



**TOTAL HEALTH PROGRAM  
CAPITAL AREA HUMAN SERVICES DISTRICT**

**Reducing Health Risk among Community Mental Health Clients:  
A Case for Integrated Care**

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## HEALTH INDICATOR MEASURES AND PERCENT AT RISK: BASELINE AND ONE YEAR OUT

A total of **939** clients have been enrolled in the THP since January of 2012. Among those admitted, Nurse Care Managers completed **618** reassessment interviews, which are required every 6 months, prior to discharge. At present, there are approximately **300** active THP participants who regularly meet with CAHSD and THP providers.

This report describes the demographics, health indicator scores, and psychosocial characteristics of participants ( $N=134$ ) who were enrolled in the THP program for at least one year prior to being discharged (See Table 1). Gender and racial differences at Baseline and at one year out are examined. The report also describes changes in health indicator scores from Baseline to one year out for those THP participants whose scores placed them at risk on each of the health indicators at Baseline (See Table 2).

### Health Indicators, Overall Health, Psychological Distress (K6), and Social Connectedness

Among those in the program for at least one year prior to discharge ( $N=134$ ), just over half received services at Margaret Dumas Mental Health (55%), with the remainder at Gonzales Mental Health (22%) and Center for Adult Behavioral Health (21%). In terms of demographics, participants were predominantly female (59%) and, on average, 46 years of age. Just over half of the overall sample was African American (52%).

Nearly half of all THP participants ( $n=61$ , 46%) were diagnosed with a mood disorder (e.g., major depression, bipolar), less than one third ( $n=40$ , 30%) were diagnosed with a thought disorder (e.g., schizophrenia, schizoaffective), and about one fourth had received other DSM diagnoses (e.g., PTSD, ADHD) upon enrollment.

Table 1 shows the mean health indicator scores and the proportions of THP participants at risk at Baseline and at one year out. As seen in Table 1, the mean scores improved for diastolic and systolic BP ( $p<.01$ ), LDL ( $p<.05$ ), HDL, and Total cholesterol ( $p<.05$ ). Mean scores remained roughly the same for BMI and Blood Glucose; but slightly increased for TRI. The proportion of THP participants with at-risk scores decreased from Baseline to one year out on all health indicators (See Table 1). In addition, the mean number of at-risk cardiometabolic markers for the overall sample decreased from 3.1 ( $SD=1.8$ ) at Baseline to 1.5 ( $SD=1.8$ ) at one year out ( $p<.001$ ).

Participants' self-assessed overall health ( $p<.05$ ), psychological distress ( $p<.001$ ), and social connectedness ( $p<.05$ ) significantly improved from Baseline to one year out (See Table 1).

**Table 1: Mean Health Indicator Scores and Percent at Risk: Baseline and One Year Out (N=134)**

Health Indicator	BASELINE MEASURES		MEASURES AT ONE YEAR OUT	
	SCORE <i>M (SD)</i>	<i>n</i> % AT RISK	SCORE <i>M (SD)</i>	<i>n</i> % AT RISK
<b>Systolic BP</b> ≥ 130 At Risk	132.7 (18.8) Range=89-188	75 <b>56.4%</b>	**127.5 (15.2) Range=98-173	42 <b>31.6%</b>
<b>Diastolic BP</b> ≥ 85 At Risk	78.6 (12.5) Range=40-110	39 <b>29.3%</b>	77.5 (11.6) Range=45-115	22 <b>16.5%</b>
<b>BMI</b> ≤ 24 Normal 25-29 Overweight 30-39 Obese	33.7 (10.3) Range=17-70	58 <b>69.0%</b>	33.6 (9.8) Range=20-68	52 <b>39.1%</b>
<b>Blood Glucose</b> ≥ 100 At Risk	106.3 (42.3) Range=62-408	47 <b>35.3%</b>	107.8 (58.4) Range=66-499	18 <b>13.5%</b>
<b>Lipid Total</b> ≥ 200 At Risk	190.4 (42.2) Range=112-344	45 <b>33.8%</b>	*184.0 (36.6) Range=119-274	19 <b>14.3%</b>
<b>Lipid HDL</b> < 40 At Risk	46.3 (15.7) Range=17-103	44 <b>33.1%</b>	48.7 (18.7) Range=22-163	21 <b>15.8%</b>
<b>Lipid LDL</b> ≥ 130 At Risk	114.6 (35.9) Range=27-219	28 <b>21.1%</b>	*110.1 (34.9) Range=15-179	16 <b>12.0%</b>
<b>Lipid TRI</b> ≥ 150 At Risk	137.5 (78.7) Range=28-459	44 <b>33.1%</b>	145.0 (87.87) Range=43-495	20 <b>15.0%</b>
<b>Overall Health</b>	2.56 (1.16) Range=1-5		*2.78 (.98) Range=1-5	
<b>Total K6</b>	10.7 (6.1) Range=0-24		***7.8 (6.3) Range=0-24	
<b>Total Social Connectedness</b>	15.2 (2.7) Range=4-20		*15.7 (2.4) Range=5-20	

