanic community was actively involved in distributing the survey, whereas rural groups and the Black and Asian communities were less responsive.

Map 1 has county commissioner district boundaries in blue.

**2010 Community Needs Assessment:
Percent of All Respondents per Zip Code**



Map created October 14, 2010 by the Mental Sciences Institute (MSI) at the University of North Texas Health Science Center.
Map based on 2010 Community Needs Assessment conducted by the MSI, using 2007 ESRI shapefiles provided by the Collin County GIS Department.

Collin County has a faster rate of growth than any other county in the US. For counties with similar growth rates Collin County does not compare for median household income, or mobility of the population.

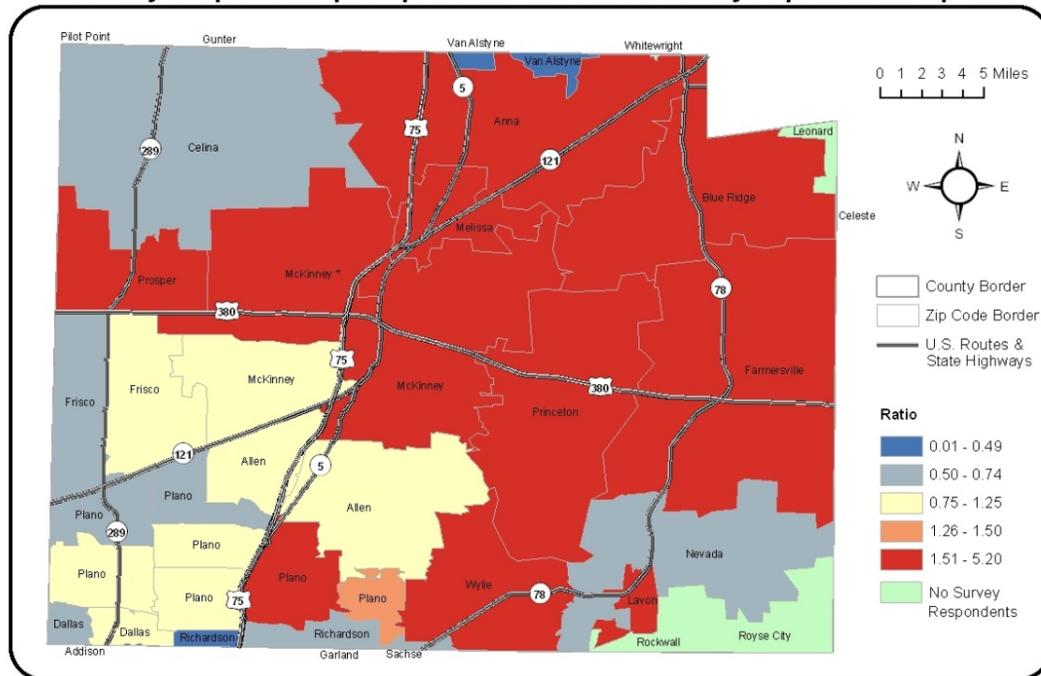
Current behavioral health services needs in Collin County appear to exist at a rate below the national average. Nonetheless, there are gaps in the existing system involving access to services and a suitable mix of services to meet Collin County’s growing and changing population needs.

- Estimated 6.4% of Collin County residents live below federal poverty income.
- An additional 6% earn more than poverty wages but less than 200% of poverty.
- About 12% (>90,000) of Collin County residents currently qualify on income alone for NorthSTAR services.
- Chronic mental illness and chemical dependency problems are commonly associated with lower socio-economic groups.
- Historically, about 7% of the NorthSTAR behavioral health services have been attributed to Collin County utilization.
- Collin County represents approximately 21% of the total seven NorthSTAR counties’ population.

As shown in Map 2, even using a population base including children, the distribution of responses was representative of the distribution of county population. Thus, the response from the rural areas, except Nevada and Celina was acceptable.

Map 2

2010 Community Needs Assessment: Ratio of Percent of All Survey Respondents per Zip Code to Percent of County Population in Zip Code



Zip codes shaded blue represent underrepresentation. Zip codes shaded red represent overrepresentation.
 Map created October 14, 2010 by the Mental Sciences Institute (MSI) at the University of North Texas Health Science Center.
 Map based on 2010 Community Needs Assessment conducted by the MSI, using 2008 population estimates provided by the Texas Department of State Health Services and 2007 ESRI shapefiles provided by the Collin County GIS Department. Population estimates include children while the needs assessment surveyed adults only.
 * 2007 zip code population data used. Data provided by Collin County.

Only a small portion of zip code areas associated with Rockwall and Royse City lie within the Collin County boundaries. Responses from the higher income areas such as West Plano and Frisco were modest but acceptable due to oversampling in lower income groups given the criteria for NorthSTAR services.

Graphs in Appendix II provide details for the Needs Assessment Survey.

AGES

The ages of respondents were normally distributed, with an average age of 43 for the 505 (88%) respondents reporting age.

EDUCATION

For the 559 (97%) respondents reporting their education, 5% had less than a grade school education, 6% had some high school, 19% had a high school diploma or GED, 23% had some college, and 45% had completed college. This is on average a better formally educated population than in most Texas Counties.

HOUSEHOLD SIZE

There were 221 (38%) respondents reporting 1 to 2 children in the household, and another 89 (15.5%) with three or more. The average number of children per household for the respondents is 1.7. In Collin County in the U.S. Census of 2000, there were 2.68 children per household.

Thirty-nine respondents were from single parent households, and 21 were living with unrelated individuals, while 338 lived with a spouse or a spouse and children.

INCOME

Not all respondents reported their income. Of the 465 who did report income, 46% earned \leq \$44,000/year. Higher incomes were among White non-Hispanic respondents, and Hispanic respondents tended to earn more than the Black or Asian respondents

REPORTED NEEDS

- 30% have emotional or mental health problems
- 17% needed unobtainable mental health care
- 5.6% needed unobtainable drug or alcohol services
- 36% had someone in their household with an emotional or mental health problem
- 19% could not access needed care for that person
- Collin County has a minority population that is under educated, likely to be born outside of the United States, with low incomes.
- Respondents under the federal poverty level were more likely to report having problems with suicidal thoughts, anger and hostility, violence, and with alcohol and drugs causing a problem in their lives.
- Individuals with a high school education or less reported fewer problems with depression, about the same problem with suicidal thoughts, and more problems with hostility and violent outbursts compared to those with some college or more education.
- Spanish-only speaking respondents and those born in Mexico reported more problems with violence and the problem group is younger overall.

Table 9 reflects whether respondents recognized the NorthSTAR agencies.

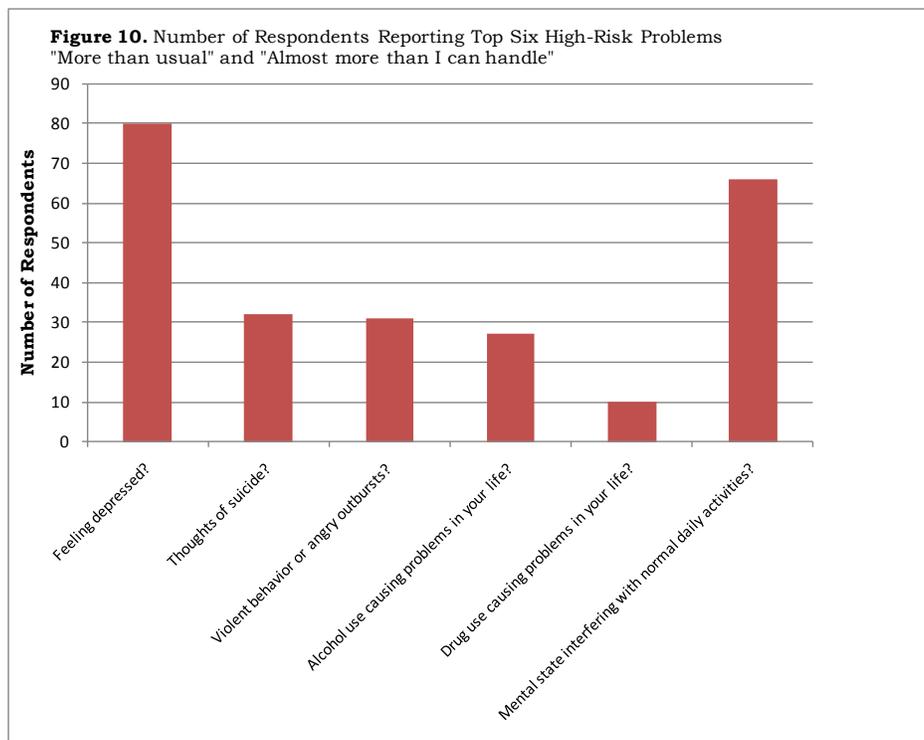
- 31 recognized NorthSTAR and had been seen at Life Path Systems
- 26 had used Green Oaks
- 20 had contact with the police
- 17 had been in a county jail
- 9 had used Dallas MetroCare or LifeNet services
- 25 of those who never heard of NorthSTAR had contact with police and 24 had been in a county jail

Table 9. Service Used by Respondents' Knowledge of NorthSTAR

"Have you or anyone in your household or family been involved with any of these (systems)?" based on response to "Do you know about NorthSTAR Mental Health or Drug of Alcohol Abuse Services?"

System	Know About NorthSTAR			
	YES (n=131)		NO (n=422)	
	Utilized A Service	Did Not Utilize A Service	Utilized A Service	Did Not Utilize A Service
LifePath	31 (23.7%)	100 (76.3%)	10 (2.4%)	412 (97.6%)
LifeNet	3 (2.3%)	128 (97.7%)	1 (0.2%)	421 (99.8%)
Metrocare	9 (6.9%)	122 (93.1%)	3 (0.7%)	419 (99.3%)
Adapt	7 (5.3%)	124 (94.7%)	1 (0.2%)	421 (99.8%)
Other OP	24 (18.3%)	107 (81.7%)	27 (6.4%)	395 (93.6%)
Other SA	9 (6.9%)	122(93.1%)	21 (5.0%)	401 (95.0%)
State Hospital	4 (3.1%)	127 (96.9%)	4 (0.9%)	418 (99.1%)
Green Oaks	26 (19.8%)	105 (80.2%)	11 (2.6%)	411 (97.4%)
Timberlawn	9 (6.9%)	122 (93.1%)	4 (0.9%)	418 (99.1%)
Parkland	9 (6.9%)	122 (93.1%)	9 (2.1%)	413 (97.9%)
Police	20 (15.3%)	111 (84.7%)	25 (5.9%)	397 (94.1%)
County Jail	17 (13.0%)	114 (87.0%)	24 (5.7%)	398 (94.3%)
Homeless Shelter	6 (4.6%)	125 (95.4%)	6 (1.4%)	416 (98.6%)

Figure 10 displays the total number of problems endorsed by the respondents who reported having “more than usual” and “more than I can handle” problems with the most serious of the 17 problems, depression, suicidal thoughts, violence or anger outbursts, alcohol use and drug use causing problems in the person’s life, and their mental state interfering with normal functioning.



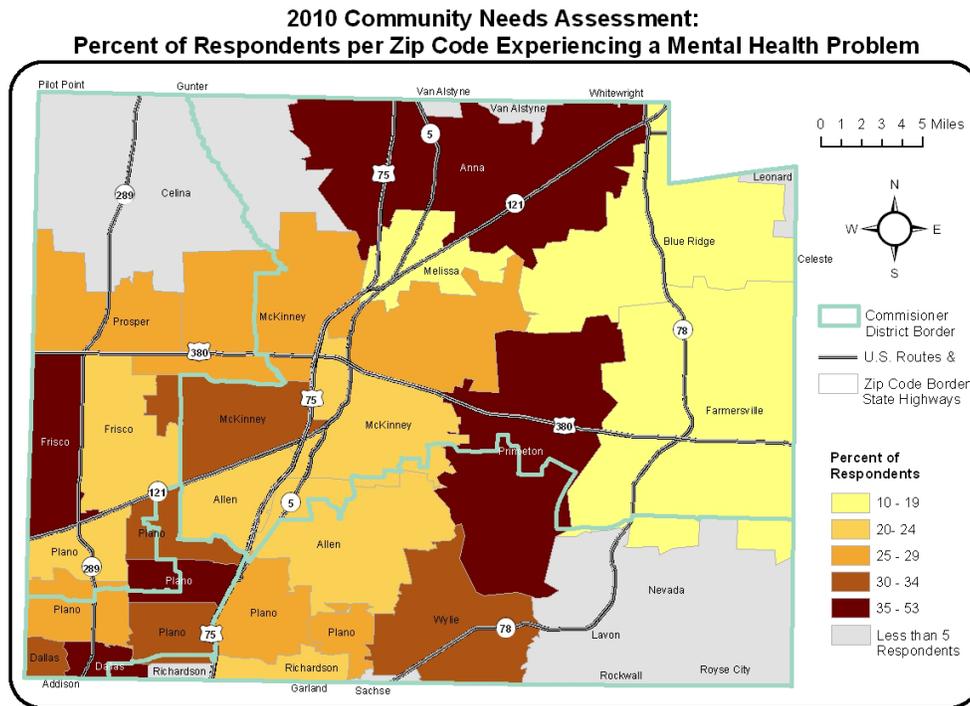
Additional data in Appendix II provide details on the results of the needs assessment. These details provide opportunities for analysis in the interest of planning services.

