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The Special Task Force on Rural Health Care Delivery in Texas



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Report to 71st Legislature

Susan L. Wilson, Ph.D. and Jeffrey Heckler

Editors

The Special Task Force on Rural Health Care Delivery in Texas



Report and Recommendations

February 1989

***Susan L. Wilson, Ph.D. and Jeffrey Heckler
Editors***



The State of Texas Special Task Force on Rural Health Care Delivery


Jim Bob Brame, M.D.,
Chairman
Dr. Sheryl H. Boyd,
Vice-Chair

Sam Gorena
Executive Director
Jeff Heckler
Policy Analyst

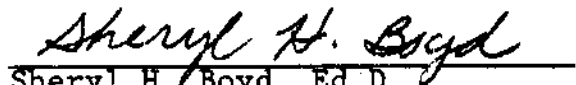
Senator Chet Brooks
Senator Richard Anderson
Rep. Mike McKinney
Rep. David Hudson
The Honorable Don L. Dodson
William D. Gutermuth
Bryant Krenck

Governor William P. Clements
Lieutenant Governor William P. Hobby
Speaker Gibson D. Lewis
Members of the 71st Texas Legislature

Pursuant to its charge under SCR 25, 70th Legislature, Second Called Session, the Special Task Force on Rural Health Care Delivery in Texas herewith transmits its report with recommendations.



Jim Bob Brame, M.D.
Chairman




Sheryl H. Boyd, Ed.D.
Vice Chair



Senator Richard Anderson



Senator Chet Brooks



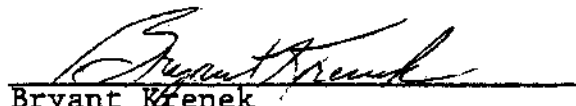
L. Don Dodson



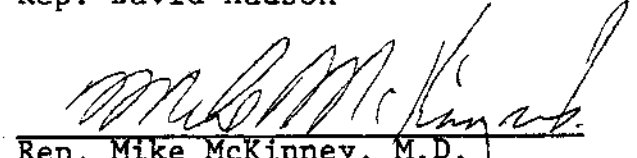
William D. Gutermuth



Rep. David Hudson



Bryant Krenck



Rep. Mike McKinney, M.D.

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The State of Texas

Special Task Force on Rural Health Care Delivery

Jim Bob Brame, M.D.,
Chairman
Dr. Sheryl H. Boyd,
Vice-Chair

Senator Chet Brooks
Senator Richard Anderson
Rep. Mike McKinney
Rep. David Hudson
The Honorable Don L. Dodson
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January 10, 1989

The Honorable William P. Clements, Jr.
Governor of Texas

The Honorable William P. Hobby
Lieutenant Governor of Texas

The Honorable Gibson D. "Gib" Lewis
Speaker, Texas House of Representatives

Members of the 71st Legislature

Over the last 10 months the Task Force on Rural Health Care Delivery crisscrossed Texas to conduct over 100 hours of public hearings. We consulted every major authority on rural health and listened carefully to our constituencies: over-worked family doctors, burned-out nurses, overburdened hospital administrators and dedicated hospital boards, worried farmers and injured migrant workers who may be transported over 90 miles for "emergency" care.

Rural health care is a succession of bad situations that are getting worse. The tragedy is what happens to the citizens in rural communities when their hospital goes the way of the dinosaur. Most of the hundreds of Task Force witnesses noted the irony that state and federal laws which fund and regulate rural health care, in an attempt at equality, often forbid adequate access to good medical care.

If this sorry state of affairs were brought before a grand jury, there might be an inclination to indict the state and federal governments of gross negligence.

The problems decimating rural health care read somewhat like an indictment:

- A perverse series of disincentives in our Medicaid formulas discourage early detection and prevention of disease.

- An unbridled liability system has driven nearly two-thirds of our family practitioners out of the baby business, and shut down obstetrical care in over two dozen rural Texas hospitals.
- A "bottom line" philosophy in the federal government's Medicare review process has fostered a crime and punishment mentality with regulations which often give physicians and hospitals fewer rights than convicted felons.
- Access to appropriate primary technology and life saving emergency services is decreasing because of limited capital for rural hospitals.
- A woefully inadequate reimbursement formula for Medicare (and consequently, Medicaid) has conspired with some of the more creative budget saving and regulatory inventions in Austin and Washington to literally close hospitals and launch the inevitable exodus of health care providers from rural Texas.

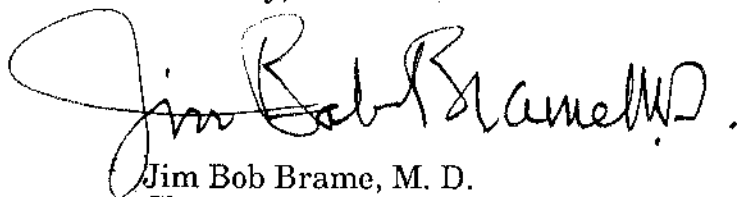
We are painfully aware of our state's tenuous economic status and have not constructed the enclosed 53 recommendations in a political void. But we also believe it would be barbaric to throw up our hands and watch the body count grow. More and more of our fellow Texans are traveling further and further for even the most basic health care services, or worse, simply doing without.

This isn't an *urban-rural* problem, it is a *Texas* problem. The Dallasite who is critically injured in an automobile accident in Spur, and a child from Houston bitten by a rattlesnake in Sanderson must have access to timely medical care of "Texas" quality.

Our rural citizens are older and poorer. For every dollar that we don't spend right now, we will spend three dollars when our less fortunate country cousins come to the city in desperation. They will be much sicker then, and many of them won't get well.

We respectfully urge your favorable consideration of this report, and ask your support for the recommendations which have been thoughtfully designed to restore access to health care for some of our most needy and vulnerable citizens.

Sincerely,

A handwritten signature in black ink that reads "Jim Bob Brame, M.D.". The signature is written in a cursive, flowing style with a large initial "J".

Jim Bob Brame, M. D.
Chairman

Acknowledgements

The Special Task Force on Rural Health Care in Texas would like to express its sincere appreciation to General Telephone of the Southwest; Town and Country Food Stores; West Texas Utility Company; Southwestern Bell Telephone Company; West Texas Chamber Foundation; Harris Methodist Health Services; C.E. Baxter of Blue Cross Blue Shield; Southwestern Texas Tech Health Sciences Center; American Association of Retired Persons; Texas Medical Association; Texas Hospital Association and the countless organizations, state agencies, and individuals who provided testimony, data, and support throughout the development of this report.

Special thanks are also extended to the following persons at the Texas Department of Health: Dr. Gary Rutenberg, Ms. Gail Larimer, Mr. John Hugg, Ms. Carol Daniels, Mr. Maurice Shaw, and Ms. Mary Campbell, for their assistance in data preparation for this report. In addition, the significant contributions of Dr. Lolly Beard, Dr. Mary Walker, Ms. Linda Christofilis and many others who read and commented on various drafts of this report are deeply appreciated.

Staff

Sam Gorena, Executive Director

Jeffrey Heckler, Policy Analyst

Jo Ann Pepper, Administrative Assistant

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Subcommittees and Resource Personnel

EMS/Trauma

Representative Mike McKinney, M.D. Chair
 Representative David Hudson Co-chair

Manpower

Sheryl H. Boyd, Ed.D. Chair
 Mayor L. Don Dodson Co-chair

Finance

William D. Gutermuth Chair
 Sheryl H. Boyd, Ed.D. Co-chair

Regulatory

Senator Chet Brooks Chair
 Bryant Krenek Co-chair

OB/Liability

Senator Richard Anderson Chair
 William D. Gutermuth Co-chair

Many exceptionally qualified people volunteered to serve on the subcommittees, and their willingness to work on this very important issue was deeply appreciated. The Task Force is especially grateful for the active involvement of the following individuals who participated as resource persons without any financial reimbursement for related expenses;

James L. Alexander, Ph.D
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 Bill Darling
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 Margaret Teague
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 Greg Vaughn
 E. Jay Wheeler, M.D., Ph.D.
 Martha Whitehead
 Robert Williamson, M.D.

Executive Summary

The Special Task Force on Rural Health Care Delivery in Texas was created by Senate Concurrent Resolution 25 (Brooks) by the 70th Texas Legislature, Second Called Session, in June 1987. The nine-member Task Force was appointed by Governor William P. Clements, Jr., Lieutenant Governor William P. Hobby and Speaker of the House Gibson D. "Gib" Lewis.

Commencing in March 1988, the Task Force conducted 11 public hearings in Austin, Amarillo, Odessa, Texarkana, Tyler, Brownsville, Warm Springs, and Abilene. Additionally, subcommittees of the Task Force met and accepted testimony in various locations around the state. The Task Force received testimony from over 225 witnesses including elected representatives of local, county, state, and federal governments; physicians, nurses and allied health professionals; hospital administrators, and other health care providers; representative of state and federal agencies; clergy; business leaders; advocacy groups; and consumers of health care.

The crisis in the rural health care delivery system in Texas is real. It is represented by hospital closures, the curtailment of obstetrical services, and a shortage of rural physicians, nurses and allied health professionals. The result is thousands of rural Texans being denied or having limited access to health care.

The situation is getting worse. Texas has lost 65 hospitals since 1984 although others have closed and subsequently reopened. Fourteen (14) Texas counties do not have a physician. Hospital obstetrical care is not available in 92 rural counties. Obstetrical care has either been curtailed or abandoned by 61% of general and family practitioners in Texas. Twenty-five percent (25%) of obstetrician/gynecologists have eliminated or limited obstetrical procedures; and 45% have limited or eliminated high-risk obstetrics.

The causes of the rural health care delivery crisis are complex and interrelated. No single cause emerges as the most significant; no single solution will be a panacea. The crisis is the culmination of long-term forces and will not be adequately addressed without long-term solutions.

This report focuses on five related issues: Emergency Medical System and Trauma Care; Medical Manpower; Financing Rural Health Care; Regulatory Restrictions; and Obstetrics and Medical Malpractice Liability. The report contains specific findings and recommendations with respect to each issue area. Additionally, the Task Force found several special and related federal issues which warrant specific recommendations (Recommendations 45 through 53). Except where otherwise indicated, the Task Force adopted the recommendations unanimously.

The Task Force also recommends formation of a Center for Rural Health Initiatives, mandated to assume a leadership role in developing

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integrated solutions to rural health issues and policies. The Task Force respectfully urges the Legislature's favorable consideration of its proposal for the Center.

The 71st Texas Legislature has a unique opportunity to make a lasting and positive impact on the health and safety of our rural citizens and an opportunity to reverse disturbing trends limiting availability and access to health care in rural areas.

The Task Force respectfully requests the 71st Texas Legislature to take notice of its findings and recommendations and to craft a meaningful legislative response.

Recommendations

EMS/Trauma

1. **RECOMMENDATION:** The Legislature should amend Article 4447o, V.T.C.S., "The Emergency Medical Services Act," to establish a trauma registry and examine existing state and federal sources for funding the trauma registry.

2. **RECOMMENDATION:** The Legislature should establish a statewide trauma system.

a. All qualified hospitals should be included in the trauma system with progressive responsibility and the top level to be university based.

b. The trauma system should have three recognized levels of expertise with established referral patterns.

c. A mechanism should be included to provide grants and funds for the purchase of capital equipment.

d. Adequate funding for training emergency personnel should be provided.

3. **RECOMMENDATION:** The Legislature should amend Article 4447o, V.T.C.S., "The Emergency Medical Services Act," to clarify the fee exemptions for EMS volunteers and EMS volunteer providers.

4. **RECOMMENDATION:** The Legislature should amend Chapter 74, Civil Practices and Remedies Code, to change the standard by which liability for emergency care is judged from a preponderance of the evidence to clear and convincing evidence standard.

5. **RECOMMENDATION:** The Legislature should encourage the Texas Department of Health to continue providing EMS education,

continuing education, and alternative testing/retesting schedules to facilitate participation by rural citizens.

6. *RECOMMENDATION*: The Legislature should encourage the Texas Department of Highways and Transportation to allow all EMS providers access to training programs funded by the department.

Manpower:

7. *RECOMMENDATION*: The Legislature should encourage the Higher Education Coordinating Board to maintain a minimum annual repayment level of \$9,000 per year for physicians in the "Physicians Student Loan Repayment Program."

8. *RECOMMENDATION*: The Legislature should amend the "Physician Student Loan Repayment Program," authorized under Subchapter J, Sections 61.531-537, Texas Education Code, to adopt provisions to allow participation of health care personnel with loans from out-of-state banks.

9. *RECOMMENDATION*: The Legislature should enact legislation to establish a health professionals' student loan repayment program modeled after the "Physician Student Loan Repayment Program," to allow the participation of nurses and allied health personnel.

10. *RECOMMENDATION*: The Legislature should create an inter-agency effort among the Texas Higher Education Coordinating Board, Rural Medical Education Advisory Board, medical schools, nursing schools, and schools of allied health sciences, to improve and expand programs for rural areas by:

- a. expanding rural preceptorship programs;
- b. developing relief service programs for rural physicians to facilitate ready access to continuing medical education;
- c. initiating training programs to enhance the use of volunteers for non-medical support services;
- d. creating flexibility for coordinating transfer credits and advanced placement for nursing and allied health professionals;
- e. requiring medical schools to provide students a third year rotation in the department of family practice; and
- f. requiring family practice residency programs to provide the opportunity for residents to have a one-month rotation through a rural setting.

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11. *RECOMMENDATION:* The Legislature should encourage the Texas State Board of Education to reclassify health occupation education classes as upper division science courses in high school.

12. *RECOMMENDATION:* The Legislature should investigate the feasibility of implementing the Rural Health Clinics Act, created by P.L. 95-210, in Texas.

13. *RECOMMENDATION:* The Legislature should encourage Texas medical schools to include a rural physician on their respective admissions committees.

Financing Rural Health Care:

14. *RECOMMENDATION:* The Legislature should encourage Congress to eliminate the rural-ruban reimbursement differential for hospitals and physicians. Special attention to the wage differential should be given when considering hospital reimbursement changes.

15. *RECOMMENDATION:* The Legislature should establish a Texas based Medicaid DRG methodology based on three peer groups for hospitals.

16. *RECOMMENDATION:* The Legislature should encourage Congress to study the feasibility of establishing a special mechanism for supplemental payments to hospitals where Medicare patient census exceeds 110% of the national average Medicare hospital census, perhaps through a sliding scale for those who provide progressively greater percentages of Medicare service.

17. *RECOMMENDATION:* The Legislature should direct the Texas Department of Human Services to examine the Disproportionate Share Program to determine how the methodology can be expanded to provide additional consideration for essential rural hospitals.

18. *RECOMMENDATION:* The Legislature should enact legislation to allow for expedited creation of a hospital district.

19. *RECOMMENDATION:* The Legislature should direct the Texas Department of Commerce and the Texas Department of Agriculture to examine existing finance programs to determine if and how these programs can be used to support capital requirements of small hospitals.

20. *RECOMMENDATION:* The Legislature should appropriate sufficient funds in the Medicaid program to increase the Standard Dollar Amount to \$1583.

21. *RECOMMENDATION:* The Legislature should direct the Texas Board of Human Services to instruct the Medical Care Advisory Committee to develop a methodology which will eliminate disparities

between rural and urban physician rates in the Texas Medicaid program and seek funds to implement the methodology.

22. *RECOMMENDATION*: If the Legislature appropriates funds for Recommendation 21, it should also appropriate sufficient funds to reinstate the 10% budgetary reduction adjustment in the state Medicaid program.

23. *RECOMMENDATION*: The Legislature should encourage Congress to implement a resource-based relative value scale for physician payment.

24. *RECOMMENDATION*: The Legislature should facilitate the ability of municipalities to contract for specific hospital services with local hospitals.

Regulatory Restrictions:

25. *RECOMMENDATION*: The Legislature should designate the Texas Department of Health to serve as lead agency in an interagency effort among all agencies which regulate provision of health care to identify and eliminate any duplication of regulatory surveys by coordinating survey forms, where feasible, and to implement measures to insure consistent interpretation of rules and regulations by survey teams. This interagency group should also establish a mechanism for addressing special considerations to assure access to care for rural populations. Recommendations should be presented to the Legislature by September 1, 1990.

26. *RECOMMENDATION*: The Legislature should assure that no additional regulatory proposals relating to hospitals or hospital personnel be enacted by the Legislature without thorough study of the economic impact on rural hospitals.

27. *RECOMMENDATION*: The Legislature should encourage development of multi-purpose health care facilities and service diversification at existing facilities in rural areas to facilitate utilization of existing facilities. The Legislature should also encourage appropriate state agencies to assist seeking any waivers necessary to facilitate implementation of pilot diversification projects.

28. *RECOMMENDATION*: The Legislature should encourage the Texas Board of Human Services to expand Medicaid coverage to include "Swing Bed" care.

29. *RECOMMENDATION*: The Legislature should urge the Texas Board of Human Services to develop a program to facilitate utilization of unused hospital beds by increasing flexibility of regulatory restrictions on licensing of long-term care beds.

30. *RECOMMENDATION*: The Legislature should encourage the Department of Human Services to develop a quality assurance and utilization review program for Medicaid hospital admissions which assures the utilization of practicing physicians that are representative of the size, locality, and speciality of the hospital setting and the physicians being reviewed.

31. *RECOMMENDATION*: The Legislature should encourage the Texas Department of Health to include a practicing physician on survey teams reviewing medical procedures and activities.

32. *RECOMMENDATION*: The Legislature should encourage the Texas Department of Health to continue efforts to assure due process provisions are incorporated into rules governing hospitals participating in Medicare and the Consolidated Omnibus Budget Reconciliation Act (COBRA) governing patient transfers.

33. *RECOMMENDATION*: The Legislature should work with regulatory agencies, providers, and other interested parties to develop a program to eliminate "reverse dumping" in order to assure the ready availability of an appropriate level of care for all persons in Texas. The program should include an appropriate funding mechanism.

34. *RECOMMENDATION*: The Legislature should develop a mechanism to ensure reimbursement for care of patients requiring transfer to a different facility for an increased level of care.

Obstetrics and Medical Malpractice Liability:

Based on the work of the Subcommittee on Obstetrics and Medical Malpractice Liability and testimony to the Task Force as a whole, the Task Force adopted the following recommendations in this section. Some were adopted by consensus, others by majority vote with dissent.

35. *RECOMMENDATION*: The Legislature should establish a Committee to examine past medical malpractice insurance rate increases to determine the appropriateness of the increases. The investigation should be based on Texas experience and data, and address individual specialty classifications and not be strictly limited to the overall or entire medical community.

Issues which should be examined include:

- independently verifying the "Loss Reserves" that each company supplies to the Texas State Board of Insurance;
- changing the rate requests from a company-by-company basis to an industry basis;
- establishing a single rate structure for all of the companies, including deductibles for hospitals and physicians with no prior

claims paid, or who are upgrading skills through certified continuing education programs;

- requiring all companies selling general liability insurance within Texas to sell a specified amount of medical malpractice insurance;
- implementing an appropriate appeals process for providers to challenge rate increases; and
- establishing a Peer Review Organization for OB/GYNs to monitor physician standards for the speciality.

36. **RECOMMENDATION:** The Legislature should encourage the Texas State Board of Insurance to implement a moratorium on medical malpractice rate increases subject to conclusion of analysis of claims experience and reserve information by classification by medical specialty as recommended above.

37. **RECOMMENDATION:** The Legislature should encourage the Texas State Board of Insurance to examine the feasibility of calculating medical malpractice premiums based upon a case mix formula.

38. **RECOMMENDATION:** The Legislature should consider alternatives to provide a limited safeguard or immunity from liability to hospitals and physicians not acting in a willful or wanton manner or with reckless disregard of the rights of the patient if:

- the patient presents in active labor, and
- the attending physician has no previous obstetrical history with the patient for that pregnancy.

39. **RECOMMENDATION:** The Legislature should consider enacting "John Doe" legislation to eliminate unnecessary defendants being co-named in a lawsuit. This legislation should include measures which would delay the running of the statute of limitations until discovery, which identifies potentially liable defendants, is completed.

40. **RECOMMENDATION:** The Legislature should direct the establishment of a system of care within the existing framework of administrative agencies in order to expand the accessibility to nutritional programs and other necessary prenatal care.

41. **RECOMMENDATION:** The Legislature should encourage the Texas State Board of Insurance to promulgate rules to prohibit the "consent to rate" practice currently being utilized by some carriers for medical malpractice insurance in Texas.

42. **RECOMMENDATION:** When there is a finding in a medical malpractice case that the provider is liable in whole or part for future damages and the judgment or award is in excess of \$100,000 for such future damages, such payment, including interest at post judgment rate should be paid periodically to the injured party or estate. Future

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medical expenses should be paid periodically for the duration of the lifetime of the injured party, regardless of the life expectancy at the time of the trial or settlement. At the death of the injured party, the periodic payments for future medical shall cease.

43. *RECOMMENDATION:* Physicians and other health care providers who provide obstetrical care for indigents (including Medicaid and MIHIA) or who are performing services under contract or as agents or employees of those under contract with the state or its agencies should be placed under the umbrella of the limited liability of the Texas Tort Claims Act.

44. *RECOMMENDATION:* In the cause of action involving injury to a minor, the statute of limitations should not begin to run until the minor reaches eight years of age, at which time the statute of limitations for personal injury to the minor is two years.

Special Issues:

45. *RECOMMENDATION:* The Legislature should direct the appropriate state agencies to cooperatively develop a comprehensive assessment of the current health care delivery system to provide appropriate data to enable future decisions based on identifiable and comparable performance measures.

46. *RECOMMENDATION:* The Legislature should encourage model local initiative programs such as those developed in Fisher and Swisher Counties which are based on public/private partnership resource teams which address communities' rural health and economic development needs.

47. *RECOMMENDATION:* The Legislature should direct appropriate state agencies to focus special attention on the threat to rural residents' health and safety, from such causes as groundwater contamination, toxic chemicals, unsafe farm machinery, job stress and lack of basic services. The Legislature should direct these agencies to develop and implement preventive, cost-saving programs which protect public health.

Federal Issues:

48. *RECOMMENDATION:* Congress should assist hospitals and physicians in rural areas by raising the Medicare payment level in rural areas to equal the payment level in urban areas, thereby obtaining economic parity. It should eliminate reimbursement disparities to rural hospitals, by ensuring that differences in DRG payments are based on true differences in the cost of providing services.

49. **RECOMMENDATION:** Congress should encourage physicians, nurses, and allied health professionals to practice in rural areas and facilities by enacting loan repayment programs and supporting rural education programs.

50. **RECOMMENDATION:** Congress should modify certain requirements under the Medicare Conditions of Participation which lack flexibility required in rural hospitals and which fail to recognize their special needs and capabilities.

51. **RECOMMENDATION:** Congress should provide sufficient reimbursement to receiving hospitals, through a special fund or risk pool to expedite the transferring of emergency patients from small and rural hospitals to hospitals providing specialty coverage.

52. **RECOMMENDATION:** Congress should provide sufficient funding to enhance communication and transportation linkages with more centrally located health resources and develop regional service networks.

53. **RECOMMENDATION:** Congress should support and expand development of coordinated state and local emergency medical service systems.

Introduction

The nine member Task Force on Rural Health Care Delivery in Texas was appointed by Governor William P. Clements, Jr., Lieutenant Governor William P. Hobby and Speaker of the House Gibson D. "Gib" Lewis. It was charged with examining the problems of access to health care and the viability of the health care delivery system in rural Texas. Public hearings were held in Amarillo, Odessa, Texarkana, Tyler, Abilene, Brownsville, Warm Springs and Austin.

As a result, the Task Force appointed five subcommittees to study issues identified through testimony as being most crucial to the continued viability of the rural health care delivery system in Texas. The subcommittees addressed:

- EMS/Trauma Care
- Manpower
- Financing Rural Health Care
- Regulatory Restrictions
- Obstetrics and Medical Malpractice Liability

Definition of Rural

Of the 262,017 sq. mi. within its boundaries, Texas is unique in that most of the area is within the 205 counties designated as non-metropolitan. Even though a majority of the estimated 16.75 million total state population (1986) lives in the 49 metropolitan counties, approximately 3.3 million live in the non-metropolitan counties. Phrased differently, the rural population of Texas is larger than the individual populations of 23 other states. Geographically, the area within *only* the 14 counties of Texas which do not have a physician is larger than the size of nine (9) individual states, including the District of Columbia.

The cultural and geographic diversity of Texas makes it difficult to use some state and federal agency definitions of "rural" because these definitions often lack the variability needed for a comprehensive

treatment of the issue. For instance, the Census Bureau, the Farmers Home Administration and the Rural Development Act categorize communities as "rural" based on population size. Community sizes range from 2,500 or fewer residents to communities of 10,000.

While these definitions may work in some areas of the country, they make little practical sense for rural Texas where the distance to the nearest town of substantial size with a secondary or tertiary hospital may be 125 miles in any direction or the time to get to the nearest hospital may well exceed an hour.

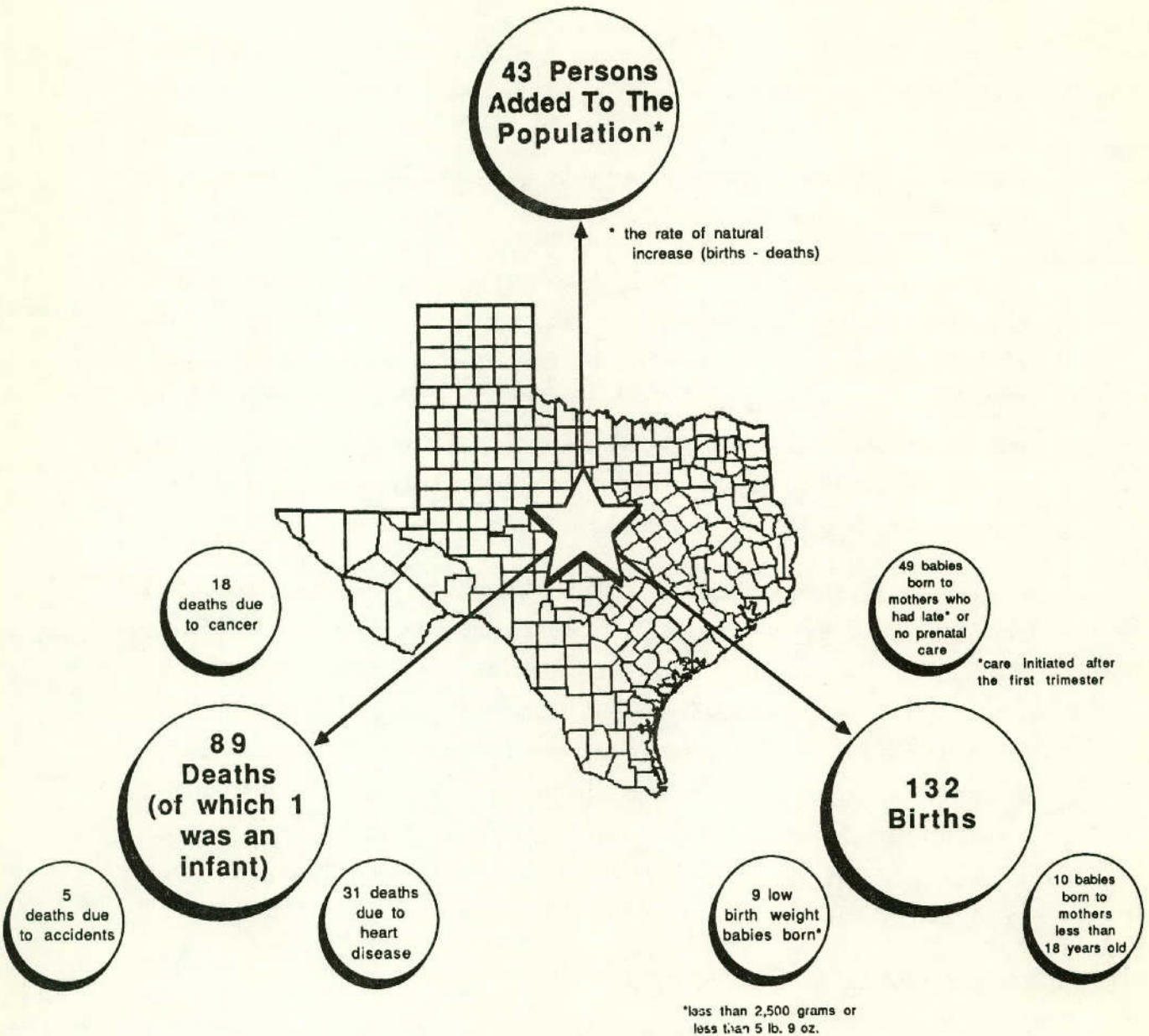
The National Rural Health Association developed a four-tiered classification system which includes other characteristics. Its classifications are Adjacent Rural Areas, Urbanized Rural Areas, Frontier Rural Areas and Countryside Rural Areas. While these categories more accurately represent differing characteristics of rural areas, especially in Texas, state data are not currently collected in a manner which allow use of these categories.