## Gender and Racial Differences (N=134)

Differences across gender and race were examined to assess for health disparities in health and health-related measures at Baseline. In terms of gender, **HDL scores** were higher for women ( $M=50.7$ ,  $SD=15.2$ ) than for men ( $M=39.6$ ,  $SD=14.0$ ;  $p<.001$ ).

**Blacks assessed their overall health as being better** ( $M=2.7$ ,  $SD=1.31$ ) than that of whites ( $M=2.2$ ,  $SD=.88$ ;  $p<.01$ ). **Diastolic BP was higher for Whites** ( $M=81.6$ ,  $SD=10.3$ ) than for Blacks ( $M=76.8$ ,  $SD=13.5$ ;  $p<.05$ ). **This same pattern held true for both total cholesterol and TRI.** The mean Total lipid scores for Blacks and Whites were 179.5 ( $SD=37.5$ ) and 202.3 ( $SD=44.9$ ;  $p<.01$ ) respectively; and for TRI were 115.4 ( $SD=64.6$ ) and 164.8 ( $SD=89.0$ ;  $p<.01$ ), respectively.

There were no significant differences in number of at-risk markers between men and women at either Baseline or at one year out; however, **the mean number of at-risk cardiometabolic markers was higher for Whites** ( $M=3.5$ ,  $SD=1.8$ ) than for Blacks ( $M=2.8$   $SD=1.7$ ) at Baseline ( $p<.05$ ).

## Health Indicators: At-Risk Subsamples

Table 2 shows the health indicator data for THP participants whose Baseline scores placed them at risk on each marker ( $Ns=28-75$ ). As seen in Table 2, mean scores significantly improved from Baseline to one year out on all indicators except for two: The BMI score remained about the same and the Blood Glucose score slightly increased. Thus, THP participants at greatest risk upon enrollment showed improvements in key cardiometabolic markers at one year out.



**Table 2: Mean Health Indicator Scores for At-Risk Subsamples: Baseline and One Year Out**

<b>Health Indicator</b>	<b>BASELINE MEASURES</b>		<b>MEASURES AT ONE YEAR OUT</b>	
	<i>n</i>	<i>SCORE M (SD)</i>	<i>n</i>	<i>SCORE M (SD)</i>
<b>Systolic BP</b> ≥ 130 At Risk	75	145.4 (13.2)	42	***129.8 (15.2)
<b>Diastolic BP</b> ≥ 85 At Risk	39	92.1 (6.8)	22	***82.3 (13.0)
<b>BMI</b> ≤ 24 Normal 25-29 Overweight 30-39 Obese	58	35.3 (8.3)	52	35.7 (8.2)
<b>Blood Glucose</b> ≥ 100 At Risk	47	126.3 (31.8)	18	127.9 (85.9)
<b>Lipid Total</b> ≥ 200 At Risk	45	235.4 (30.5)	19	**211.1 (36.1)
<b>Lipid HDL</b> < 40 At Risk	44	31.6 (5.6)	21	**38.0 (10.7)
<b>Lipid LDL</b> ≥ 130 At Risk	28	168 (27.1)	16	**130.9 (36.9)
<b>Lipid TRI</b> ≥ 150 At Risk	44	219.1 (73.7)	20	*178.8 (93.0)

\* $p < .05$ , \*\* $p < 01$ , \*\*\* $p < .001$