Among the 165 respondents reporting an emotional or mental health problem in the past year, 33 (19%), reported “thoughts of suicide” to be more than usual or more than they could handle; and 65 (40%), 16

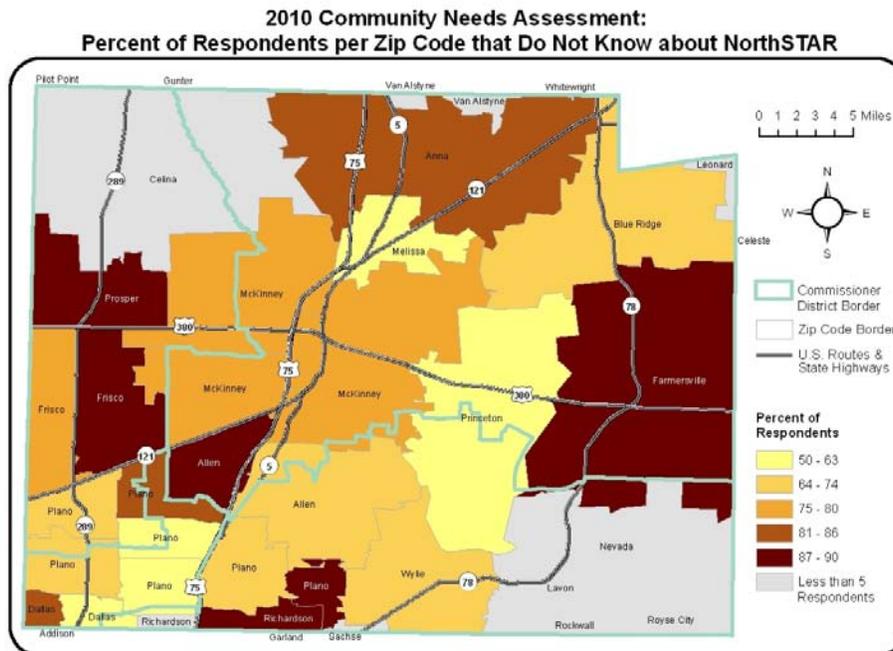
of whom reported they or a family member used a NorthSTAR service, reported that their mental state interfered with normal daily activities.

These data suggest that while some of these patients are accessing the available services there remains potentially serious mental health problems in Collin County for patients both in the system, and those who have not accessed it.

Where do those who have MH problems live in Collin County?



Who does not know about North Star Services?



Synthetic Estimate for Assessment of Need for Behavioral Health Services

Another way to estimate mental health needs for Collin County beyond the method used in Phase One, is by using the Collaborative Psychiatric Epidemiology Surveys (CPES). Using the CPES, Holzer and Nguyen developed a statistical model to estimate a community’s mental health needs. The model relies on an algorithm that uses sociodemographic characteristics and psychiatric disorder rates reported in the CPES. The model produces a prevalence estimate for persons with a specified set of DSM-IV Axis-I diagnoses (e.g., bipolar disorder, major depression), a high degree of functional impairment as measured by the Sheehan Disability Scale, and more than 120 days off work in the past year directly as a result of their mental state.

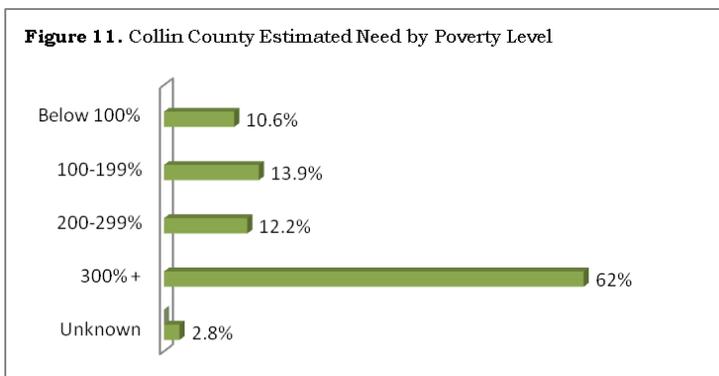
The estimates we obtained from Dr. Holzer used 2007 Census Data. The sociodemographic variables included are age, sex, race/ethnicity, marital status, education, and poverty level, with adjustments for living arrangements (i.e., household, institution, or group quarters). More information and references for the CPES and the models developed by Holzer & Nguyen are available at <http://66.140.7.153>.

Estimated prevalence rate of serious mental illness

Approximately 2.51% or **18,825 Adult Collin County residents are at risk for having a serious mental illness (SMI)**, not including cases with a co-morbid substance abuse diagnosis.

Approximately 0.43% or **3,250 of Adult Collin County residents are at risk for having a dual diagnosis** of mental illness and substance abuse.

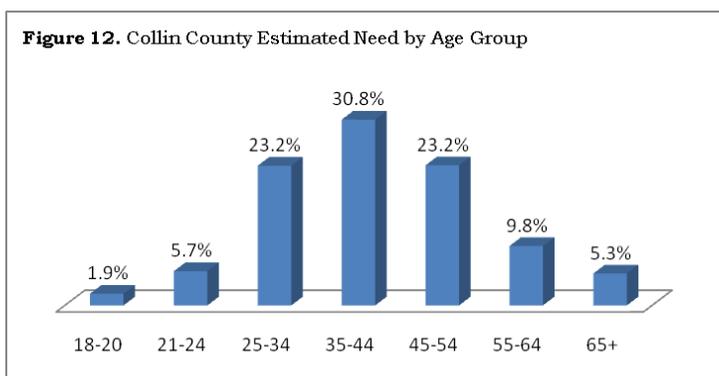
- ◆ 30% of SMI diagnoses will be for adults ages 35 to 44
- ◆ 64% of SMI diagnoses will be for females
- ◆ 25% of Collin County residents diagnosed with a SMI will be at or below 200% of poverty



White non-Hispanic individuals will likely represent 84% of SMI diagnoses, with Hispanics representing another 10% of that diagnostic group.

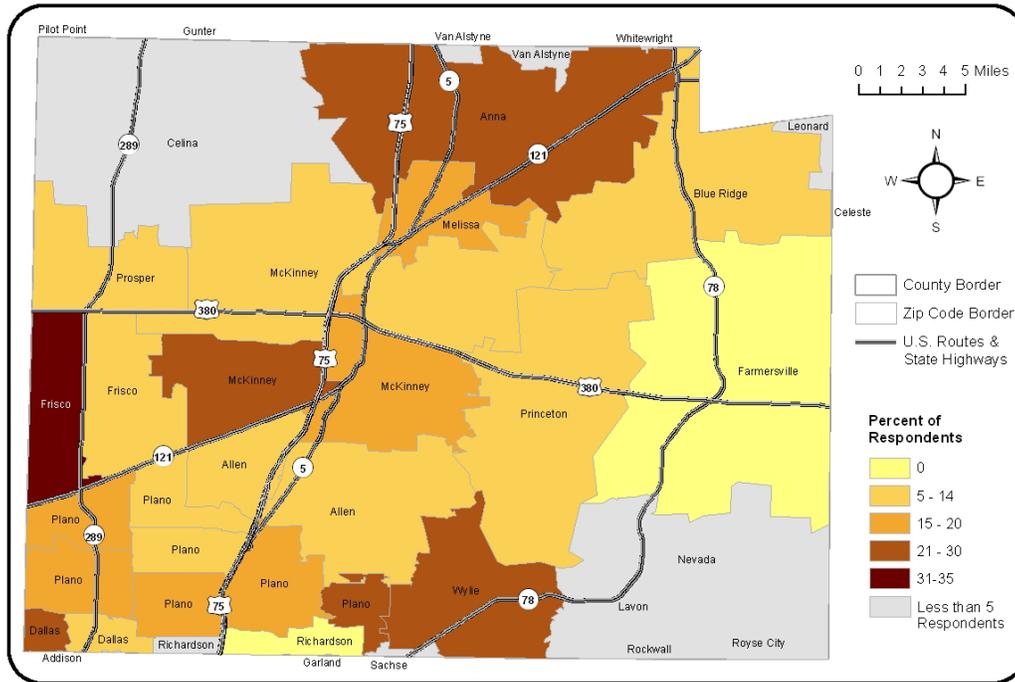
54% of SMI diagnoses are likely for persons who are married.

Over half of those diagnosed with a SMI will likely have at least a high school education, and at least 15% will have less than a high school education.



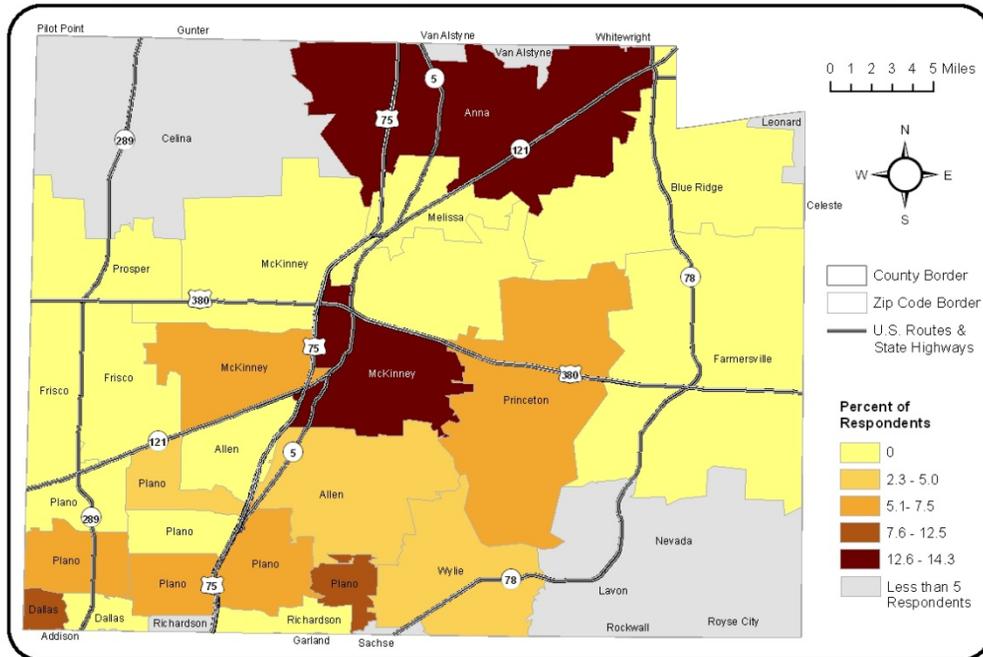
Access to Care

Map 5
2010 Community Needs Assessment: Percent of Respondents per Zip Code that Needed Mental Health Care but Could Not Get that Care



Map includes percentages for only those zip codes with at least 5 respondents.
 Map created October 15, 2010 by the Mental Sciences Institute (MSI) at the University of North Texas Health Science Center.
 Map based on 2010 Community Needs Assessment conducted by the MSI, using 2007 ESRI shapefiles provided by the Collin County GIS Department.

Map 6
2010 Community Needs Assessment: Percent of Respondents per Zip Code that Needed Substance Abuse Services but Could Not Get those Services



Map includes percentages for only those zip codes with at least 5 respondents.
 Map created October 20, 2010 by the Mental Sciences Institute (MSI) at the University of North Texas Health Science Center.
 Map based on 2010 Community Needs Assessment conducted by the MSI, using 2007 ESRI shapefiles provided by the Collin County GIS Department.

The direct needs assessment, synthetic needs assessment, and access to care measures must be considered in combination when planning public mental health policy and services. Given the above information, it is likely that Collin County could expect a potential public mental health burden of:

- ◆ **18,825 Adult Collin County residents with a serious mental illness (SMI)**
- ◆ **3,250 of which are at risk for having a dual diagnosis** of mental illness and substance abuse.
 - 30% of individuals with SMI will be adults ages 35 to 44.
 - 64% of individuals with SMI will be for females.
 - 25% of individuals with SMI will live at or below 200% of poverty.
- ◆ As many as 30% of Collin County residents will have “emotional or mental health problems”
 - 17% may need unobtainable mental health care
 - 5.6% may need unobtainable drug or alcohol services
- ◆ More than a third of Collin County households will have someone in their household with an emotional or mental health problem, and at least 20% of those will not be able to access care for that person
- ◆ Collin County residents under the federal poverty level are likely to have problems with suicidal thoughts, anger and hostility, violence, and with alcohol and drugs causing a problem in their lives.

