Report to the Board

Dallas Area NorthSTAR Authority

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Executive Summary

In the last three months there have been a series of letters and requests purporting lack of effectiveness of NorthSTAR Mental Health services. These are a continuation and escalation of previous efforts to denigrate the project. This report compares TDMHMR non-NorthSTAR information with NorthSTAR information to address four of the most prevalent misleading questions and statements.

How does NorthSTAR compare to non-NorthSTAR in terms of:

- penetration rates for mental health services in SFY 2003?
  NorthSTAR has much higher penetration rates than the non-NorthSTAR service area for SFY 2003
- change in mental health service levels in the last year?
  NorthSTAR substantially increased mental health service levels from Q1 2003 to Q1 2004
- productivity?
  In terms of TDMHMR funding, services and priority population, NorthSTAR has the highest productivity score of any LSA, almost double the non-NorthSTAR overall score.
- safety net capabilities?
  In terms of three commonly referenced meanings of 'safety net' NorthSTAR is clearly superior in two and likely superior in the third.

NorthSTAR continues to be widely criticized. But, in almost every instance of criticism the project has made operational changes that address the concern or provided information that directly addresses and clearly refutes the criticism. Rather than the 'failed system of care' referred to by detractors, NorthSTAR is a model program, more effective and efficient in many aspects to public Mental Health services elsewhere in Texas. The only reasonable course is to move into the future as partners with the needs and desires of our customers our primary concern.

Purpose

In the last three months there has been a dramatic increase in letters and requests related to the purported lack of effectiveness of NorthSTAR Mental Health services. These questions have taken on a life of their own requiring local and state staff to repeatedly respond to them. Many NorthSTAR stakeholders have expressed concern that some stakeholders may misread truth in the persistence and durability of these rumors and questions. The following information is taken from readily available and easily analyzed TDMHMR information. This report is a tool to help deal with the unfair and unreasonable questions and statements being promulgated and requiring repeated efforts to correct. It should not be used as a marketing tool or resource for creating stress in other systems of care.

The answers to most NorthSTAR numbers served and performance questions are in the NorthSTAR Data Book. For non-NorthSTAR operations, in most cases it is possible to obtain numbers open to service and it is not possible to get their performance and outcome information. The Q1 2004 NorthSTAR Data Book will be available later this month. The following analysis compares TDMHMR non-NorthSTAR information to NorthSTAR numbers served information to address three of the four most prevalent misleading questions and statements. Since there are no appropriate data available for the fourth question, a qualitative analysis provided.

This report is written in a research report format, with questions, methods, findings, discussion and conclusions. It addresses the following questions:

How does NorthSTAR compare to non-NorthSTAR in terms of:

- **penetration rates for mental health services in SFY 2003?**
- **change in mental health service levels in the last year?**
- **productivity?**
- **safety net capabilities?**

The methods and findings are provided to insure that people can identify the specific data and procedures and the basis for the discussion and conclusions. If you are primarily interested in the results, skip forward to the discussion beginning on page 8.

Methods

Measure Definitions Served - persons received MH services Child - children 0-17 years received MH services Adult - adults age 18+ received MH services Atypical Drugs - persons receiving Atypical Anti-Psychotic drugs CSS - persons receiving Community Support Services ACT - persons receiving Assertive

Community Treatment

These measures were not picked randomly for examination. They are the served counts and the services that have been repeatedly questioned regarding NorthSTAR operations and effectiveness. These measures have comparable NorthSTAR and non-NorthSTAR information available.

Data Qualifications **NorthSTAR** counts only persons whose services are paid for by the BHO. It does not count persons with other sources of payment for services. For example; persons who have CHIP or private health insurance are not counted even though they are frequently served by NorthSTAR providers, including the local Community Centers. NorthSTAR counts an estimated six hundred to one thousand Medicaid eligible persons who probably do not meet TDMHMR Mental Health Priority Population definition (2% of the total served). This slight over count only effects general counts. TDMHMR services like Atypical Anti-psychotic Medications, Community Support Services and Assertive Community Treatment are provided almost exclusively to Priority Population eligible customers. **Non-NorthSTAR Community Centers** count everyone they serve, regardless of payer. Some Medicaid eligible persons who have mental illness receive services from other local resources and are unknown to the Community Centers. Thus, they are not included in the Community Center's persons served counts.