The Task Force chose to define "rural" as a non-metropolitan county according to the U.S. Bureau of the Census definition. Although it does not identify some of the unique characteristics of our diverse state, it provided the Task Force with the greatest amount of comparable data and is used by some state agencies. The Task Force recommends that future analyses give due consideration to using a more refined definition which considers variances within specific areas of the state. A list of the 205 non-metropolitan counties defined as rural by the Task Force is included in the Appendix.

Characteristics of Rural Populations

Certain health status indicators are depicted on the next page. Additionally, rural counties ranked lowest in health status by the Texas Department of Health needs assessment are shown on page 13. The reader is referred to the publication entitled "Baseline Needs Assessment of Primary Health Care Services Program," Texas Department of Health, November 1988, for county specific data on formulas.

EACH DAY IN RURAL TEXAS, 1987

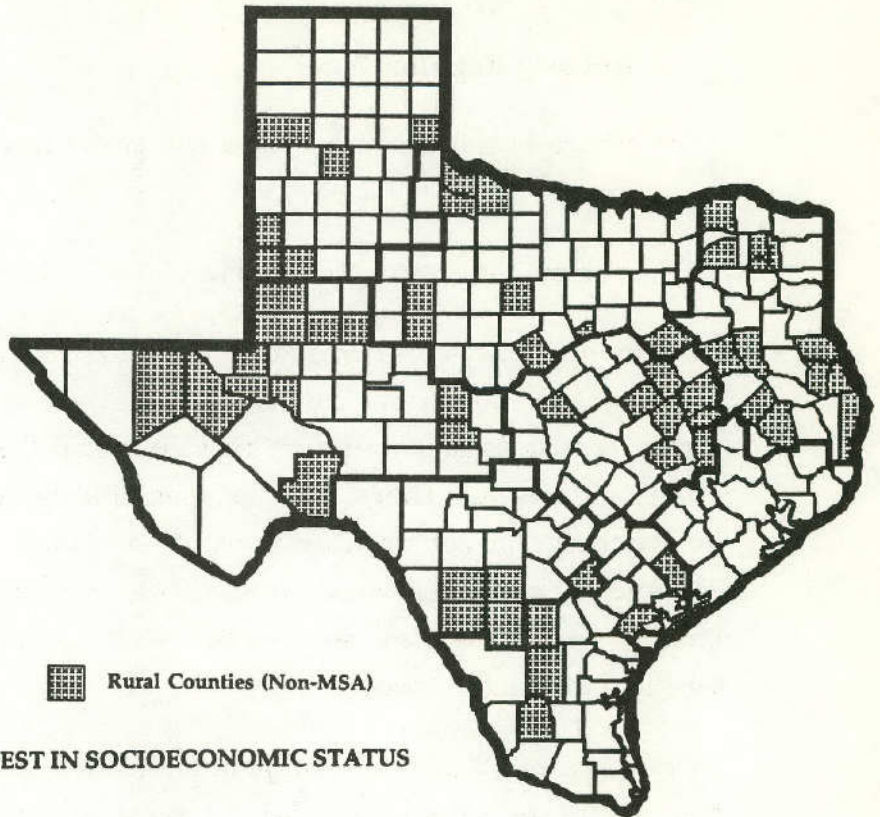


Live Birth Statistical File, 1987
Death Statistical File, 1987

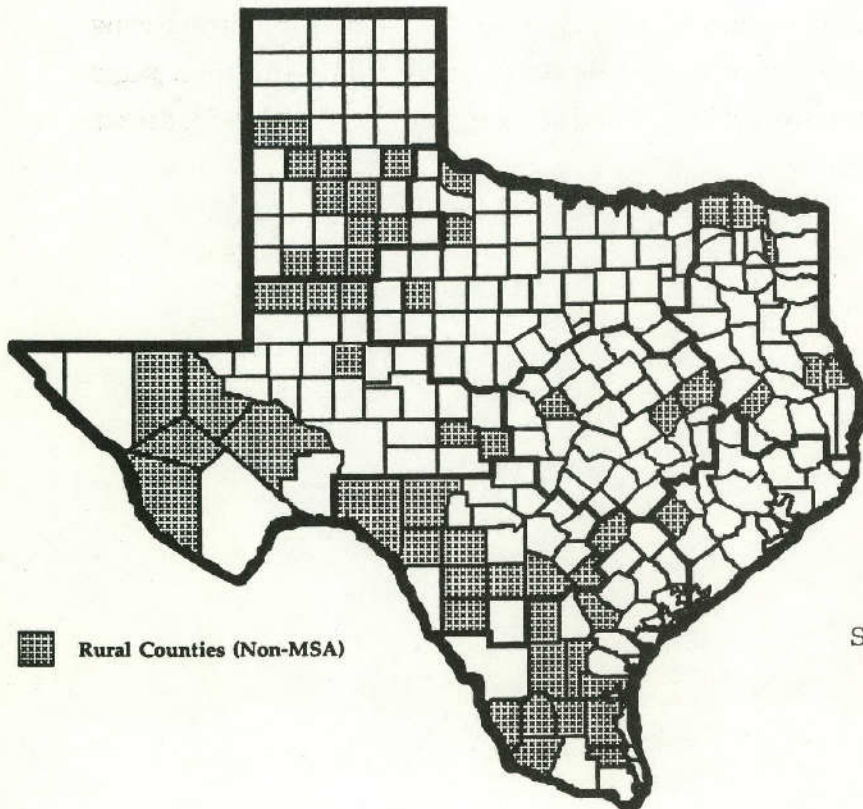
Statistical Services Division
Bureau of Vital Statistics
Texas Department of Health

The Special Task Force on Rural Health Care Delivery in Texas

RURAL COUNTIES RANKED LOWEST IN HEALTH STATUS



RURAL COUNTIES RANKED LOWEST IN SOCIOECONOMIC STATUS



Source: Texas Dept. of Health, Primary Health Care Services Program

Several demographic characteristics unique to rural Texas impact the need for continued assess to health care. When compared to urban Texas, in rural areas:

- the population is older,
- there is more poverty, and the trend has worsened since 1980, and
- the percentage of teen-age births is higher.

The median age in rural Texas in 1987, was 33.9 years, with 16.1% of the total rural population being 65 years of age or over. Only 19.6% of the state's total population lives in rural Texas, but 23.3% of the state's elderly live there. Because the elderly generally require more health care for longer durations, they place a greater demand on community health services. Some areas also may have a reduced tax base to finance health services due to a higher proportion of elderly who live on fixed incomes.

Second, 24.4% of the rural population in 1987 had an income of less than 100% of established federal poverty guidelines. This rate is substantially higher than urban areas and has increased by 5.4% since 1980. A map of rural counties ranked lowest in socioeconomic status by the Texas Department of Health is on page 13. The table on page 15 lists expenditures for AFDC, Food Stamp and Medical Assistance Programs in rural areas.

**AFDC, Food Stamps and
Medical Assistance Program
Expenditures**

	<u>FY87</u>	<u>FY88</u>	<u>FY89</u>
AFDC	\$37.7	\$40.8	\$44.1
Food Stamps	115.8	128.2	140.0
Medical Assistance	273.2	289.9	351.8
Total	\$426.7	\$458.9	\$535.9

Source: Texas Department of Human Services

Over 200,000 rural Texans are served through these programs each year. The Texas Department of Health administers the Women, Infants and Children (WIC) nutritional program. This program provided supplemental nutrition for an average of 250,000 participants each month in FY88; of these, 6,590 were rural.

Third, rural areas have a higher percentage of births (19.5%) to women under 20 years of age. Additionally, the percent of births to women between 13-17 years is 7.0% of total rural births, slightly higher than urban rates. See the table on the following page for rural/urban comparisons.

Metro/Non-Metro Comparisons of Health Related Variables
Bureau of State Health Data and Policy Analysis
Texas Department of Health

The following comparisons are t-tests of means of independent groups. All differences are significant at the .05 level unless followed by the notation "No Difference." Please refer to the detailed analysis for specific probabilities.

Variable	Metro	Non-Metro
Median Age	30.3	33.9
Percent 65+	9.8%	16.1%
Infant Mortality	10.0	10.1 (no difference)
Low Birth Weight	6.7%	6.6% (no difference)
Per Capita Income	\$13,227.00	\$11,408.00
Low Birth Weight (3 years 85-87)	5.2%	5.9%
Fertility 13-17 (3 years 85-87)	26.4	27.8 (no difference)
Percent Births to Women < 20	15.9%	19.5%
Percent Births to Women 13-17	6.2%	7.0% (no direction specified)
Poverty Rate '80	14.0%	19.0%
Poverty Rate '80 (103 Counties)	14.2%	21.7%
Poverty Rate '87 (103 Counties)	17.1%	24.4%
Poverty Change 1980-1987	2.9	2.8 (no difference)

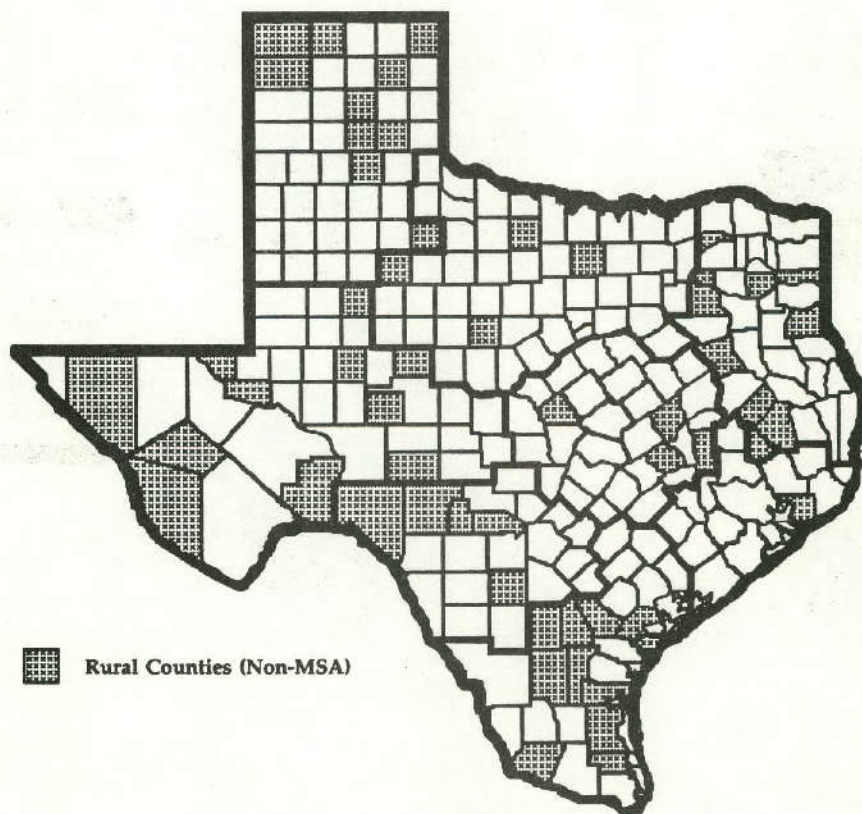
* Significant difference only for two-tailed test. That is, the observed difference is not likely to be due to chance, but the larger value could just as likely have been the smaller.

SOURCE: TDH Bureau of Vital Statistics
 TDH Bureau of Maternal and Child Health
 TDH Bureau of State Health Data and Policy Analysis

Health Care Resources

Health care is provided in a variety of settings - community clinics, physicians' offices, hospitals, mental health centers and others. The map below identifies those rural counties ranked lowest in resource status by the Texas Department of Health. The factors included in determining a county's resources include the total number of physician full-time equivalents per capita, total RNs per capita and total health delivery sites per capita (including hospitals, community health centers and local health departments).

RURAL COUNTIES RANKED LOWEST IN RESOURCE STATUS

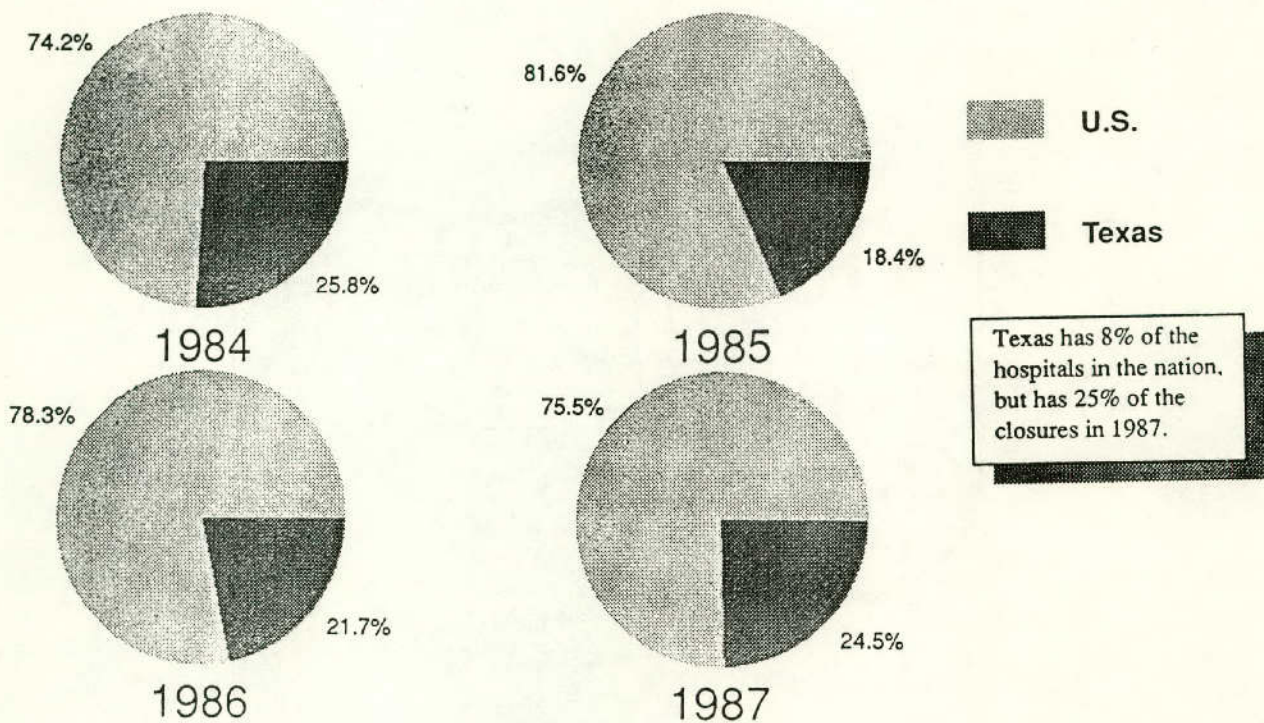


Texas leads the nation in hospital closures. The chart below shows that Texas has had in excess of 20% of all U.S. closures in 1984, 1986 and 1987. A list of Texas hospital closures (1988) and counties without hospitals (January 1989) are included in the Appendix and the maps on the following pages show which counties have no hospitals and those with hospitals of 50 beds or less.

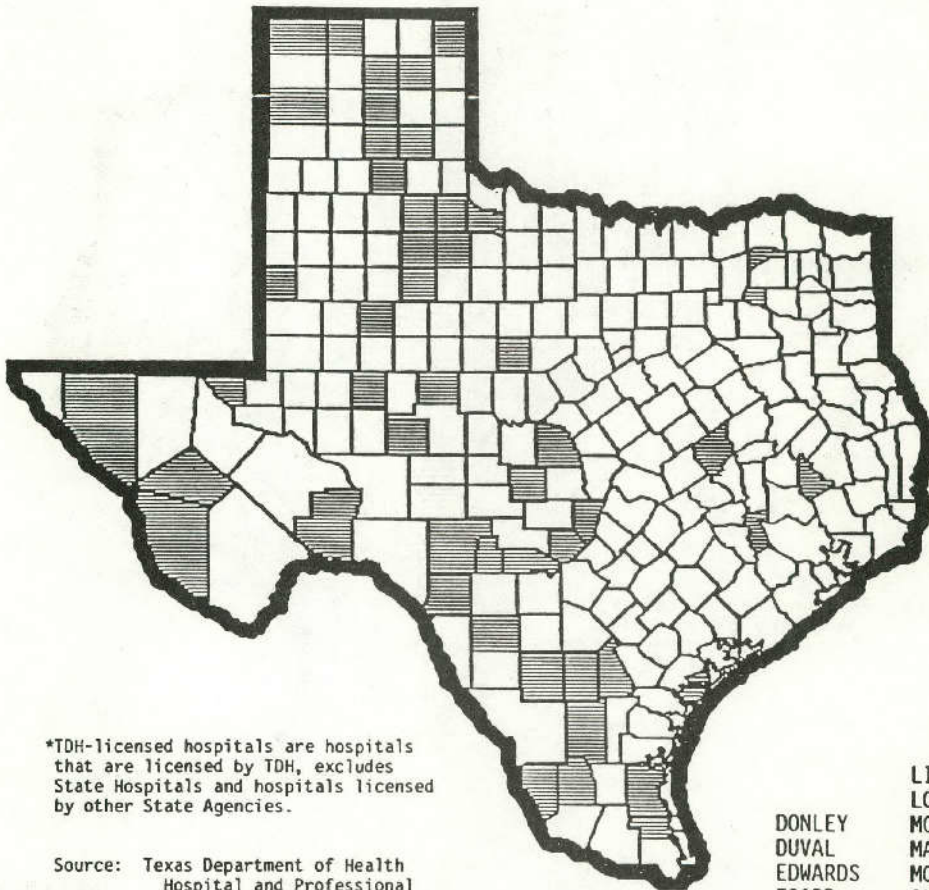
HOSPITAL CLOSURES: U.S. & TEXAS

Percentage of Texas Closures to the U.S.
U.S. 1984-1987

Sources: TDH, THA, AHA
1987 U.S. figures based on AHA data



COUNTIES WITH NO
TDH-LICENSED HOSPITALS*,
1988



*TDH-licensed hospitals are hospitals that are licensed by TDH, excludes State Hospitals and hospitals licensed by other State Agencies.

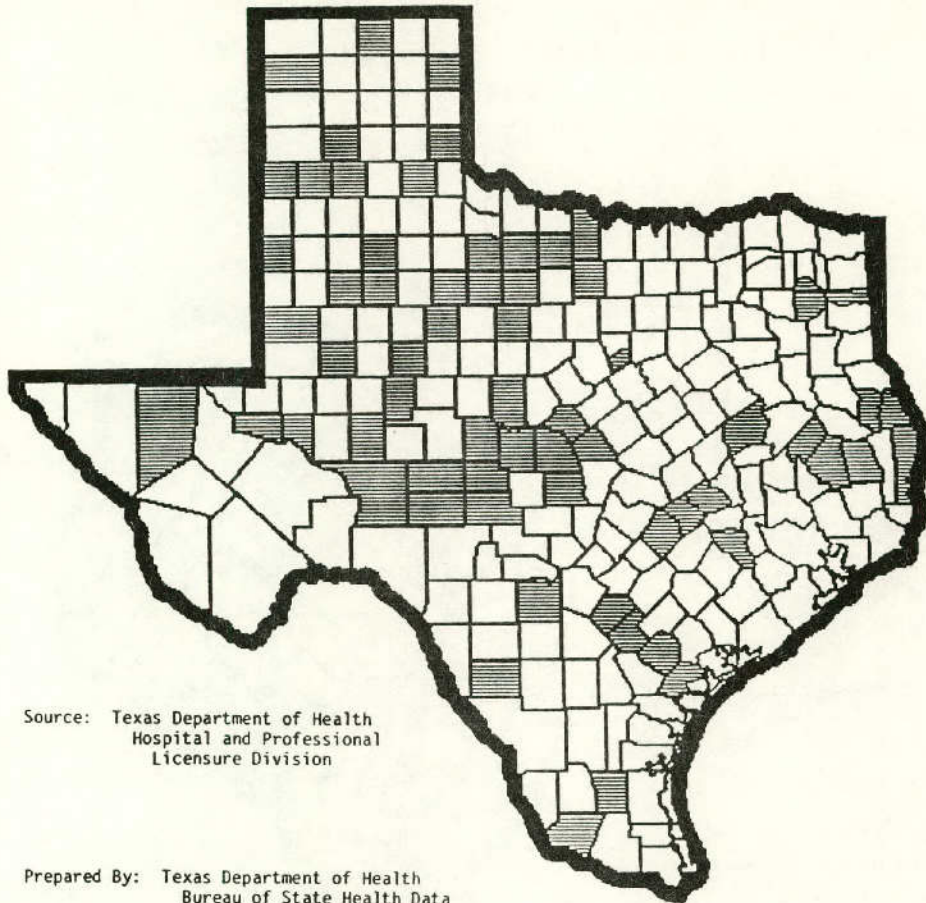
Source: Texas Department of Health
Hospital and Professional
Licensure Division

Prepared By: Texas Department of Health
Bureau of State Health Data
and Policy Analysis

- | | | |
|-----------|------------|-------------|
| ARANSAS | DONLEY | LIVE OAK |
| ARMSTRONG | DUVAL | LOVING |
| BANDERA | EDWARDS | MCMULLEN |
| BLANCO | FOARD | MASON |
| BORDEN | GLASSCOCK | MOTLEY |
| BRISCOE | HUDSPETH | OLDHAM |
| CALLAHAN | HUTCHINSON | PRESIDIO |
| CARSON | IRION | RAINS |
| COKE | JEFF DAVIS | REAL |
| COTTLE | JIM HOGG | ROBERTS |
| DALLAM | KENDALL | ROBERTSON |
| DELTA | KENEDY | SAN JACINTO |
| DICKENS | KENT | SHERMAN |
| | KING | TERRELL |
| | KINNEY | WALLER |
| | LA SALLE | WILLACY |
| | LIPSCOMB | YOAKUM |
| | | ZAPATA |
| | | ZAVALA |

*Note: San Saba County should be added as of January, 1989.

**COUNTIES WITH ONLY ONE TDH-LICENSED HOSPITAL
AND WITH 50 OR LESS LICENSED BEDS, 1988**



Source: Texas Department of Health
Hospital and Professional
Licensure Division

Prepared By: Texas Department of Health
Bureau of State Health Data
and Policy Analysis

- | | | | | | |
|---------------|-----------|----------|-----------|---------------|--------------|
| ARCHER | CONCHO | HARTLEY | MCCULLOCH | REFUGIO | THROCKMORTON |
| AUSTIN | CRANE | HASKELL | MARION | SABINE | TRINITY |
| BASTROP | CROCKETT | HEMPHILL | MARTIN | SAN AUGUSTINE | TYLER |
| BAYLOR | CROSBY | JACK | MEDINA | SAN SABA | UPSHUR |
| BROOKS | CULBERSON | KARNES | MENARD | SCHLEICHER | WARD |
| BURLESON | DIMIT | KIMBLE | MILLS | SHACKELFORD | WILSON |
| CAMP | FISHER | KNOX | MITCHELL | SOMERVELL | |
| CASTRO | GAINES | LAMPASAS | NEWTON | STARR | |
| CLAY | GARZA | LEE | PARMER | STERLING | |
| COCHRAN | GOLIAD | LEON | POLK | STONEWALL | |
| COLEMAN | HALL | LLANO | RANDALL | SWISHER | |
| COLLINGSWORTH | HANSFORD | LYNN | REAGAN | SUTTON | |

Texas hospitals with fewer than 100 beds had, on average negative net incomes for 1986 as shown below.

**Revenue and Expense by Hospital Size
Hospitals in Texas, 1986**

Number of Beds

	<50	50-99	100-299	300+	Total
Revenue*	\$273.2	\$542.1	\$2,645.9	\$4,769.0	\$8,230.2
Expenses*	\$290.2	\$544.4	\$2,499.8	\$4,347.3	\$7,681.7
Net Income*	\$-17.0	\$-2.3	\$146.1	\$421.6	\$548.4

In addition, non-metropolitan hospitals had a negative net income of -\$9,000,000 as shown below. This compares with significant positive net incomes in urban areas and for the state as a whole.

**Revenue and Expense by Hospital
Location Hospitals in Texas, 1986**

	Non-Metro	Metro	Total
Revenue*	\$739.7	\$7,490.5	\$8,230.2
Expenses*	\$748.8	\$6,932.9	\$7,681.7
Net Income*	\$-9.0	\$557.4	\$548.4

*Expressed in Millions

Note: Figures may not total due to rounding.

Source: Texas Department of Health Bureau of State Health Data and Policy Analysis 1986 Cooperative TDH/AHA/THA Annual Survey of Hospitals

The number of hospitals with negative net incomes by bed size and by location are shown below.