Comparison Counties

Collin County is unique in terms of its population demographics, growth rate, and financial resources.

Collin County grew by 61% between 2000 and 2009. In attempting to compare Collin County to other counties multiple considerations are important. On page 41 of the Appendix II, we see that two selected Texas Counties, Williamson and Fort Bend have similar growth rates. Hispanic and African American populations comprise a larger proportion of the populations in these two counties compared to Collin County, and the average years of education is lower. Using these 2000 data, there were 60% more households in Collin compared to Fort Bend.

According to the Health Resources and Services Agency of the US government (HRSA), both Fort Bend and Collin County are ranked higher than the national median in the index of medical underservice, at 90.3, 93.4, and 74.7 respectively.

Finding counties that closely approximate Collin County for growth, demographic characteristics, income and resources, and proximity to major cities required a search of counties nationally. In order to identify counties similar to Collin County to compare mental health services (little is reported for chemical dependency services), we initially selected counties based on growth rate. Next we considered density of the population, mobility, and non-farm employment.

The drawback to comparing Collin to other out of state counties is that that the state’s organizations of MHAs are very different. Little information is available on chemical dependency services systems by county, thus we considered the available public mental health systems ratings and data bases (the National Association for Mental Illness (NAMI) and the National Association of State Mental Health Program Directors (NASMHPD)). In all cases comparable out of state counties report higher per capita spending for public mental health services than Texas.

In actuality, Collin is unique and should be treated as unique in developing its behavioral health services system.

Tables in Appendix II (pp 41-43) display comparisons for counties nationally and in Texas on several measures of utilization and performance in mental health services. Similar data for chemical dependency was not provided but can be extrapolated from national data sets at the state level. This would require additional analysis including gaining access to data sources not available in the current report.

APPENDICES

- APPENDIX I** Supporting Tables and Figures for Consumer Profiles, Level of Care Authorizations, Rate Change
- APPENDIX II** Needs Assessment Materials
Questionnaire
Supporting Tables and Figures
Tables
- APPENDIX III** Other sources and supporting documents
Resource Documents
Interim Report: Response to Questions Addressed to Dr. Cruser at the 7 June 2010 Presentation of the Phase One Report to the County Commissioners
Dallas Behavioral Health Services Redesign Task Force materials
- APPENDIX IV** Phase Two Annotated Contractual Elements
- APPENDIX V** Methodology
Assumptions and Cautions

APPENDIX I

Diagnostic Categories	2007		2008		2009		Total	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Bipolar Disorders	8,092	19%	9,194	21%	10,661	20%	27,947	20%
Major Depressive Disorders	11,105	27%	11,520	26%	13,161	25%	35,786	26%
Other Affective Disorders	699	2%	826	2%	934	2%	2,459	2%
Schizophrenia & Other Thought Disorders	4,433	10%	5,033	11%	4,754	9%	14,220	10%
Adjustment Disorders	1,303	3%	2,271	5%	2,872	5%	6,446	5%
Anxiety Disorders	185	.4%	136	.3%	140	.3%	461	.3%
Developmental or Behavioral Disorders	4,288	10%	5,434	12%	6,691	12%	16,413	12%
Alcohol Related Disorders	2,170	5%	2,578	6%	4,021	7%	8,769	6%
Drug Related Disorders	7,527	18%	7,420	17%	9,059	17%	24,006	17%
Other Behavioral Health Diagnosis	151	.4%	161	.4%	242	.5%	554	.4%
No Behavioral Health Diagnosis	1,671	4%	135	.3%	1,011	2%	2,817	2%
Total	41,624	100.0%	44,708	100.0%	53,546	100.0%	139,878	100.0%

PERCENTS ARE ROUNDED UP OR DOWN BY 0.5 INCREMENTS IN THIS TABLE

Figure 2. Collin County Three Year Study Window: Services Distribution

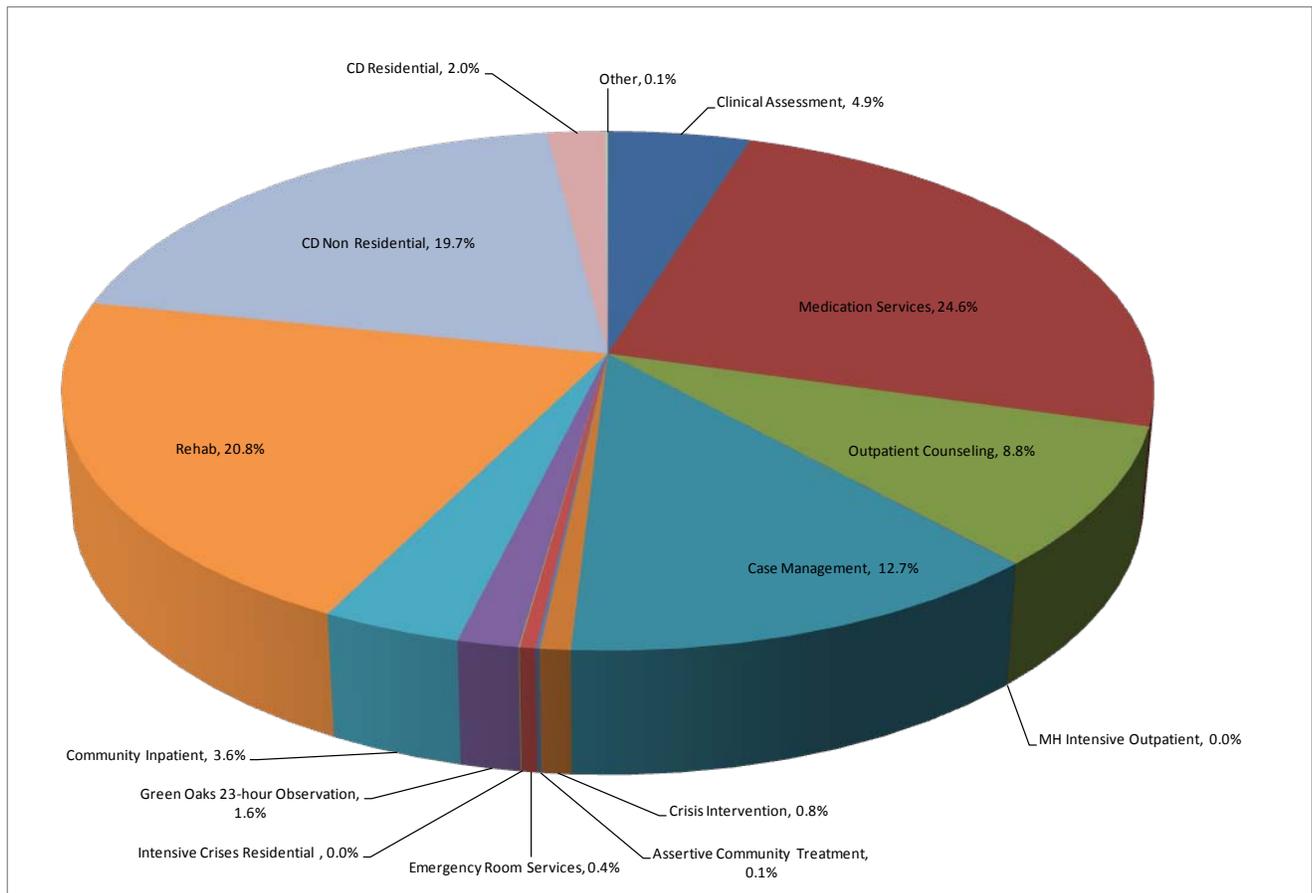


Table 3. Number and percent of encounters for each service by diagnostic groups

SERVICE	Schizophrenia & Other Thought Disorders	Bipolar Disorders	Major Depressive Disorders	Other Affective Disorders	Anxiety Disorders	Adjustment Disorders	Developmental or Behavioral Disorders	Alcohol Related Disorders	Drug Related Disorders	Other Behavioral Health Diagnosis	No Diagnosis	Totals
Clinical Assessment	401 (6%)	1,323 (19.5%)	2,005 (29.6%)	83 (1.3%)	42 (0.7%)	849 (12.6%)	654 (9.7%)	342 (5.1%)	807 (11.9%)	27 (0.4%)	252 (3.8%)	6,785
Medication Services	4,991 (14.6%)	9,526 (27.7%)	11,884 (34.6%)	639 (1.9%)	26 (0.1%)	247 (0.8%)	4,251 (12.4%)	11 (0.1%)	227 (0.7%)	59 (0.2%)	2,545 (7.4%)	34,406
Outpatient Counseling	214 (1.8%)	1,642 (13.4%)	7,175 (58.5%)	274 (2.3%)	265 (2.2%)	1,866 (15.3%)	580 (4.8%)	51 (0.5%)	162 (1.4%)	45 (0.4%)	2 (0.1%)	12,276
MH Intensive Outpatient		22 (71%)	3 (9.7%)			2 (6.5%)	4 (13%)					31
Case Management	2,550 (14.4%)	5,188 (29.3%)	7,405 (41.8%)	501 (2.9%)	17 (0.1%)	407 (2.3%)	1,609 (9.1%)	5 (0.1%)	16 (0.1%)	41 (0.3%)	3 (0.1%)	17,742
Crisis Intervention/Stabilization	95 (8.7%)	296 (26.9%)	235 (21.4%)	27 (2.5%)	2 (0.2%)	339 (30.8%)	27 (2.5%)	37 (3.4%)	41 (3.8%)	2 (0.2%)		1,101
Assertive Community Treatment	105 (79.5%)	27 (20.5%)										132
Emergency Room Services	59 (10.2%)	138 (23.7%)	89 (15.3%)	81 (13.9%)	18 (3.1%)	33 (5.7%)	1 (0.2%)	40 (6.9%)	68 (11.7%)	54 (9.3%)	3 (0.6%)	584
Intensive Crises Residential	33 (91.7%)								3 (8.4%)			36
Green Oaks 23-hour Observation	276 (12.5%)	621 (28.1%)	538 (24.3%)	144 (6.5%)	14 (0.7%)	88 (4%)		276 (12.5%)	170 (7.7%)	86 (3.9%)	4 (0.2%)	2,217
Community Inpatient	681 (13.5%)	1,999 (39.6%)	1,657 (32.9%)	158 (3.2%)	9 (0.2%)	35 (0.7%)	29 (0.6%)	149 (3%)	134 (2.7%)	194 (3.9%)	5 (0.1%)	5,050
Rehab	4,742 (16.3%)	7,130 (24.5%)	4,755 (16.4%)	552 (1.9%)	68 (0.3%)	2,573 (8.9%)	9,237 (31.8%)	2 (0.1%)	17 (0.1%)	46 (0.2%)	3 (0.1%)	29,125
CD Non Residential	2 (0.1%)	6 (0.1%)	5 (0.1%)			5 (0.1%)		7,192 (26.2%)	20,307 (73.8%)			27,517
CD Residential	55 (2%)	2 (0.1%)						664 (24%)	2,052 (74%)			2,773
Other	16 (15.6%)	27 (26.3%)	35 (34%)			2 (2%)	21 (20.4%)		2 (2%)			103
Totals	14,220 (10.2%)	27,947 (20%)	35,786 (25.6%)	2,459 (1.8%)	461 (0.4%)	6,446 (4.7%)	16,413 (11.8%)	8,769 (6.3%)	24,006 (17.2%)	554 (0.4%)	2,817 (2.1%)	139,878

Table 6A. Collin County Distribution of Encounters by Service for Clients with and without a UA - All Study Years Combined

Service Type	ACT	Case Management	CD Non Residential	CD Residential	Clinical Assessment	Community Inpatient Services	Intervention/ Stabilization Services	Emergency Room Services	Jail Diversion	Laboratory/ Medication	Outpatient Counseling	23-Hour Observation	Other	Rehab	Total
Encounters "Non-UA Clients"	0	1,013	19,093	1,581	1,552	1,515	292	196	4	3,646	1,244	865	3	1,818	32,822
Percent within Service Type	.0%	5.7%	69.4%	57.0%	22.9%	30.0%	24.2%	33.6%	26.7%	10.6%	10.1%	39.0%	16.7%	6.2%	23.5%
Encounters "UA Clients"	132	16,729	8,424	1,192	5,233	3,535	915	388	11	30,760	11,063	1,352	15	27,307	107,056
Percent within Service Type	100.0%	94.3%	30.6%	43.0%	77.1%	70.0%	75.8%	66.4%	73.3%	89.4%	89.9%	61.0%	83.3%	93.8%	76.5%
Total Encounters each Service Type	132	17,742	27,517	2,773	6,785	5,050	1,207	584	15	34,406	12,307	2,217	18	29,125	139,878