In short, the persons counts are equivalent on a NorthSTAR / non-NorthSTAR basis, but may not be as comparable between local service areas due to local variations in other sources of funding, local center operations, and availability of other sources of mental health services.

Data Sources The number of persons receiving MH services and the numbers receiving three particular services, Atypical Drugs, Community Support Services and Assertive Community Treatment are determined for NorthSTAR and the balance of Texas. Non-NorthSTAR service area data comes from the HC028460, mental health priority population counts 09-01-02 thru 11-30-02 and 09-01-03 thru 11-30-03 for the quarterly comparison and from the 09-02-02 thru 08-31-03 report for SFY 2003. The NorthSTAR information uses the same data definitions and is drawn from the NorthSTAR Data Warehouse. Quarter and annual data are used to eliminate the differences caused by the monthly served and open to serve definitions used by NorthSTAR and non-NorthSTAR respectively to count customers.

Findings

How does NorthSTAR compare to non-NorthSTAR in terms of: penetration rates for mental health services in SFY 2003?

Table 1: SFY 2003 Persons Received State Funded Community Mental Health Services is the breakout of persons served in NorthSTAR and non-NorthSTAR local service areas in SFY 2003. Since NorthSTAR includes 15% of the Texas population, one would expect the percent of persons served to be about the same as the population proportion. But, NorthSTAR includes much higher proportions of persons served and receiving key services.

Table 1: SFY 2003 Persons Received State Funded Community Mental Health Services Persons Served Service Area Population Served Child Adult Atyp Drugs CSS ACT

NorthSTAR non-NorthSTAR Texas Total NorthSTAR % of Texas Total

3,231,840	37,912	7,863	30,156	8,854	21,079	928
18,596,729	138,056	25,804	112,870	43,286	45,713	2,960
21,828,569	175,968	33,667	143,026	52,140	66,792	3,888
15%	**22%**	**23%**	**21%**	**17%**	**32%**	**24%**

Penetration rate is commonly used to compare effectiveness of health services. But, Penetration rates are based on a more complicated calculation. Dividing the numbers served by the service area population and multiplying the result by 1,000 gives a comparable penetration rate by NorthSTAR and non-NorthSTAR service areas. *Table 2: SFY 2003 Persons received Community Mental Health Services Per 1,000 Population* shows these rates. For the six calculated rates, NorthSTAR is higher than the non-NorthSTAR rates by a substantial margin. The higher NorthSTAR penetration rate for Atypical Drugs is least noteworthy and the rate for Community Support Services is more than double non-NorthSTAR.

Table 2: SFY 2003 Persons Received Community MH Services Per 1,000 Population Penetration by Service Served Child Adult Atypical CSS ACT Per-Capita Medicaid

11.73	2.43	9.33	2.74	6.52	0.29	$13.16	27%
7.42	1.39	6.07	2.33	2.46	0.16	$15.14	41%
158%	**175%**	**154%**	**118%**	**265%**	**180%**	**87%**	**65%**

8.06	1.54	6.55	2.39	3.06	0.18	$14.84	38%

Drugs TDMHMR $ Adult % NorthSTAR
non-NorthSTAR

NorthSTAR % of non-NorthSTAR Texas
Total

Per-capita TDMHMR community services funding and the Medicaid adult percent of the service population data are added to Table 2 because a higher per-capita funding and a higher percent of Medicaid adults are identified as features that should increase numbers served. The 'per-capita TDMHMR $' is TDMHMR funding divided by population. The higher the per-capita rate, the more TDMHMR funds per person are available to provide services. The 'Medicaid Adult %' is the number of Medicaid Adults served divided by the number of Adults served. The more Medicaid eligible adults served, the more substantial the Medicaid funds available to provide services. The fact that these percentages are lower for the NorthSTAR service area indicates that these are not reasons why NorthSTAR is outperforming the non-NorthSTAR parts of the state. In fact, lower per-capita funding and lower percentage of Medicaid eligible adults would argue for lower penetration rates.

How does NorthSTAR compare to non-NorthSTAR in terms of: change in mental health service levels in the last year?