**Negative Net Income by Hospital Size
Hospitals in Texas, 1986**

Number of Beds	Number of Hospitals Reporting Negative Net Income	Total Hospitals Reporting Revenue and Expenses	Percent With Negative Net Income
Under 50	88	145	61%
50-99	53	105	50%
100-299	46	143	32%
300+	4	65	6%
Total	191	458	42%

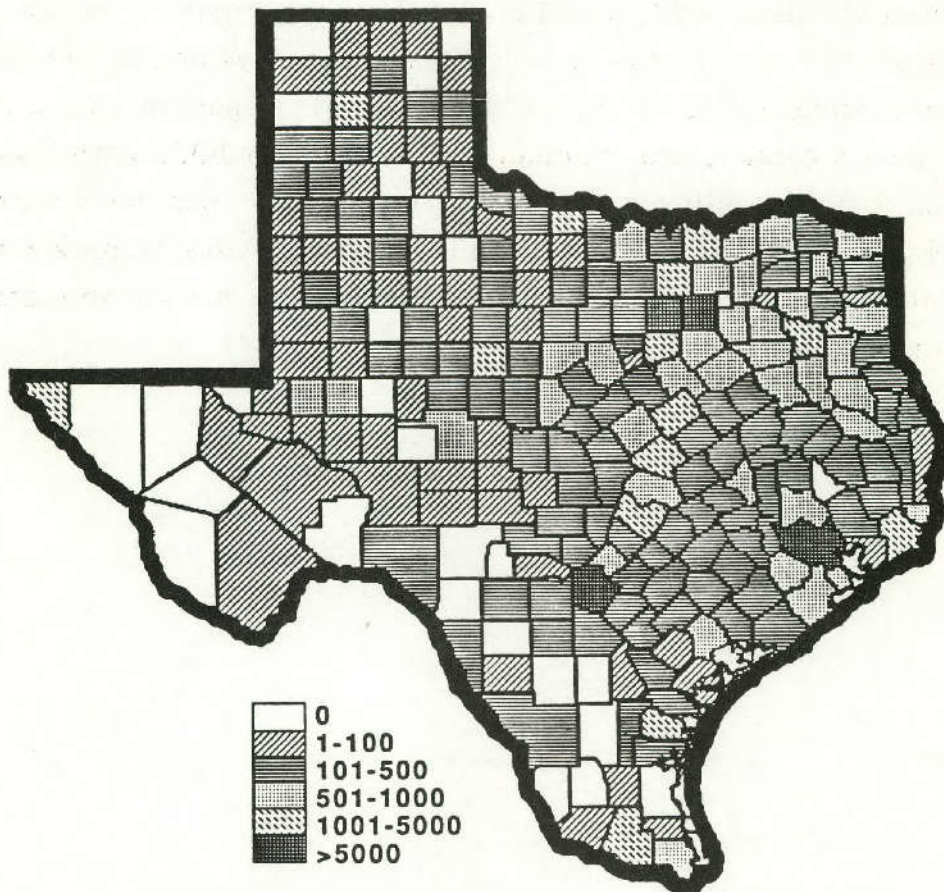
**Negative Net Income by Hospital Location
Hospitals In Texas, 1986**

Location	Number of Reporting Negative Net Income	Total Hospitals Reporting Revenue and Expenses	Percent With Negative Net Income
Non Metro	116	205	57%
Metro	75	253	30%
Total	191	458	42%

Source: Texas Department of Health, Bureau of State Health Data and Policy Analysis:1986 Cooperative TDH/AHA/THA Annual Survey of Hospitals

Twenty-seven counties in Texas have no licensed nursing homes in 1987 as shown below. This map also indicates the range of nursing home bed availability in each county in the state.

LICENSED BEDS IN NURSING HOMES, 1987



Source: Texas Department of Health
Bureau of Long Term Care

Prepared By: Texas Department of Health
Bureau of State Health Data
and Policy Analysis

Developed under the Public Health Services Act, 28 community health centers are funded in Texas. These centers serve approximately 300,000 persons per year in locations which would otherwise be unable to provide services due to geographic barriers, limited incomes or lack of trained medical personnel. Fifteen (15) of these centers serve 27 counties with less than 25,000 population.

Testimony by the Texas Department of Mental Health and Mental Retardation (TDMHMR) illustrated the difficulties of providing needed services to dispersed populations. The department's testimony indicated that some people in west Texas must drive nearly 200 miles for crisis stabilization and up to 300 miles for in-patient care. Day services, workshops, occupational therapy and rehabilitation services are particularly difficult to provide in sparsely populated areas. TDMHMR plans to implement special efforts to provide comprehensive mental health and mental retardation services to rural communities on a regional basis by 1993.

EMS/Trauma

Testimony presented to the Task Force in public hearings indicated access to emergency medical services (EMS) and trauma care is a growing problem throughout rural Texas. Trauma is defined as a serious bodily injury or wound. Major obstacles to the delivery of quality emergency care in rural communities include: hospital closures; geographic impediments; medical manpower shortages; insufficient funding for equipment purchases and maintenance; an absence of data on occurrences, severity and cost implications of trauma; and non-standardized communications systems.

The Task Force determined that several overlapping factors impact effective emergency and trauma care:

1. time and distance;
2. access to the EMS system/communication;
3. equipment/access to capital;
4. manpower shortages;
5. trauma/treatment facilities; and
6. prevention

Time and Distance

Time is the most critical component in trauma. Urgency is the key management tool, whether for cardiac, poison, accident or other medical emergencies.

The faster treatment is rendered, the better the outcome. Treatment is particularly urgent within the first hour, commonly known as the "golden hour". An effective EMS system must have immediate public access, quickly dispatch an appropriate vehicle, provide timely and skillful on-scene care, assure prompt transport to a facility which can provide stabilization and, if necessary, transport to a more sophisticated facility.

Distance is a critical factor in the survival and recovery equation for emergency and trauma victims. Texas' 254 counties cover 262,000 square miles. Fifty (50) counties (20%) do not have a hospital and 14 counties do not have a physician. Those 14 counties cover approximately 18,780 square miles - an area larger than nine other states and the District of Columbia. Vast areas without care can mean delay in discovering or reporting an emergency situation, increased travel time to the scene and delays in transport.

The increasing frequency of rural hospital closures also has grave implications for EMS. Texas has lost 65 hospitals in the last four years and leads the nation in hospital closures. Access to vital emergency facilities erodes as more hospitals close their doors, further delaying EMS response time and increasing transport distances.

Access to the EMS System/Communications

The response of EMS begins with an effective system of public access and ambulance dispatch. This can be accomplished through a centralized telephone system accessing all areawide ambulance providers and public agencies, i.e., the 9-1-1 telephone number.

Before 9-1-1, citizen access was often confusing, especially for travelers and tourists. Telephone directories either offered a choice of numbers to call or none at all. The agency or agencies providing emergency medical assistance (police, fire, etc.) could not be determined from some directories. Easy to remember, 9-1-1 has improved access and shortened response times by quickly routing calls to the proper authority.

The 70th Texas Legislature passed House Bill 911 mandating the Advisory Commission on State Emergency Communications to oversee implementation of a 9-1-1 emergency telephone service throughout the state. Counties of 120,000 or more population are required to implement a 9-1-1 system by 1995; other counties may participate voluntarily. Voluntary participation by rural counties can shorten

response time and thereby improve trauma and emergency care in Texas.

Radio communications linking EMS providers, hospitals, public safety officials, and patient evacuation aircraft, is another essential component of an effective EMS system. In many rural areas, EMS providers rely on aging, outmoded equipment which, for example, may not permit duplex capability (i.e., allow parties to communicate simultaneously without interruption). They also must share a limited number of radio frequencies with other emergency and non-emergency users, causing severe overcrowding and subsequent communication breakdowns between EMS field personnel and consulting physicians.

Equipment/Access to Capital

Costs for emergency transport are substantial and increase with the level of care offered. Emergency vehicles may be classified as Basic Life Support (BLS), Advanced Life Support (ALS) or Mobile Intensive Care Unit (MICU). Advanced Life Support and MICU offer increased capacity for treatment of trauma and cardiac patients.

Access to ALS vehicles and personnel saves lives. A 1986, General Accounting Office (GAO) report cited a study indicating a nine percent increase in survival in cardiac emergencies when ALS was available. However, it cites another study in which some EMS experts claim that while ALS coverage is more desirable, the cost is not justified by the low patient caseload in rural areas.

Statewide economic hardship, federal funding cuts, and an increasingly urban population have made the purchase of EMS equipment a difficult, if not impossible, task for many rural communities. Equipment purchase options were removed from EMS federal grant programs by the Omnibus Budget Reconciliation Act of 1981. Rural communities could purchase needed equipment if this provision was put back into existing programs. In addition, Texas could seek federal funds for EMS equipment and training from the National Highway and Transportation Safety Administration

(NHTSA). Current options, which could be implemented by local governments, include co-operative purchasing and resource pooling. Implementation of these options would allow local governments to purchase equipment for underserved areas which may not have sufficient revenues without some assistance.

Manpower Shortages

In non-metropolitan areas, professionally trained EMS personnel are often difficult to recruit and retain. The availability of professional resources and lifestyle issues are major factors. As well, salaries for EMS personnel tend to be lower in rural communities.

According to the Texas Department of Health, most rural EMS systems are staffed by volunteers. Increased educational requirements, licensing fees, tort liability concerns, job "burn out", inopportune testing schedules, and regulatory requirements are leading many volunteers to reassess their willingness to provide donated services. Lack of state and federal funding for EMS training and continuing education programs inhibits the infusion of qualified EMS personnel into rural areas.

Treatment/Trauma Systems

Trauma constitutes the nation's most expensive health problem, costing an estimated \$75 to \$100 billion annually. In terms of lost wages, medical expenses and indirect expenses, trauma costs society \$63 million per day; in Texas, the estimated cost is \$4 million per day. In 1984, Texans lost an estimated 318,000 productive years of life due to traumatic injury -- triple the 111,000 years lost to cancer.

Trauma is the primary cause of death of Americans aged 1-44 and ranks third for persons of all ages. Experts estimate that of the 140,000 Americans killed by trauma each year, at least 25,000 die needlessly. In addition, there are two cases of permanent disability for each death. Motor vehicle accidents accounted for more than half of all

statewide trauma deaths in 1984, and more than half of those deaths occurred on rural highways.

Although these data provide rough estimates, no data are formally collected to evaluate the occurrence, severity and cost implications of trauma. These data should be collected in a timely fashion by a statewide trauma registry.

Most medical facilities - especially in rural areas - do not have the capability to treat critical trauma victims. For example, small facilities must transfer patients to a tertiary facility to have 24-hour availability of a neurosurgeon or burn treatment center. Many do not even have whole blood for transfusion.

Because successful treatment of critical trauma is irrevocably linked to time, immediate transfer of trauma victims to specialized facilities is imperative. The American College of Surgeons (ACS) recommends a system of specialized trauma centers. An effective trauma system should be able to identify hospitals with specialized capability to provide trauma care, identify major trauma victims at the scene and insure they be taken to an appropriate trauma center. Studies conducted in U.S. cities and counties reported 50-64% reductions in trauma deaths with an emergency system including progressively responsible trauma centers according to references cited in the 1986, GAO report.

Guidelines developed by the ACS classify trauma centers in a hierarchical, vertical system comprised of three levels. Level One facilities would be the most comprehensive and based within a university medical center; Level Two would be in a regional center; and Level Three would include general acute care and rural primary care facilities with emergency capabilities.

According to the ACS, trauma systems are thought to work best when:

- a hierarchy of sophistication exists among designated trauma centers, maximizing resources;

- trauma centers receive all trauma patients without regard to ability to pay;
- the system is designed around established transfer protocols or agreements;
- a centralized, oversight agency is given authority to regulate and administer the trauma system; and
- the public, providers, and public safety agencies are educated regarding access to the system and patient flow patterns.

Well organized and totally funded trauma systems should improve access to appropriate prehospital and rehabilitative care, reduce mortality and morbidity, eliminate duplication and waste of resources, help eliminate "dumping" and "reverse dumping" of non-pay patients among rural and urban hospitals, and relieve some of the uncompensated care burden from the shoulders of rural hospitals.

Prevention

Prevention is a major deterrant for trauma injuries. Many experts suggest injuries are potentially the most preventable of all health problems. There are two strategies for prevention. The first is to keep the injury from happening at all, which can be accomplished through education, effective enforcement of DWI laws, promotion of alcohol and drug abuse awareness, enforcing speed limits, expanding farm safety programs, and promoting water and boating safety programs.

A second strategy to reduce the severity of injuries which do occur, might include:

- seat belt use;
- motorcycle helmet use (72% of motorcycle accident fatalities in 1987 did not wear a helmet);
- child car seat use;
- automobile safety features, e.g., roll bars;
- enrollment in CPR classes and emergency "first responder" programs;

- public awareness of the closest medical facility and its ability to treat critical injury; and
- requiring roll cages be standard equipment on farm tractors.

One study conducted by the Texas Safety Association in 1984, estimates that for every one percent increase in seat belt use in Texas, 28 lives are saved and 776 injuries are prevented. Prevention is thought to have played a large role in reduction of highway accidents, fatalities and injuries in Texas in 1987:

	<u>1986</u>	<u>1987</u>
Accidents	455,714	395,969
Fatalities	3,566	3,261
Injuries	234,120	226,895

Source: Texas Department of Highways and Public Transportation

These reductions occurred after passage of legislation which raised the drinking age to 21, strengthened sanctions against drinking while driving, required front seat passengers to use safety belts, and required car seats for children under age 2.

Findings

In addition to findings discussed above, the Task Force finds the following regarding EMS/Trauma services:

1. Texas needs a statewide system to appropriately treat and refer trauma victims.
2. A statewide trauma system needs adequate funding to effectively respond to trauma needs.
3. Texas needs a statewide trauma registry to assess the effects of trauma incidents on the health care delivery system and to monitor needs and trends in trauma care.

4. Emergency medical services in rural Texas need more equipment and trained personnel.

5. Measures should be taken by the Legislature and TDH to ensure the viability of the volunteer EMS system.

Recommendations

The Task Force makes the following recommendations regarding EMS/Trauma:

1. **RECOMMENDATION:** The Legislature should amend Article 4447o, V.T.C.S., "The Emergency Medical Services Act," to establish a trauma registry and examine existing state and federal sources for funding the trauma registry.

2. **RECOMMENDATION:** The Legislature should establish a statewide trauma system.

a. All qualified hospitals should be included in the trauma system with progressive responsibility and the top level to be university based.

b. The trauma system should have three recognized levels of expertise with established referral patterns.

c. A mechanism should be included to provide grants and funds for the purchase of capital equipment.

d. Adequate funding for training emergency personnel should be provided.

3. **RECOMMENDATION:** The Legislature should amend Article 4447o, V.T.C.S., "The Emergency Medical Services Act," to clarify the fee exemptions for EMS volunteers and EMS volunteer providers.

4. **RECOMMENDATION:** The Legislature should amend Chapter 74, Civil Practices and Remedies Code, to change the standard by which liability for emergency care is judged from a preponderance of the evidence to clear and convincing evidence standard.

5. **RECOMMENDATION:** The Legislature should encourage the Texas Department of Health to continue providing EMS education, continuing education, and alternative testing/retesting schedules to facilitate participation by rural citizens.

6. *RECOMMENDATION*: The Legislature should encourage the Texas Department of Highways and Transportation to allow all EMS providers access to training programs funded by the department.

Manpower

Quality, affordable and accessible health care services depend upon the availability of well-trained personnel. Rural Texas has a shortage of physicians, nurses and allied health professionals which limits the availability of health care services for 3.3 million rural Texans. Maps indicating counties without physicians, dentists and pharmacists are included at the end of this chapter. For example:

- 14 counties have no physician,
- 14 counties have no pharmacist,
- 33 counties have no dentist,
- 27 counties have no nursing home, and
- 50 counties have no hospital.

Recruitment of health professionals to rural Texas is difficult and the shortage is exaggerated as rural practicing health care professionals move to urban areas, migrate to other states or retire. According to testimony, four factors influence physician migration from rural areas:

- inadequate Medicare and Medicaid reimbursement rates,
- hospital closures,
- escalating liability insurance costs, and
- life style issues.

The same issues are disincentives for urban physicians, medical students and residents who might consider practicing in rural communities. In addition, many medical school graduates are faced with enormous loan debts which can be repaid more rapidly through an urban practice.

Increased demand for nurses and allied health professionals, improved career opportunities in other fields, overall deterioration in the image of nursing and allied health professions, and a decline in financial aid sources have contributed to a statewide manpower

shortage in these professions that is particularly hard felt in rural communities. Rural communities are competing with urban areas for the same pool of health care professionals. Unfortunately, rural communities often cannot compete with the salary, benefits, or life style amenities afforded by their urban counterparts.

Congress passed the Rural Health Clinic Services Act (PL 95-210) in an effort to mitigate the problem of physician shortages in rural areas. The law authorizes financial support for facilities using physician extenders to provide primary health care services in medically underserved rural areas. There are presently no Texas clinics established under this program.

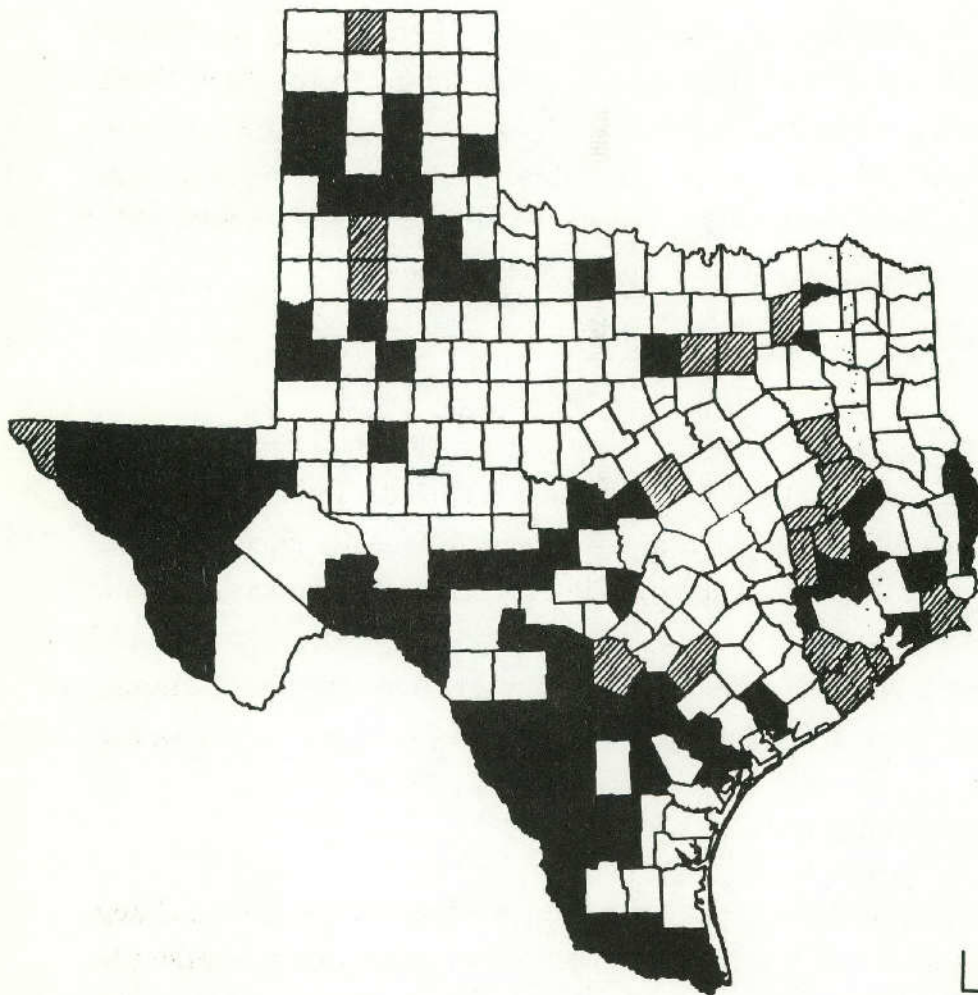
The Act also authorizes Medicare and Medicaid payments to qualified rural health clinics for covered health care services provided by nurse practitioners and physician assistants under the part-time supervision of physicians. The Task Force believes the Legislature should investigate the feasibility of implementing this Act in Texas.

Physicians



The federal government has designated 83 entire non-metropolitan Texas counties as Primary Care Health Manpower Shortage Areas (HMSAs). Additionally, three (3) counties are partially designated and two (2) counties have migrant or poverty population groups which are designated. A complete list of HMSAs is included in the Appendix and a map is on the following page.

There are an estimated 1,487 primary patient care physicians practicing in non-metropolitan counties for an average of one physician to every 2,244 rural residents. This compares to one for every 1,572 residents or a total of 8,708 primary patient care physicians in urban Texas. A list of physician to patient ratios for 1987 is included in the Appendix.

Texas Manpower Shortage Areas
Counties -- Partial vs. Whole
Texas Department of Health Data -- January 1988



Legend

-  Partial
-  Whole

The shortage of new physicians and the out-migration of active physicians in rural communities can be attributed to several factors. In addition to reimbursement and liability issues, three characteristics of rural living affect a physician's choice to locate in a rural area:

- ***Community Resources***

Community factors affecting the choice to locate in a rural area include recreational opportunities, spousal employment opportunities, access to peer networks for consultation and relief coverage, quality of schools and availability of child daycare. Testimony to the Task Force indicated communities must include a physician's spouse and family in the recruitment process. Also, individual communities must assess their relative strengths and weaknesses to design an appropriate plan if they are to successfully recruit and keep a physician.

- ***Hospital Closures***

A Texas Medical Association survey of Texas medical residents who completed training in 1986-87 and chose to locate in a rural area, indicated proximity to a hospital and good diagnostic facilities outweighs all other factors in a physician's choice of practice location. Numerous individuals testified that hospital closures, outmoded equipment and lack of funds for capital improvements have a major negative impact on physician recruitment and retention in rural areas.

- ***Geographic Identification***

The geographic background of medical students is often a key indicator as to where they will practice after graduation. Students reared in rural communities are more likely to practice in small towns than are students from urban areas. The site of the medical residency is another major determinant in choosing a practice location. In general, physicians tend to practice within 150 miles of their residency site according to TMA surveys.

Physician Recruitment and Retention

General and family practitioners are the cornerstone of primary health care in rural Texas. Many rural areas do not have sufficient population to require the services of sub-specialists needed in secondary or tertiary settings.

General and family practitioners are specialists in primary health care which includes training in the following areas:

- obstetrics/gynecology,
- internal medicine,
- pediatrics,
- general surgery,
- behavioral science,
- orthopedics,
- emergency care, and
- trauma stabilization

Medical schools can increase the number of physicians potentially available to rural areas by encouraging more physicians to specialize in primary care fields, particularly general and family medicine. Suggestions presented to the Task Force included increasing emphasis on a rural background during student recruitment, increasing the availability of rural preceptorships, offering a third year rotation in departments of family practice, including rural practitioners on admission boards, and expanding family practice residency programs in rural areas.

Family practice residency programs, created by statute in 1979, have been very successful in placing graduates in rural areas. Since the programs started, 42% of all family practice graduates have located in communities of 25,000 population or less, and 24% in communities of 10,000 or less. More than 43% of family practice residents located their practice within 60 miles of the county where they completed residency training which emphasizes the need for developing more residency slots in rural locations.

Texas has two programs which provide incentives for physicians to locate in rural Texas. First, the Physician Student Loan Repayment Program, created in 1985, will repay up to \$6,000 annually of student

loan debt for physicians practicing in underserved areas. While this program has made a promising start, testimony to the Task Force indicated the \$6,000 repayment level is inadequate. Additionally, witnesses identified a need to develop a similar program for nurses and allied health professionals.

A serious limitation of the program is that it cannot accept applicants who received loans from out-of-state banks. This prohibits rural communities from offering this as an incentive to physicians from outside Texas or to Texans who attended out-of-state medical schools.

The second program providing incentives for physicians to locate in rural areas is under the direction of the Texas Rural Medical Education Board. It was established in 1972 to provide direct loans to medical students, which can be waived if the student establishes a rural practice. The program is no longer accepting new applicants and is essentially being phased out due to lack of legislative funding. The Task Force strongly encourages reassessment of this program and requests it (1) be appropriated sufficient funds, (2) be placed within an agency where it can access funds and other resources, or (3) coordinate with other programs for a comprehensive approach.

Physicians also identified professional isolation as a difficulty of rural practice and stated it is difficult to pursue continuing education opportunities. The Task Force notes with approval and encouragement the work being done by Texas Tech Health Sciences Center in developing its "Karenet", "Internet" and "Mednet" programs in this regard. These programs utilize satellite/telecommunications and computer technology. They will provide an interactive video and data outreach system to rural providers for clinical teaching, continuing education conferences, interactive sharing of specialty expertise, exchange of clinical data, clinical consultation among four regional health science centers, and administrative and business management assistance.

Innovative projects such as these should be expanded where possible to improve patient care and serve the continuing education

needs of all rural health providers in Texas. Prohibitive costs, however, will prevent many rural areas from taking advantage of these technological opportunities for many years to come. The need exists to develop programs to provide relief services to rural physicians so they can take a leave of absence in the interest of continuing their education.

Nurses

The demand for nurses far exceeds the supply. Texas has 69 registered nurse (R.N.) educational programs, 97 licensed vocational nurse (L.V.N.) programs, and 11 graduate level programs for nurses. There are 95,958 active R.N.s, and 71,571 active L.V.N.s. Although these figures may seem sufficient, the supply is far below the number needed to fill the state's needs. Texas' shortage surpasses the national experience. We have only one (1) nurse for each 418 residents compared to the national nurse to patient ratio of 1:200.

The Special Committee on Post-Secondary Medical, Dental and Allied Health Education identified a number of factors which contribute to the rising demand for nurses. The reader is referred to the Committee report for details of factors mentioned, including:

- a growing population base;
- an aging population requiring more care;
- increasingly complex health care delivery system;
- increased acuity of hospital in-patient care requiring more out-patient care; and
- increased governmental regulation.

The Special Committee also identified a number of factors which have contributed to the inadequate supply of nurses:

- image deterioration of nursing as a profession,
- salary compression,
- better career opportunities, and

- declining sources of financial aid.

The nursing shortage impacts all health care, especially that provided by hospitals and nursing homes. The shortage will be further compounded as long term care facilities comply with increased staffing requirements mandated by federal and state rules. Texas nursing homes will need an estimated 1,702 additional nurses by 1990.

An estimated 90% of all nurses want to continue their education to advance their career opportunities. Different requirements in nursing school programs and curricula have hampered nursing students' and active nurses' ability to transfer credits between schools, effectively limiting career ladder advancement. Recently, some efforts have been made to articulate the nursing education system, thereby allowing nurses wishing to further their educational goals to transfer credits, eliminate unnecessary delays in the transfer and admitting process, and eliminate duplication of knowledge, experience and skills.

Nurse Recruitment and Retention

According to testimony, the nursing shortage in Texas adversely affects remote areas where the most pressing needs are for nurse generalists. Nurse generalists are expected to be clinically up-to-date in varied areas of care including surgery, obstetrics, pediatrics, sports medicine, emergency care, intensive care, discharge planning and geriatrics. Recruiting and retaining nurses in rural areas has become difficult for many of the same reasons that apply to physicians and allied health professionals.

- Salary and benefits are generally lower than urban areas.
- Rural and urban areas compete for the same nurses.
- Working overtime, double time and weekends are common for rural nurses.
- Nurses express the same concerns as physicians regarding community resources.
- Nurses also experience professional isolation and difficulties in continuing their education.

Communities and rural providers must address these issues in order to successfully compete with urban areas for quality nursing staffs. Creative incentives and inducements must be offered as part of an overall strategic effort to attract health care professionals. State programs do not offer incentives for nurses to practice in rural or underserved areas which are similar to physician programs.

Allied Health Professionals

The growth in health care specialization created a need for allied health professionals. Approximately 200 health care professions can be classified as allied health, including: occupational therapy, physical therapy, emergency medical technology, radiologic technology, medical administration, physician assistants, dietetic and medical technology. Texas institutions offer approximately 374 allied health education programs dispersed among universities, community colleges, health science centers, private institutions and proprietary schools.