Figure 3. Adults Number Matched Authorizations by Provider Collin County 2007 - 2009

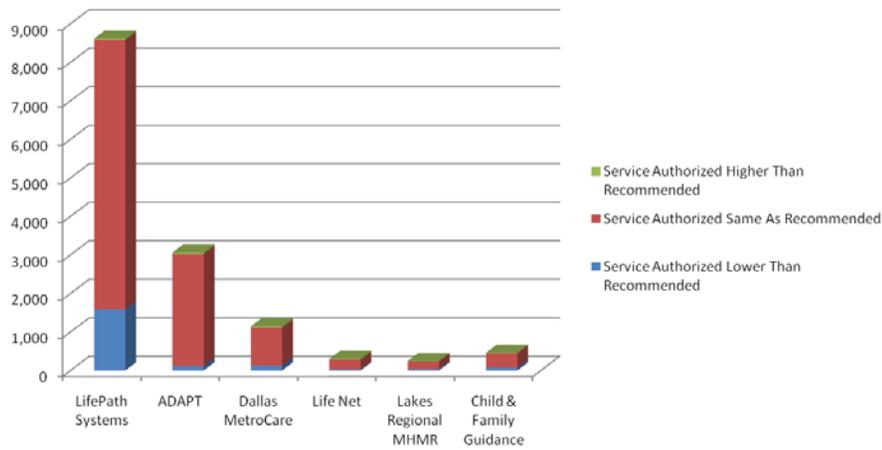


Figure 5. Child Number Matched Authorizations by Provider Collin County 2007 - 2009

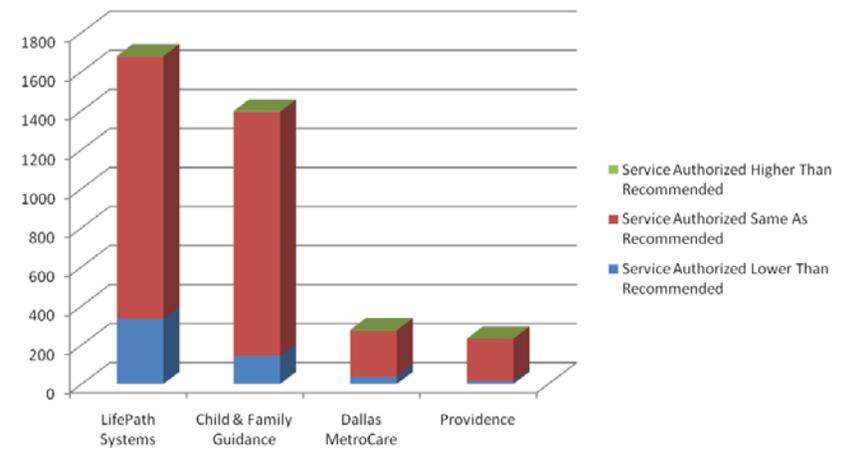


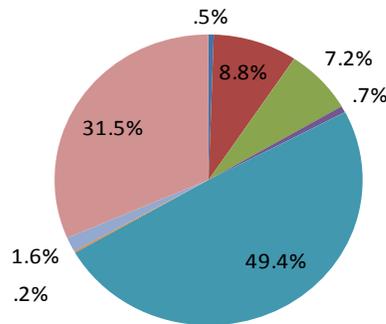
Table 7.B. Dallas Metro Care

	Pre-Rate	Post-Rate
Dallas Metro Care (DMC): <i>Contract Effective Date 10/01/2009</i>		
<u>Number of Persons Served</u>	168	162
<u>Number of Encounters</u>	555	465
<u>Average Expenditure per Encounter*</u>	\$77.66	\$79.54

Distribution of Services Types

- ACT
- Case Management
- Clinical Assessment
- Crises Intervention Services
- Medication Services
- Other
- Outpatient Counseling - Adult or Child
- Rehab

DMS Pre-Contract Change



DMS Post-Contract Change

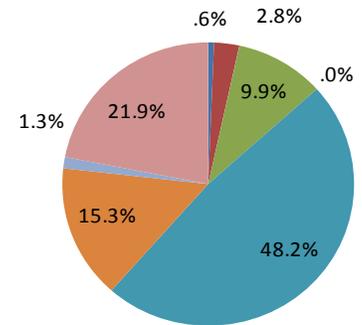


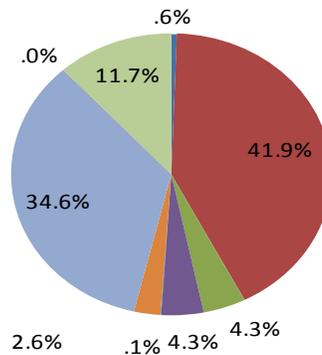
Table 7.C. ADAPT

	Pre-Rate	Post-Rate
ADAPT: <i>Contract Effective Date 01/01/2010</i>		
<u>Number of Persons Served</u>	367	331
<u>Number of Encounters</u>	1,247	1,210
<u>Average Expenditure per Encounter*</u>	\$57.58	\$65.17

Distribution of Services Types

- ACT
- Case Management
- CD Residential
- Clinical Assessment
- Crises Intervention Services
- Intensive Crises Residential Treatment
- Medication Services
- Other
- Rehab

Adapt Pre-Contract Change



Adapt Post-Contract Change

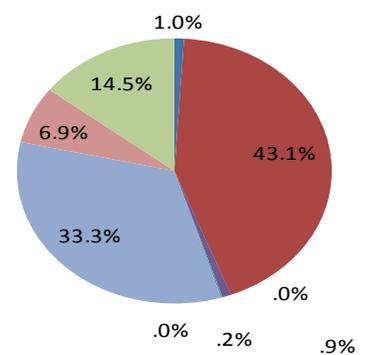


Table 7.D. Life Net

	Pre-Rate	Post-Rate
Life Net: <i>Contract Effective Date 11/01/2009</i>		
<u>Number of Persons Served</u>	30	26
<u>Number of Encounters</u>	117	99
<u>Average Expenditure per Encounter*</u>	\$120.96	\$143.96
Distribution of Services Types Sample to Small to Analyze/Graph		

* Statistical difference in pre-and post-contract change measurements

APPENDIX II

**Needs Assessment Questionnaire
Bar Graphs for 17 behavioral health problems
Mental Health Needs and Access by Zip Code**

Circle the number for how much of a problem you have had with each of the following 17 situations in the <u>past few months</u> ?	None	Some but No More Than Usual	More Than Usual	Almost More Than I Can Handle	No Response
	1. Being active in daily routines like school, work or social life?	0	1	2	3
2. Alcohol use causing problems in your life?	0	1	2	3	9
3. Feeling cared about and safe?	0	1	2	3	9
4. Concentrating or thinking clearly?	0	1	2	3	9
5. Having a safe place to live?	0	1	2	3	9
6. Getting along with family and others close to you?	0	1	2	3	9
7. Feeling depressed?	0	1	2	3	9
8. Feeling alone or unable to communicate with others?	0	1	2	3	9
9. Thoughts of suicide?	0	1	2	3	9
10. Always angry or getting into arguments?	0	1	2	3	9
11. Not knowing where your next meal will come from?	0	1	2	3	9
12. Drug use causing problems in your life?	0	1	2	3	9
13. Afraid of being physically hurt by someone?	0	1	2	3	9
14. Being in good control of your thoughts, behaviors and emotions?	0	1	2	3	9
15. Violent behavior or angry outbursts?	0	1	2	3	9
16. Your mental state interfering with normal daily activities?	0	1	2	3	9
17. Constant medical or health problems?	0	1	2	3	9

THESE QUESTIONS ARE ABOUT THE PAST YEAR FOR YOU	NO	YES		NO RESPONSE
18. Have you had any emotional or mental health problems?				
19. Have you needed or wanted mental health care but could not get that care?				
20. Have you needed or wanted drug or alcohol services but could not get them?				
THESE QUESTIONS ARE ABOUT THE PAST YEAR FOR YOUR HOUSEHOLD OR FAMILY	NO	YES Child	YES Adult	
21. Has anyone in your household or family had emotional or mental health problems?				
22. Has anyone in your household or family needed or wanted mental health care but could not get that care?				
23. Has anyone in your household or family needed or wanted drug or alcohol services but could not get them?				

24. Has anyone in your household or family <u>needed</u> any of these services for mental health or alcohol or drug abuse problems but not been able to get them? (Check all that apply)?			
<input type="checkbox"/> Transportation	<input type="checkbox"/> Housing	<input type="checkbox"/> Medication	<input type="checkbox"/> Counseling
<input type="checkbox"/> Job training	<input type="checkbox"/> Inpatient or residential	<input type="checkbox"/> Emergency services	<input type="checkbox"/> Legal services
<input type="checkbox"/> Rehab	<input type="checkbox"/> No Response	<input type="checkbox"/> Other (specify)_____	
25. Have you or anyone in your household or family been involved with any of these? (Check all that apply)			
<input type="checkbox"/> LifePath	<input type="checkbox"/> LifeNet	<input type="checkbox"/> Metrocare	<input type="checkbox"/> Adapt
<input type="checkbox"/> Green Oaks Hospital	<input type="checkbox"/> Parkland Psych ER	<input type="checkbox"/> State Mental Hospital	<input type="checkbox"/> Homeless shelter
<input type="checkbox"/> County jail	<input type="checkbox"/> Judge or court system	<input type="checkbox"/> Police or Sheriff Department	<input type="checkbox"/> Timberlawn Mental Health System
<input type="checkbox"/> Other mental health	<input type="checkbox"/> Other drug or alcohol	<input type="checkbox"/> No Response	<input type="checkbox"/> Other (specify)_____

26. Do you know about NorthSTAR mental health or drug or alcohol abuse services?

- No Yes I know about it but have never used it Yes I tried to get services but could not get them
 No Response Yes I use or have used their services Yes I know someone who has used their services

27. What is your Zip Code? _____ (If you prefer not to provide your zip code we cannot use your information.
Thank you for your time.)

28. Does someone you know live in Collin County?

- Yes No No Response

29. How would you describe your health?

- Excellent Very good
 Good Fair
 Poor No Response

30. What is your current age? _____

- I am age 18 or over; but I prefer not to disclose my age

31. What is your gender?

- Female Male No Response

32. What is your race and ethnic group?

- White/Not Hispanic`
 White/Hispanic
 Black (African American)
 Black/Hispanic
 Asian Oriental (e.g. China, Viet Nam, Korea)
 Asian (e.g. Middle East, India)
 Other (specify) _____
 No Response

33. What is your birth country?

- United States Mexico
 Latin American Country Europe
 Africa India
 Middle East East, Southeast or South Asia
 Other (specify) _____
 No Response

34. What is your highest level of education?

- Less than 8th grade
 More than 8th grade but less than high school
 High school diploma or GED
 Some college
 Four year college degree or more
 No Response

35. What is your type of home?

- Apartment House
 No Home Boarding or supported housing
 No Response Assisted living or nursing home
 Other (specify) _____

36. Please select your living situation.

- Alone
 Alone with my children
 With a spouse or partner
 With a spouse/partner and children
 With your parents
 With other family
 With persons not related to me
 No Response

37. How many children live with you?

- None 1 to 2 3 or more No Response

38. Are you currently employed?

- Yes No Response
 No, but I am looking for work
 No, and I am not looking for work

