

M.A.P. II

Monitoring and Assessment Project 2002 - 2004 Executive Summary

Environmental
Health

Social &
Mental Health

Injuries

Maternal &
Child Health

Chronic
Diseases

Infectious
Diseases



Tarrant County Public Health
Safeguarding our community's health

Tarrant County
MAP II : Monitoring and Assessment Project
2002-2004
Executive Summary



**Tarrant County
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Introduction

The Monitoring & Assessment Project (M.A.P.) is a Tarrant County Public Health (TCPH) initiative designed to use secondary data from various sources to produce a comprehensive community health status report. The purpose of M.A.P. is to establish a community health profile for accurate, periodic assessment of our community's progress towards health-related objectives. Monitoring the community's health status through M.A.P. reflects TCPH's mission of safeguarding our community's health by promoting community health, preventing disease and injury, and assuring a healthy and safe environment. This report provides detailed health information from the second M.A.P. project conducted by TCPH, expanding on the indicators from M.A.P. I. M.A.P. I indicators were based on the Texas Strategic Health Status Indicators (TSHSI) project of the Texas Department of State Health Services. These indicators were adapted for Tarrant County and geocoded on a sub-county level using Geographic Information System (GIS) technology. The selected indicators presented for Tarrant County are compared to Texas, the United States, and where applicable, the Healthy People 2010 objectives.

This report includes indicators classified into the following nine domains:

- **Domain I. Demographics and Socioeconomics**
 - population distribution, poverty, income, unemployment, disadvantaged students, educational attainment, language proficiency, single-parent households, all cause mortality
- **Domain II. Quality of Life**
 - years of potential life lost
- **Domain III. Health Resources**
 - health professional shortage areas and medically underserved areas, Medicaid participating health care professionals, local health services in Tarrant County
- **Domain IV. Maternal and Child Health**
 - infant mortality, child mortality, prenatal care, low birth weight infants, teen pregnancy
- **Domain V. Chronic Diseases**
 - heart disease mortality, cancer mortality, cerebrovascular diseases mortality, chronic lower respiratory diseases mortality, hypertension morbidity, heart disease morbidity, diabetes morbidity, obesity morbidity
- **Domain VI. Infectious Diseases**
 - early syphilis, gonorrhea, chlamydia, acute hepatitis B, chronic hepatitis C, HIV, tuberculosis
- **Domain VII. Environmental Health**
 - enteric diseases, hepatitis A, lead poisoning in children, air quality, water quality
- **Domain VIII. Social and Mental Health**
 - suicide, mental health, substance abuse, child abuse and neglect, crime arrests, divorce, homelessness
- **Domain IX. Injuries**
 - intentional injuries, unintentional injuries

Key findings from M.A.P. II include the following for 2002-2004.

- ❖ The increase in Tarrant County's population from 2002-2003 and 2003-2004 was greater than the increase in the population for Texas and the United States. Overall, the socioeconomic profile of Tarrant County was better than Texas. The poverty status in Tarrant County was lower than the United States and Texas; whereas, the per capita income in Tarrant County was higher than Texas. The percent of unemployment in Tarrant County was higher than the United States, but lower than Texas. Educational attainment was similar to the United States, but higher than Texas.
- ❖ In 2004, Tarrant County met 26 percent of corresponding Healthy People 2010 objectives. Healthy People 2010 objectives were met for the following health indicators: acute hepatitis B, hepatitis C, hepatitis A, campylobacteriosis, *E. coli* 0157:H7, air quality, and child abuse and neglect.
- ❖ Overall improvement was demonstrated in 45 percent of the health indicators from 2002-2004. The improved health indicators included overall poverty status, per capita income, unemployment, educational attainment, rate of all cause mortality, years of potential life lost, rate of teen pregnancy, rate of heart disease mortality, rate of cerebrovascular diseases mortality, rate of early syphilis, rate of acute hepatitis B, rate of chronic hepatitis C, rate of hepatitis A, rate of *E. coli* 0157:H7, rate of salmonellosis, rate of direct alcohol related deaths, number of crime arrests among youth, and rate of unintentional injuries.
- ❖ A decline in the health status was observed for 33 percent of the indicators from 2002-2004. These indicators included percent of disadvantaged students, rate of infant mortality, percent of prenatal care in the first trimester, rate of gonorrhea, rate of chlamydia, rate of HIV, rate of campylobacteriosis, rate of shigellosis, rate of suicide, rate of child abuse and neglect, number of crime arrests among adults, rate of homicides, and number of homeless persons.