A comparison of Q1 2003 and Q1 2004 is carried out. This data makes up Table 3; *Q1 SFY 2003 & Q1 SFY 2004 Persons Received Community MH Services*. The Q1 SFY 2004 data are divided by the Q1 SFY 2003 data and '1' is subtracted from the result to derive the percent change ([Q1 03 / Q1 04]-1). A positive percent is an increase in persons served and a negative percent is a drop. The difference between the NorthSTAR change and the non-NorthSTAR change is calculated to show overall difference between the change from Q1 2003 to Q1 2004 for NorthSTAR compared to non-NorthSTAR service areas. In most cases, NorthSTAR increased persons served while non-NorthSTAR areas decreased persons served.

Table 3; Q1 SFY 2003 & Q1 SFY 2004 Persons Received Community MH
Services NorthSTAR Information non-NorthSTAR information

	Q1 2003	Q1 2004	Change, NorthSTAR	Q1 2003	Q1 2004	Change, Non-NorthSTAR	**NorthSTAR Difference**
Number Served	17,698	20,469	16%	100,544	94,799	-6%	**21%**
Child (0-17yrs)	2,977	3,558	20%	16,496	13,819	-16%	**36%**
Adult (18+ yrs)	14,703	16,915	15%	84,160	81,056	-4%	**19%**
Atypical	6,040	5,917	-2%	29,324	33,007	13%	**-15%**

Drugs							
CSS	11,044	12,191	10%	27,457	27,097	-1%	**12%**
ACT	569	669	18%	2,493	2,232	-10%	**28%**

It is notable that NorthSTAR did not increase Atypical Anti-psychotic medication customers while non-NorthSTAR areas did increase.

How does NorthSTAR compare to non-NorthSTAR in terms of: productivity?

No commonly used summary measure was identified. A measure using common data was developed to identify productivity ranking of local service areas.

Simply defined, productivity is input divided by output; how many resources were consumed to produce what output. For public mental health services, the input is funding and the output is services to Medicaid eligible and indigent Texans with mental illness. Funding can be defined in a number of ways, ranging from totaling all sources of income and non cash resources used to just looking at the primary purchasers contribution. Historically, the state has looked at the TDMHMR contribution, expecting some level of additional input, but being primarily concerned with the impact in terms of TDMHMR allocated funds. This measure is the community services General Revenue and Block Grant allocation by Mental Health Authority. When comparisons are made, the allocation is standardized by dividing the allocated funds by the local service area population to arrive at a standardized measure, per capita funding.

Similarly, health and human service outputs are typically standardized by calculating a penetration rate. In this case, penetration per 1,000 of population (persons served/ population*1,000). The product of the long division is multiplied by 1,000 to provide a more easily understood and readily manipulated number rather than having to work with small decimals. The multiplication has no effect on the relationship of the values by local service area.

Having a population standardized measure of the inputs and outputs of interest allows calculation of a productivity measure (per-capita funding / penetration) which yields a cost per unit of output. This is only one approach to measuring the productivity of TDMHMR contractors, but since it uses standardized inputs, the relationship of the outputs is consistent.[1]

The results are not a readily identifiable unit like $2.50 per widget or $10,000 per car. But, it is a true cost per unit and a measure of productivity. In other words, a productivity value of 1 is twice as good as '2' and three times as good as '3' etc. NorthSTAR shows the best (lowest) productivity value of the local service areas. That is, least cost to produce an output.

[1] This measure does not take into account local matching funds, Medicaid income from non TDMHMR wrap around services, free or in kind services and resources or the effect of the blended funding model used in NorthSTAR. It is strictly a measure of the impact of TDMHMR funds. More complicated approaches taking some of these factors into account yield similar results, but are not as easily explained or understood. They are likely less accurate as well.