39. What is your yearly household income?

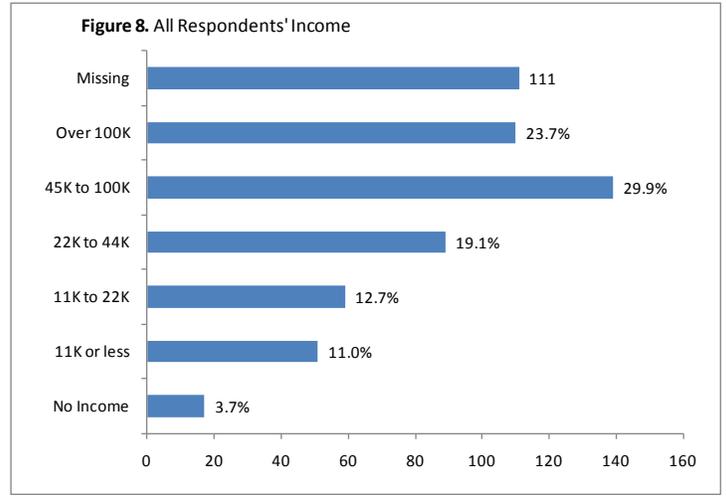
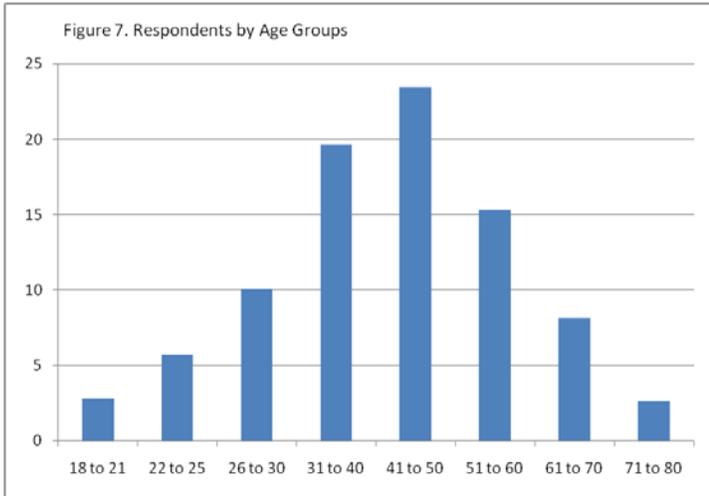
- No income
 \$1 to \$11,000
 Over \$11,000 to \$22,000
 Over \$22,000 to \$30,000
 Over \$30,000 to \$37,000
 Over \$37,000 to \$45,000
 Over \$45,000 to \$52,000
 Over \$52,000 to \$60,000
 Over \$60,000 to \$100,000
 Over \$100,000
 No Response

40. What is the main source of your household income?

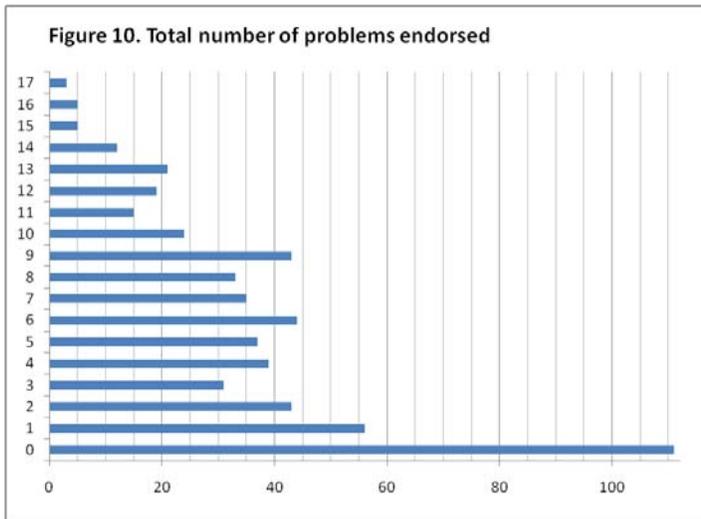
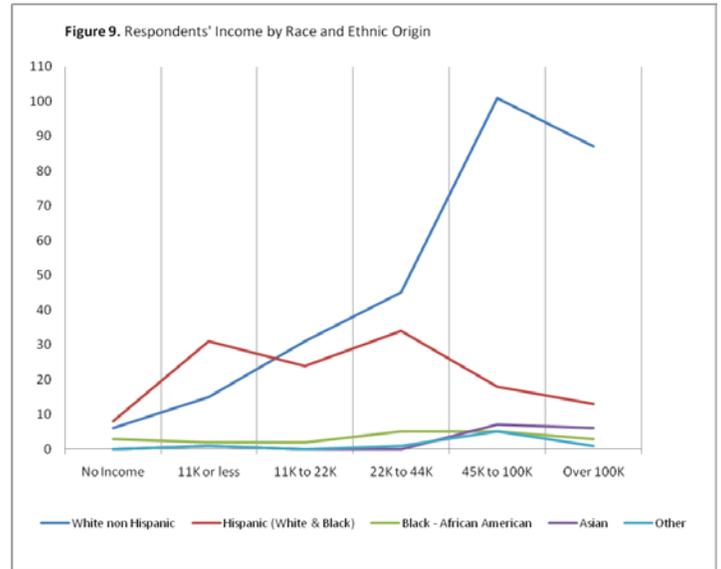
- Regular Employment Retirement income
 Social Security Disability Public assistance
 Help from family No Response
 Other (specify) _____

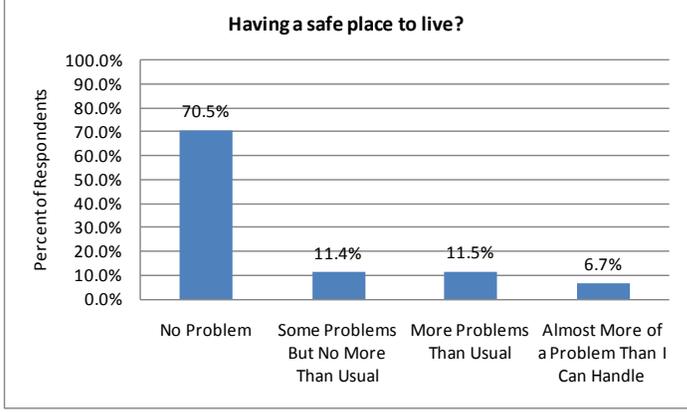
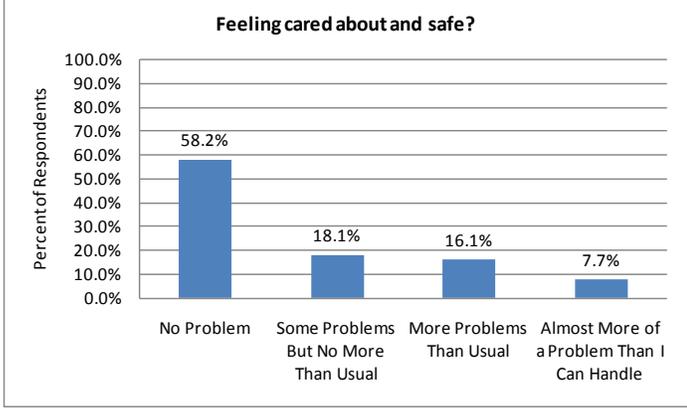
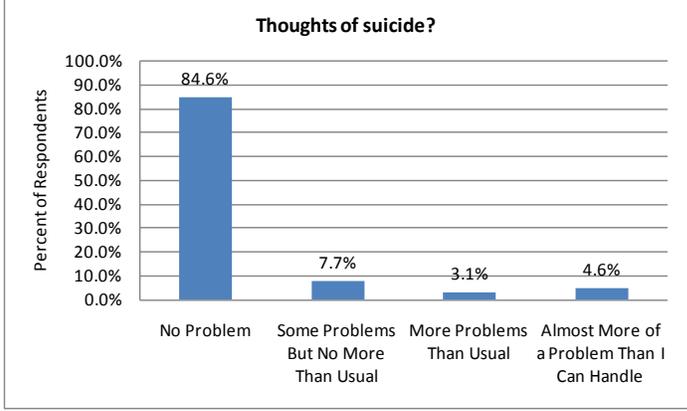
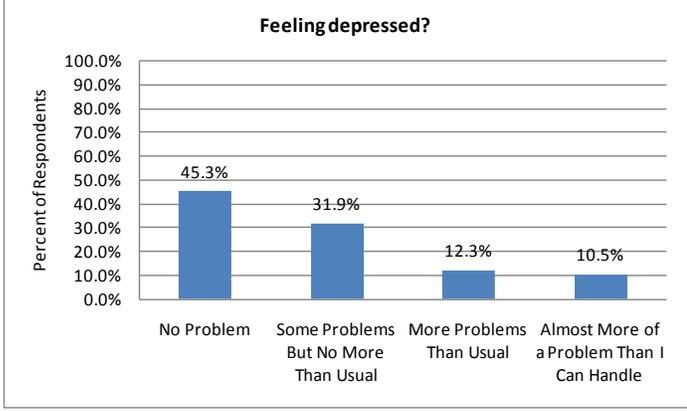
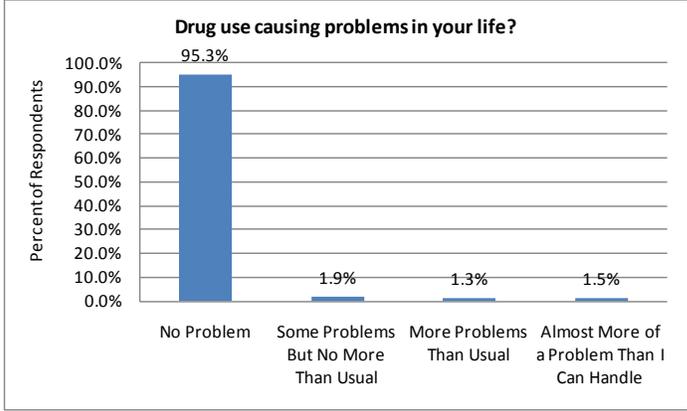
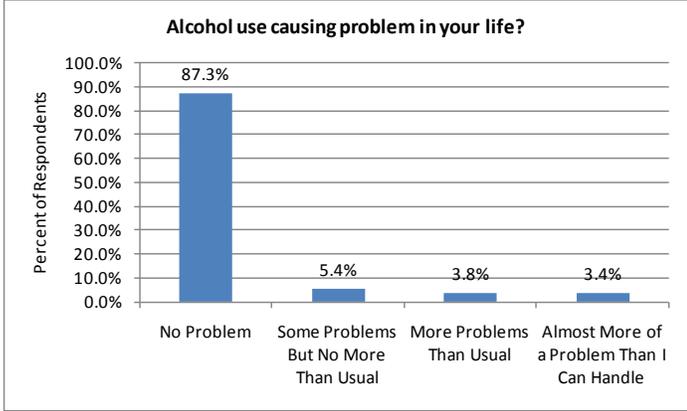
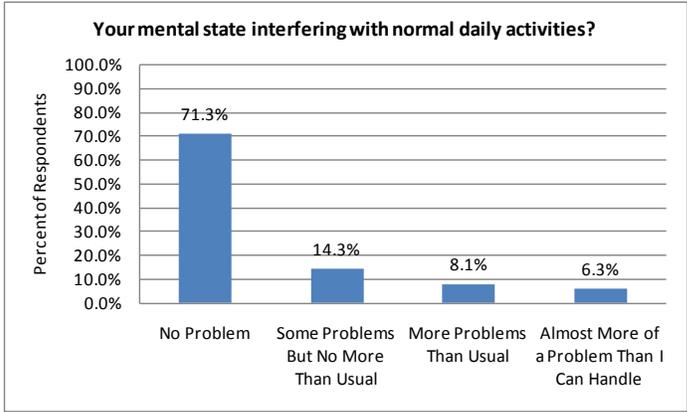
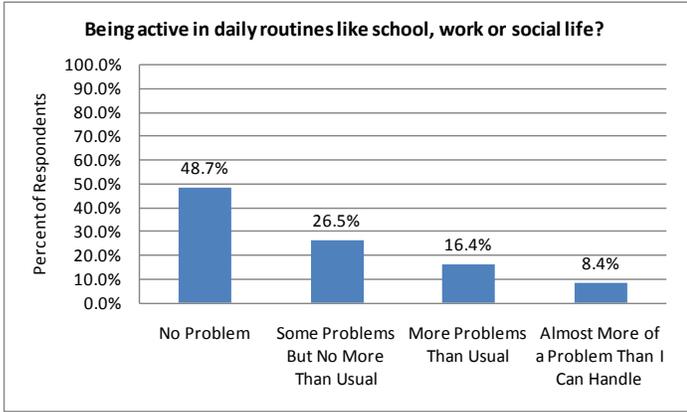
41. Do you qualify for or have any of these? (Check all that apply)