Increased demand for allied health specialists, limited financial rewards and benefits, perceived low social status, increased work loads, lack of financial aid sources, inarticulation of educational programs, and a declining pool of high school graduates interested in the health professions are some of the contributing factors leading to the statewide shortage of allied health personnel. A Texas Hospital Association survey reports an average of 7% overall vacancy rate for allied health positions with critical shortages existing in the areas of respiratory therapy, physical therapy and radiography.

A statewide shortage in allied health professionals, like the nursing shortage, means rural areas find it more difficult to attract qualified professionals. Testimony to the Task Force revealed that allied health shortages are at least as critical in rural as they are in urban areas.

Community Efforts

The Task Force found there is a need to attract students into the health profession "pipeline" early in their educational careers.

Programs such as the West Texas Rural Health Education Center have been effective in arousing and maintaining high school students' interest in medical professions. Other testimony suggested it would be a good idea to reclassify health occupation classes as upper-division science courses in high school, thereby encouraging students to take the courses for increased exposure to the health care industry before they make lasting career decisions.

Additionally, rural communities must participate in their local health care delivery system by promoting volunteer services in non-medical activities such as:

- transporting elderly or disabled citizens to and from medical facilities;
- providing administrative and clerical support to free health care professionals to focus on direct patient care;
- in-home services such as homemaking, personal grooming or companionship and recreational diversions for the elderly and disabled;
- participation with local government and health care providers in assessing health manpower needs and the recruitment of quality health professionals.

Findings

In addition to the other findings discussed above, the Task Force finds the following regarding Manpower:

1. Rural Texas faces a serious and worsening shortage of physicians, nurses and allied health professionals. This shortage is threatening many Texans' ability to access health care.
2. An important factor in successful recruitment and retention of physicians, nurses and allied health professionals appears to be early

educational exposure to, or other personal identification with, rural lifestyles or cultures.

3. Current medical student loan repayment programs are inadequate and similar programs for nurses and allied health professionals do not exist.

4. Advances in technology, such as telecommunications programs, may significantly enhance the practice of medicine and other health care professions in rural settings in the near future. These initiatives will also benefit patient care expertise and support linkages available to rural based providers.

5. Every effort must be made to coordinate initiatives by communities, educational institutions, and state leaders to assist rural students (youth to mature adults) with enrollment in and completion of health and medical education training programs and encourage a return to their rural communities for practice after obtaining a professional license or certification.

Recommendations

The Task Force makes the following recommendations regarding Manpower:

7. *RECOMMENDATION:* The Legislature should encourage the Higher Education Coordinating Board to maintain a minimum annual repayment level of \$9,000 per year for physicians in the "Physicians Student Loan Repayment Program."

8. *RECOMMENDATION:* The Legislature should amend the "Physician Student Loan Repayment Program," authorized under Subchapter J, Sections 61.531-537, Texas Education Code, to adopt provisions to allow participation of health care personnel with loans from out-of-state banks.

9. *RECOMMENDATION:* The Legislature should enact legislation to establish a health professionals' student loan repayment program modeled after the "Physician Student Loan Repayment Program," to allow the participation of nurses and allied health personnel.

10. *RECOMMENDATION:* The Legislature should create an inter-agency effort among the Texas Higher Education Coordinating Board, Rural Medical Education Advisory Board, medical schools, nursing schools, and schools of allied health sciences, to improve and expand programs for rural areas by:

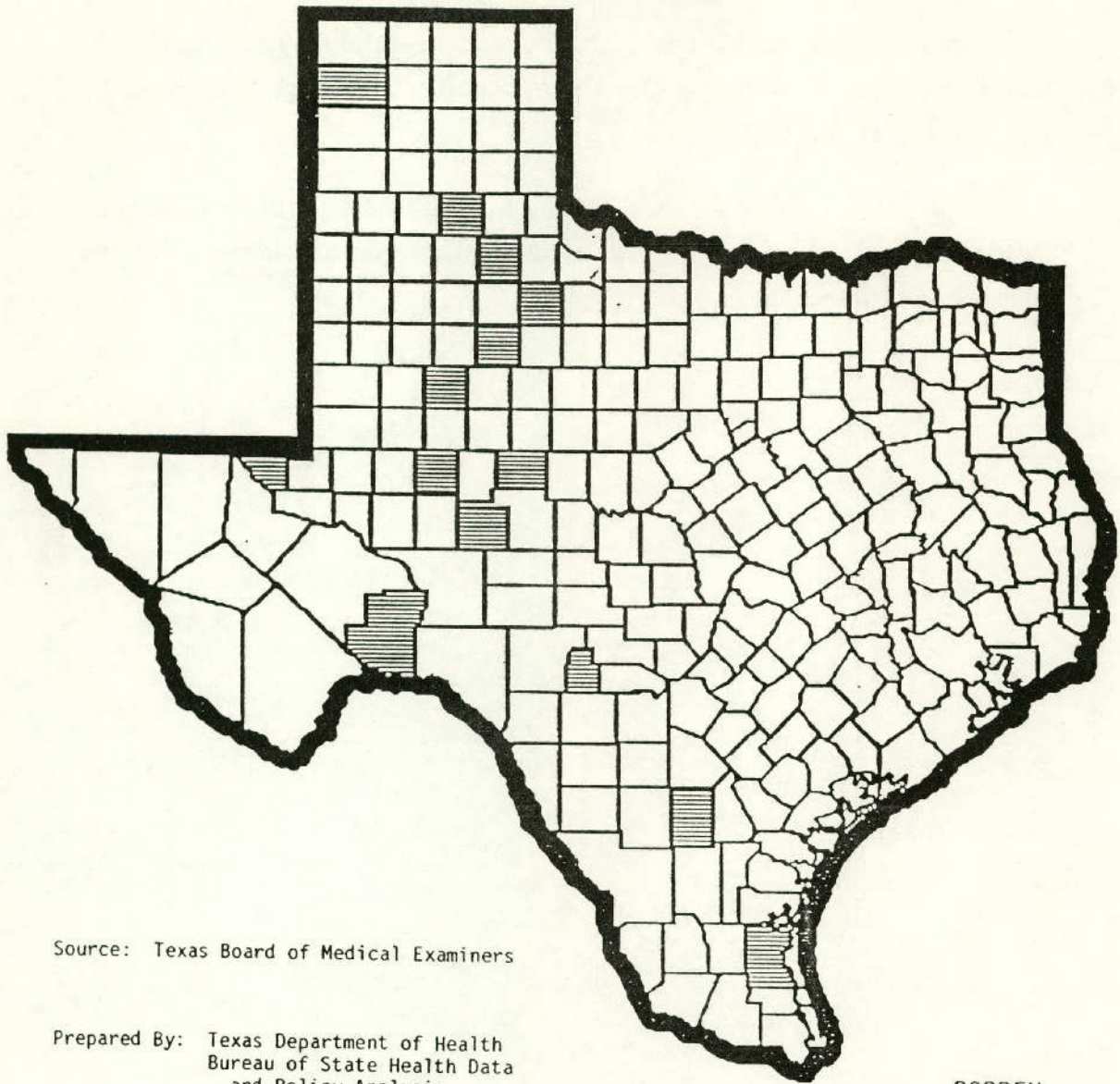
- a. expanding rural preceptorship programs;
- b. developing relief service programs for rural physicians to facilitate ready access to continuing medical education;
- c. initiating training programs to enhance the use of volunteers for non-medical support services;
- d. creating flexibility for coordinating transfer credits and advanced placement for nursing and allied health professionals;
- e. requiring medical schools to provide students a third year rotation in the department of family practice; and
- f. requiring family practice residency programs to provide the opportunity for residents to have a one-month rotation through a rural setting.

11.*RECOMMENDATION*: The Legislature should encourage the Texas State Board of Education to reclassify health occupation education classes as upper division science courses in high school.

12.*RECOMMENDATION*: The Legislature should investigate the feasibility of implementing the Rural Health Clinics Act, created by P.L. 95-210, in Texas.

13.*RECOMMENDATION*: The Legislature should encourage Texas medical schools to include a rural physician on their respective admissions committees.

COUNTIES WITHOUT PATIENT CARE PHYSICIANS, 1987

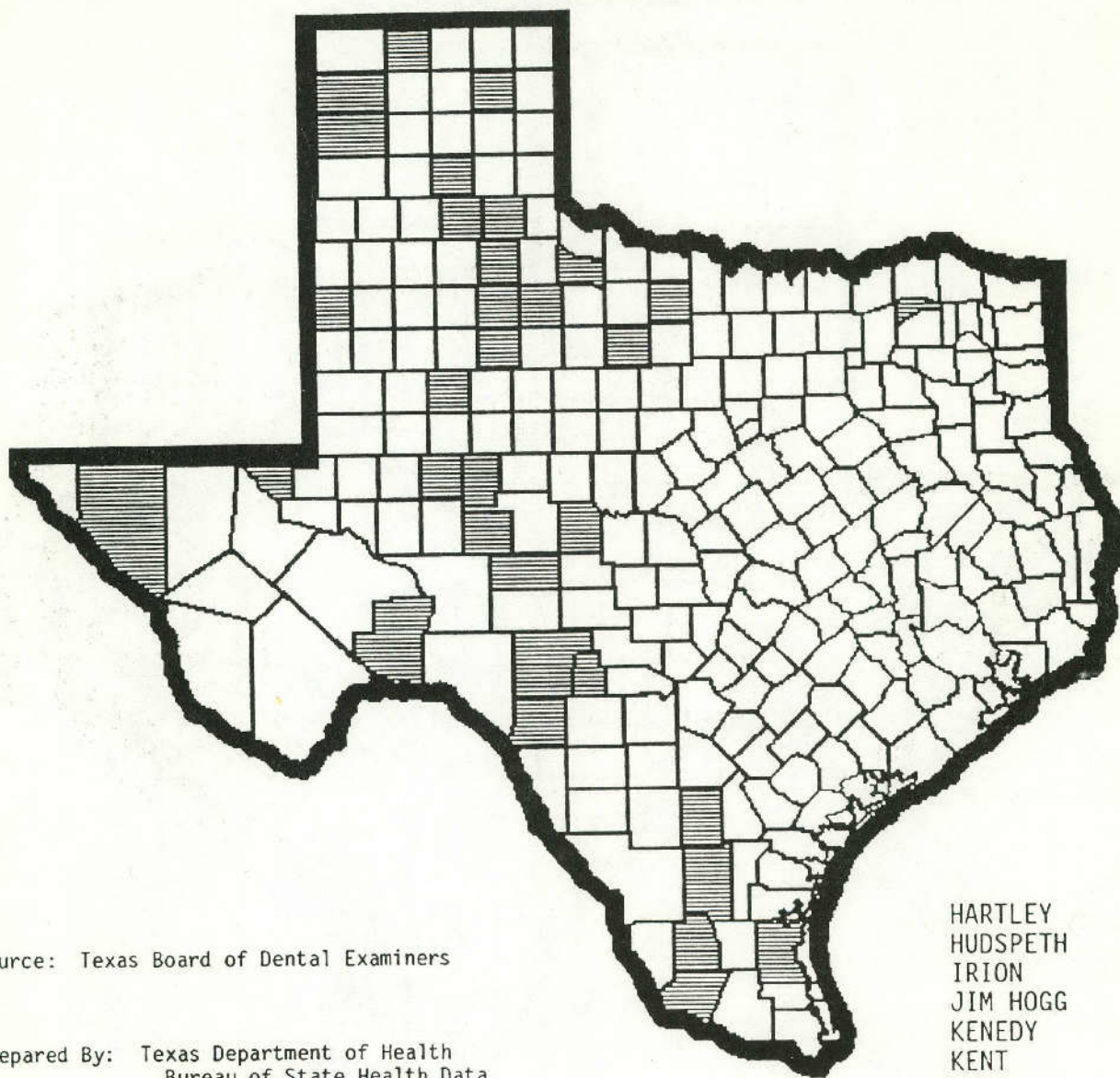


Source: Texas Board of Medical Examiners

Prepared By: Texas Department of Health
Bureau of State Health Data
and Policy Analysis

BORDEN
BRISCOE
COKE
GLASSCOCK
HARTLEY
IRION
KENEDY
KENT
KING
LOVING
MCMULLEN
MOTLEY
REAL
TERRELL

COUNTIES WITHOUT A PRACTICING DENTIST, 1986

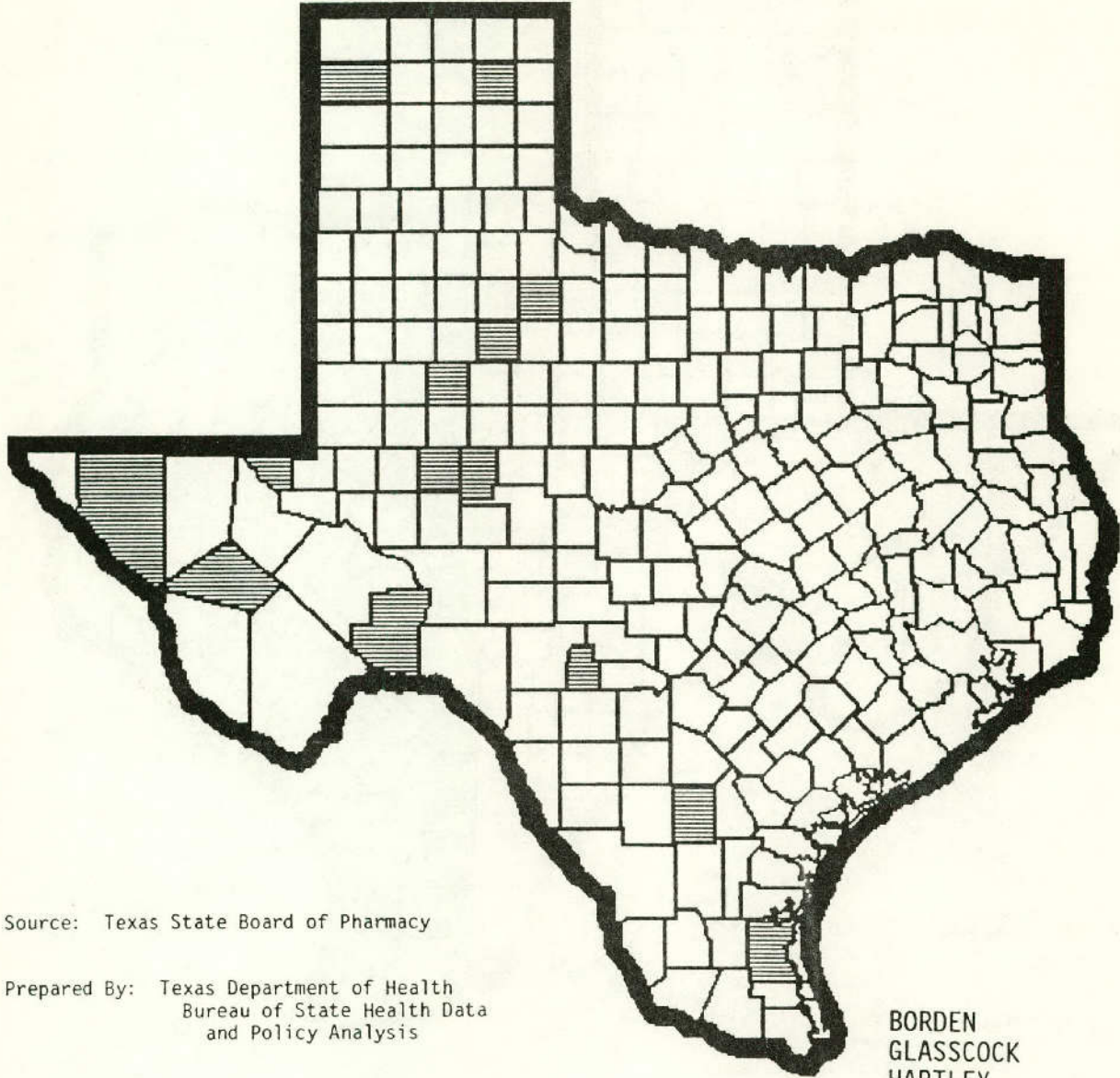


Source: Texas Board of Dental Examiners

Prepared By: Texas Department of Health
Bureau of State Health Data
and Policy Analysis

- | | |
|-----------|--------------|
| ARCHER | HARTLEY |
| ARMSTRONG | HUDSPETH |
| BORDEN | IRION |
| BRISCOE | JIM HOGG |
| COCHRAN | KENEDY |
| CONCHO | KENT |
| DELTA | KING |
| DICKENS | KINNEY |
| DUVAL | LOVING |
| EDWARDS | MCMULLEN |
| FOARD | MOTLEY |
| GLASSCOCK | OLDHAM |
| HALL | REAL |
| | ROBERTS |
| | SCHLEICHER |
| | SHERMAN |
| | STARR |
| | STERLING |
| | TERRELL |
| | THROCKMORTON |

COUNTIES WITHOUT A PHARMACIST, 1988



Source: Texas State Board of Pharmacy

Prepared By: Texas Department of Health
Bureau of State Health Data
and Policy Analysis

BORDEN
GLASSCOCK
HARTLEY
HUDSPETH
JEFF DAVIS
KENEDY
KENT
KING
LOVING
MCMULLEN
REAL
ROBERTS
STERLING
TERRELL

Financing Rural Health Care

The inability of many rural Texas hospitals to operate at break-even levels has resulted in the loss of 65 rural facilities since 1984, and has contributed significantly to the health care access crisis facing many rural Texans today. Task Force witnesses identified inadequate patient revenues as the single greatest threat to the viability of rural hospitals in Texas, and inadequate physician reimbursement levels as negatively affecting the ability of rural Texas communities to attract and keep physicians. Two financial issues directly affect availability and access to health care in rural areas: reimbursement factors and access to capital.

Reimbursement Factors

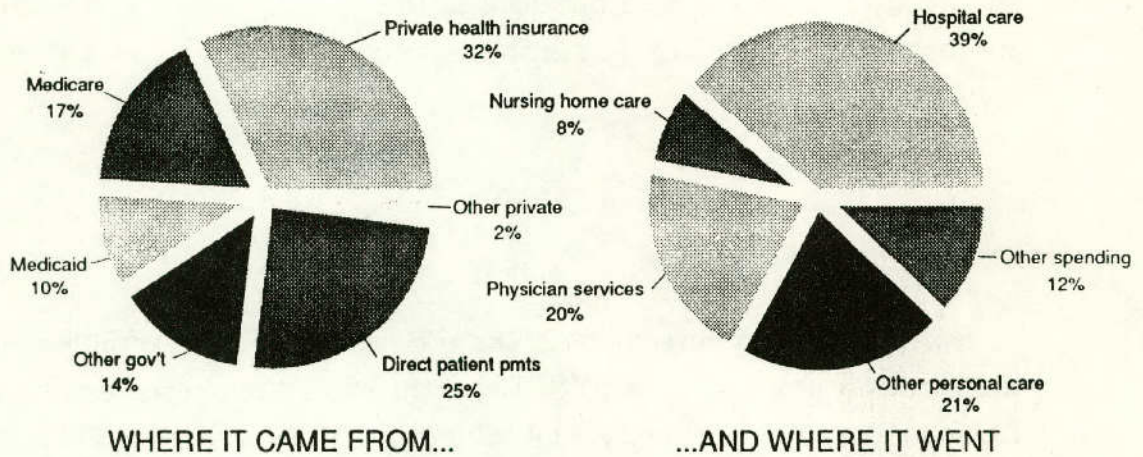
Health care reimbursement in the U.S. and Texas is a complex and cumbersome process. The U.S. Department of Commerce estimates Texans spent approximately \$2.6 billion in FY86 for state and locally funded health care. Nationally, Americans spent \$500.3 billion dollars on personal health care in 1987 as shown below and on the next page:

Private Sources	
Out-of-pocket & other	27.0%
Private Health Insurance	31.5%
Government	
Federal	29.0%
State & Local	12.5%

Source: Health Care Financing Administration, 1988

Public programs generally have eligibility criteria, oversight by one or more governmental entities, and are subject to budgetary approval by elected officials. Medicare and Medicaid are the two largest publically funded programs and account for most of the federal government's personal health care expenditures. Medicare is federally

THE NATION'S HEALTH DOLLAR IN 1987



SOURCE: Health Care Financing Admin.

funded whereas Medicaid is funded by both state and federal governments.

The Task Force found that certain changes in reimbursement patterns have adversely affected rural health care by reducing incentives for attracting physicians and by increasing financial instability of rural hospitals. Differences are principally in Medicare, Medicaid and increased levels of uncompensated care. Additionally, these changes do not give due consideration to the competitiveness for health care professionals nor consider that rural facilities often have to offer larger incentives to attract health care manpower to their communities.

Medicare

In an attempt to contain sky-rocketing increases in medical expenditures, Congress passed P.L. 98-21, the Social Security Amendment Act of 1983. This Act established the Prospective Payment System (PPS) for Medicare recipients which fundamentally changed patterns of health care delivery and reimbursement.

Prior to implementation of PPS based on Diagnosis Related Groups (DRGs), hospitals were reimbursed by a cost-based system. Under the DRG system, a predetermined amount is paid for a given illness or diagnosis based on average cost per case. Reimbursement for capital expenses are not included in the Medicare hospital DRG rate. Instead, hospitals receive a cost "capital pass through" payment in addition to its DRG rate per case.

Physicians paid through Medicare Part B are exempted from a DRG system, but are paid the *lowest* amount of actual billings, usual and customary charges, or prevailing rates for similar specialists in a given geographical area. The current system for paying physician fees for Medicare patients is based on a methodology first implemented in 1965. Built-in escalations based on a medical economic index in 1972 have not kept up with actual health care cost increases. Inflation and increases in labor costs have increased practice expenses in rural as

well as urban areas. The result is payments often do not cover the cost of providing care.

A series of regulations and other mechanisms aimed at containing costs have exacerbated the differences between rural and urban reimbursement. The Texas Medical Association reports payment disparities range up to 90% for some services.

Several recent studies have examined the Medicare Part B reimbursement system and concluded the system should be modified. The Congressional Physician Payment Review Commission concluded one possible solution is to institute a wholly new payment system built on a resource based relative value scale which considers additional factors in determining physician reimbursement rates. Among the additional factors are total time and intensity of time spent with the patient, actual practice costs and length of speciality training. Congress is expected to consider this report in April 1989.

Rural physicians and hospitals are paid less than their urban counterparts for the same procedures, a phenomenon called the "rural-urban differential". As reported to the Task Force, the difference is especially devastating when Medicare patients constitute as much as 50-75% of patient care delivered in rural Texas.

Several additional factors disproportionately affect rural facilities and physicians due to their characteristically higher census of Medicare patients. First, a Medicare fee freeze was imposed on physicians in 1985 and continues, with limitations.

Second, average in-patient census decreased due to changes in reimbursement practices which precipitated changes in physician practice patterns. The changes were influenced principally by three factors:

- preferential payment for procedures not performed on an in-patient basis encouraged increased use of out-patient procedures;
- a more narrow interpretation of necessary hospitalizations was implemented; and

- the shift from a cost-based reimbursement mechanism to DRGs encouraged shorter in-patient hospital stay.

The Office of the Inspector General recently concluded that total costs incurred in providing services to Medicare patients is not fairly represented in Medicare cost reports. Examples include:

- inadequate formulas for allocating malpractice, bad debt and home office costs;
- failure to pay a fair return on invested capital;
- failure to pay a proportionate share of the costs of serving indigent patients;
- failure to consider higher costs of serving elderly patients; and
- failure to revise cost reports to include costs determined to be allowable by federal courts.

Medicaid

Related problems confront rural health care in Texas' Medicaid system, which incorporated a state designed DRG system recently. The state reimburses approximately 7.5% of rural hospital care through Medicaid. Although the program does not have a rural-urban differential for hospital care, *per se*, the methodology, using the "standard dollar amount" discussed below, results in a lower base rate if a hospital had relatively lower historical cost patterns during the 1985 base year. As a result, many small hospitals receive less reimbursement for a given diagnosis than do large hospitals. Testimony indicated these differences could be eliminated by reducing the number of categories used in the methodology.

The standard dollar amount (SDA) when multiplied by the DRG factor determines reimbursement for a case. Minimum SDA was established at \$1200 in 1987; however, the Texas Board of Human Services recently adopted measures to increase the standard dollar base rate to \$1500 as of January 1989.

Payments for physician services reflect geographic variation and are paid based on the lowest of three rates, as in Medicare discussed previously. Texas Medical Association data show internists are reimbursed 43% less and family practitioners 28% less than their urban counterparts.

The Medicaid system has been able to increase reimbursements as a function of inflation with one exception. On July 1, 1986, payments to providers were reduced by 10% due to limited state resources. The state has not reinstated this reduction to date.

Uncompensated Care

The Select Committee on Medicaid and Family Services and the Texas Commission on Health Care Reimbursement Alternatives, established during the 70th Legislative Interim, were charged with conducting in-depth analyses of issues concerning indigent and uncompensated care. The reader is referred to those reports for a comprehensive background and analysis of these issues.

The Task Force, however, finds uncompensated care in rural areas to have a significant impact on availability and access to care. Although data on the extent of this impact are not available, it was suggested to the Task Force that much of the uncompensated care in rural areas is associated with emergency and trauma victims who are uninsured.

Approximately three million Texans are uninsured, that is, their medical care is not covered by any state, federal or third party insurance program. Many others are thought to be without adequate health care insurance coverage or are underinsured. These are the citizens who are often unable to pay for their health care and the cost of their care is absorbed by local governments and private providers.

Hospital Financial Issues

It is helpful to analyze separately the two principal ways in which funds are utilized within hospitals when considering financial issues confronting rural hospitals:

- operating expenses
- capital expenses

Operating expenses.

Hospital operating expenses include salaries, insurance premiums, utilities, maintenance and other overhead costs. They may be fixed or variable costs.

As debt financing is not normally available to finance operating expenses, these costs are expected to be covered by patient service revenue from Medicare, Medicaid, private insurance, private paying patients, and local fund raising efforts. When Medicare and Medicaid reimbursement levels fall below the cost of service provision, operating budgets of rural hospitals suffer the shortfall.

Witnesses testified that many small hospitals are using reserves and Medicare capital pass-through funds to pay operating expenses due to lack of sufficient patient revenues to maintain hospital operation. The use of these funds for operating expenses is unsound financial practice because it can reduce or eliminate the hospital's ability to renovate or expand the facility and replace needed equipment; the facility's ability to secure long term debt financing is also limited. A common trend reported to the Task Force is an extended period of deficit operation prior to hospital closure.

Capital expenses.

Capital funds are customarily used to finance acquisition or construction of items having a useful life of more than twelve months. Some items funded through capital expenditures are new construction, renovation of existing facilities, and the purchase of durable medical equipment.

Many small rural hospitals in Texas cannot generate sufficient operating revenues to sustain independent operation in the current health care market. Therefore, it is increasingly difficult for many small hospitals to obtain investment capital.

Investment capital is accessed through several sources depending on the ownership and tax status of the hospital. Some hospitals are subsidiaries of large, not-for-profit multi-hospital chains. Others are independent not-for-profit corporations or are not-for-profit hospital authorities. These have no taxing authority, but must acquire investment capital from taxable or tax-exempt bonds through an investment bank, short-term direct bank loans, philanthropy, and generated revenues. Publically owned hospitals and hospital districts have taxing authority as well as access to investment capital by avenues available to not-for-profit entities. A hospital owned by a proprietary chain may acquire investment capital through parent company sources.