SFY 2003 Productivity Table COMMUNITY MHMR CENTERS	Estimated Population	GR & BG Per Alloc Table	Per-Capita Rate 02 - 03 Funding	Persons Served 03 HC028460	Penetration Per 1,000 Population	Per Capita/ Penetration= Productivity
Betty Hardwick (Abilene)	176,415	$ 2,995,644	$ 16.98	1,407	7.98	**$ 2.13**
Texas Panhandle	376,228	$ 6,134,516	$ 16.31	3,301	8.77	**$ 1.86**
Austin-Travis County	859,210	$ 11,184,191	$ 13.02	7,780	9.05	**$ 1.44**
Central Counties	369,211	$ 5,178,827	$ 14.03	2,552	6.91	**$ 2.03**
Center for Health Care	1,441,796	$ 18,322,951	$ 12.71	9,019	6.26	**$ 2.03**
Central Texas	99,068	$ 2,207,994	$ 22.29	806	8.14	**$ 2.74**
Central Plains	100,748	$ 1,879,156	$ 18.65	999	9.92	**$ 1.88**
NorthSTAR	**3,231,840**	**$ 42,534,715**	**$ 13.16**	**37,912**	**11.73**	**$ 1.12**
Life Management Center	714,326	$ 12,568,760	$ 17.60	5,884	8.24	**$ 2.14**
Gulf Coast	510,880	$ 8,181,330	$ 16.01	3,239	6.34	**$ 2.53**
Gulf Bend	176,626	$ 2,848,663	$ 16.13	1,236	7.00	**$ 2.30**
Tropical Texas	998,795	$ 14,469,589	$ 14.49	6,212	6.22	**$ 2.33**
Spindletop MHMR	417,764	$ 7,712,936	$ 18.46	4,907	11.75	**$ 1.57**
Lubbock	289,170	$ 5,549,293	$ 19.19	3,263	11.28	**$ 1.70**
Concho Valley	125,140	$ 2,408,727	$ 19.25	617	4.93	**$ 3.90**
Permian Basin	285,256	$ 5,695,669	$ 19.97	2,499	8.76	**$ 2.28**
Nueces County	325,133	$ 4,892,363	$ 15.05	3,073	9.45	**$ 1.59**
Andrews Center	351,977	$ 5,466,823	$ 15.53	1,906	5.42	**$ 2.87**
Tarrant County	1,509,637	$ 21,953,839	$ 14.54	10,094	6.69	**$ 2.17**
Northeast Texas	134,554	$ 1,929,680	$ 14.34	918	6.82	**$ 2.10**
Heart of Texas	327,627	$ 4,196,729	$ 12.81	2,498	7.62	**$ 1.68**
Helen Farabee Center	302,924	$ 7,711,805	$ 25.46	4,160	13.73	**$ 1.85**
Sabine Valley	295,034	$ 6,066,621	$ 20.56	3,553	12.04	**$ 1.71**
Brazos Valley	275,071	$ 4,033,112	$ 14.66	1,887	6.86	**$ 2.14**
Burke Center	363,170	$ 5,672,616	$ 15.62	2,300	6.33	**$ 2.47**
Harris County	3,563,988	$ 39,626,273	$ 11.12	18,594	5.22	**$ 2.13**
Texoma	181,410	$ 2,416,140	$ 13.32	1,233	6.80	**$ 1.96**
Pecan Valley	205,108	$ 3,230,417	$ 15.75	1,705	8.31	**$ 1.89**
Tri-County	455,511	$ 6,051,347	$ 13.28	2,563	5.63	**$ 2.36**
Johnson	133,794	$ 1,731,161	$ 12.94	1,406	10.51	**$ 1.23**
Denton County	480,339	$ 4,680,863	$ 9.74	2,600	5.41	**$ 1.80**
Texana	543,031	$ 7,715,248	$ 14.21	3,041	5.60	**$ 2.54**
Anderson / Cherokee Co	103,515	$ 2,789,795	$ 26.95	1,590	15.36	**$ 1.75**
West Texas Center	209,074	$ 6,212,968	$ 29.72	2,887	13.81	**$ 2.15**
Bluebonnet Trails	541,911	$ 8,373,359	$ 15.45	5,487	10.13	**$ 1.53**
Hill Country	467,232	$ 7,568,837	$ 16.20	3,838	8.21	**$ 1.97**
Coastal Plains Center	234,810	$ 6,191,390	$ 26.37	2,757	11.74	**$ 2.25**
Lakes Regional MHMRC	115,829	$ 3,474,528	$ 30.00	1,998	17.25	**$ 1.74**
Border Region (Laredo)	286,728	$ 6,033,512	$ 21.04	2,464	8.59	**$ 2.45**
Camino Real MHMRC	248,689	$ 4,271,983	$ 17.18	1,783	7.17	**$ 2.40**
Texas Total	21,828,569	$ 324,028,724	$ 14.84	175,968	8.06	**$ 1.84**

The difference between the NorthSTAR and non-NorthSTAR productivity is substantial and NorthSTAR is more productive than each Community Center and the non-NorthSTAR areas taken together.