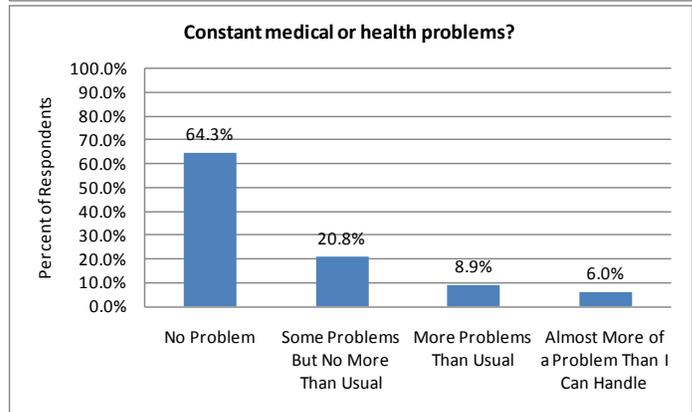
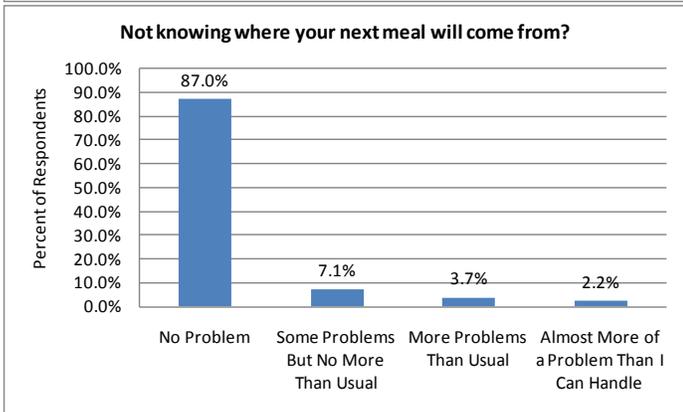
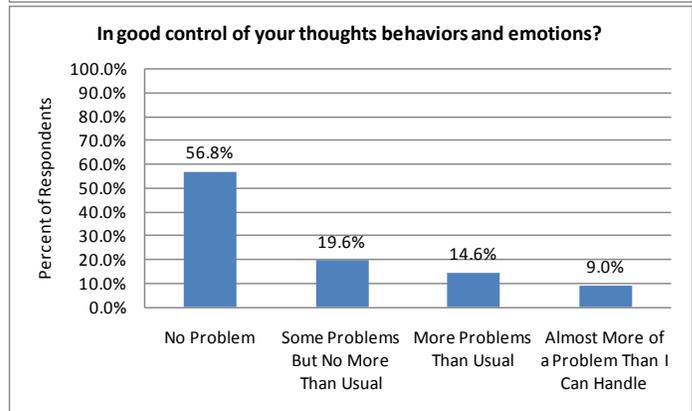
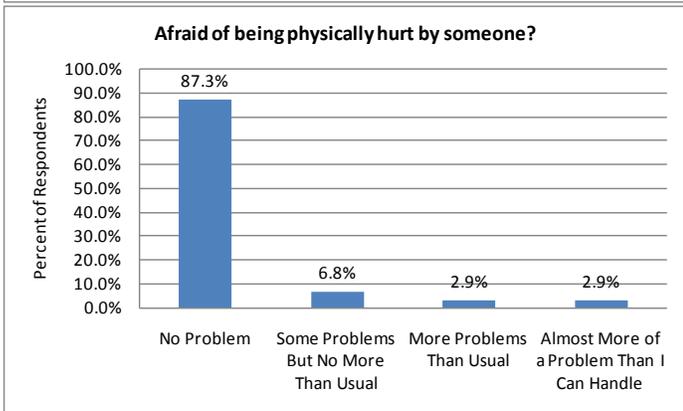
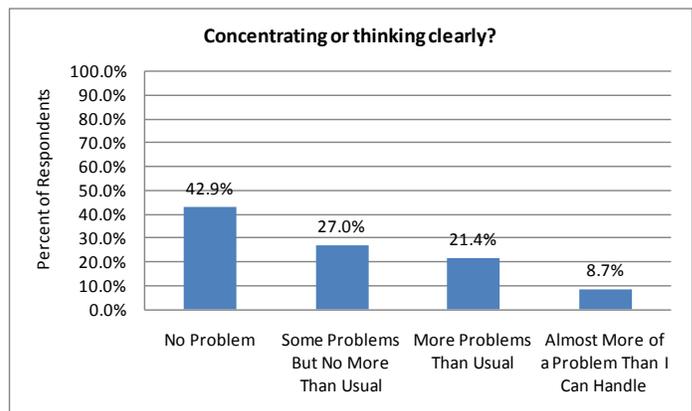
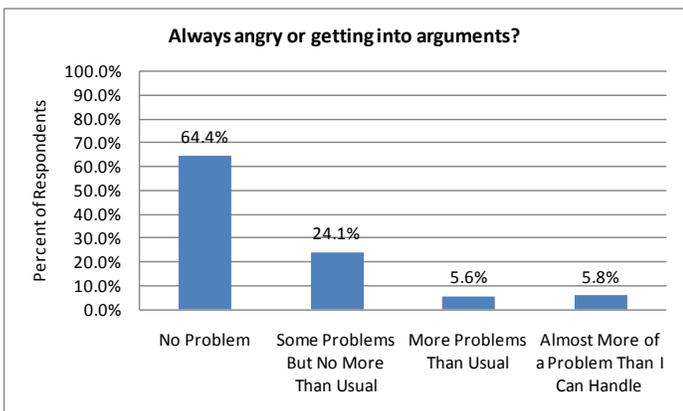
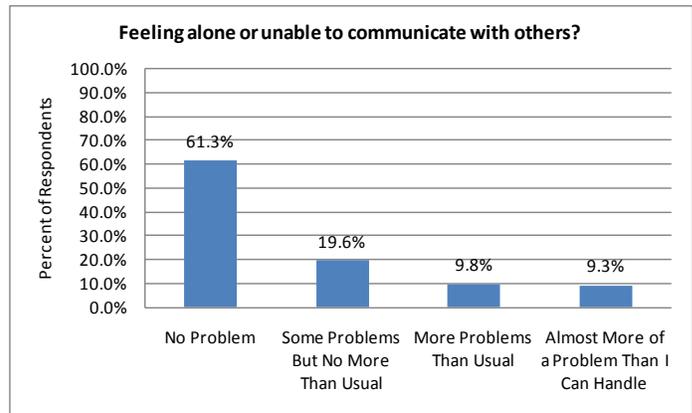
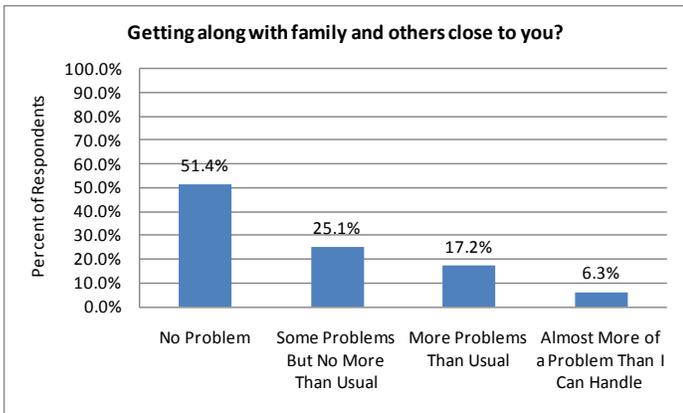
- Medicare Medicaid
 Private health insurance Food stamps
 Other health insurance I do not know
 Other (specify) _____ No Response

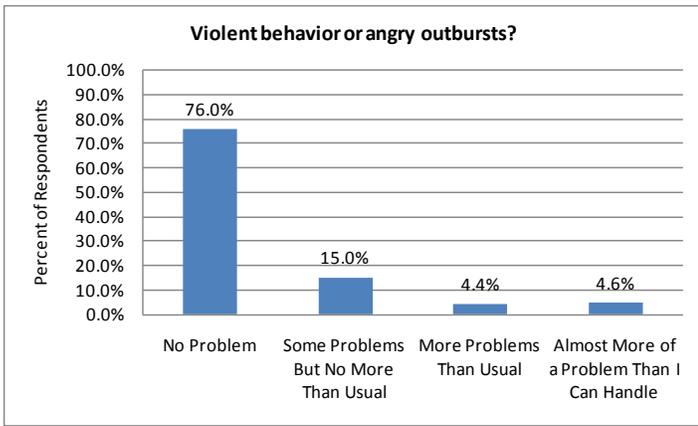


While this type of graph is used in a non-traditional data display, it illustrates the compression of income ranges in the Hispanic, Black/African American, and Asian respondents, the higher number of White non-Hispanic respondents in the higher income brackets, and the representation of Hispanic respondents in all income brackets.









The full sample consisted of 576 individuals, however some did not answer every question. The numbers above reflect the total number of valid responses for each of the questions.

In terms of the common problem areas asked in the survey, most reported few problems with alcohol or drugs and items related to aggression, violence, and fear were not problems for most. The more commonly reported problems are the types often associated with anxiety, depression, and difficulties with relationships.

Zip Code	Number of Respondents	Percent of Total Responses	Have you had any emotional or mental health problems?	Have you needed or wanted mental health care but could not get that care?	Have you needed or wanted drug or alcohol services but could not get them?	Have you heard about NorthSTAR services?	
			YES	YES	YES	YES	NO
75002	31	5.4%	7	2	1	7	22
75007	1	0.2%	0	1	0	0	1
75009	3	0.5%	3	1	0	1	1
75013	17	3.0%	4	2	0	1	15
75023	32	5.6%	12	4	0	12	20
75024	13	2.3%	3	2	0	4	9
75025	20	3.5%	6	2	1	3	17
75034	17	3.0%	9	6	0	4	13
75035	20	3.5%	4	2	0	2	18
75048	4	0.7%	3	1	1	1	3
75069	72	12.5%	16	14	10	14	55
75070	41	7.1%	14	10	3	10	31
75071	32	5.6%	8	2	0	5	24
75074	51	8.9%	13	10	3	14	33
75075	27	4.7%	8	5	2	11	15
75078	8	1.4%	2	1	0	1	7
75080	4	0.7%	0	0	0	0	4
75082	9	1.6%	2	0	0	1	8
75093	27	4.7%	7	5	2	6	19
75094	8	1.4%	2	2	1	1	7
75098	42	7.3%	13	10	1	12	30
75121	1	0.2%	0	0	1	0	1
75166	2	0.3%	0	0	0	0	2
75173	2	0.3%	0	0	0	1	1
75248	1	0.2%	1	1	0	0	1
75252	16	2.8%	6	1	0	5	10
75287	17	3.0%	5	4	2	3	14
75407	14	2.4%	7	2	1	4	7
75409	14	2.4%	6	4	2	1	12
75424	7	1.2%	1	1	0	2	5
75442	10	1.7%	1	0	0	1	9
75454	12	2.1%	2	2	0	4	7
75495	1	0.2%	0	0	0	0	1
TOTALS	576		165	97	31	131	422
Percent of Total			29%	17%	5%	23%	73%

Comparison of Collin County to selected comparable counties in Texas and the US

Comparison of Collin County to selected comparable counties in Texas			
<u>Indicators</u>	<u>Collin County</u>	<u>Williamson County</u>	<u>Fort Bend County</u>
Population	791,631	410,686	556,870
Population change	61.0%	64.3%	57.1%
Persons under 18 years old	28.0%	28.2%	29.2%
Persons 65 years old and over	8.0%	9.3%	7.0%
Females	49.8%	49.9%	50.0%
White non Hispanic	65.4%	66.1%	39.1%
Black/African American	8.2%	6.7%	21.1%
Hispanic or Latino origin	14.5%	21.6%	23.8%
Asian	10.2%	4.4%	15.2%
Other	0.80%	0.70%	0.60%
Two or more races	1.9%	1.7%	1.6%
Living in the same house in 1995 and 2000	38.1%	39.6%	52.0%
Language other than English spoken at home, pct age 5+(2000)	18.5%	17.2%	30.7%
High school graduates, percent of persons age 25+ (2000)	91.8%	88.8%	84.3%
Bachelor's degree or higher, pct of persons age 25+ (2000)	47.3%	33.6%	36.9%
Homeownership rate (2000)	68.6%	74.2%	80.8%
Housing units in multi-unit structures, percent (2000)	27.8%	16.5%	9.3%
Median value of owner-occupied housing units (2000)	\$155,500	\$125,800	\$115,100
Households (2000)	181,970	86,766	110,915
Persons per household (2000)	2.68	2.82	3.14
Median household income (2008)	\$81,875	\$69,745	\$83,968
Persons below poverty level (2008)	6.4%	6.2%	8.0%
Private nonfarm employment (2007)	273,127	119,538	110,038
Private nonfarm employment (percent change 2000-2007)	49.0%	73.7%	39.9%
Total number of firms (2002)	54,814	23,661	33,167
Land area in square miles (2000)	847.56	1,122.77	874.64
Persons per square mile (2000)	579.8	222.6	405.1