Based on testimony presented by investment bankers serving the health care industry, the Task Force concluded the relative small size, low patient census, and lack of present or projected profitability and credit worthiness makes the prospects dim for most Texas rural hospitals to obtain long term debt financing. Without ongoing financial support from local communities or diversification of services to generate revenues, most small rural Texas hospitals cannot generate sufficient operating revenues to sustain independent operation indefinitely.

Several suggestions were made to the Task Force related to financing rural hospitals. First, representatives of some rural communities testified on the difficulty of creating a local tax supported hospital district. Presently, creation of a hospital district requires an act of the legislature and local authorization.

Second, it was suggested municipalities be given authority to use municipal funds to contract with local hospitals in order to provide

specific services to its residents. Emergency services were one of the main suggestions for municipal contract.

Third, the federal government has grant and assistance programs which may provide needed capital to rural hospitals. Among these is the Transition Grant Program created by the Omnibus Budget Reconciliation Act of 1987. Pursuant to this statute, the Secretary of Health and Human Services was directed to establish a grant program to assist small and rural hospitals and local communities to plan and implement projects to modify the current mix of services provided by the local hospital. Each project is required to demonstrate methods of strengthening financial and managerial capability of the hospital. A hospital is eligible for a grant if it is a non-federal, not-for-profit, short-term general acute care hospital. Grants are limited to \$50,000 per year for a period not to exceed two years. A total of \$8.9 million has been appropriated for fiscal 1989 with regulations due to be adopted in March 1989.

Additionally, representatives of the Texas Department of Commerce and the Texas Department of Agriculture have advised there are various programs regarding economic development and agricultural diversification which may be available for use by rural communities.

Regional Resource Networks

The Task Force found that many small rural hospitals require ongoing, committed financial support from the communities they serve. When the community is unable or unwilling to provide sufficient financial support, sooner or later the hospital will close. Moreover, as a result of previous development initiatives and cost-based reimbursement practices, a number of Texas communities with reasonably close geographic proximity, have small, underutilized facilities.

The Task Force believes that best interests of Texas and its rural citizens are best served by enhanced utilization of smaller hospitals through expanded services based on local need, continued local

support, development of expanded local support bases, and enhanced development of referral networks for increased levels of care.

The basic problem, of course, centers on the more than three million Texans who are uninsured. When they become critically ill or injured in rural areas, resource networks must be in place to assure local providers are able to transfer those patients to a tertiary facility where they can get appropriate care.

It would be neither appropriate nor prudent to develop tertiary care services in areas with low population densities due to the high cost of specialized equipment and personnel needed for tertiary care. Yet, there is no mechanism to ensure reimbursement to those facilities expected to provide the care. The alternatives are limited, but a mechanism must be developed to reimburse providers for emergency care or access will continue to decrease for all Texans as more hospitals become unable to accept the critically ill and injured.

Findings

In addition to other findings discussed above, the Task Force finds the following regarding Financing Rural Health Care:

1. Medicare and Medicaid reimbursement systems do not adequately reimburse rural hospitals and rural physicians for the cost of patient care. The problem is exacerbated by the rural-urban differential, Medicaid qualification criteria, inadequate standard dollar amounts, and the burden of indigent and uncompensated care.

2. Hospitals with disproportionately high Medicare and Medicaid censuses are at a greater financial disadvantage.

3. Local initiatives to keep and develop health care resources are essential components for assuring adequate access to health care in rural areas. Complexities of forming a tax supported hospital district, ability of municipalities to contract for services, and the lack of a central repository for assistance frustrate local efforts.

4. Local tax support for hospital care is complicated by the complexities of the formation of tax supported hospital districts and the ability of municipalities to contract with local hospitals for services.

Recommendations

The Task Force makes the following recommendations regarding Financing Rural Health Care:

14.*RECOMMENDATION*: The Legislature should encourage Congress to eliminate the rural-urban reimbursement differential for hospitals and physicians. Special attention to the wage differential should be given when considering hospital reimbursement changes.

15.*RECOMMENDATION*: The Legislature should establish a Texas based Medicaid DRG methodology based on three peer groups for hospitals.

16.*RECOMMENDATION*: The Legislature should encourage Congress to study the feasibility of establishing a special mechanism for supplemental payments to hospitals where Medicare patient census exceeds 110% of the national average Medicare hospital census, perhaps through a sliding scale for those who provide progressively greater percentages of Medicare service.

17.*RECOMMENDATION*: The Legislature should direct the Texas Department of Human Services to examine the Disproportionate Share Program to determine how the methodology can be expanded to provide additional consideration for essential rural hospitals.

18.*RECOMMENDATION*: The Legislature should enact legislation to allow for expedited creation of a hospital district.

19.*RECOMMENDATION*: The Legislature should direct the Texas Department of Commerce and the Texas Department of Agriculture to examine existing finance programs to determine if and how these programs can be used to support capital requirements of small hospitals.

20.*RECOMMENDATION*: The Legislature should appropriate sufficient funds in the Medicaid program to increase the Standard Dollar Amount to \$1583.

21.RECOMMENDATION: The Legislature should direct the Texas Board of Human Services to instruct the Medical Care Advisory Committee to develop a methodology which will eliminate disparities between rural and urban physician rates in the Texas Medicaid program and seek sufficient funds to implement the methodology.

22.RECOMMENDATION: If the Legislature appropriates funds for Recommendation 21, it should also appropriate sufficient funds to reinstate the 10% budgetary reduction adjustment in the state Medicaid program.

23.RECOMMENDATION: The Legislature should encourage Congress to implement a resource-based relative value scale for physician payment.

24.RECOMMENDATION: The Legislature should facilitate the ability of municipalities to contract for specific hospital services with local hospitals.

Regulatory Restrictions

Health care services are regulated to insure the health and safety of all persons receiving care. Providers function in a multi-layered regulatory environment in which federal and state governments establish reimbursement rates for publically funded programs, minimum quality of care standards, and appropriate use patterns.

Compliance with detailed regulatory requirements is often administratively time consuming to providers, especially those operating with limited administrative support. Testimony presented to the Task Force primarily focused on four regulatory issues:

- regulatory administrative procedures
- service diversification
- due process
- hospital transfers

Regulatory Framework

Numerous governmental agents are responsible for assuring compliance with rules and regulations for health and human services programs in Texas. Only those associated with the four primary concerns presented to the Task Force are outlined below.

Health Care Financing Administration (HCFA).

HCFA is the federal agency responsible for establishing requirements which must be met by states for participation in federally funded programs including Medicare and Medicaid. HCFA contracts with several state agencies as well as private insurance companies to administer federally regulated programs in Texas.

Texas Department of Human Services (TDHS).

TDHS is the designated state agency responsible for implementing the state Medicaid program which is funded by both federal and state sources. TDHS is governed by the Texas Board of Human Services which is responsible for establishing rules governing participation in the state Medicaid program in compliance with federal and state mandates. Beginning January 1, 1989, TDHS will also administer peer review functions for the Medicaid program for quality assurance on hospital in-patient treatment and physician care. Federal legislation authorizes a 75% federal match if the Medicaid program uses the Medicare PRO agent (TMF) or meets other special criteria. In Texas, TDHS has opted to qualify for the 75% federal match under other criteria which qualifies TDHS staff as professional medical staff, thereby qualifying for the 75% federal match.

Texas Medical Foundation (TMF).

TMF is a peer review organization on contract from HCFA to administer quality assurance programs for in-patient hospital treatment and physician care in the Medicare program. TMF conducts monthly surveys on a set percentage of Medicare hospital admission medical records. Small hospitals may mail medical records in lieu of an on-sight survey. TMF also conducts reviews for private sector entities on a contractual basis.

Joint Commission for the Accreditation of Healthcare Organizations (JCAHO) and American Osteopathy Association (AOA).

These two organizations are private accreditation bodies which perform reviews of hospital operations to assure hospitals meet minimum standards which HCFA will accept in lieu of TDH review and are granted deemed status for participation in Medicare. Hospitals which opt for approval from one of these organizations are not subject to certain reviews by the Texas Department of Health unless a complaint is filed against the facility. The expense of private accreditation, usually performed every three years, is often beyond the budget of small hospitals.

Texas Department of Health (TDH).

TDH is under contract with HCFA to:

- conduct Medicare certification for hospitals not accredited privately;
- investigate complaints filed against Medicare certified or deemed status facilities (all but approximately seven (7) hospitals in Texas);
- investigate alleged violation complaints of the federal transfer act enacted by Congress in the Consolidated Omnibus Budget Reconciliation Act (COBRA 1986) for all hospitals in Texas regardless of licensure, and
- conduct annual validation reviews.

In addition, TDH is responsible for implementing rules and regulations adopted by the Texas Board of Health, including licensure and certification of:

- home health agencies,
- hospitals,
- nursing homes,
- abortion clinics,
- birthing centers,
- ambulatory surgical centers,
- radiation equipment and controlled substances,
- maternity homes,
- personal care homes,
- adult day care centers, and
- nine professional licensure and certification programs.

It should be noted some hospitals in Texas are not licensed through The Hospital Licensing Law administered by the Texas Department of Health. State and federally owned facilities are exempt and certain mental health hospitals are licensed through the Texas Department of Mental Health and Mental Retardation.

Regulatory Administrative Procedures

Providers presented a great deal of testimony indicating the surveys performed to assure compliance with federal and state programs are duplicative, numerous and administratively expensive.

Further, the volume of regulatory administrative procedures is particularly burdensome to small rural facilities due to limited administrative and nursing personnel.

While it initially appeared there was duplication of effort by survey teams, it was found each survey team is fulfilling a fundamentally different purpose. For example, one TDH survey team may examine compliance with life safety codes while another reviews dietary standards. Concurrently, TMF reviews medical records. Duplication does occur in some of the information requested on survey forms and when separate survey teams assess multi-service delivery operations.

Many providers suggested a method should be investigated to determine which processes could be streamlined and if procedures could be consolidated to reduce the number of surveys conducted. Where feasible, consolidation of survey forms requesting similar or identical information could reduce administrative time required and would yield more cost-effective program administration.

Service Diversification

Local needs for health services vary depending on demographics, economics, access to tertiary care, and other factors. For example, upon assessing local needs, it may be found there are sufficient acute and long-term care services, but little or no adult day care, respite care or hospice care to serve the needs of the elderly. Additionally, a strong need for maternal and child health care may be found. Alternatively, the community may have adequate access to maternal and child health care but lack long-term care beds.

Many rural areas have hospitals on the verge of closure but find a general scarcity of local health care services. Alternatives which would allow easier access for using empty acute care hospital beds to provide additional types of services should be explored and developed. If alternatives can be developed, they could provide for locally

determined needs and, at the same time, utilize existing structures more effectively.

A primary impediment to a hospital's plan to diversify service delivery is each service has separate regulations which must be met independently. Consideration for multiple services being provided at a central base with a core staff is not currently permissible. This can result in duplicate administrative records and procedures as well as duplicate staff requirements. Requirements for independent nursing staffs pose particular problems because nursing personnel are costly and difficult to recruit. Costs associated with meeting several, diverse regulatory requirements may be prohibitive for a small rural facility.

The Task Force heard an example of one hospital's difficulty in complying with separate regulations when it attempted to provide acute care services in one wing and long-term care in the other. It was necessary to administratively separate the two wings of the hospital even though they were served by a single hall with a central nursing station. In order to use the same physical therapist for both ends of the hall, contracts had to be executed between the two services because of requirements to be administratively separate.

One relatively restrictive federal program does exist which allows diversification for a limited number of small hospitals. This is the "swing bed" option available to certain small rural hospitals which meet Medicare certification. However, due to the limited number of patients qualifying for Medicare nursing home care, low reimbursement rates, limited Medicare nursing home care coverage, and personnel requirements (such as services of a social worker and an activities director), several hospital administrators state this program was too costly to operate. Although a "swing bed" program proposal has been placed before the Texas Board of Human Services, it has not been adopted for incorporation into the Texas Medicaid program. The ability to use "swing beds" for Medicaid patients would potentially reduce the daily cost per patient to a more manageable level.

A major portion of nursing home care in Texas is funded through the Texas Medicaid Program. Due to current restrictions limiting additional Medicaid long-term care beds imposed by the Texas Board of Human Services, use of empty acute care beds in many rural areas is effectively prohibited.

It should also be mentioned that in rural areas, provision of multiple services at the local hospital is not customary. Local citizens may not think of "their hospital" as the place to get well baby care, prenatal care or nursing home care. As well, hospital boards may not have considered it a function of the hospital to provide these services. At a time when rural communities are losing or are threatened with loss of *all* health services, alternatives should be explored.

Due Process

Participants in regulated programs should be afforded an opportunity through due process proceedings to respond to any allegations of non-compliance. State agencies regulating health and human services in Texas have established procedures for assuring due process under state mandate. Concerns presented to the Task Force included appropriate representation in peer review, inconsistent regulatory interpretation and federal programs which exclude due process considerations.

Regarding peer review issues, providers expressed concern for assuring appropriate representation of physicians on survey teams reviewing medical procedures and activities. Any review of medical procedures should include a practicing physician.

According to testimony, it also is important to have reviews conducted by practicing physicians familiar with the specialty, resources and circumstances particular to any specific practice setting. For instance, review committees assessing quality of care provided by a neuro-surgeon in a tertiary care setting should include a physician familiar with providing those procedures in a similar environment.

Likewise, a rural family practitioner should be reviewed by a physician familiar with family practice in a rural setting, not a sub-specialist practicing in an urban environment. A practitioner in a small rural community may not have access to certain high-tech procedures customarily available at a moment's notice in an urban tertiary setting and should not be judged by that standard.

A related due process concern arose in the peer review process conducted by the Texas Medical Foundation. TMF evaluates the performance of physicians and hospitals on a three percent sample of Medicare admissions, regardless of hospital size. As a result, small rural hospitals, with their characteristically higher proportion of Medicare admissions, had a disproportionate number of Medicare cases reviewed. Additionally, small rural hospitals were reviewed under the same standards as large urban hospitals without regard to the different intensity of care available in rural areas. As a result, rural physicians and hospitals were more likely to be sanctioned by TMF than were their urban counterparts.

TMF has recognized this difficulty with its procedures and has incorporated a physician representative of the size, locality and specialty of the hospital setting and physicians being reviewed to assure appropriate review.

As mentioned previously, the Texas Department of Human Services is establishing a peer review process for Medicaid similar to the one performed by the Texas Medical Foundation for the Medicare program. The Task Force finds it important for peer review to be conducted by physicians representative of the size, locality, and specialty of the hospital setting and physicians being reviewed.

Testimony also was presented to the Task Force indicating regulations were being interpreted inconsistently by survey team members at the Texas Department of Health. According to testimony, inconsistencies are primarily a result of very general directives from federal rules subject to differential interpretation without further definition by the Department. Representatives of the Department

recognized this difficulty prior to organization of the Task Force and a document is being developed which will further clarify definitions of regulatory meaning.

The Task Force concludes these concerns are currently being addressed by the Texas Department of Health. The Task Force does, however, urge the Texas Department of Health to address these concerns and assure consistent interpretation of its regulatory mandate.

Finally, TDH and providers encouraged the Task Force to recommend due process considerations be incorporated into the Medicare and Consolidated Omnibus Budget Reconciliation Act (COBRA) rules addressing conditions of participation and patient transfer by hospitals participating in Medicare. This is especially important since current rules require a notice of noncompliance be published in a local newspaper when a citation is issued without the recourse to review or appeal. Unsubstantiated allegations published in newspaper notices can result in unwarranted loss of community confidence.

Hospital Transfer

In 1985, the 69th Texas Legislature passed an amendment to the Texas Hospital Licensing Law (Article 4437f, V.T.C.S.) establishing minimum standards concerning transfer of patients from one hospital to another. This legislation is commonly referred to as the "Transfer Act."

The Transfer Act was developed in response to problems associated with medically inappropriate transfers of patients and a phenomenon popularly termed "patient dumping." The terminology refers to situations where a patient is sent or referred to another hospital (usually a publicly supported hospital) due to inability to pay. Not only were patients allegedly "dumped" because of lack of resources, significant evidence was presented to the Legislature indicating

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patients were sometimes transferred in an unstable condition which was life threatening. Passage of this Act and rules promulgated by the Texas Board of Health, defined a specific framework under which transfer of patients could be undertaken and require:

- transfer of patients who have emergency conditions or who are in active labor be for medical reasons only;
- transfers not be predicated upon arbitrary, capricious, or unreasonable discrimination;
- evaluation by a physician except when this delay would be to the detriment of the patient; and
- appropriate stabilization of the patient prior to and during transfer.

The act requires all transfers between hospitals be accomplished in a medically appropriate manner from physician to physician, and hospital to hospital. It requires hospitals to have an established transfer policy and differentiates between emergency and non-emergency situations. Prior to transfer, transferring physician and hospital must acquire acceptance of the patient by the receiving physician and hospital. The act does *not* require acceptance of a patient by receiving physician or hospital.

Following implementation of the Transfer Act, there have been numerous complaints, especially from rural providers, about what has come to be known as "reverse dumping." This terminology refers to the refusal by receiving secondary or tertiary care hospitals to accept patients because of the patient's inability to pay.

Some delays in response to transfer requests, possibly based on the patient's ability to pay, are a more passive form of "reverse dumping." In emergency situations, significant delays could place the patient's life in jeopardy, impair bodily functions, or result in dysfunction of bodily organs or parts.

Large public hospitals, often recipients of indigent patients, consider their financial viability to be at risk from non-paying patients and assert transfer patients often come from outside their mandated service area. Additionally, they state indigent patients are often

transferred to public hospitals, whereas paying patients are transferred to not-for-profit or proprietary facilities.

Solutions to "reverse dumping" problems are not easy. Recently, the Texas Board of Health amended its rules to provide limits to response times on transfer requests for patients who have emergency conditions or who are in active labor. Although this will alleviate some delays in acquiring the increased level of care required, it is not expected to make significant impact on the overall problem. The Board also discussed the need to get regulators, fiscal agents, third-party payors, providers, consumers, legislators, and other interested parties together to evaluate current transfer practices and develop statutory and regulatory solutions necessary to correct existing problems.

Rural hospitals are particularly vulnerable because they often don't have facilities, equipment, transportation services, and communication networks to provide more than minimal care prior to transfer. It is imperative that any impact on rural hospitals be considered while developing these solutions.

Findings

In addition to findings discussed above, the Task Force finds the following regarding regulatory restrictions:

1. Regulatory survey practices and forms are complex and administratively burdensome, especially for rural providers with limited administrative and nursing personnel.
2. More flexible regulatory practices which consider special conditions in rural areas, where feasible, would promote access to health care services.
3. Several regulatory barriers limit or prohibit diversification of services by rural providers.

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4. Certain programs do not have due process procedures to assure appropriate representation under current rules.

5. Patient transfer practices which result in patient "dumping" or "reverse dumping" jeopardize quality of care to Texans.

6. Solutions to "reverse dumping" problems are not simple and will require input from rural and urban Texans and must have adequate funding.

Recommendations

The Task Force makes the following recommendations regarding Regulatory Restrictions:

25. *RECOMMENDATION:* The Legislature should designate the Texas Department of Health to serve as lead agency in an interagency effort among all agencies which regulate provision of health care to identify and eliminate any duplication of regulatory surveys by coordinating survey forms, where feasible, and to implement measures to insure consistent interpretation of rules and regulations by survey teams. This interagency group should also establish a mechanism for addressing special considerations to assure access to care for rural populations. Recommendations should be presented to the Legislature by September 1, 1990.

26. *RECOMMENDATION:* The Legislature should assure that no additional regulatory proposals relating to hospitals or hospital personnel be enacted by the Legislature without thorough study of the economic impact on rural hospitals.

27. *RECOMMENDATION:* The Legislature should encourage development of multi-purpose health care facilities and service diversification at existing facilities in rural areas to facilitate utilization of existing facilities. The Legislature should also encourage appropriate state agencies to assist seeking any waivers necessary to facilitate implementation of pilot diversification projects.

28. *RECOMMENDATION:* The Legislature should encourage the Texas Board of Human Services to expand Medicaid coverage to include "Swing Bed" care.

29. *RECOMMENDATION:* The Legislature should urge the Texas Board of Human Services to develop a program to facilitate utilization of unused hospital beds by increasing flexibility of regulatory restrictions on licensing of long-term care beds.

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30. *RECOMMENDATION*: The Legislature should encourage the Department of Human Services to develop a quality assurance and utilization review program for Medicaid hospital admissions which assures the utilization of practicing physicians that are representative of the size, locality, and specialty of the hospital setting and the physicians being reviewed.

31. *RECOMMENDATION*: The Legislature should encourage the Texas Department of Health to include a practicing physician on survey teams reviewing medical procedures and activities.

32. *RECOMMENDATION*: The Legislature should encourage the Texas Department of Health to continue efforts to assure due process provisions are incorporated into rules governing hospitals participating in Medicare and the Consolidated Omnibus Budget Reconciliation Act (COBRA) governing patient transfers.

33. *RECOMMENDATION*: The Legislature should work with regulatory agencies, providers, and other interested parties to develop a program to eliminate "reverse dumping" in order to assure the ready availability of an appropriate level of care for all persons in Texas. The program should include an appropriate funding mechanism.

34. *RECOMMENDATION*: The Legislature should develop a mechanism to ensure reimbursement for care of patients requiring transfer to a different facility for an increased level of care.

Obstetrics and Medical Malpractice Liability

To begin life with the greatest chance of survival and opportunity to develop into healthy, productive adults, our smallest and most vulnerable Texans must have adequate health care before and during birth. However, many pregnant women in rural Texas are unable to assure their babies this chance because the availability of obstetrical (OB) services is jeopardized by decreasing numbers of physicians and hospitals willing or able to provide such care.

Summary of Births and Major Risk Factors Among Rural Women

Many factors increase the risk of morbidity and mortality to infants. Inadequate prenatal care and births to teenagers are significant among these factors. The reader is referred to the Maternal and Infant Health Improvement Act Second Year Evaluation (TDH 1988) for an in-depth discussion of high-risk pregnancies in Texas.

In 1987, there were:

- **48,266 infants born to rural women residing in 205 non-metropolitan counties;**
- **17,885 infants born to rural mothers who received late or no prenatal care;**
- **3,620 births to rural teenagers under 18 years of age or 10 births per day to young teens (substantially higher than the corresponding urban rate);**
- **9 low birth weight rural infants born each day or 3,285 for the year;**
- **5 rural infant deaths every 4 days; and**
- **24% of all rural births to residents of counties without hospital obstetrical services.**

The information summarized above and in the table on the next page indicates the extent of the need for prenatal and obstetrical care in rural areas. These data are detailed in the Appendix for 1987 by county.

**Maternal and Infant Characteristics
Texas Residents, 1987**

Characteristic	Non-metro. Counties	Metropolitan Counties	State Total
No. Live Births	48,266	252,561	301,827
Percent Low Birth Weight*	6.7	7.0	6.9
Percent Mothers < 18 Yrs.	7.5	5.9	6.2
Percent Mothers > 34 Yrs.	5.0	6.5	6.2
Percent Single Mothers	16.3	19.1	18.7
Percent Late or No Prenatal Care**	37.5	31.5	32.5
Percent Out of Hospital Births	2.9	2.6	2.7
Perinatal Mortality Rate 5 Yr. Average	14.9	14.7	14.7

* The variable low birth rate includes babies that weighed 2500 grams or less at birth.

** Late or no prenatal care includes births to mothers who received no prenatal care or who initiated care after the first trimester (> 12 wks.)

Sources: Live Birth Statistical File 1983-1987; Death Statistical Files, 1983-1987; Fetal Death Statistical Files, 1983-1987, Bureau of Vital Statistics, Texas Department of Health.

Prepared by: Data Analysis Section, Bureau of Maternal and Child Health, Texas Department of Health

Decreasing Availability of Obstetrical (OB) Services

As Texas hospitals close, hospitals discontinue obstetrical services and physicians cease to deliver babies, more pregnant women must travel greater distances to deliver their babies. Long distance obstetrical care is inconvenient, costly and potentially life threatening for mother and infant.

Testimony to the Task Force indicated an accelerating number of rural counties without obstetrical care. Because service elimination appeared to be escalating rapidly and the best available data did not reflect the reported present status, the Senate Committee on Health and Human Services conducted a telephone survey in January 1989 to determine which rural counties currently have no obstetrical services. What emerged from the survey is very important, and quantifies testimony to the Task Force.

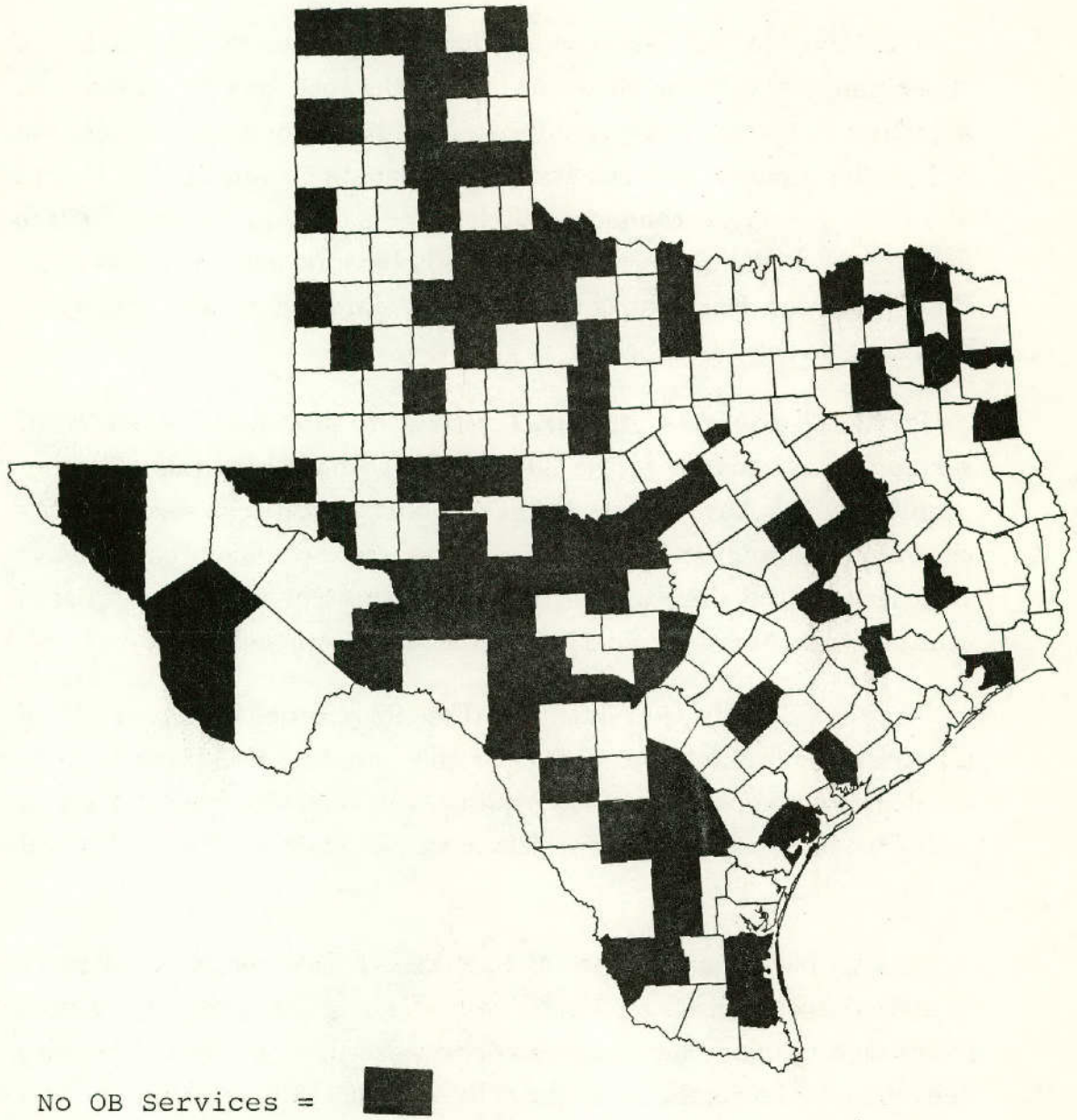
First, ***92 counties in rural Texas do not have obstetrical services.*** In addition to the 50 counties without hospitals, 42 other counties which have hospitals do not offer obstetrical services. As shown on the map on the following page, several major "holes" leave vast areas of the state with little or no obstetrical coverage. A list of counties without OB services is included in the Appendix.