Both M.A.P. I and M.A.P. II provide detailed information about the health status of Tarrant County while providing a repeated measure of changes over time. These data highlight areas for improvement and identify areas for targeted interventions.

These data should be interpreted cautiously. Limitations to the information provided in this report are 1) data were collected from different organizations/programs using different methods; 2) data may have been collected for other purposes; 3) criteria for data collection may have changed over time; and 4) some of the data (e.g., heart disease morbidity, diabetes morbidity) are self-reported data. All data for each indicator, however, were collected by the same means for this report.

Table 1. Comparison of Tarrant County Health Indicators with Texas, the United States, and the Healthy People 2010 Objectives, 2004

	Tarrant County	Texas	U.S.	Healthy People 2010
Demographics and Socioeconomics				
2003-2004 Population Change	2.0%	1.7%	1.0%	NA
Percent at or Below Poverty Level	11.2%	16.6%	13.1%	NA
Per Capita Income	\$23,699	\$21,691	\$24,020	NA
Unemployment	5.6%	6.0%	5.5%	NA
Disadvantaged Students	44.3%	54.5%	40.1%	NA
Educational Attainment: % Completed High School	84.0%	78.7%	83.9%	90.0%
Limited English Proficiency	6.9%	8.4%	4.6%	NA
Linguistic Isolation	5.9%	8.5%	4.8%	NA
Single-Parent Households	17.0%	18.5%	17.8%	NA
All Cause Mortality Rate (per 100,000 population)	843.4	825.3	800.8	NA
Quality of Life				
Years of Potential Life Lost (per 1,000 population)	67.3	69.3	NA	NA
Health Resources				
Population to Primary Care Physician Ratio	1,379.2	1,464.2	NA	NA
Maternal and Child Health				
Infant Mortality* (per 1,000 live births)	7.5	6.6	6.9	4.5
Child Mortality Ages 1-14 (per 100,000 children)	22.0	23.0	20.0	NA
Child Mortality Ages 1-4 (per 100,000 children)	33.8	33.2	30.0	18.6
Child Mortality Ages 5-9 (per 100,000 children)	14.3	NA	NA	12.3
Prenatal Care in First Trimester*	79.3%	81.3%	84.0%	90.0%
Low Birth Weight Infants*	7.8%	7.9%	7.9%	5.0%
Teen Pregnancy Rate* (per 1,000 females ages 13-19)	52.5	61.8	41.7	NA
Chronic Diseases				
Heart Disease Mortality (per 100,000 population)	231.2	223.5	217.0	208.0
All Cancer Mortality (per 100,000 population)	193.1	181.3	185.8	159.9
Cerebrovascular Diseases Mortality (per 100,000 population)	64.1	55.9	50.0	48.0
Chronic Lower Respiratory Diseases Mortality (per 100,000 population)	51.5	41.6	41.1	NA
Hypertension Morbidity**	23.1%	24.6%	24.8%	16.0%
Heart Disease Morbidity	5.5%	7.6%	NA	NA
Diabetes Mellitus Morbidity	5.9%	7.7%	7.1%	NA
Obesity Morbidity	26.2%	25.8%	23.5%	15.0%

NA – Not Available

* 2003 data presented, 2004 data not available; ** 2003 data presented for TX and US

Table 1. Comparison of Tarrant County Health Indicators with Texas, the United States, and the Healthy People 2010 Objectives, 2004 – Continued