SFY 2003 Productivity Table	Estimated Population	GR & BG Per Alloc Table	Per-Capita 03 Funding	Served 03 HC028460	Per 1,000 Population	PerCap/ Pen= Productivity
NorthSTAR	3,231,840	$ 42,534,715	$ 13.16	37912	11.73	**$ 1.12**
Non-NorthSTAR	18,596,729	281,494,009	$ 15.14	138,056	7.42	**$ 2.04**

How does NorthSTAR compare to non-NorthSTAR in terms of: safety net capabilities?

It is difficult to define safety net. People have used it in many different contexts and the meaning changes with each usage. This analysis addresses three frequently referenced 'safety net' situations related to governmental MH services. One aspect of the safety net question is the capacity to provide needed services to eligible persons. The data above clearly indicate that NorthSTAR has increased both access and numbers served, especially in light of lower funding levels than the balance of the state. In NorthSTAR, more people receive more service, and no priority population eligible people have to wait for any services other than atypical anti-psychotic medications.

The second situation is capacity to meet needs under a social catastrophe or mental health crisis. Without analyzing a statewide MH crisis (which we thankfully do not have the opportunity to do), this situation is not quantifiable. Therefore the analysis is qualitative. One notable operational difference is that many of the Community Centers outside NorthSTAR are well situated in their local political and social situations. The BHO, a private, for-profit corporation is less integrated into the local social and political system and less likely to directly benefit from such relationships in a crisis situation. DANSA, the NorthSTAR Authority serves this function, but does not provide services. It is possible that the need for additional operational relationships would reduce effectiveness. But, to date this arrangement has been beneficial rather than a liability.

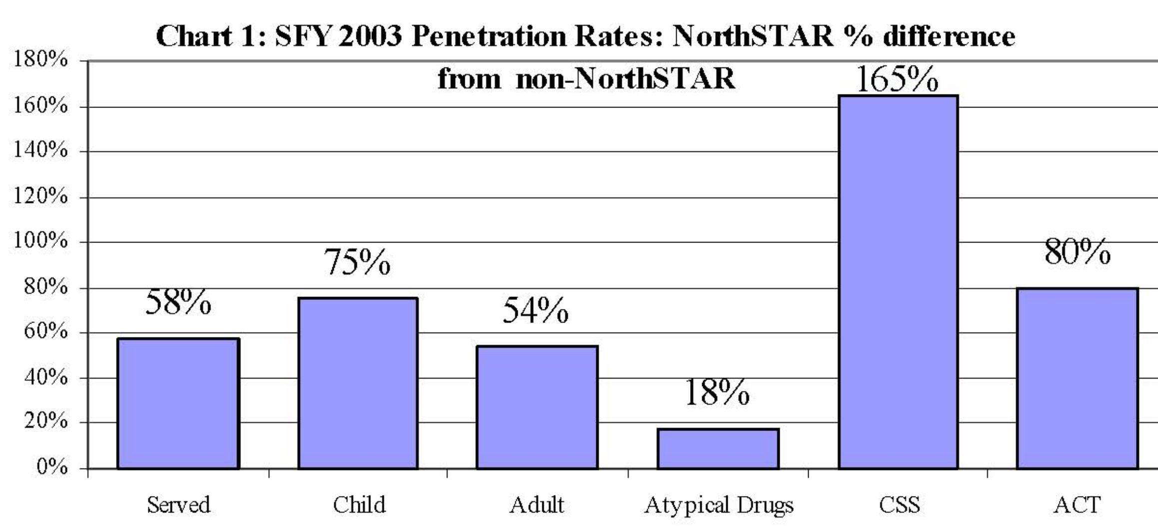
Another area of difference is, the NorthSTAR contract is a full risk contract. While local Community Centers would rely on continued and hopefully increased state and local funding, the BHO is legally required to devote corporate assets to addressing the crisis needs. The Texas Department of Insurance requires substantial asset value (over $25m), a bond and a security deposit with the Comptroller to receive a license to operate as a BHO in Texas. The BHO contract requires a 6 month notice of cancellation. Thus, for at least 6 months, the BHO is obligated to continue operations and meet clinical need. The current contractor has a history of being reliable, the most recent example being their role in providing mental health care following the 9/11 tragedy. The company was able to tap corporate financial and staff assets to meet the increased levels of need immediately after the crisis and for several months following.