The 11,492 births to residents of these 92 counties represent 24% of all rural Texas births in 1987. Of this number, 863 were born to residents of counties without hospitals, the remainder being born to residents of those counties which have hospitals but no obstetrical services.

In addition to an absence of hospital OB services, none of these counties have licensed birthing centers. Therefore, pregnant women must migrate to another county to deliver except for certain emergency deliveries in hospitals, midwife deliveries, or help from family and friends - increasing the risk to mother and infant in high-risk cases.

Second, it was found that in some counties where OB services were available, services were considerably reduced due to one or more

TEXAS COUNTIES WITH NO OBSTETRICAL SERVICES JANUARY 1989



hospitals terminating OB services. In some of the more densely populated counties where residents had a choice of two or more facilities for delivery in 1987, only one facility is available this time. Curtailed services were also indicated by comments that many hospitals had only one physician accepting OB patients now, where there had been two or more in previous years.

The specific number of physicians curtailing services was not determined by this survey because it was not designed to elicit these data. However, a 1988 survey conducted by Opinion Analysts, Inc., for the Texas Medical Association, found 61% of general and family practitioners and 25% of OB/GYNs have limited or eliminated OB procedures. Additionally, 45% have done the same for high risk obstetrics.

Third, although hospitals were not asked why services were eliminated, many offered a reason. In every explanation given, *termination of services was attributed to medical malpractice issues*. Some state they were able to keep services only by subsidizing physician malpractice rates.

Finally, existing programs for indigents are threatened because many physicians refuse to take women in these programs. For example, the Maternal and Infant Health Improvement Act (MIHIA) established a program to concentrate prenatal and birthing resources on high-risk pregnant women. Program goals are to decrease preventable infant mortality, reduce the incidence of low birthweight neonates and provide delivery services in the hospital setting most appropriate to the needs of the patient. The primary cost-effective result of this program is reduction of neonatal intensive care. Neonatal intensive care for the very low weight infant is among the most costly of all hospital care.

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A 1986 March of Dimes study shows that Texas saved over \$22 million in 1986 by providing prenatal care for more than 50,000 women as shown below.

Amount of Neonatal Intensive Care Saved	\$ 29,338,571
Amount of Long Term Care Saved	4,380,346
Amount of Special Education Saved	1,076,079
Gross Savings	\$ 34,794,996
Less Cost of Prenatal Care Provided	<u>12,646,250</u>
Net Savings in 1986	\$ 22,148,746

Lack of physician participation in the MIHIA program, however, threatens its viability. Primary reasons for lack of participation are related to the malpractice issues which follow. Currently, 37 Texas counties have no prenatal care as listed in the Appendix.

Although data are not available which indicate how many physicians provide services to indigent women, a survey of 51 west Texas counties conducted by the MIHIA Program at Texas Tech University in 1989 shows the following:

- **22 of 51 counties had no physician providing obstetrical services;**
- **80% (49 physicians) of OB care available is from general/family practitioners;**
- **68% (42 physicians) of physicians serve Medicaid women; and**
- **57% (37 physicians) of physicians serve MIHIA women.**

(Also see table in Appendix)

Medical Malpractice Issues

Testimony to the Task Force showed the critical shortage of obstetrical care in rural Texas is a direct result of a shortage of physicians providing obstetrical services. As discussed in other sections of this report, recruitment of physicians to rural areas is generally difficult or impossible. While this limits the number of physicians potentially able to provide obstetrical services, it does not explain why practicing physicians in rural areas are getting out of the "baby business." Physicians stated the primary reasons for eliminating obstetrical practice:

- rapidly escalating cost of medical malpractice insurance, and
- perceived higher risk of medical malpractice actions for emergency and indigent obstetrical care and extended liability period for alleged negligence occurring during a delivery.

Cost of Medical Malpractice Insurance

Dramatically escalating costs and decreased availability of coverage of medical malpractice insurance are principal reasons why physicians and hospitals are eliminating obstetrical services in rural Texas. Both Texas and the nation have experienced major increases in medical malpractice insurance premiums for physicians and hospitals since 1982.

In general, two medical specialties deliver babies: obstetrician/gynecologists and general/family practitioners. An analysis of 1986 obstetrician distribution data found a majority of rural counties do not have obstetricians. Lower population density counties are served by general and family practitioners. Therefore, obstetrical service loss in these counties is due to family practitioners terminating services.

Based on observation of data in *Migration for Birth - 1986*, by the Texas Department of Health, it appears that a minimum of approximately 175 deliveries per year are necessary to attract an obstetrician to a rural county. However, population alone will not

necessarily assure obstetrical services because even the higher density rural counties are experiencing diminished services due to both general/family practioners and obstetricians ceasing to deliver babies.

Estimates of the American College of Obstetricians and Gynecologists (ACOG) indicate malpractice rates for this speciality have increased nationally by 238% over the last six years. An ACOG survey of obstetricians indicated premiums have increased from an average of \$10,946 in 1982 to \$37,915 in 1987. In Texas, malpractice rates have mirrored or exceeded the national experience. Comparative rate studies for three levels of coverage from 1980 to 1988 for five liability insurance companies in Texas are set forth in the Appendix: family practice with minimal deliveries, obstetrics/gynecology specialty and family practice with no deliveries.

Although the percentage increases in rates for general and family practice with OB coverage appear to have increases ranging from 149% to 1592%, the lower figures probably significantly underestimate true cost to providers. This is due to a practice insurance carriers call "consent to rate." "Consent to rate" is an agreement letter sent to providers wherein the provider agrees to waive the State Board approved rate and pay a higher rate in order to get insurance. According to testimony given to the Task Force, this practice is widespread throughout the state.

Comprehensive data to identify actual charges of medical malpractice insurance were not available to the Task Force. Several physicians testified to rates exceeding even the highest published rates, but these data could not be quantified for the entire state. A "weighted average cost" of the component charge for the OB portion of coverage was estimated for general/family practitioners. The method of calculation is shown in the Appendix.

**Estimated Weighted Average Cost:
OB Component for General and Family Practice**
(*\$1,000,000/1,000,000 Coverage*)

Est. Annual Cost:	\$9,011
45 deliveries/year	\$202 per delivery
25 deliveries/year	\$360 per delivery
10 deliveries/year	\$911 per delivery

Although these estimates are rough and can be considered a minimum, they are too costly for rural physicians with small obstetrical practices. This particularly discourages physician participation in MIHIA and Medicaid programs established for indigent women. The statewide average Medicaid reimbursement for uncomplicated vaginal deliveries is \$497, but many rural physicians receive as little as \$280. If a physician does participate in Medicaid or MIHIA, the high costs of malpractice premiums will be passed on to private patients in higher costs per delivery.

Testimony presented at public hearings indicated many rural physicians have curtailed or eliminated obstetrical practice rather than pay higher medical malpractice liability insurance premiums. Moreover, physicians stated the increase in medical malpractice liability insurance rates discouraged participation in the MIHIA and Medicaid programs. Testimony from TDH and MIHIA data from several west Texas counties confirmed the lack of physician participation in the MIHIA program.

The insurance industry has generally taken the position that increased premiums are justified by substantial increases in damage awards and have suggested a broad range of tort law reforms as a remedy. Among the legislative reform proposals are enactment of "John Doe Statute," which would narrow the number of defendants in

a tort action, and passage of legislation to permit installment payments of sizable damage awards.

In an effort to corroborate the need for rapid increases in medical malpractice insurance rates, the Task Force appointed a subcommittee which enlisted the Texas State Board of Insurance (SBOI) to investigate the matter. The subcommittee conducted three public hearings and requested information from the SBOI and the State Board of Medical Examiners. Additionally, information was requested from the five insurance companies writing medical malpractice insurance policies in Texas, including the Texas Medical Liability Trust. Requested data included information pertaining to earned premiums, paid losses, incurred but not reported loss reserves and related information. The information was not provided to the Task Force, but current law requires all insurers selling medical malpractice policies in Texas to file this information with the SBOI by May 31, 1989.

In addition, the subcommittee solicited testimony from insurance companies regarding the following underwriting criteria:

- whether the case mix of a particular physician is taken into account in determining premiums;
- whether consideration is given to a physician's previous claims experience and continuing medical education participation when determining premiums; and
- whether a procedure exists for appealing premium rate increases.

The insurance companies declined to provide testimony or information on these issues.

With the exception of the Medical Protective Insurance Company and the Joint Underwriters Association, none of the insurers complied with numerous requests for information made by the subcommittee. Additionally, none of the insurers have provided the essential loss reserve information. The information below was generated independently of the insurers, but not verified by the SBOI.

**All Companies Combined
Texas Total Limits Medical Professional Liability Experience
Physicians & Surgeons Only**

Year	Earned Premiums	Paid Losses	Loss Reserves	Incurred Losses	Loss Ratio
1980	\$39,006,180	\$5,524,979	\$12,608,571	\$18,133,550	.465
1981	40,864,546	8,861,881	18,572,202	27,434,083	.671
1982	43,670,967	12,662,679	17,598,087	30,260,766	.693
1983	46,999,290	22,746,317	19,467,117	42,213,434	.898
1984	52,531,930	22,899,689	41,031,911	63,931,600	1.21
1985	63,984,952	42,857,162	65,741,031	108,598,467	1.69
1986	81,037,401	48,534,227	36,571,196	85,105,423	1.05
1987	105,641,214	72,701,663	50,582,755	123,284,418	1.16

Source: Texas State Board of Insurance, 1988.

When asked by the Task Force whether reserves for future losses are justified, the Chief Actuary of the SBOI testified medical malpractice insurance companies are not required to file loss reserve information, which would enable the SBOI to independently verify justification of reserve levels. He further testified such information would be very helpful in determining the merits of rate increase applications. All relevant claim-sensitive information comes from the insurance companies individually or the Insurance Service Office, an insurance industry financed entity. In virtually every instance the reserve for future losses, distinguished from claims paid, is the justification offered for premium increase request. Thus, this information is central to solving the problem of rising medical malpractice rates.

The Chief Actuary also testified companies routinely circumvent rate regulation through the "consent to rate" practice discussed previously, an implied threat of dropping the physician's insurance coverage. Finally, he was skeptical of efforts to reform present insurance practices, stating companies would simply cease to write medical malpractice policies in the state.

The Task Force understands the importance of establishing reserves for future losses and that this practice is not only acceptable, but essential. Since the SBOI, the agency responsible for regulating the industry, has been unable to obtain the information and independently verify its accuracy, it is imperative that the SBOI have the authority to require this information. Otherwise, the insurance industry effectively controls the rate-making process by denying information necessary to the SBOI.

Perceived Higher Risk

Another reason rural physicians stop providing obstetrical care is the widely held perception that this practice subjects them to a greater liability risk from negligence actions. General and family practitioners who do not specialize in obstetrics feel particularly vulnerable.

Physicians who must deliver babies under emergency conditions stated they are especially at risk. This is due to several factors. When a patient in active labor shows up at a small rural hospital and the physician has no previous medical history upon which to base treatment decisions, the physician is faced with two choices: deliver the baby without knowledge of any complications which might be expected based on medical history or transfer the patient to a secondary or tertiary facility, and potentially violate state law.

This situation is further complicated by indigent patients who have had no prenatal care and who frequently present on an emergency basis in active labor. These mothers are at the greatest risk of needing tertiary care for a complicated delivery and low birth weight infant. Although the patient may need tertiary care, if in active labor it may be impossible to transfer without significant additional risk to mother and baby.

Because they are required to render treatment under the Emergency Services Act (Art.4438a, V.T.C.S.) and are held responsible for circumstances beyond their control, physicians believe such

situations, particularly emergency delivery situations, warrant special liability consideration.

Finally, present Texas law provides for the tolling of the statute of limitation for torts against minors until their eighteenth birthday. In other words, the statute of limitations on an alleged claim can begin as late as the minor's eighteenth birthday, thereby holding the potential claims period open for as long as twenty years. This allegedly causes both higher malpractice insurance premiums and unwillingness of physicians to provide obstetrical services. Rural physicians state they are required to carry medical malpractice liability insurance for 20 years after their last delivery - even if they have retired.

Findings

In addition to the other findings discussed above, the Task Force makes the following findings with regard to Obstetrics and Medical Malpractice Liability:

1. Texas rural physicians are limiting their obstetrical practice.
2. Lack of obstetrical care in rural Texas seriously jeopardizes the health of pregnant women and infants.

Recommendations

Based on the work of the Subcommittee on Obstetrical and Medical Malpractice Liability and testimony to the Task Force as a whole, the Task Force adopted the following recommendations in this section. Some were adopted by consensus, others by majority vote with dissent.

35.RECOMMENDATION: The Legislature should establish a Committee to examine past medical malpractice insurance rate increases to determine the appropriateness of the increases. The investigation should be based on Texas experience and data, and address individual specialty classifications and not be strictly limited to the overall or entire medical community.

Issues which should be examined include:

- independently verifying the "Loss Reserves" that each company supplies to the Texas State Board of Insurance;
- changing the rate requests from a company-by-company basis to an industry basis;
- establishing a single rate structure for all of the companies, including deductibles for hospitals and physicians with no prior claims paid, or who are upgrading skills through certified continuing education programs;
- requiring all companies selling general liability insurance within Texas to sell a specified amount of medical malpractice insurance;
- implementing an appropriate appeals process for providers to challenge rate increases; and
- establishing a Peer Review Organization for OB/GYNs to monitor physician standards for the specialty.

36.RECOMMENDATION: The Legislature should encourage the Texas State Board of Insurance to implement a moratorium on medical malpractice rate increases subject to conclusion of analysis of claims experience and reserve information by classification by medical specialty as recommended above.

37.RECOMMENDATION: The Legislature should encourage the Texas State Board of Insurance to examine the feasibility of calculating medical malpractice premiums based upon a case mix formula.

38.RECOMMENDATION: The Legislature should consider alternatives to provide a limited safeguard or immunity from liability to hospitals and physicians not acting in a willful or wanton manner or with reckless disregard of the rights of the patient if:

- the patient presents in active labor, and
- the attending physician has no previous obstetrical history with the patient for that pregnancy.

39.RECOMMENDATION: The Legislature should consider enacting "John Doe" legislation to eliminate unnecessary defendants being co-named in a lawsuit. This legislation should include measures which would delay the running of the statute of limitations until discovery, which identifies potentially liable defendants, is completed.

40.RECOMMENDATION: The Legislature should direct the establishment of a system of care within the existing framework of administrative agencies in order to expand the accessibility to nutritional programs and other necessary prenatal care.

41.RECOMMENDATION: The Legislature should encourage the Texas State Board of Insurance to promulgate rules to prohibit the "consent to rate" practice currently being utilized by some carriers for medical malpractice insurance in Texas.

42.RECOMMENDATION: When there is a finding in a medical malpractice case that the provider is liable in whole or part for future damages and the judgment or award is in excess of \$100,000 for such future damages, such payment, including interest at post judgment rate should be paid periodically to the injured party or estate. Future medical expenses should be paid periodically for the duration of the lifetime of the injured party, regardless of the life expectancy at the

time of trial or settlement. At the death of the injured party, the periodic payments for future medical shall cease.

43.*RECOMMENDATION*: Physicians and other health care providers who provide obstetrical care for indigents (including Medicaid & MIHIA) or who are performing services under contract or as agents or employees of those under contract with the state or its agencies should be placed under the umbrella of the limited liability of the Texas Tort Claims Act.

44.*RECOMMENDATION*: In a cause of action involving injury to a minor, the statute of limitations should not begin to run until the minor reaches eight years of age, at which time the statute of limitations for personal injury to the minor is two years.

Center For Rural Health Initiatives

The health care delivery system in rural Texas is rapidly collapsing. A multitude of complex and diverse forces have merged, resulting in hospital closures. Physicians are no longer providing needed services and, most importantly, Texans are being deprived of needed health services.

Many efforts to address local and regional problems should be commended. Some local governments have recognized the need to form partnerships in order to use resources effectively. Several universities have developed major programs to address rural needs. State agencies have committed resources to programs affecting major problems in rural areas.

Even with these efforts, attempts do not address issues statewide and results are fragmented. Health care continues to become increasingly inaccessible and unavailable for rural Texans. Because of the scope of the problem, the Task Force finds establishment of a statewide Center of Rural Health Initiatives is essential to the viability of health care in rural Texas.

Mission

The Center should provide a unified state effort to facilitate the development of locally-initiated partnerships. It should utilize local, regional, state, federal and private resources to strengthen, stabilize and rebuild the rural health care delivery system in Texas. The Center's strategy should integrate services and programs into an overall system which will assure availability and access to quality health care for all rural Texans. Due to the geographic and demographic diversity within Texas, special attention should be given to research and implementation of innovative models which will maximize area resources.

Recommended Activities

The Center should assume a leadership role in consulting with rural communities regarding current needs, market analysis and access to governmentally funded initiatives. It should serve as lead component in an interagency effort which should include state agencies, universities, medical schools, and private entities. It is recommended the Center receive initial seed money through state appropriations, but that additional revenues and expenses be met through fees for services, gifts and grants. Specifically, the Center should perform the following functions:

1. Develop networks and systems of care in all regions of Texas.
2. Operate fee-for-services programs to assist local communities in examining and developing health service alternatives.
3. Operate reduced cost physician recruitment services.
4. Establish and/or work with existing group purchasing programs to provide economies of scale for small purchasers.
5. Assume a leadership role in working or contracting with state and federal agencies, universities, private interest groups, foundations, and offices of rural health to develop rural projects and maximize use of existing resources without duplicating existing efforts.
6. Promote and develop diversified and innovative health care service models in rural areas.
7. Encourage the use of advanced communications technology, such as instructional television, to provide education and continuing education in rural areas.
8. Assist the establishment of intergovernmental efforts by educators, employers, state agencies and business to increase public awareness and involvement in health care decisions.
9. Work with appropriate regulatory authorities to streamline regulations and assist development of multi-purpose health centers.
10. Promote and develop community involvement and community support in maintaining, rebuilding or diversifying local health services.
11. Assist local communities to locate and access alternative funding sources.

12. Develop and maintain a rural health resource library.
13. Organize state and regional rural health conferences.
14. Promote health care as a component of the Texas economy and work with state agencies to maintain and collect a timely data base.
15. Assist hospitals and communities to apply for federal funds, including Federal Transition Grants and Rural Health Clinics Act funds.
16. Actively participate with state and federal agencies to target programs to rural areas.
17. Encourage the development of regional emergency transportation networks.
18. Conduct and promote research on rural health services topics.

Special Issues:

The status of the rural health care delivery system will require comprehensive and far-reaching efforts to stabilize and rebuild it. This can only be accomplished through cooperation among state agencies, communities, policymakers and private interests so innovative programs and data can be developed. In this regard, the Task Force makes the following recommendations related to special issues identified during hearings:

45.RECOMMENDATION: The Legislature should direct the appropriate state agencies to cooperatively develop a comprehensive assessment of the current health care delivery system to provide appropriate data to enable future decisions based on identifiable and comparable performance measures.

46.RECOMMENDATION: The Legislature should encourage model local initiative programs such as those developed in Fisher and Swisher Counties which are based on public/private partnership resource teams which address communities' rural health and economic development needs.

47.RECOMMENDATION: The Legislature should direct appropriate state agencies to focus special attention on the threat to rural residents' health and safety, from such causes as groundwater contamination, toxic chemicals, unsafe farm machinery, job stress and lack of basic services. The Legislature should direct these agencies to develop and implement preventive, cost-saving programs which protect public health.

Federal Issues

Consistently, evidence and testimony presented to the Task Force directed attention to the overriding impact which federal initiatives have on state problems.

Discussion of many federal issues can be found throughout the report, precluding the need for further discussion here. However, the Task Force found some federal issues warranted unique attention and chose to address them separately through direct recommendations.

48. *RECOMMENDATION:* Congress should assist hospitals and physicians in rural areas by raising the Medicare payment level in rural areas to equal the payment level in urban areas, thereby obtaining economic parity. It should eliminate reimbursement disparities to rural hospitals, by ensuring that differences in DRG payments are based on true differences in the cost of providing services.

49. *RECOMMENDATION:* Congress should encourage physicians, nurses, and allied health professionals to practice in rural areas and facilities by enacting loan repayment programs and supporting rural education programs.

50. *RECOMMENDATION:* Congress should modify certain requirements under the Medicare Conditions of Participation which lack flexibility required in rural hospitals and fail to recognize their special needs and capabilities.

51. *RECOMMENDATION:* Congress should provide sufficient reimbursement to receiving hospitals, through a special fund or risk pool to expedite the transferring of emergency patients from small and rural hospitals to hospitals providing specialty coverage.

52. *RECOMMENDATION:* Congress should provide sufficient funding to enhance communication and transportation linkages with more centrally located health resources and develop regional service networks.

53. *RECOMMENDATION:* Congress should support and expand development of coordinated state and local emergency medical service systems.

Appendix

Appendix • 1

METRO (n=49)

NON-METRO (n=205)

County Code	County Name	County Code	County Name	County Code	County Name	County Code	County Name		
14	BELL	1	ANDERSON	64	DIMMIT	132	KENT	194	RED RIVER
15	BEXAR	2	ANDREWS	65	DONLEY	133	KERR	195	REEVES
19	BOWIE	3	ANGELINA	66	DUVAL	134	KIMBLE	196	REFUGIO
20	BRAZORIA	4	ARANSAS	67	EASTLAND	135	KING	197	ROBERTS
21	BRAZOS	5	ARCHER	69	EDWARDS	136	KINNEY	198	ROBERTSON
31	CAMERON	6	ARMSTRONG	72	ERATH	137	KLEBERG	200	RUNNELS
43	COLLIN	7	ATASCOSA	73	FALLS	138	KNOX	201	RUSK
46	COMAL	8	AUSTIN	74	FANNIN	139	LAMAR	202	SABINE
50	CORYELL	9	BAILEY	75	FAYETTE	140	LAMB	203	SAN AUGUSTINE
57	DALLAS	10	BANDERA	76	FISHER	141	LAMPASAS	204	SAN JACINTO
61	DENTON	11	BASTROP	77	FLOYD	142	LA SALLE	206	SAN SABA
68	ECTOR	12	BAYLOR	78	FOARD	143	LAVACA	207	SCHLEICHER
70	ELLIS	13	BEE	80	FRANKLIN	144	LEE	208	SCURRY
71	EL PASO	16	BLANCO	81	FREESTONE	145	LEON	209	SHACKELFORD
79	FORT BEND	17	BORDEN	82	FRIO	147	LIMESTONE	210	SHELBY
84	GALVESTON	18	BOSQUE	83	GAINES	148	LIPSCOMB	211	SHERMAN
91	GRAYSON	22	BREWSTER	85	GARZA	149	LIVE OAK	213	SOMERVELL
92	GREGG	23	BRISCOE	86	GILLESPIE	150	LLANO	214	STARR
94	GUADALUPE	24	BROOKS	87	GLASSCOCK	151	LOVING	215	STEPHENS
100	HARDIN	25	BROWN	88	GOLIAD	153	LYNN	216	STERLING
101	HARRIS	26	BURLESON	89	GONZALES	154	MCCULLOCH	217	STONEWALL
102	HARRISON	27	BURNET	90	GRAY	156	MCMULLEN	218	SUTTON
105	HAYS	28	CALDWELL	93	GRIMES	157	MADISON	219	SWISHER
108	HIDALGO	29	CALHOUN	95	HALE	158	MARION	222	TERRELL
123	JEFFERSON	30	CALLAHAN	96	HALL	159	MARTIN	223	TERRY
126	JOHNSON	32	CAMP	97	HAMILTON	160	MASON	224	THEROCKMORTON
129	KAUFMAN	33	CARSON	98	HANSFORD	161	MATAGORDA	225	TITUS
146	LIBERTY	34	CASS	99	HARDEMAN	162	MAVERICK	228	TRINITY
152	LUBBOCK	35	CASTRO	103	HARTLEY	163	MEDINA	229	TYLER
155	MCLENNAN	36	CHAMBERS	104	HASKELL	164	MENARD	230	UPSHUR
165	MIDLAND	37	CHEROKEE	106	HEMPHILL	166	MILAM	231	UPTON
170	MONTGOMERY	38	CHILDRESS	107	HENDERSON	167	MILLS	232	UVALDE
178	NUECES	39	CLAY	109	HILL	168	MITCHELL	233	VAL VERDE
181	ORANGE	40	COCHRAN	110	HOCKLEY	169	MONTAGUE	234	VAN ZANDT
184	PARKER	41	COKE	111	HOOD	171	MOORE	236	WALKER
188	POTTER	42	COLEMAN	112	HOPKINS	172	MORRIS	238	WARD
191	RANDALL	44	COLLINGSWORTH	113	HOUSTON	173	MOTLEY	239	WASHINGTON
199	ROCKWALL	45	COLORADO	114	HOWARD	174	NACOGDOCHES	241	WHARTON
205	SAN PATRICIO	47	COMANCHE	115	HUDSPETH	175	NAVARRO	242	WHEELER
212	SMITH	48	CONCHO	116	HUNT	176	NEWTON	244	WILBARGER
220	TARRANT	49	COOKE	117	HUTCHINSON	177	NOLAN	245	WILLACY
221	TAYLOR	51	COTTLE	118	IRION	179	OCHILTREE	247	WILSON
226	TOM GREEN	52	CRANE	119	JACK	180	OLDHAM	248	WINKLER
227	TRAVIS	53	CROCKETT	120	JACKSON	182	PALO PINTO	249	WISE
235	VICTORIA	54	CROSBY	121	JASPER	183	PANOLA	250	WOOD
237	WALLER	55	CULBERSON	122	JEFF DAVIS	185	PARMER	251	YOAKUM
240	WEBB	56	DALLAM	124	JIM HOGG	186	PECOS	252	YOUNG
243	WICHITA	58	DAWSON	125	JIM WELLS	187	POLK	253	ZAPATA
246	WILLIAMSON	59	DEAF SMITH	127	JONES	189	PRESIDIO	254	ZAVALA
		60	DELTA	128	KARNES	190	RAINS		
		62	DE WITT	130	KENDALL	192	REAGAN		
		63	DICKENS	131	KENEDY	193	REAL		

HOSPITAL CLOSURES IN 1988

Milam Regional Medical Center, Cameron; 71 beds; Milam County
Horizon Hospital, Houston; 70 beds; Harris County
Robertson Regional Medical Center, Hearne; 33 beds; Robertson County
St. Anthony Center, Houston; 47 beds; Harris County
Whitcomb Memorial Hospital, Grand Prairie; 13 beds; Dallas County
Oakwood Family Hospital, Lubbock; 76 beds; Lubbock County
Taft Hospital, Taft; 88 beds; San Patricio County
Gaston Episcopal Hospital, Dallas; 104 beds; Dallas County
King William Health Care Center, San Antonio; 35 beds, Bexar County
Shiner Hospital, Inc., Shiner; 30 beds; Lavaca County
Comfort Community Hospital, Comfort; 22 beds; Kendall County
Teague General Hospital, Teague; 30 beds; Freestone County
Bastrop Hospital, Bastrop; 25 beds; Bastrop County
Flow Memorial Hospital, Denton; 166 beds; Denton County
Golden Plains Community Hospital, Borger; 99 beds; Hutchinson County
Omni Hospital & Medical Center, Houston; 84 beds; Harris County
Landmark Medical Center, El Paso; 355 beds; El Paso County
Kirbyville Community Hospital, Kirbyville; 24 beds; Jasper County
Marion County Hospital, Jefferson; 37 beds; Marion County

**Texas Counties Without Hospitals
January 1989**

Aransas	Kent
Armstrong	King
Bandera	Kinney
Blanco	LaSalle
Borden	Lipscomb
Briscoe	Live Oak
Callahan	Loving
Carson	McMullen
Coke	Marion
Cottle	Mason
Dallam	Motley
Delta	Oldham
Dickens	Presidio
Donley	Rains
Duval	Real
Edwards	Roberts
Foard	Robertson
Glasscock	San Jacinto
Hudspeth	San Sabe
Hutchinson	Sherman
Irion	Terrell
Jeff Davis	Waller
Jim Hogg	Willacy
Kendall	Zapata
Kenedy	Zavala

Source: Bureau of Hospital Licensing, Texas Department of Health,
January 26, 1989.