	Tarrant County	Texas	U.S.	Healthy People 2010
Infectious Diseases				
Primary and Secondary Syphilis (per 100,000 population)	4.3	3.7	2.7	0.2
Gonorrhea (per 100,000 population)	138.3	110.2	113.5	19.0
Chlamydia (per 100,000 population)	287.5	316.8	319.6	NA
Acute Hepatitis B (per 100,000 population)	1.8	3.1	2.1	NA
Acute Hepatitis B Ages 40 and Older (per 100,000 population) ✓	2.5	NA	NA	3.8
Acute Hepatitis C (per 100,000 population) ✓	0.8	0.5	0.3	1.0
HIV (per 100,000 population)	14.8	14.6	12.0	NA
AIDS Ages 13 and Older (per 100,000 population)	2.6	NA	NA	1.0
Tuberculosis (per 100,000 population)	6.9	7.6	4.9	1.0
Environmental Health				
Campylobacteriosis (per 100,000 population) ✓	4.3	5.6	NA	12.3
<i>E. coli</i> 0157:H7 (per 100,000 population) ✓	0.3	0.2	0.9	1.0
Salmonellosis (per 100,000 population)	8.8	11.8	14.5	6.8
Shigellosis (per 100,000 population)	12.5	14.8	5.0	NA
Hepatitis A (per 100,000 population) ✓	2.5	2.8	1.9	4.5
Lead Poisoning in Children Ages 1-14 (per 1,000 population)	0.7	1.0	NA	NA
Lead Poisoning in Children Ages 4-6	0.1%	NA	NA	0.0%
Social and Mental Health				
Suicide (per 100,000 population)	10.0	10.5	10.9	5.0
Alcohol Related Motor Vehicle Deaths (per 100,000 population)	4.3	7.6	5.7	4.0
Child Abuse and Neglect (per 1,000 population) ✓	7.0	8.2	11.9	10.3
Crime Arrests (per 1,000 population)	70.2	50.1	47.5	NA
Divorce (per 1,000 population)	4.6	3.6	3.7	NA
Injuries				
Intentional Injury Deaths: Homicide (per 100,000 population)	5.3	5.9	6.1	3.0
Unintentional Injury Deaths (per 100,000 population)	30.2	39.1	37.7	17.5

NA – Not Available

✓ Tarrant County Health Indicator met the Healthy People 2010 Objective

Table 2. Tarrant County Health Indicators, 2004

Demographics and Socioeconomics	Overall 2004
2003-2004 Population Change	2.0%
Percent at or Below Poverty Level	11.2%
Unemployment	5.6%
Per Capita Income	\$23,699
Educational Attainment: % Completed High School	44.3%
Limited English Proficiency	6.9%
Linguistic Isolation	5.9%
Single-Parent Households	17.0%
All Cause Mortality Rate (per 100,000 population)	843.4
Quality of Life	Overall 2004
Years of Potential Life Lost (per 1,000 population)	67.3
Health Resources	Overall 2004
Population to Primary Care Physician Ratio	1,379.2
Medicaid Eligible by Primary Care Physician Accepting Medicaid Ratio	161
Maternal and Child Health	Overall 2004
Infant Mortality* (per 1,000 live births)	7.5
Child Mortality Ages 1-14 (per 100,000 children)	22.0
Prenatal Care in First Trimester*	79.3%
Low Birth Weight Infants*	7.8%
Teen Pregnancy Rate* (per 1,000 females ages 13-19)	52.5
Chronic Diseases	Overall 2004
Heart Disease Mortality (per 100,000 population)	231.2
All Cancer Mortality (per 100,000 population)	193.1
Cerebrovascular Diseases Mortality (per 100,000 population)	64.1
Chronic Lower Respiratory Diseases Mortality (per 100,000 population)	51.5
Hypertension Morbidity	23.1%
Heart Disease Morbidity	5.5%
Diabetes Mellitus Morbidity	5.9%
Obesity Morbidity	26.2%
Infectious Diseases	Overall 2004
Early Syphilis (per 100,000 population)	7.2
Gonorrhea (per 100,000 population)	138.3
Chlamydia (per 100,000 population)	287.5
Acute Hepatitis B (per 100,000 population)	1.8
Chronic Hepatitis C (per 100,000 population)	66.8
HIV (per 100,000 population)	14.8
Tuberculosis (per 100,000 population)	6.9

* 2003 data presented, 2004 data not available

Table 2. Tarrant County Health Indicators, 2004 - Continued

Environmental Health	Overall 2004
Campylobacteriosis (per 100,000 population)	4.3
<i>E. coli</i> 0157:H7 (per 100,000 population)	0.3
Salmonellosis (per 100,000 population)	8.8
Shigellosis (per 100,000 population)	12.5
Hepatitis A (per 100,000 population)	2.5
Lead Poisoning in Children Ages 1-14 (per 1,000 population)	0.7
Social and Mental Health	Overall 2004
Suicide (per 100,000 population)	10.0
Direct Alcohol Related Deaths (per 100,000 population)	5.3
Direct Drug Related Deaths (per 100,000 population)	9.2
Child Abuse and Neglect (per 1,000 population)	7.0
Crime Arrests (per 1,000 population)	70.2
Divorce (per 1,000 population)	4.6
Injuries	Overall 2004
Intentional Injury Deaths: Homicide (per 100,000 population)	5.3
Unintentional Injury Deaths (per 100,000 population)	30.2