A third possible safety net situation, again qualitative, is availability of providers. Community Centers use grant in aid funding under a performance contract to insure that

providers receive sufficient funding to continue operations. While this ensures the availability of providers, it does not typically achieve a focus on efficiency and cost effectiveness. NorthSTAR insures availability of providers by having a large network of providers with overlapping, if not the same competencies, and insures efficiency and cost effectiveness by purchasing 'best value.' This approach may cause inefficient providers to go out of business. But, the contract requirements for adequate access, customer choice and provider base insure that the rates paid do not drop below reasonable levels for very long if at all. The extreme difference in performance between NorthSTAR and the rest of Texas reported earlier is one outcome of the differences in approach to insuring the presence of an adequate provider base.

Discussion of Findings

Penetration rates for NorthSTAR are well above the non NorthSTAR rates. Four measures are 54& to 80% above the non-NorthSTAR rate, one is 165% above and the penetration rate for atypical anti-psychotic medications is 18% above the non-NorthSTAR penetration rate. While the 54% to 80% differences are likely explained by the increased cost effectiveness of the NorthSTAR model, the other two differences require explanation.



18% higher penetration for atypical anti-psychotic medications in SFY 2003 is due to the limited funding for these medications. Most of the providers in the state are fully expending or over expending this fund and the 18% higher rate for NorthSTAR is likely due to an early emphasis on preferred medications[2] in NorthSTAR. This prodices a lower average cost and thus more persons are served with the available funds.

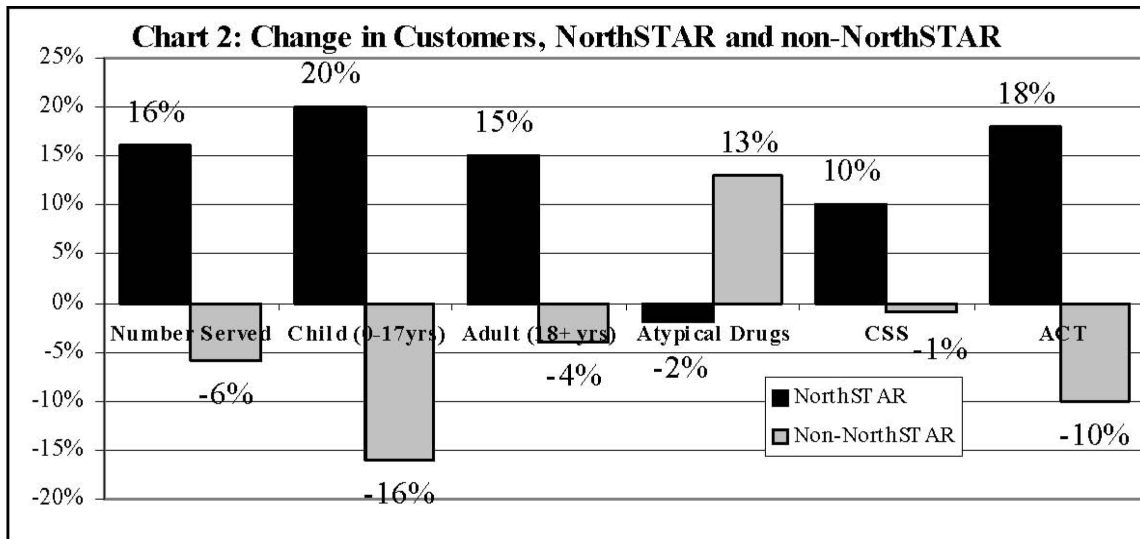
The 165% higher rate for community support services is likely an indication of an over reliance on rehabilitation services. Over reliance on rehabilitation services in NorthSTAR is a concern of the state and the BHO. Clinical changes implemented 9/1/03 will reduce

this disparity. The changes require best practices that shift some rehabilitation services to therapy services and require better monitoring the authorization of rehabilitation for persons without a diagnosis that includes psychosis. It is notable that NorthSTAR has achieved this level of performance in spite of lower per-capita finding and lower Medicaid adult percent of customers.