**Rural Areas in Texas Designated as
Primary Care Health Manpower Shortage Areas
Report Definitions**

Listing of rural areas in Texas designated by the U.S. Department of Health and Human Services as primary care Health Manpower Shortage Areas (HMSAs).

Definitions

- Column 1 County Number - Three digit sequential county code.
- Column 2 Service Area Number - Service area numbers are assigned to population group, facility, multiple county and subcounty designations. In cases where the total population of an individual county is designated, service area numbers are not assigned. There are seven service area designations for rural areas. These designations include: three multiple county designations (consisting of the total population of two counties designated as one shortage area or the total population of one county plus part of another county designated as a single shortage area); two subcounty geographic area designations; and two population group designations.
- Column 3 PHR - Texas Department of Health Public Health Regions. Since 1987 there are 8 PHRs.
- Column 4 State Planning Region - There are 24 state planning regions that are coterminous to the regions established for the Council of Governments (COGs).
- Column 5 County Name/Service Area Name - County name is shown for all areas listed. The service area name is included for population group, facility, multiple county and subcounty designations.

Column 6 Official Degree-of-Shortage - Degree of shortage group assignments as issued by the office of Shortage Analysis, Bureau of Health Care Delivery and Assistance, U.S. Department of Health and Human Services, upon initial or updated designation. This assignment is based on the population-to-primary care physician ratio and the presence or absence of unusually high needs for primary medical care services as defined in the federal designation criteria. The degree-of-shortage assignments range from groups one to four. Group one represents areas with the highest ratios and, therefore, the highest degree of physician shortage. Group four represents the lower ratio/shortage level.

Column 7 HMSA Designation Type - There are five types of HMSA designations for the three categories shown below:

1. Geographic area

<u>Code</u>	<u>Designation Type</u>
WCO	Whole County - meaning total population of a county.
PT	Portion of a county.
MLTCO	Multiple whole counties - meaning total population of more than one county designated as one shortage area.

2. Facility

<u>Code</u>	<u>Designation Type</u>
FAC	Public or non-profit private medical facility.

3. Population Group

<u>Code</u>	<u>Designation Type</u>
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POPGRP Portions of th population experiencing access barriers to existing primary care resources. Can include poverty, Medicaid-eligible, medically indigent, migrant farmworkers, Native Americans, or other population groups.

Column 8 Designation Date - Date written designation notification is issued by DHHS.

Note: Rural is defined as non-metropolitan, i.e., counties not designated as metropolitan statistical area. Excludes Texas Department of Corrections' inmate units designated as facilities with a shortage of primary care physicians.

Prepared by: Bureaus of State Health Data and Policy Analysis Texas
Department of Health 2/89

TEXAS DEPARTMENT OF HEALTH
RURAL AREAS IN TEXAS DESIGNATED AS
PRIMARY CARE HEALTH MANPOWER SHORTAGE AREAS
FEBRUARY 1989

CO. NUM	SER- VICE AREA NUM	P H R	STATE PLANNING REGION(COG)	COUNTY NAME/ SERVICE AREA NAME	OFFICIAL DEGREE OF SHORTAGE	HMSA DESG TYPE	HMSA DESIGNATION DATE
5		5	3	ARCHER	3	WCO	03-14-88
6		2	1	ARMSTRONG	1	WCO	08-31-88
7		6	18	ATASCOSA	3	WCO	03-14-88
9		2	2	BAILEY	4	WCO	10-31-88
10		6	18	BANDERA	2	WCO	08-31-88
13		8	20	BEE	4	WCO	08-31-88
16		1	12	**BLANCO	4	WCO	03-28-84
17		3	9	BORDEN	1	WCO	08-31-88
23		2	1	BRISCOE	1	WCO	08-31-88
33		2	1	CARSON	1	WCO	08-31-88
35		2	1	CASTRO	4	WCO	08-31-88
36		4	16	CHAMBERS	3	WCO	08-31-88
41		3	10	COKE	1	WCO	08-31-88
44		2	1	COLLINGSWORTH	1	WCO	08-31-88
53		3	10	CROCKETT	2	WCO	08-31-88
54		2	2	CROSBY	2	WCO	10-31-88
55		3	8	CULBERSON	3	WCO	08-31-88
56		2	1	DALLAM	1	WCO	08-31-88
59		2	1	DEAF SMITH	4	WCO	10-31-88
60		7	5	DELTA	4	WCO	08-31-88
63	10	2	2	DICKENS & KING COS	1	MLTCO	08-31-88
64	53	6	24	DIMITT & ZAVALA COS	2	MLTCO	08-31-88
65		2	1	DONLEY	2	WCO	08-31-88
66		8	20	DUVAL	4	WCO	08-31-88
73		1	11	FALLS	2	WCO	02-11-88
82		6	18	FRIO	2	WCO	08-31-88
83		3	9	GAINES	4	WCO	08-31-88
87		3	9	GLASSCOCK	1	WCO	08-31-88
88		8	17	GOLIAD	3	WCO	08-31-88
89		8	17	GONZALES	4	WCO	03-14-88
93		1	13	GRIMES	3	WCO	08-31-88
95	44	2	2	HALE-MIGRANT POPULATION	4	POPGRP	02-25-86
97		1	23	HAMILTON	4	WCO	08-31-88
103		2	1	HARTLEY	1	WCO	08-31-88
115		3	8	HUDSPETH	1	WCO	08-31-88
116	54	5	4	HUNT-POVERTY POPULATION	3	POPGRP	04-25-86

*REDESIGNATION BY DHHS IS PENDING.

**DHHS HAS PROPOSED DEDESIGNATION.

SOURCE: BUREAU OF HEALTH CARE DELIVERY & ASSISTANCE,
U. S. DEPARTMENT OF HEALTH & HUMAN SERVICES

PREPARED BY: BUREAU OF STATE HEALTH DATA & POLICY ANALYSIS
TEXAS DEPARTMENT OF HEALTH

TEXAS DEPARTMENT OF HEALTH
RURAL AREAS IN TEXAS DESIGNATED AS A
PRIMARY CARE HEALTH MANPOWER SHORTAGE AREA
FEBRUARY 1989

CO. NUM	SER- VICE AREA NUM	P H R	STATE PLANNING REGION(COG)	COUNTY NAME/ SERVICE AREA NAME	OFFICIAL DEGREE OF SHORTAGE	HMSA DESG TYPE	HMSA DESIGNATION DATE
118		3	10	IRION	1	WCO	08-31-88
120		8	17	JACKSON	2	WCO	08-31-88
122	18	3	8	JEFF DAVIS CO & MARFA C.C.D. OF PRESIDIO COUNTY	2	MLTCO	08-31-88
128		6	18	KARNES	4	WCO	08-31-88
132		5	7	KENT	1	WCO	08-31-88
134		3	10	KIMBLE	1	WCO	08-31-88
135	10	2	2	KING-SEE DICKENS CO	1	MLTCO	08-31-88
141		1	23	LAMPASAS	2	WCO	08-31-88
142		6	24	LA SALLE	1	WCO	08-31-88
148		2	1	LIPSCOMB	2	WCO	08-31-88
149		8	20	LIVE OAK	4	WCO	08-31-88
151		3	9	LOVING	1	WCO	08-31-88
153		2	2	LYNN	1	WCO	08-31-88
156		8	20	McMULLEN	1	WCO	08-31-88
160		3	10	MASON	3	WCO	08-31-88
162		6	24	MAVERICK	2	WCO	08-31-88
163		6	18	MEDINA	4	WCO	08-31-88
167		1	23	MILLS	2	WCO	08-31-88
168		5	7	MITCHELL	4	WCO	08-31-88
173		2	2	MOTLEY	1	WCO	08-31-88
176		7	14	NEWTON	1	WCO	01-05-88
180		2	1	OLDHAM	1	WCO	08-31-88
183		7	6	PANOLA	4	WCO	08-31-88
185		2	1	PARMER	1	WCO	08-31-88
186		3	9	PECOS	4	WCO	08-31-88
187		7	14	POLK	4	WCO	08-31-88
189	18	3	8	PRESIDIO-MARFA C.C.D. DESIGNATED WITH JEFF DAVIS COUNTY	2	MLTCO	08-31-88
189	4	3	8	PRESIDIO-PRESIDIO C.C.D.	2	PT	08-31-88
190		7	6	RAINS	2	WCO	08-31-88
193		6	24	REAL	1	WCO	10-30-87
194		7	5	RED RIVER	3	WCO	08-31-88
195		3	9	**REEVES	2	WCO	11-30-84
196		8	20	REFUGIO	1	WCO	08-31-88
202		7	14	SABINE	1	WCO	08-31-88
204		7	14	SAN JACINTO	1	WCO	08-31-88
206		1	23	SAN SABA	1	WCO	10-31-88

*REDESIGNATION BY DHHS IS PENDING.

**DHHS HAS PROPOSED DEDESIGNATION.

SOURCE: BUREAU OF HEALTH CARE DELIVERY & ASSISTANCE,
U. S. DEPARTMENT OF HEALTH & HUMAN SERVICES
PREPARED BY: BUREAU OF STATE HEALTH DATA & POLICY ANALYSIS
TEXAS DEPARTMENT OF HEALTH

TEXAS DEPARTMENT OF HEALTH
RURAL AREAS IN TEXAS DESIGNATED AS A
PRIMARY CARE HEALTH MANPOWER SHORTAGE AREA
FEBRUARY 1989

CO. NUM	SER- VICE AREA NUM	P H R	STATE PLANNING REGION(COG)	COUNTY NAME/ SERVICE AREA NAME	OFFICIAL DEGREE OF SHORTAGE	HMSA DESG TYPE	HMSA DESIGNATION DATE
211	13	2	1	*SHERMAN-STRATFORD EAST C.C.D.	1	PT	07-16-84
214		8	19	STARR	1	WCO	08-31-88
218		3	10	SUTTON	1	WCO	08-31-88
219		2	1	**SWISHER	4	WCO	09-25-84
222		3	9	TERRELL	1	WCO	08-31-88
223		2	2	TERRY	2	WCO	08-31-88
224		5	7	THROCKMORTON	1	WCO	08-31-88
228		7	14	TRINITY	1	WCO	08-31-88
233		6	24	VAL VERDE	2	WCO	08-31-88
234		7	6	VAN ZANDT	4	WCO	08-31-88
238		3	9	WARD	4	WCO	03-28-84
245		8	21	WILLACY	4	WCO	08-31-88
247		6	18	WILSON	2	WCO	08-31-88
251		2	2	YOAKUM	1	WCO	08-31-88
253		8	19	ZAPATA	3	WCO	08-31-88
254	53	6	24	ZAVALA-SEE DIMMIT COUNTY	2	MLTCO	08-31-88

SUMMARY

TOTAL INDIVIDUAL DESIGNATIONS..... 88

DESIGNATION TYPE NO.

ENTIRE COUNTY	83
PARTIAL COUNTY	3
POPULATION GROUP	2

NOTE: Rural is defined as non-metropolitan, i.e., counties not designated as metropolitan statistical areas. Excludes Texas Department of Corrections' inmate units

*REDESIGNATION BY
DHHS IS PENDING.
**DHHS HAS PROPOSED
DEDESIGNATION.

SOURCE: BUREAU OF HEALTH CARE DELIVERY & ASSISTANCE,
U. S. DEPARTMENT OF HEALTH & HUMAN SERVICES
PREPARED BY: BUREAU OF STATE HEALTH DATA & POLICY ANALYSIS
TEXAS DEPARTMENT OF HEALTH 2/89

TEXAS DEPARTMENT OF HEALTH
HEALTH PROFESSIONS SPECIAL REPORTS
1986 POPULATION TO PHYSICIAN RATIOS BY COUNTY*
FOR SELECT SPECIALTIES AND POPULATION GROUPS
BY COUNTY

CTY NUM	COUNTY NAME	PHR	PEDIATRICIANS			OB/GYNS			FAMILY/GENERAL PRACTICE			PRIMARY CARE			NEO- PERI- NATAL PHYS
			TOTAL POPULATION AGED 0-19	PEDI- TRCNS	POP 0-19/ PEDTRCN RATIO	FEMALE POPULATION AGED 15-44	OBS- GYN	FEM POP 15-44/ OB-GYN RATIO	TOTAL POPULATION ALL AGES	FP-GP PHYS	TOT POP/ FP-GP RATIO	PRIM CARE PHYS	TOT POP PRIM CARE RATIO		
1	ANDERSON	7	15566	3	5189	9681	3	3227	51883	13	3991	24	2162	0	
2	ANDREWS	12	6094	3	2031	3484	2	1742	15849	1	15849	8	1981	0	
3	ANGELINA	10	25036	6	4173	16064	5	3213	72532	22	3297	45	1612	0	
4	ARANSAS	8	5639	0	0	3697	0	0	18516	8	2315	8	2315	0	
5	ARCHER	4	2496	0	0	1689	0	0	8209	2	4105	2	4105	0	
6	ARMSTRONG	1	645	0	0	411	1	411	2054	0	0	1	2054	0	
7	ATASCOSA	9	10418	0	0	5909	0	0	28852	10	2885	10	2885	0	
8	AUSTIN	11	6528	0	0	4162	2	2081	21259	6	3543	10	2126	0	
9	BAILEY	2	3079	0	0	1740	0	0	8534	3	2845	3	2845	0	
10	BANDERA	9	2255	0	0	1620	0	0	8836	2	4418	2	4418	0	
11	BASTROP	6	10310	0	0	6883	0	0	32848	9	3650	11	2986	0	
12	BAYLOR	4	1273	0	0	891	0	0	5152	2	2576	2	2576	0	
13	BEE	8	10648	0	0	6479	0	0	29720	11	2702	12	2477	0	
14	BELL	6	60464	29	2085	41908	23	1822	176756	33	5356	147	1202	2	
15	BEXAR	9	387509	127	3051	273771	127	2156	1129880	277	4079	745	1517	1	
16	BLANCO	6	1406	1	1406	926	0	0	5403	2	2702	3	1801	0	
17	BORDEN	12	310	0	0	204	0	0	931	0	0	0	0	0	
18	BOSQUE	6	3618	0	0	2489	0	0	14524	8	1816	10	1452	0	
19	BOWIE	7	25666	9	2852	17707	11	1810	81210	24	3384	65	1249	0	
20	BRAZORIA	11	67264	10	6726	46220	7	6603	197019	43	4582	74	2662	0	
21	BRAZOS	6	41341	9	4593	39124	10	3912	134169	32	4193	66	2033	0	
22	BREWSTER	3	2498	0	0	1972	0	0	8623	8	1078	9	958	0	
23	BRISCOE	1	790	0	0	440	0	0	2323	0	0	0	0	0	
24	BROOKS	8	3203	0	0	1843	0	0	9449	4	2362	4	2362	0	
25	BROWN	4	11719	2	5860	8030	2	4015	37215	12	3101	21	1772	0	
26	BURLESON	6	4841	0	0	3033	0	0	15954	2	7977	2	7977	0	
27	BURNET	6	6101	0	0	3995	1	3995	22838	12	1887	15	1509	0	
28	CALDWELL	6	9849	0	0	5923	0	0	28076	11	2552	12	2340	0	
29	CALHOUN	8	7681	1	7681	5073	1	5073	23362	6	3894	10	2336	0	
30	CALLAHAN	4	4028	0	0	2711	1	2711	13350	3	4450	4	3338	0	
31	CAMERON	8	104783	26	4030	57051	21	2717	254717	41	6213	122	2088	0	
32	CAMP	7	3347	1	3347	2186	1	2186	10807	3	3602	6	1801	0	
33	CARSON	1	2346	0	0	1378	0	0	7372	0	0	0	0	0	
34	CASS	7	10198	1	10198	6527	0	0	31806	12	2651	15	2120	0	
35	CASTRO	1	4252	0	0	2166	0	0	10287	3	3429	3	3429	0	
36	CHAMBERS	11	7488	0	0	4932	0	0	20587	4	5147	5	4117	0	
37	CHEROKEE	7	12826	3	4275	8186	4	2047	41071	13	3159	24	1711	0	
38	CHILDRESS	4	1957	0	0	1124	0	0	6682	4	1671	4	1671	0	

*PHYSICIAN COUNTS INCLUDE:
DIRECT PATIENT CARE ONLY
PRIMARY CARE INCLUDES:
GP, FP, OBS-GYN, PED, IM

PREPARED BY THE BUREAU OF STATE HEALTH PLANNING AND RESOURCE DEVELOPMENT
SOURCES: TEXAS BOARD OF MEDICAL EXAMINERS LICENSURE FILE
TEXAS DEPARTMENT OF HEALTH POPULATION DATA SYSTEM

TEXAS DEPARTMENT OF HEALTH
 HEALTH PROFESSIONS SPECIAL REPORTS
 1986 POPULATION TO PHYSICIAN RATIOS BY COUNTY*
 FOR SELECT SPECIALTIES AND POPULATION GROUPS
 BY COUNTY

CTV NUM	COUNTY NAME	PHR	PEDIATRICIANS			OB/GYNS			FAMILY/GENERAL PRACTICE			PRIMARY CARE		
			TOTAL POPULATION AGED 0-19	PEDI- TRCNS	POP 0-19/ PEDTRCN RATIO	FEMALE POPULATION AGED 15-44	OBS- GYN	FEM POP 15-44/ OB-GYN RATIO	TOTAL POPULATION ALL AGES	FP-GP PHYS	TOT POP/ FP-GP RATIO	PRIM CARE PHYS	TOT POP PRIM CARE RATIO	NEO- PERI- NATAL PHYS
39	CLAY	4	2795	0	0	1899	0	0	9953	3	3318	3	3318	0
40	COCHRAN	2	1789	0	0	950	0	0	4752	2	2376	2	2376	0
41	COKE	4	827	0	0	582	0	0	3679	1	3679	1	3679	0
42	COLEMAN	4	2924	0	0	1740	0	0	10542	5	2108	5	2108	0
43	COLLIN	5	72706	30	2424	52462	24	2186	199055	76	2619	155	1284	0
44	COLLINGSWORTH	1	1422	0	0	777	0	0	4241	1	4241	1	4241	0
45	COLORADO	11	5845	0	0	3771	0	0	20280	6	3380	7	2897	0
46	COMAL	9	12763	2	6382	9344	3	3115	45353	20	2268	30	1512	0
47	COMANCHE	4	3636	0	0	2326	0	0	13255	6	2209	6	2209	0
48	CONCHO	4	900	0	0	541	0	0	2998	2	1499	2	1499	0
49	COOKE	5	9227	1	9227	5987	1	5987	29506	11	2682	14	2108	0
50	CORYELL	6	26136	1	26136	15973	0	0	69543	13	5349	15	4636	0
51	CDTTLE	4	719	0	0	426	0	0	2668	1	2668	1	2668	0
52	CRANE	12	2039	0	0	1120	0	0	5181	2	2591	2	2591	0
53	CROCKETT	4	1943	0	0	1142	0	0	5265	1	5265	1	5265	0
54	CROSBY	2	3081	0	0	1632	0	0	8586	3	2862	4	2147	0
55	CULBERSON	3	1485	0	0	818	0	0	3699	1	3699	1	3699	0
56	DALLAM	1	2428	0	0	1406	0	0	6780	3	2260	4	1695	0
57	DALLAS	5	528172	194	2723	449986	259	1737	1767505	427	4139	1301	1359	1
58	DAWSON	12	5790	1	5790	3292	1	3292	16314	5	3263	7	2331	0
59	DEAF SMITH	1	7966	0	0	4281	0	0	19740	4	4935	5	3948	0
60	DELTA	7	1379	0	0	895	0	0	4978	1	4978	2	2489	0
61	DENTON	5	60201	21	2867	51580	18	2864	184084	53	3473	112	1644	1
62	DE WITT	8	6065	0	0	3725	0	0	20826	8	2603	8	2603	0
63	DICKENS	2	1000	0	0	544	0	0	3352	2	1676	2	1676	0
64	DIMMIT	9	5103	0	0	2646	0	0	12622	2	6311	2	6311	0
65	DONLEY	1	1245	1	1245	774	0	0	4321	1	4321	2	2161	0
66	DUVAL	8	5139	0	0	2682	0	0	13739	5	2748	5	2748	0
67	EASTLAND	4	6066	0	0	3926	0	0	21877	13	1683	14	1583	0
68	ECTOR	12	49073	14	3505	33615	12	2801	142835	26	5494	65	2197	1
69	EDWARDS	9	797	0	0	435	0	0	2272	1	2272	1	2272	0
70	ELLIS	5	22734	1	22734	15375	3	5125	69275	16	4330	26	2664	0
71	EL PASO	3	214716	26	8258	134582	43	3129	561057	97	5784	233	2408	0
72	ERATH	5	7263	0	0	5616	3	1872	25096	7	3585	13	1930	0
73	FALLS	6	5186	0	0	3355	0	0	18478	6	3080	7	2640	0
74	FANNIN	5	6649	0	0	4453	0	0	24726	8	3091	9	2747	0
75	FAYETTE	6	5387	0	0	3537	1	3537	20568	16	1286	18	1143	0
76	FISHER	4	1679	0	0	1016	0	0	5837	5	1167	5	1167	0
77	FLOYD	2	3158	0	0	1691	0	0	8880	5	1776	5	1776	0

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78	FOARD	4	562	0	0	340	0	0	1993	1	1993	1	1993	0
79	FORT BEND	11	76294	12	6358	53076	4	13269	209053	40	5226	65	3216	0
80	FRANKLIN	7	2385	0	0	1472	0	0	7743	3	2581	3	2581	0
81	FREESTONE	6	5712	1	5712	3674	0	0	18101	11	1646	13	1392	0
82	FRIO	9	5987	1	5987	3025	0	0	14575	1	14575	3	4858	0
83	GAINES	12	5384	0	0	3002	0	0	13901	3	4600	3	4600	0
84	GALVESTON	11	67897	23	2952	50901	22	2314	220277	57	3865	146	1509	0
85	GARZA	2	2042	0	0	1167	0	0	5820	2	2910	2	2910	0
86	GILLESPIE	9	3810	1	3810	2725	1	2725	15628	9	1736	12	1302	0
87	GLASSCOCK	12	540	0	0	273	0	0	1337	0	0	0	0	0
88	GOLIAD	8	1903	0	0	1134	0	0	5941	2	2971	2	2971	0
89	GONZALES	8	6251	1	6251	3719	0	0	19558	6	3260	9	2173	0
90	GRAY	1	8335	3	2778	5530	1	5530	28082	10	2808	16	1755	0
91	GRAYSON	5	26875	12	2240	20690	10	2069	95960	22	4362	64	1499	0
92	GREGG	7	37819	8	4727	27776	14	1984	119573	35	3416	82	1458	0
93	GRIMES	6	5798	0	0	3596	0	0	18179	2	9090	5	3636	0
94	GUADALUPE	9	17434	2	8717	12594	3	4198	55300	13	4254	21	2633	0
95	HALE	2	13994	2	6997	7925	3	2642	37282	15	2485	24	1553	0
96	HALL	1	1513	0	0	891	0	0	5066	3	1689	3	1689	0
97	HAMILTON	6	2150	0	0	1368	0	0	8361	6	1394	7	1194	0
98	HANSFORD	1	2124	0	0	1320	0	0	6689	2	3345	2	3345	0
99	HARDEMAN	4	1943	0	0	1193	0	0	6561	5	1312	5	1312	0
100	HARDIN	10	15319	1	15319	9894	1	9894	44831	7	6404	12	3736	0
101	HARRIS	11	923166	370	2495	751223	384	2064	2904465	737	3941	2111	1376	5
102	HARRISON	7	19700	2	9850	12849	4	3212	60018	11	5456	24	2501	0
103	HARTLEY	1	1309	0	0	727	0	0	3806	0	0	0	0	0
104	HASKELL	4	2099	0	0	1220	0	0	7448	3	2483	3	2483	0
105	HAYS	6	14566	4	3642	14955	5	2991	52826	14	3773	30	1761	0
106	HEMPHILL	1	2564	0	0	1494	0	0	6957	4	1739	4	1739	0
107	HENDERSON	7	14581	0	0	9730	0	0	54242	17	3191	18	3013	0
108	HIDALGO	8	151592	13	11661	82016	16	5126	358458	88	4073	142	2524	1
109	HILL	6	7707	1	7707	5190	2	2595	27571	14	1969	18	1532	0
110	HOCKLEY	2	9787	1	9787	5615	1	5615	25393	5	5079	9	2821	0
111	HOOD	5	7835	0	0	5799	0	0	28804	14	2057	17	1694	0
112	HOPKINS	7	8740	2	4370	5924	2	2962	28935	10	2894	15	1929	0
113	HOUSTON	10	6668	0	0	4113	0	0	25725	9	2858	11	2339	0
114	HOWARD	12	11171	3	3724	7518	2	3759	37410	9	4157	18	2078	0
115	HUDSPETH	3	1122	0	0	539	0	0	2839	1	2839	1	2839	0
116	HUNT	5	18555	3	6185	13843	4	3461	65171	14	4655	25	2607	0