Comparison of Collin County to selected comparable counties in the US					
<u>Indicators</u>	<u>Collin County,</u> <u>TX</u>	<u>Lake County,</u> <u>IL</u>	<u>Fairfield County,</u> <u>CT</u>	<u>Norfolk County,</u> <u>MA</u>	<u>Anne Arundel County,</u> <u>MD</u>
Population	791,631	712,567	901,208	666,303	521,209
Population change	61.0%	10.5%	2.1%	2.5%	6.4%
Persons under 18 years old	28.0%	27.5%	24.8%	22.5%	23.2%
Persons 65 years old and over	8.0%	10.2%	13.2%	14.2%	11.7%
Females	49.8%	49.8%	51.0%	51.8%	50.4%
White non Hispanic	65.4%	66.5%	68.5%	82.4%	74.4%
Black/African American	8.2%	7.1%	10.8%	5.4%	15.7%
Hispanic or Latino origin	14.5%	19.6%	15.9%	3.0%	4.9%
Asian	10.2%	6.0%	4.5%	8.2%	3.2%
Other	0.80%	0.50%	0.40%	0.2%	0.50%
Two or more races	1.9%	1.5%	1.3%	1.3%	1.8%
Living in the same house in 1995 and 2000	38.1%	52.2%	57.3%	62.2%	55.7%
Language other than English spoken at home, pct age 5+(2000)	18.5%	21.4%	23.9%	14.5%	7.3%
High school graduates, percent of persons age 25+ (2000)	91.8%	86.6%	84.4%	91.3%	86.4%
Bachelor's degree or higher, pct of persons age 25+ (2000)	47.3%	38.6%	39.9%	42.9%	30.6%
Homeownership rate (2000)	68.6%	77.8%	69.2%	69.7%	75.5%
Housing units in multi-unit structures, percent (2000)	27.8%	20.3%	34.5%	36.2%	16.6%
Median value of owner-occupied housing units (2000)	\$155,500	\$198,200	\$288,900	\$230,400	\$159,300
Households (2000)	181,970	216,297	324,232	248,827	178,670
Persons per household (2000)	2.68	2.88	2.67	2.54	2.65
Median household income (2008)	\$81,875	\$78,617	\$84,250	\$80,944	\$82,616
Persons below poverty level (2008)	6.4%	7.6%	8.2%	6.1%	5.0%
Private nonfarm employment (2007)	273,127	333,595	427,031	330,620	219,292
Private nonfarm employment (percent change 2000-2007)	49.0%	7.9%	-4.0%	-2.1%	18.7%
Total number of firms (2002)	54,814	57,655	96,791	63,546	42,004
Land area in square miles (2000)	847.56	447.56	625.8	399.58	415.94
Persons per square mile (2000)	579.8	1,438.3	1,409.9	1,625.8	1,177.1

Comparison of Texas to Four Other States and the US for NAMI Ratings and MH System Characteristics						
	<u>Texas</u>	<u>Illinois</u>	<u>Connecticut</u>	<u>Massachusetts</u>	<u>Maryland</u>	<u>United States</u>
NAMI Rating of State Mental Health Systems						
Overall Grade	D	D	B	B	B	D
Category I: Health Promotion & Measurement	F	D	B	B	B	D
Category II: Financing & Core Treatment/ Recovery Services	D	C	B	B	B	C
Category III: Consumer & Family Empowerment	F	C	A	C	B	D
Category IV: Community Integration & Social Inclusion	D	D	C	C	C	D
Selected 2009 State Mental Health System Characteristics						
Individuals using State Mental Health Systems	279,709	168,513	84,070	27,745	105,926	6,430,645
Penetration Rate per 1,000 population	11.5	13.06	24.01	4.27	18.8	20.85
FY 2007 Per Capita Total SMHA Mental Health Expenditures	\$34.43	\$85.06	\$174.94	\$116.68	\$153.55	\$113.27
Medicaid Funding Status ^a	42%	59%	49%	N/A	88%	61%
State Hospital Adult Admissions Rate ^b	1.05	1.19	0.91	0.64	0.64	0.96
Community Adult Inpatient Admissions Rate ^b	0.61	0.43	0.83	0.75	0.43	0.74
Adults with Co-occurring MH/SA Disorders ^c	24%	10%	41%	21%	25%	23%
Adult Consumer Access to Services ^d	76.60%	80.40%	89.20%	78.70%	82.60%	85.40%
Adult Consumer Overall Satisfaction with Care ^d	84.20%	85.40%	92.10%	81.40%	81.80%	87.90%
Child/Family Consumer Access to Services ^d	74.70%	71.10%	93.40%	73.10%	81.40%	83.80%
Child/Family Consumer Overall Satisfaction with Care ^d	77.30%	67.60%	92.80%	70.50%	81.60%	83.40%
Percent Adults with SMI and Children with SED ^e	88.70%	56.10%	56.60%	75.10%	68.80%	64.60%
Assertive Community Treatment ^f	1.50%	0.80%	N/A	5.30%	4.30%	2.30%
Supported Housing ^f	2.20%	0.40%	9.90%	23.10%	14.60%	3.20%
Supported Employment ^f	0.90%	2.50%	3.70%	6.10%	5.60%	2.10%

From NAMI and NASMHPD

^a Percent of State Funding that is Medicaid

^b Number of admissions/number of individuals served

^c Percent of Clients served through the State Mental Health Authority that have a Co-occurring Mental Health and Substance Use Diagnosis

^d Consumer Survey Measures

^e Number of adults with SMI and Children with SED

^f Penetration Rate: % of Consumers Receiving the Evidence-Based Practice/Estimated SMI

APPENDIX III

RESOURCE DOCUMENTS

Ganju, V. *Mental Health Transformation: Moving Toward a Public Health, Early-Intervention Approach in Texas*. **Psychiatric Services**; January 2008, 59(1):17-20.

Kessler, R.C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 62(6), 593-602.

Kessler, R.C., Chiu, W. T., Demler, O., Walters, E. E. (2005). Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 62(6), 617-627.

Perryman: Costs, Consequences, and Cures!!! An Assessment of the Impact of Severe Mental Health and Substance Abuse Disorders on Business Activity in Texas and the Anticipated Economic and Fiscal Return on Investment in Expanded Mental Health Services, May 2009. The Perryman Group Report

Robst, J. *Development of a Medicaid Behavioral Health Case-Mix Model*. **Evaluation Review**; October 2009, 33(6) 519-538.

Small Area Health Insurance Estimates by the U.S. Census Bureau, published August 2009

Study Kick-off Attendance and Concerns Spreadsheet Collin County Study December 2009.

The NSDUH Report: Substance Use Treatment among Uninsured Workers. Substance Abuse and Mental Health Services Administration, Office of Applied Studies, Rockville, Maryland; February 2010.

NTBHA Strategic Plan, 2009-2010.

Texas Department of Health and Human Services Data Books, June 29, 2009:1-26, and April 2010.

Robst J. Development of a Medicaid behavioral health case-mix model. *Evaluation Review*. 2009; 33; 519; DOI: 10.1177/0193841X09349420



**A STUDY OF THE COLLIN COUNTY TEXAS
BEHAVIORAL HEALTH SERVICES SYSTEM
A NorthSTAR County**

Response to Questions Addressed to Dr. Crusier
at the 7 June 2010 Presentation of the
Phase One Report to the County Commissioners

Submitted October 7, 2010

Updated October 11, 2010

RESPONSE TO QUESTIONS

A STUDY OF THE COLLIN COUNTY TEXAS BEHAVIORAL HEALTH SERVICES SYSTEM

The purpose of Phase One was to describe what NorthSTAR services were used by Collin County residents, what was spent for those services, and how those funds were distributed. To produce this report we used data obtained from the Department of State Health Services (DSHS). These data reflect all services and expenditure information reported by Value Options and all contracted NorthSTAR providers.

At the public presentation of the Phase One Report, the County Commissioners' Court asked four questions regarding information presented in the report document. These questions are:

1. If there were no "discrepancies" in the data, how do you explain that some persons are getting turned away from services in NorthSTAR?
2. Why are the per-person expenditures for non-residential chemical dependency services higher for Collin County residents compared to the per-person rate for all NorthSTAR clients who used that service? Does this suggest that it is because we don't have enough residential services in Collin County?
3. What proportion of NorthSTAR counties' total population does Collin County represent?
4. What is Collin County's per-capita funding compared to the rest of the State of Texas?

1. Explain why some persons are getting turned away from services in NorthSTAR.

There could be many reasons someone is denied a service by the NorthSTAR program. Typically a denial of a service, or being "turned away" from NorthSTAR might occur under one of four possible conditions.

- a) The person does not meet the financial criteria for eligibility.
- b) The service requested by the service provider was at a higher level than could be approved by Value Options using the clinical criteria.
- c) The service provider did not have availability for an immediate appointment.
- d) The service is not available

If someone is found not to meet the eligibility criteria, the applicant may appeal the decision.

If a person needs a higher level of service than the one authorized by Value Options, the service provider may appeal the decision. The data indicate that the level of care authorized is consistent with the level of care requested about 85% of the time. In 14% percent of the requests the level of care authorized was lower than the level of care requested.

If appointment availability is the issue, the guideline calls for an existing or a new client to be seen as soon as possible, according to the urgency of the need. A NorthSTAR client may select any network provider. New clients may experience a waiting period. However, if the urgency of the need is not recognized by the provider and the client feels "turned away," a complaint process is available.

If a service is not available, it may not be a covered treatment or service in the NorthSTAR plan. The person may request a service not listed, but the managed behavioral health organization has the authority to determine if the service will be covered under the plan.

Currently there is no systematic official process to document the number or characteristics of persons found not to be eligible. In any situation in which a person feels they have not been able to acquire a service, and reports this to a NorthSTAR agency or other representative, the system requires the

agency/representative to document the reasons given by the individual, and to report this to the North Texas Behavioral Health Authority (NTBHA) for resolution or a written response.

2. Why was the per-person expenditure in calendar year 2009 for “non-residential” chemical dependency services (CD) higher on average for Collin County residents than for all NorthSTAR clients receiving these services?

“Non-residential” CD services are those services not provided in a facility in which the person stays, such as a residential program or an inpatient treatment program. “Non-residential” CD services are “outpatient” CD services. Typically inpatient or residential services are more expensive. Thus it is thought to be less expensive to provide treatment on an outpatient basis when possible. However outpatient services may be more or less intensive, or a person may consume more or less services depending on the person’s need.

	All NorthSTAR								
	Average Cost per All Enrollees			Average Cost per Person Receiving Service			Collin County Data		
	FY07 Ave/Per Enrollee	FY08 Ave/Per Enrollee	FY09 Ave/Per Enrollee	FY07 Ave/Person	FY08 Ave/Person	FY09 Ave/Person	2007 Ave Cost/Person	2008 Ave Cost/Person	2009 Ave Cost/Person
Community Inpatient	\$ 237	\$ 260	\$ 214	\$ 2,566.36	\$ 2,845.67	\$ 2,616.68	\$ 2,512	\$ 3,310	\$ 2,130
23 Hour Obs	\$ 136	\$ 137	\$ 127	\$ 1,133.14	\$ 1,214.41	\$ 1,241.51	\$ 974	\$ 1,032	\$ 1,039
ER	\$ 20	\$ 15	\$ 16	\$ 213.82	\$ 200.18	\$ 224.00	\$ 222	\$ 202	\$ 245
ACT	\$ 80	\$ 82	\$ 83	\$ 5,814.43	\$ 6,555.07	\$ 6,934.78	\$ 4,640	\$ 5,167	\$ 4,100
Case Mgt	\$ 74	\$ 69	\$ 72	\$ 162.69	\$ 153.67	\$ 189.38	\$ 91	\$ 107	\$ 140
Counseling	\$ 34	\$ 34	\$ 36	\$ 213.93	\$ 247.08	\$ 256.29	\$ 177	\$ 202	\$ 217
Assessment	\$ 27	\$ 43	\$ 53	\$ 78.24	\$ 105.75	\$ 127.58	\$ 83	\$ 131	\$ 137
CD Non Residential	\$ 98	\$ 98	\$ 100	\$ 759.51	\$ 735.92	\$ 756.44	\$ 694	\$ 756	\$ 912
CD Residential	\$ 97	\$ 83	\$ 77	\$ 1,480.17	\$ 1,545.90	\$ 1,556.23	\$ 1,477	\$ 1,460	\$ 1,517
Crisis							\$ 175	\$ 151	\$ 150
Medication Services	\$ 106	\$ 129	\$ 150	\$ 202.35	\$ 238.25	\$ 263.91	\$ 192	\$ 234	\$ 291
Rehab Services	\$ 238	\$ 284	\$ 360	\$ 528.36	\$ 627.20	\$ 678.39	\$ 440	\$ 605	\$ 554

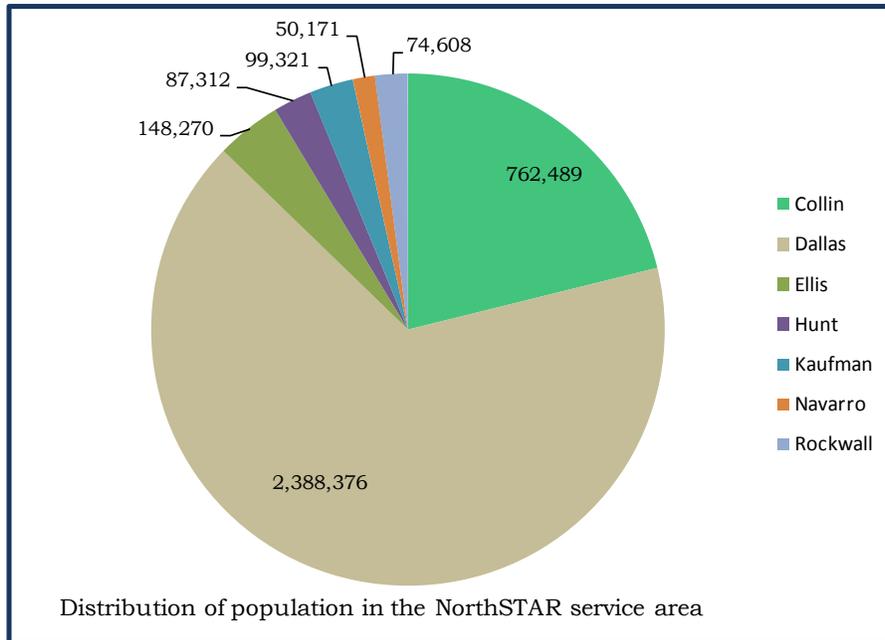
For the table in question, the per-person rate for each service was calculated by dividing the total expenditure for that service by the number of Collin County residents receiving that service.