Changes in care Q1 2003 to Q1 2004 include a general increase in persons served and receiving the selected services in NorthSTAR and a decrease elsewhere in the state. It is

[2] Preferred Medication is a requirement that given equal clinical efficacy, physicians provide the least expensive drug not necessarily the drug of the physician's or the customer's preference,.

notable that unlike other measures, NorthSTAR persons receiving atypical drugs dropped 2% while the rest of the state increased 13%. There are two parts to the explanation of this difference. First, NorthSTAR ramped up use of atypical anti-psychotics in SFY 2002 and was at a high level coming into SFY 2003, having spent proportionally more of the 2002 funding in the latter half of the year. Comparing early 2003 to early 2004 leads to a small drop due to these higher than funded level expenditures in early 2003.



While NorthSTAR had a relatively inflated denominator, the non-NorthSTAR areas had a smaller than desired denominator. A number of community centers did not meet their atypical anti-psychotic medications spending targets in SFY 2002 and were still ramping up in early 2003. This provided a low base for comparison (denominator) and a high percent increase for the non-NorthSTAR areas. When you look only at Q1 SFY 2004, NorthSTAR and non-NorthSTAR areas of the state are comparable. The following chart shows that for Q1 2004 NorthSTAR serves notably more customers than its population proportion (15%) in all but one measure and at its population proportion of customers for Atypical Anti-psychotic medications.

Q1 2004, Persons Served	Customers	Child <18	Adult 18+	**Atypical Drugs**	CSS	ACT
NorthSTAR	20,469	3,558	16,915	5,917	12,191	669
NorthSTAR %	18%	20%	17%	**15%**	31%	23%
Texas Total	115,268	17,377	97,971	38,924	39,288	2,901

The Atypical Anti-psychotic medications performance is primarily driven by the size of the New Generation Medications funding to TDMHMR, rather than by efficiency and productivity. Atypical Anti-psychotic medication funding is expended on an essentially fixed price commodity where there is little potential for savings. Historically NorthSTAR was more effective because NorthSTAR adopted the preferred medication procedures first. But, the preferred medication approach has spread across the state. The SFY 2003 productivity analysis puts all this into a single measure. This measure shows that NorthSTAR is substantially more productive than non-NorthSTAR areas. The safety net analysis indicates that as an ongoing operation, NorthSTAR provides a broader safety net than any non-NorthSTAR service area. In a crisis situation, NorthSTAR should be survivable and effective for at least 6 months even if the BHO wanted to drop its coverage of the NorthSTAR service area. Arguably, this would be no worse and possibly better than what a non NorthSTAR area could achieve without the BHOs contracted responsibility and access to the corporate assets required under TDI rules.

Conclusions

NorthSTAR reaches more people and provides more services to mentally ill Texans than is achieved in other parts of Texas. This is in spite of having one of the lowest per capita funding levels and a low percent of adults served who are Medicaid eligible. The explanation for this low percent of adult customers who are Medicaid eligible is that much of the growth in numbers served has been indigent priority population who would not otherwise have had access to services. There are at least three innovations in the NorthSTAR design that contribute to this finding.

First, blending funding that was stove-piped to single purpose and single source providers increased provider flexibility and adequacy of treatment. Second, introducing competition and fee for service forced providers to operate efficiently and to provide service for each dollar received. Additionally, customers rather than exclusively contracted providers define the market place. Third, the authority function was removed from provider control and the conflicts of interest inherent in that relationship were eliminated.

NorthSTAR is no more fragile and arguably more robust as a safety net than other local service areas in Texas. First, NorthSTAR already serves higher numbers of consumers. Second, the design of NorthSTAR means that the primary impact of an

increased need for services is felt at the BHO. The providers continue to serve customers, but at an increased level. Increased demand may cause some provider stress, compensated for by increased income. But most importantly, persons needing services are insured and will have open access to the services they need.