* 2003 data presented, 2004 data not available

Table 3. Tarrant County Health Indicators by Gender, 2004

Demographics and Socioeconomics	Male	Female
2003-2004 Population Change	2.1%	1.9%
Per Capita Income	\$32,280	\$21,907
Educational Attainment: % Completed High School	84.4%	83.9%
All Cause Mortality Rate (per 100,000 population)	972.4	739.4
Quality of Life	Male	Female
Years of Potential Life Lost (per 1,000 population)	82.9	51.6
Maternal and Child Health	Male	Female
Child Mortality Ages 1-14 (per 100,000 children)	25.1	18.9
Chronic Diseases	Male	Female
Heart Disease Mortality (per 100,000 population)	271.0	198.8
All Cancer Mortality (per 100,000 population)	239.4	160.2
Cerebrovascular Diseases Mortality (per 100,000 population)	63.0	64.0
Chronic Lower Respiratory Diseases Mortality (per 100,000 population)	59.4	46.6
Hypertension Morbidity	23.1%	23.0%
Heart Disease Morbidity	5.8%	5.3%
Diabetes Mellitus Morbidity	6.2%	5.6%
Obesity Morbidity	26.9%	25.5%
Infectious Diseases	Male	Female
Early Syphilis (per 100,000 population)	10.3	4.2
Gonorrhea (per 100,000 population)	133.8	142.8
Chlamydia (per 100,000 population)	102.1	470.4
Acute Hepatitis B (per 100,000 population)	1.9	1.6
Chronic Hepatitis C (per 100,000 population)	74.4	56.2
HIV (per 100,000 population)	21.4	8.4
Tuberculosis (per 100,000 population)	7.6	6.1
Environmental Health	Male	Female
Campylobacteriosis (per 100,000 population)	5.0	4.0
Salmonellosis (per 100,000 population)	8.5	8.4
Shigellosis (per 100,000 population)	10.6	13.9
Hepatitis A (per 100,000 population)	1.9	2.9
Lead Poisoning in Children Ages 1-14 (per 1,000 population)	0.8	0.6
Social and Mental Health	Male	Female
Suicide (per 100,000 population)	16.1	4.6
Direct Alcohol Related Deaths (per 100,000 population)	8.7	2.0
Direct Drug Related Deaths (per 100,000 population)	12.0	6.5
Child Abuse and Neglect (per 1,000 population)	6.4	7.5
Injuries	Male	Female
Intentional Injury Deaths: Homicide (per 100,000 population)	7.7	2.9
Unintentional Injury Deaths (per 100,000 population)	39.8	20.5