Non-residential CD services include a variety of different modalities, such as individual or group counseling. Although all providers use the same billing code for the same individual service, the mix of services may be different for each client depending on their needs. One client may use more of one type of service than another, or a different mix of services compared to others. The per-person rate in this table only provides a general sense of what it costs for all clients on average. The average rate does not explain variations in the utilization rates.

In calendar year 2009, Collin County residents made a total of 11,129 outpatient visits to a CD provider. The total expenditure of \$589,874 yields an average per-person expenditure of \$912 (per the table). However the median per-person expenditure was \$680. A median is the number that represents the middle value of a set of data organized from highest to lowest, with half the observations lying above and half lying below the middle value. In this situation, several clients utilized a great deal of services, while others used very few. Clients who use more services increase the average per-person expenditure. However, half of the clients consumed \$680 or less per-person, with a range of per-person expenditure from \$9 at the low end to \$3,780 at the high end. The number of visits ranged from 1 to 55.

3. What proportion of the NorthSTAR system does the Collin County population represent?

The Collin County population (using the 2008 estimates) represents approximately 21% of the total population in the seven-county NorthSTAR area. As of the third quarter of State Fiscal year 2010, on average approximately 3,159 Collin County residents received a service per quarter (three month period), representing approximately 7.96% of all the NorthSTAR clients served on average in any one quarter.



	County populations and NorthSTAR clients served average per quarter							TOTALS
	Collin	Dallas	Ellis	Hunt	Kaufman	Navarro	Rockwall	
¹ Population	762,489	2,388,376	148,270	87,312	99,321	50,171	74,608	3,610,547
² Percent of all counties	21.12%	66.15%	4.11%	2.42%	2.75%	1.39%	2.07%	100.00%
² Average number per Qtr	3,159	31,018	1,506	1,521	1,239	872	377	39,692
² % Of total per Qtr	7.96%	78.15%	3.79%	3.83%	3.12%	2.20%	0.95%	100.00%
¹ % County population served per Qt	0.41%	1.30%	1.02%	1.74%	1.25%	1.74%	0.51%	1.10%
¹ Uses 2008 population estimates								
² Uses 2010 quarterly DSHS data								

4. What is Collin County’s per-capita funding compared to the rest of the State of Texas?

Collin County, as part of the NorthSTAR program does not receive “funding” nor does it contract with any governmental agency or “authority” for funding behavioral health services. The Department of State Health Services (DSHS) contracts directly with Value Options for a negotiated amount of funds that are “blended” into a package of services that exceeds the services supported by the appropriated dollars that DSHS provides to each Local Mental Health Authority (LMHA) in the rest of the State of Texas. Therefore, the funding for the NorthSTAR program is not calculated on a per-capita distribution.

The attached documents reflect the required services for the appropriated DSHS LMHA dollars, and a statement regarding distribution of substance abuse treatment dollars. LMHA funds are not distributed on a per-capita basis. The table on page 23 of the Phase One Report reflecting a “per-capita” distribution is calculated by dividing the amount of funds legislatively appropriated to a LMHA by the population in the catchment area.

Thus our calculations inserted into that table (cf. Table 11 and footnotes) reflect current “per-capita distribution” of expenditures for services delivered to NorthSTAR clients who were Collin County residents at the time of the service. If Collin County were to request a separate legislative appropriation, it would receive only a portion of the funding attached to the contract with Value Options for the NorthSTAR program. Because NorthSTAR is a blended program, Collin County would need to seek contracts/grants for funds for other services such as substance abuse/chemical dependency services, certain children’s services, forensic (e.g. jail) services and some prescription drug programs.

The total per-capita expenditure for all NorthSTAR counties is \$13.25. This is NOT a per-capita funding method, but is calculated based on expenditures. Demand for services drives the expenditures. The Collin County demand or need for services is equal to a per-capita rate of \$10.73.

Our analysis suggests the following scenarios might occur in Collin County should it form a separate LMHA and withdraw from the NorthSTAR program. After establishing a LMHA the LMHA would negotiate contracts with providers such as LifePath Systems and Life Management Resources.

- A. The legislature might consider a request for an appropriated allocation of “state mental health funds” that might equal the total expenditures for the services supported by the legislative appropriations to LMHAs, or a total of about \$4,944,097 (annual, 2009) estimated at \$6.49 per-capita. This includes expenditures for the following services only. *Community Inpatient, Psychiatric Observation, Emergency Room, ACT, Case Management, Outpatient Counseling, Clinical Assessment, Crisis, Lab and Med Services, and Rehabilitation, and the amount attributed to Collin County for “invoiced services” (p 22 Phase One Report).*
- B. In the current **STRATEGY REQUEST** - Automated Budget and Evaluation System of Texas (ABEST) - 8/26/2010; 82nd Regular Session, Agency Submission, Version 1, appropriations accessed October 7, 2010, (cf. links below)

<http://www.dshs.state.tx.us/budget/lar/default.shtm>

<http://www.dshs.state.tx.us/budget/lar/3A.pdf>

Using the figures in the documents cited above the NorthSTAR program has requested increased funding for the next biennium. It is unclear precisely what this means because of the complexity of state budgeting. Collin County has greater purchasing power as a member of the NorthSTAR program regardless of current inter-organizational relationships. Creating its own LMHA could not only reduce its purchasing power, but would also increase the administrative burden currently assumed by Value Options.

Per page 22 of Phase One Report: *This information can be interpreted only within certain limits. The DSHS allocation to the MHAs represents state appropriated dollars. Medicaid payments and state hospital costs are outside of this amount, and systems’ capacities to attract Medicaid dollars differ.*

MHAs have varying needs, opportunities, and capacities to acquire funds to provide services to persons with developmental disabilities (also referred to as mental retardation services), or to access Medicaid for children through the Child Health Insurance Program (CHIP expenditures), or to acquire funds from local school systems. Thus this “per capita” distribution does not include the funding LifePath Systems has for example, for mental retardation services or other special programs.

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APPENDIX IV

Phase Two Annotated Contractual Elements

- A) Review mental health operations specific to legal residents of Collin County
 - 1) Overview of current services and system (Section Three)
 - 2) Trends of current system (Sections one and three)
 - 3) Amount expended for Collin County customers (addressed in phase-one report)
 - 4) Number of providers in Collin County and pct of workload for each (addressed in phase-one report)
 - 5) Financial impact estimated for non-treatment of persons suffering from mental illnesses *(This is a question of national interest that has multiple methodologies associated with it. We have not attempted to estimate the cost of un-treated mental illness as this depends on the ability of the total system to absorb new patients, the estimates of future system demands, access to care, and the locale of the burden. Burdens for untreated mental disorders historically have fallen on public systems of crisis response, local emergency rooms, incarceration systems, and public welfare systems. All correctional and health care systems in the Dallas Metroplex and NorthSTAR counties are growing and experiencing greater demands.)*
- B) Review performance of current system
 - 1) Barriers of entry (if any) into the system for customers (to be addressed in Phase Three)
 - 2) Barriers of entry (if any) into the system for providers (to be addressed in Phase Three)
 - 3) Expenditures in relation to population with NTBHA and other Texas State mental health systems (NorthSTAR and Collin County compared to selected other U.S. mental health services systems) (Section Four)
 - 4) Access to services for customers including location of providers and provider accessibility (Section Four)
- C) Recommendations
 - 1) Recommendations to improve the current system (Partially addressed in Phase Two – to be addressed in Phase Three)

APPENDIX V

Methodology

The study team undertook four major tasks for this Phase Two:

- Performed additional analyses of the DSHS data from 1/2007 – 12/2009
- Acquired and analyzed DSHS 2010 data, to assess the impact of the new “case rate”
- Conducted a community wide behavioral health needs assessment and acquired estimated mental health needs

Participated in community meetings, conducted individual interviews, and collected data from providers

Consumer Profiles and Levels of Care

General consumer profiles were developed by examining the encounters used by Collin County residents for the three-year study period and identifying the primary diagnosis at each encounter, and classifying the types of services by diagnostic groups.

Flat rate (“Case Rate”) Impact on Services

We obtained three complete months of data for each of the 5 provider agencies (LifePath Systems, Dallas Metro Care, Life Net, ADAPT, and Child and Family Guidance) serving Collin County residents in sufficient numbers to analyze. We compared the three months immediately previous and the three months immediately following the new rate plan. For each agency we computed the number of individuals seen, encounters provided, and encounters billed to VO during those time frames. Additionally, we analyzed the distribution of services to evaluate any changes under the new case rate.

Estimated Behavioral Health Needs

A 61 item questionnaire was distributed electronically (web-based) and as printed booklets. Three months were available for completion of the questionnaire. We solicited participation from individuals who were not clients of the NorthSTAR program. This was not a satisfaction questionnaire. The purpose was to estimate existing but unmet behavioral health needs in Collin County. We received 599 completed questionnaires, among which 576 respondents lived in 32 zip codes in Collin County. This is a representative sample of Collin County residents.

Assumptions and Cautions

Assumptions and Cautions

This report uses *existing historical data* reported by community providers of behavioral health services and VO to the Texas DSHS.

The behavioral health organization managed care corporation, VO rather than NTBHA negotiates the contracts with providers in NorthSTAR whereas in all other Mental Health Authorities (MHA) in Texas the MHA contracts with the providers. There is a legal separation between authority and provider mental health functions in Texas.

In NorthSTAR various providers have different rates in their VO contracts because of the populations they serve or the specialty services they provide. By virtue of the absence of transparency in negotiated rates a spirit of mistrust is perpetuated in the system.

Each question, table, map and graph should be examined independently and not viewed as containing the same data or precisely matching numbers presented in other graphs or tables.

- ◇ Records of encounters used in this analysis are for persons authorized to receive services paid by the NorthSTAR program.
- ◇ Some comparisons may be made with the NorthSTAR Data Book available on-line at <http://www.dshs.state.tx.us/mhsa/northstar/databook.shtm#databook> . Although that report is drawn from the same database, data are reported quarterly in that publication. Thus, caution is advised against literal direct comparisons.
- ◇ Zip codes boundaries used to create maps for this report can and do shift from year to year. Our report applies the 2007 ESRI zip code map templates provided by the Collin County GIS Department.
- ◇ Data outside of the DSHS files provided to the study team are used only if from a reliable source such as the US Census Bureau. Other data referenced should be considered in the context of the referenced sources.
- ◇ Data presented are not exhaustive of the data files received by the study team.
- ◇ Information may be repeated in some graphs and tables to examine possible relationships among data.
- ◇ The study team has presented verified data and faithfully reflected information from interviews and observations.
- ◇ Individual interpretations of the report information used to respond effectively to anecdotal comments on the costs or expenditures for NorthSTAR services may be made with confidence, but also within the parameters of the data used in the analysis, and the content of each different data display.
- ◇ More questions may be asked than are addressed in the report.

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