Table 4. Tarrant County Health Indicators by Race/Ethnicity, 2004

Demographics and Socioeconomics	White	Black	Hispanic	Other
2003-2004 Population Change	-0.2%	2.6%	6.4%	6.5%
Percent at or Below Poverty Level§	10.5%	16.8%	18.3%	8.4
Per Capita Income§	\$26,435	\$16,861	\$12,937	\$29,526
Educational Attainment: % Completed High School§	86.0%	85.8%	54.1%	56.5%
All Cause Mortality Rate (per 100,000 population)	850.1	1,081.3	629.8	385.1
Quality of Life	White	Black	Hispanic	Other
Years of Potential Life Lost (per 1,000 population)	69.4	109.3	47.2	30.7
Maternal and Child Health	White	Black	Hispanic	Other
Infant Mortality* (per 1,000 live births)	7.0	16.1	5.5	3.6
Child Mortality Ages 1-14 (per 100,000 children)	16.3	48.1	19.5	@
Prenatal Care in First Trimester*	87.9%	79.2%	68.4%	82.3%
Low Birth Weight Infants*	6.9%	14.0%	6.4%	8.1%
Teen Pregnancy Rate* (per 1,000 females ages 13-19)	33.4	66.3	87.4	22.0
Chronic Diseases	White	Black	Hispanic	Other
Heart Disease Mortality (per 100,000 population)	234.8	296.6	153.9	99.8
All Cancer Mortality (per 100,000 population)	193.5	255.1	169.5	103.9
Cerebrovascular Diseases Mortality (per 100,000 population)	62.2	91.7	51.8	27.3
Chronic Lower Respiratory Diseases Mortality (per 100,000 population)	57.5	36.6	20.0	NA
Hypertension Morbidity	25.8%	32.2%	12.5%	14.6%
Heart Disease Morbidity	6.5%	6.6%	1.4%	9.1%
Diabetes Mellitus Morbidity	5.8%	9.2%	5.2%	1.5%
Obesity Morbidity	23.5%	42.6%	27.7%	15.8%
Infectious Diseases	White	Black	Hispanic	Other
Early Syphilis (per 100,000 population)	4.1	30.5	2.4	@
Gonorrhea (per 100,000 population)	31.9	724.4	66.2	14.1
Chlamydia (per 100,000 population)	112.5	914.2	341.8	85.6
HIV (per 100,000 population)	10.1	47.0	9.6	8.2
Tuberculosis (per 100,000 population)	1.7	15.5	10.7	23.4

* 2003 data presented, 2004 data not available

§ Race and ethnicity are not mutually exclusive, Asian race is not included in Other

@ Numerator too small for rate calculation

Table 4. Tarrant County Health Indicators by Race/Ethnicity, 2004 - Continued

Environmental Health	White	Black	Hispanic	Other
Campylobacteriosis (per 100,000 population)	2.9	2.8	7.2	5.9
Salmonellosis (per 100,000 population)	7.0	4.2	7.5	8.2
Shigellosis (per 100,000 population)	8.3	13.6	16.6	9.4
Hepatitis A (per 100,000 population)	2.0	@	2.7	@
Lead Poisoning in Children Ages 1-14 (per 1,000 population)	0.1	0.4	1.3	@
Social and Mental Health	White	Black	Hispanic	Other
Suicide (per 100,000 population)	14.2	4.0	3.8	@
Direct Alcohol Related Deaths (per 100,000 population)	6.6	4.2	3.5	@
Direct Drug Related Deaths (per 100,000 population)	10.8	15.0	4.0	@
Child Abuse and Neglect (per 1,000 population)	6.2	13.1	5.2	5.5
Injuries	White	Black	Hispanic	Other
Intentional Injury Deaths: Homicide (per 100,000 population)	3.3	13.6	4.5	@
Unintentional Injury Deaths (per 100,000 population)	30.6	34.9	30.4	18.6

* 2003 data presented, 2004 data not available

§ Race and ethnicity are not mutually exclusive, Asian race is not included in Other

@ Numerator too small for rate calculation

Community Partners

Alcon Laboratories, Inc.
Baylor Medical Center
Catholic Charities
City of Arlington
City of Fort Worth Public Health Department
Healthy Tarrant County Collaboration
JPS Health Network
Medical Center of Arlington
Mental Health Association of Tarrant County
North Central Texas Council of Governments
Parkland Hospital System
Tarrant County Challenge, Inc.
Tarrant County Community Development
Tarrant County Hospital Council
Tarrant County Medical Society
Tarrant County Youth Collaboration
Texas Department of Health and Human Services
United Way of Metropolitan Tarrant County
University of North Texas Health Science Center

M.A.P. Data Sources

Centers for Disease Control and Prevention
Dallas Fort Worth Hospital Council
Mental Health Mental Retardation of Tarrant County
Tarrant County Behavioral Risk Factor Surveillance System
Tarrant County Challenge, Inc.
Tarrant County Homeless Survey 2004
Tarrant County Medical Examiner's Office
Tarrant County Public Health
Tarrant County Sheriff's Office
Texas Commission on Alcohol and Drug Abuse
Texas Commission on Environmental Quality
Texas Department of Protective and Regulatory Services
Texas Department of Public Safety
Texas Department of State Health Services
Texas Education Agency
Texas Medicaid and Healthcare Partnership
Texas State Data Center and Office of the State Demographer
United States Census 2000
United States Department of Health and Human Services



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