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117	HUTCHINSON	1	9824	1	9824	6074	2	3037	30929	10	3093	15	2062	0
118	IRION	4	605	0	0	391	0	0	1818	0	0	0	0	0
119	JACK	4	2254	0	0	1486	0	0	7665	3	2555	3	2555	0
120	JACKSON	8	4463	1	4463	2785	0	0	14119	3	4706	4	3530	0
121	JASPER	10	10900	1	10900	7013	1	7013	33028	14	2359	18	1835	0
122	JEFF DAVIS	3	562	0	0	361	0	0	1891	0	0	0	0	0
123	JEFFERSON	10	80048	23	3480	59457	31	1918	262577	88	2984	185	1419	2
124	JIM HOGG	8	2039	0	0	1110	0	0	5642	2	2821	2	2821	0
125	JIM WELLS	8	15340	2	7670	8889	3	2963	41710	9	4634	18	2317	0
126	JOHNSON	5	27432	3	9144	19662	3	6554	84999	22	3864	36	2361	0
127	JONES	4	5960	0	0	3600	0	0	18986	8	2373	8	2373	0
128	KARNES	9	4534	0	0	2638	0	0	13583	4	3396	4	3396	0
129	KAUFMAN	5	15102	2	7551	10281	2	5141	48673	20	2434	29	1678	0
130	KENDALL	9	3998	0	0	2782	0	0	13856	4	3464	5	2771	0
131	KENEY	8	173	0	0	117	0	0	538	0	0	0	0	0
132	KENT	4	262	0	0	173	0	0	1068	0	0	0	0	0
133	KERR	9	8630	2	4315	6240	4	1560	34755	17	2044	34	1022	0
134	KIMBLE	4	1130	0	0	733	0	0	4318	2	2159	2	2159	0
135	KING	2	159	0	0	112	0	0	485	0	0	0	0	0
136	KINNEY	9	805	0	0	425	0	0	2508	0	0	1	2508	0
137	KLEBERG	8	12749	2	6375	8590	2	4295	36255	7	5179	14	2590	0
138	KNOX	4	1465	1	1465	878	0	0	5411	1	5411	2	2706	0
139	LAMAR	7	13786	6	2298	9689	5	1938	45849	8	5731	29	1581	0
140	LAMB	2	6218	1	6218	3430	1	3430	17312	7	2473	10	1731	0
141	LAMPASAS	6	4487	0	0	2829	0	0	13860	3	4620	4	3465	0
142	LA SALLE	9	2316	0	0	1330	0	0	6356	1	6356	1	6356	0
143	LAVACA	8	5219	0	0	3340	0	0	18453	10	1845	11	1678	0
144	LEE	6	4769	0	0	2850	1	2850	14619	5	2924	7	2088	0
145	LEON	6	3060	0	0	1881	0	0	11494	5	2299	5	2299	0
146	LIBERTY	11	19064	1	19064	12416	2	6208	56946	16	3559	20	2847	0
147	LIMESTONE	6	6356	2	3178	4276	0	0	21648	14	1546	16	1353	0
148	LIPSCOMB	1	1555	0	0	898	0	0	4390	0	0	0	0	0
149	LIVE OAK	8	3213	0	0	2061	1	2061	10353	3	3451	4	2588	0
150	LLANO	6	2122	0	0	1566	0	0	12063	6	2011	6	2011	0
151	LOVING	12	8	0	0	14	0	0	110	0	0	0	0	0
152	LUBBOCK	2	74406	23	3235	57461	35	1642	229019	71	3226	169	1355	1
153	LYNN	2	2843	0	0	1617	0	0	7939	2	3970	2	3970	0
154	MC CULLOCH	4	2407	0	0	1531	0	0	8828	4	2207	5	1766	0
155	MC LENNAN	6	58025	10	5803	43383	17	2552	187148	49	3819	104	1800	0

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156	MC MULLEN	8	162	0	0	118	0	0	639	0	0	0	0	0
157	MADISON	6	4642	0	0	2271	0	0	13896	6	2316	6	2316	0
158	MARION	7	3353	0	0	2228	1	2228	11415	6	1903	7	1631	0
159	MARTIN	12	1832	0	0	1085	0	0	5350	3	1783	3	1783	0
160	MASON	4	925	0	0	620	0	0	3640	2	1820	2	1820	0
161	MATAGORDA	11	12458	4	3115	8048	2	4024	37865	11	3442	20	1893	0
162	MAVERICK	9	17229	2	8615	9092	2	4546	38977	4	9744	10	3898	0
163	MEDINA	9	8381	0	0	5003	1	5003	25055	7	3579	9	2784	0
164	MENARD	4	663	0	0	442	0	0	2368	2	1184	2	1184	0
165	MIDLAND	12	35992	10	3599	25910	11	2355	112120	18	6229	56	2002	0
166	MILAM	6	7849	1	7849	4647	1	4647	23912	8	2989	10	2391	0
167	MILLS	6	1174	0	0	777	0	0	4671	1	4671	1	4671	0
168	MITCHELL	4	2980	0	0	1727	0	0	9390	3	3130	3	3130	0
169	MONTAGUE	4	5161	1	5161	3448	0	0	18905	7	2701	9	2101	0
170	MONTGOMERY	11	69337	8	8667	47961	10	4796	195002	24	8125	49	3980	0
171	MOORE	1	6872	0	0	3846	1	3846	17920	6	2987	8	2240	0
172	MORRIS	7	5233	0	0	3403	0	0	15985	7	2284	7	2284	0
173	MOTLEY	2	530	0	0	317	0	0	1956	0	0	0	0	0
174	NACOGDOCHES	10	16013	3	5338	13912	6	2319	53514	21	2548	40	1338	0
175	NAVARRO	5	11732	2	5866	7837	3	2612	39198	8	4900	25	1568	0
176	NEWTON	10	4648	0	0	2788	0	0	13658	2	6829	3	4553	0
177	NOLAN	4	5917	0	0	3723	1	3723	18130	5	3626	6	3022	0
178	NUECES	8	109065	39	2797	72198	33	2188	309800	102	3037	232	1335	2
179	OCHILTREE	1	3880	0	0	2458	0	0	11805	4	2951	4	2951	0
180	OLDHAM	1	1075	0	0	507	0	0	2644	0	0	0	0	0
181	ORANGE	10	31164	3	10388	21335	1	21335	92435	25	3697	31	2982	0
182	PALO PINTO	5	7368	0	0	5274	2	2637	27228	10	2723	15	1815	0
183	PANOLA	7	7685	0	0	4976	0	0	24199	7	3457	7	3457	0
184	PARKER	5	16540	0	0	12036	1	12036	53816	12	4485	13	4140	0
185	PARMER	1	4241	0	0	2349	0	0	10966	3	3655	3	3655	0
186	PECOS	12	6862	1	6862	3875	0	0	17680	5	3536	6	2947	0
187	POLK	10	10023	0	0	5974	0	0	32699	11	2973	13	2515	0
188	POTTER	1	35440	21	1688	24893	20	1245	109721	48	2286	118	930	0
189	PRESIDIO	3	2090	0	0	1117	0	0	5723	3	1908	3	1908	0
190	RAINS	7	1733	0	0	1104	0	0	6126	1	6126	1	6126	0
191	RANDALL	1	26659	0	0	21831	1	21831	85859	7	12266	9	9540	0
192	REAGAN	4	2288	0	0	1102	0	0	5235	2	2618	2	2618	0
193	REAL	9	902	0	0	571	0	0	2981	1	2981	1	2981	0
194	RED RIVER	7	4975	0	0	3036	0	0	16208	4	4052	4	4052	0

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195	REEVES	12	6205	0	0	3324	0	0	15440	5	3088	6	2573	0
196	REFUGIO	8	2986	0	0	1803	0	0	9137	2	4569	2	4569	0
197	ROBERTS	1	461	0	0	251	0	0	1283	1	1283	1	1283	0
198	ROBERTSON	6	5057	0	0	3013	0	0	16375	5	3275	5	3275	0
199	ROCKWALL	5	6853	0	0	5107	0	0	21526	8	2691	9	2392	0
200	RUNNELS	4	3846	0	0	2184	0	0	12432	5	2486	5	2486	0
201	RUSK	7	14860	1	14860	9441	2	4721	46215	13	3555	17	2719	0
202	SABINE	10	2656	0	0	1710	0	0	10043	2	5022	2	5022	0
203	SAN AUGUSTINE	10	2557	0	0	1627	0	0	9110	4	2278	4	2278	0
204	SAN JACINTO	10	4978	0	0	3108	0	0	16008	3	5336	3	5336	0
205	SAN PATRICIO	8	24371	1	24371	14505	3	4835	64500	28	2304	33	1955	0
206	SAN SABA	6	1780	0	0	1006	0	0	6206	2	3103	2	3103	0
207	SCHLEICHER	4	1133	0	0	751	0	0	3422	3	1141	3	1141	0
208	SCURRY	4	7458	0	0	4416	0	0	20866	9	2318	10	2087	0
209	SHACKELFORD	4	1494	0	0	883	0	0	4284	1	4284	1	4284	0
210	SHELBY	10	7427	0	0	4664	0	0	24603	8	3075	9	2734	0
211	SHERMAN	1	959	0	0	636	0	0	3294	1	3294	1	3294	0
212	SMITH	7	48439	12	4037	35541	18	1975	153991	48	3208	121	1273	0
213	SOMERVILLE	5	1675	0	0	1073	0	0	4893	3	1631	3	1631	0
214	STARR	8	15363	0	0	7651	0	0	34740	7	4963	9	3860	0
215	STEPHENS	4	3477	0	0	2313	0	0	11256	5	2251	5	2251	0
216	STERLING	4	447	0	0	286	0	0	1390	2	695	2	695	0
217	STONEWALL	4	681	0	0	429	0	0	2509	1	2509	1	2509	0
218	SUTTON	4	2381	0	0	1405	0	0	6411	2	3206	2	3206	0
219	SWISHER	1	3061	0	0	1645	0	0	8718	5	1744	5	1744	0
220	TARRANT	5	308014	98	3143	255525	110	2323	1041104	347	3000	694	1500	2
221	TAYLOR	4	40257	10	4026	30788	12	2566	128616	36	3573	75	1715	0
222	TERRELL	12	464	1	464	275	0	0	1440	1	1440	2	720	0
223	TERRY	2	5734	0	0	3348	1	3348	15876	3	5292	5	3175	0
224	THROCKMORTON	4	579	0	0	357	0	0	2335	0	0	0	0	0
225	TITUS	7	7938	3	2646	5204	3	1735	24274	9	2697	17	1428	0
226	TOM GREEN	4	30253	10	3025	23847	12	1987	100258	17	5898	59	1699	0
227	TRAVIS	6	147795	72	2053	144775	71	2039	517732	157	3298	419	1236	4
228	TRINITY	10	3279	0	0	2141	0	0	11760	2	5880	2	5880	0
229	TYLER	10	5611	0	0	3456	0	0	18545	6	3091	6	3091	0
230	UPSHUR	7	11379	1	11379	6988	0	0	34781	5	6956	8	4348	0
231	UPTON	12	2032	0	0	1109	0	0	5379	2	2690	3	1793	0
232	UVALDE	9	9612	1	9612	5510	1	5510	25385	12	2115	16	1587	0
233	VAL VERDE	9	17622	0	0	9786	2	4893	43142	7	6163	10	4314	0

*PHYSICIAN COUNTS INCLUDE:
DIRECT PATIENT CARE ONLY
PRIMARY CARE INCLUDES:
GP, FP, OBS-GYN, PED, IM

PREPARED BY THE BUREAU OF STATE HEALTH PLANNING AND RESOURCE DEVELOPMENT
SOURCES: TEXAS BOARD OF MEDICAL EXAMINERS LICENSURE FILE
TEXAS DEPARTMENT OF HEALTH POPULATION DATA SYSTEM

TEXAS DEPARTMENT OF HEALTH
 HEALTH PROFESSIONS SPECIAL REPORTS
 1986 POPULATION TO PHYSICIAN RATIOS BY COUNTY*
 FOR SELECT SPECIALTIES AND POPULATION GROUPS
 BY COUNTY

CTY NUM	COUNTY NAME	PHR	PEDIATRICIANS			OB/GYNS			FAMILY/GENERAL PRACTICE			PRIMARY CARE		
			TOTAL POPULATION AGED 0-19	PEDI- TRCNS	POP 0-19/ PEDTRCN RATIO	FEMALE POPULATION AGED 15-44	OBS- GYN	FEM POP 15-44/ OB-GYN RATIO	TOTAL POPULATION ALL AGES	FP-GP PHYS	TOT POP/ FP-GP RATIO	PRIM CARE PHYS	TOT POP PRIM CARE RATIO	NEO- PERI- NATAL PHYS
234	VAN ZANDT	7	11193	0	0	7245	0	0	38234	10	3823	10	3823	0
235	VICTORIA	8	26436	8	3305	17899	9	1989	76984	31	2483	58	1327	0
236	WALKER	11	12665	3	4222	12570	3	4190	55624	24	2318	34	1636	0
237	WALLER	11	7642	0	0	5838	1	5838	24897	6	4150	8	3112	0
238	WARD	12	5748	0	0	3499	0	0	16110	3	5370	5	3222	0
239	WASHINGTON	6	7731	4	1933	5392	2	2696	25797	10	2580	20	1290	0
240	WEBB	8	52726	10	5273	29083	5	5817	126164	21	6008	42	3004	0
241	WHARTON	11	13505	4	3376	8497	8	1062	41275	8	5159	27	1529	0
242	WHEELER	1	2654	0	0	1673	0	0	8457	4	2114	4	2114	0
243	WICHITA	4	39322	8	4915	29024	11	2639	130453	40	3261	83	1572	0
244	WILBARGER	4	4982	1	4982	3286	0	0	16807	11	1528	12	1401	0
245	WILLACY	8	7969	0	0	4118	0	0	19240	6	3207	6	3207	0
246	WILLIAMSON	6	40484	6	6747	27885	2	13943	110753	29	3819	43	2576	0
247	WILSON	9	6172	0	0	3918	0	0	18526	4	4632	4	4632	0
248	WINKLER	12	4084	0	0	2229	0	0	10875	4	2719	6	1813	0
249	WISE	5	9684	0	0	6736	1	6736	31782	8	3973	9	3531	0
250	WOOD	7	8472	1	8472	5770	0	0	29067	10	2907	12	2422	0
251	YOAKUM	2	3880	0	0	2148	0	0	9811	2	4906	3	3270	0
252	YOUNG	4	6188	0	0	4070	1	4070	20555	12	1713	13	1581	0
253	ZAPATA	8	3087	0	0	1532	0	0	8561	4	2140	4	2140	0
254	ZAVALA	9	5521	0	0	2765	0	0	13015	6	2169	7	1859	0
STATE TOTAL			5450818	1420	3839	3987797	1534	2600	16754089	4560	3674	10044	1668	23

*PHYSICIAN COUNTS INCLUDE:
 DIRECT PATIENT CARE ONLY
 PRIMARY CARE INCLUDES:
 GP, FP, OBS-GYN, PED, IM

PREPARED BY THE BUREAU OF STATE HEALTH PLANNING AND RESOURCE DEVELOPMENT
 SOURCES: TEXAS BOARD OF MEDICAL EXAMINERS LICENSURE FILE
 TEXAS DEPARTMENT OF HEALTH POPULATION DATA SYSTEM

TEXAS DEPARTMENT OF HEALTH
HEALTH PROFESSIONS SPECIAL REPORT
1987 POPULATION AND PHYSICIAN SUPPLY BY SIZE OF COUNTY POPULATION

TEXAS COUNTIES BY POPULATION SIZE	NO. OF COUNTIES BY SIZE CATEGORY	1987 DIRECT PATIENT CARE PRIMARY CARE PHYSICIANS	PERCENTAGE OF TOTAL DIRECT PAT CARE PRMY CARE PHYSICIANS IN STATE	1987 TOTAL STATE POPULATION	PERCENTAGE OF TOTAL STATE POPULATION	DIRECT PATIENT CARE PRIMARY CARE PHYSICIAN RATIO	RATE OF CHANGE FOR RATIO 1985 - 1987
< 5,000	42	35	0.3%	113,728	0.7%	3,249:1	+26.6%
5,000 - 9,999	45	133	1.3	327,131	1.9	2,460:1	6.3
10,000 - 19,999	57	340	3.3	860,618	5.1	2,531:1	6.0
20,000 - 49,999	60	882	8.7	1,864,017	10.9	2,113:1	3.5
50,000 - 99,999	20	633	6.2	1,373,963	8.1	2,171:1	1.9
100,000 - 199,999	15	1,277	12.5	2,152,764	12.6	1,686:1	-5.4
200,000 - 499,999	9	1,264	12.4	2,282,748	13.4	1,806:1	15.3
500,000 - 999,999	2	688	6.8	1,098,178	6.5	1,596:1	-3.9
1,000,000+	4	4,943	48.5	6,954,019	40.8	1,407:1	1.2
STATE TOTAL	254	10,195	100.0%	17,027,166	100.0%	1,670:1	0.8%

COUNTIES BY METROPOLITAN STATUS
 =====

COUNTY PROFILE
 MATERNAL AND INFANT CHARACTERISTICS
 TEXAS RESIDENTS, 1987

METROPOLITAN STATUS =====	COUNTY OF RESIDENCE =====	NUMBER OF LIVE BIRTHS =====	PERCENT LOW BIRTH WEIGHT* =====	PERCENT MOTHERS <18 YRS =====	PERCENT MOTHERS >34 YRS =====	PERCENT SINGLE MOTHERS =====	PERCENT LATE OR NO PRENATAL CARE** =====	PERCENT OUT OF HOSPITAL BIRTHS =====	PERINATAL MORTALITY RATE 5 YR. AVE. =====
Non-Metro.	ANDERSON	631	7.8	6.8	5.9	13.3	35.0	5.2	20.6
	ANDREWS	281	4.3	7.1	1.8	13.5	24.2	.4	13.1
	ANGELINA	1029	5.7	7.5	3.2	19.6	31.5	5.3	17.7
	ARANSAS	291	5.5	5.8	7.2	12.0	36.3	2.4	11.7
	ARCHER	114	7.0	7.0	4.4	6.1	21.4	0.0	11.3
	ARMSTRONG	20	0.0	0.0	5.0	5.0	30.0	0.0	33.3
	ATASCOSA	503	6.0	8.7	6.0	15.5	34.6	2.0	13.3
	AUSTIN	271	6.6	5.5	3.0	19.6	34.8	4.1	14.8
	BAILEY	152	10.5	7.9	4.6	7.9	40.6	1.3	11.4
	BANDERA	117	4.3	4.3	10.3	7.7	31.6	6.0	11.3
	BASTROP	728	6.3	6.5	6.2	16.1	33.7	4.5	11.5
	BAYLOR	61	8.2	9.8	1.6	24.6	27.9	1.6	18.2
	BEE	521	6.9	7.7	6.5	19.4	43.6	1.2	11.2
	BLANCO	79	5.1	10.1	10.1	11.4	41.6	21.5	9.7
	BORDEN	8	0.0	0.0	0.0	0.0	12.5	0.0	42.6
	BOSQUE	214	7.0	7.0	2.3	9.3	40.7	.9	28.2
	BREWSTER	118	3.4	5.9	4.2	22.0	23.1	6.8	13.6
	BRISCOE	31	0.0	9.7	9.7	9.7	41.9	3.2	20.1
	BROOKS	166	7.8	10.2	8.4	18.1	40.4	2.4	10.9
	BROWN	502	10.6	6.8	5.6	13.9	30.8	2.4	16.2
	BURLESON	239	3.8	9.6	6.3	25.5	40.0	5.4	14.0
	BURNET	355	3.4	5.9	7.6	13.0	36.2	2.8	9.4
	CALDWELL	390	7.7	8.2	5.1	12.8	27.9	3.1	11.8
	CALHOUN	319	7.2	6.6	4.7	15.7	34.3	.3	11.5
	CALLAHAN	177	6.2	5.6	4.5	6.2	21.5	2.8	12.4
	CAMP	149	9.4	6.7	4.0	20.8	34.2	3.4	26.4
	CARSON	75	6.7	2.7	6.7	5.3	17.8	4.0	6.3
	CASS	394	5.8	10.7	5.1	25.4	38.3	3.3	21.5
	CASTRO	186	7.0	3.8	4.8	13.4	61.7	5.9	18.4
	CHAMBERS	272	7.0	5.1	4.4	22.8	37.8	1.1	12.4

* THE VARIABLE LOW BIRTH WEIGHT INCLUDES BABIES THAT WEIGHED 2500 GRAMS OR LESS AT BIRTH.

** LATE OR NO PRENATAL CARE INCLUDES BIRTHS TO MOTHERS WHO RECEIVED NO PRENATAL CARE OR WHO INITIATED CARE AFTER THE FIRST TRIMESTER (> 12 WKS.)

SOURCE: LIVE BIRTH STATISTICAL FILE, 1983-1987
 DEATH STATISTICAL FILES, 1983-1987
 FETAL DEATH STATISTICAL FILES, 1983-1987
 BUREAU OF VITAL STATISTICS
 TEXAS DEPARTMENT OF HEALTH

PREPARED BY: DATA ANALYSIS SECTION
 BUREAU OF MATERNAL AND CHILD HEALTH
 TEXAS DEPARTMENT OF HEALTH

METROPOLITAN STATUS	COUNTY OF RESIDENCE	NUMBER OF LIVE BIRTHS	PERCENT LOW BIRTH WEIGHT*	PERCENT MOTHERS <18 YRS	PERCENT MOTHERS >34 YRS	PERCENT SINGLE MOTHERS	PERCENT LATE OR NO PRENATAL CARE**	PERCENT OUT OF HOSPITAL BIRTHS	PERINATAL MORTALITY RATE 5 YR. AVE.
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
Non-Metropolitan	CHEROKEE	646	7.7	8.7	4.6	22.4	32.7	1.5	14.3
	CHILDRESS	62	11.3	8.1	12.9	17.7	59.0	0.0	17.8
	CLAY	106	4.7	5.7	4.7	9.4	23.1	1.9	10.5
	COCHRAN	81	11.1	9.9	6.2	9.9	26.3	4.9	9.5
	COKE	51	15.7	3.9	3.9	17.6	39.2	2.0	24.2
	COLEMAN	140	10.0	7.9	1.4	15.0	41.0	5.7	4.3
	COLLINGSWORTH	55	10.9	7.3	0.0	20.0	48.1	0.0	19.0
	COLORADO	306	6.9	8.8	7.8	23.2	39.1	3.6	20.0
	COMANCHE	159	5.0	9.4	2.5	8.8	40.1	.6	22.3
	CONCHO	34	2.9	11.8	0.0	14.7	44.1	5.9	5.8
	COOKE	480	5.2	8.1	4.2	9.4	35.7	.8	17.8
	COTTLE	32	15.6	3.1	6.3	15.6	54.8	3.1	10.0
	CRANE	74	4.1	6.8	4.1	10.8	23.0	0.0	10.6
	CROCKETT	55	7.3	3.6	5.5	20.0	34.5	1.8	7.3
	CROSBY	134	13.4	9.7	4.5	16.4	40.3	0.0	15.9
	CULBERSON	54	11.1	5.6	7.4	11.1	57.1	7.4	13.2
	DALLAM	103	9.7	9.7	0.0	13.6	33.0	1.9	21.3
	DAWSON	245	6.5	10.2	4.5	16.7	42.2	1.6	13.2
	DEAF SMITH	431	7.9	10.7	6.0	16.0	65.5	2.8	21.3
	DELTA	63	3.2	7.9	9.5	19.0	29.0	0.0	13.4
	DE WITT	268	6.3	11.2	3.7	22.4	20.9	.7	22.6
	DICKENS	31	16.1	9.7	3.2	9.7	46.7	0.0	16.2
	DIMMIT	233	4.7	11.6	11.2	16.3	62.9	5.2	11.4
	DONLEY	39	5.1	5.1	7.7	17.9	46.2	0.0	18.7
	DUVAL	260	6.2	10.0	5.0	18.8	58.3	7.7	11.6
	EASTLAND	256	5.5	5.5	6.6	9.4	33.3	2.0	23.0
	EDWARDS	33	3.0	0.0	9.1	12.1	42.4	12.1	22.5
	ERATH	369	7.3	3.5	3.5	10.3	39.3	.5	12.9
	FALLS	249	6.4	9.6	3.2	29.3	47.8	2.0	20.2
	FANNIN	301	6.3	8.3	5.0	15.6	30.3	1.0	18.8

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** LATE OR NO PRENATAL CARE INCLUDES BIRTHS TO MOTHERS WHO RECEIVED NO PRENATAL CARE OR WHO INITIATED CARE AFTER THE FIRST TRIMESTER (> 12 WKS.)

SOURCE: LIVE BIRTH STATISTICAL FILE, 1983-1987
 DEATH STATISTICAL FILES, 1983-1987
 FETAL DEATH STATISTICAL FILES, 1983-1987
 BUREAU OF VITAL STATISTICS
 TEXAS DEPARTMENT OF HEALTH

PREPARED BY: DATA ANALYSIS SECTION
 BUREAU OF MATERNAL AND CHILD HEALTH
 TEXAS DEPARTMENT OF HEALTH

COUNTIES BY METROPOLITAN STATUS

COUNTY PROFILE
MATERNAL AND INFANT CHARACTERISTICS
TEXAS RESIDENTS, 1987

METROPOLITAN STATUS	COUNTY OF RESIDENCE	NUMBER OF LIVE BIRTHS	PERCENT LOW BIRTH WEIGHT*	PERCENT MOTHERS <18 YRS	PERCENT MOTHERS >34 YRS	PERCENT SINGLE MOTHERS	PERCENT LATE OR NO PRENATAL CARE**	PERCENT OUT OF HOSPITAL BIRTHS	PERINATAL MORTALITY RATE 5 YR. AVE.
Non-Metropolitan	FAYETTE	270	5.2	4.4	4.8	13.3	22.9	1.1	15.7
	FISHER	68	7.4	13.2	7.4	11.8	57.6	2.9	42.8
	FLOYD	156	7.7	10.9	5.8	16.7	58.7	3.8	12.4
	FOARD	13	0.0	0.0	0.0	0.0	61.5	0.0	27.4
	FRANKLIN	93	5.4	5.4	4.3	12.9	21.5	1.1	6.7
	FREESTONE	202	5.4	8.4	4.5	14.4	37.8	1.0	22.5
	FRIO	267	4.5	12.4	6.7	24.7	40.8	1.1	13.7
	GAINES	241	5.0	10.4	7.5	11.6	40.9	3.3	14.4
	GARZA	97	10.3	10.3	3.1	18.6	19.8	0.0	19.2
	GILLESPIE	214	5.1	6.5	10.7	8.4	34.7	2.3	12.7
	GLASSCOCK	30	0.0	0.0	6.7	6.7	27.6	6.7	21.6
	GOLIAD	75	6.7	8.0	6.7	16.0	25.7	1.3	17.0
	GONZALES	295	6.1	8.5	5.4	27.5	42.8	2.0	14.7
	GRAY	310	7.7	5.8	3.2	14.5	33.2	0.0	18.8
	GRIMES	259	8.1	6.6	5.0	19.3	40.3	3.5	6.1
	HALE	687	6.9	6.4	3.9	11.7	52.2	1.8	16.5
	HALL	41	4.9	12.2	2.4	14.6	57.9	2.4	20.4
	HAMILTON	95	7.4	7.4	4.2	9.5	31.9	0.0	19.9
	HANSFORD	96	5.2	7.3	4.2	3.1	28.4	0.0	8.7
	HARDEMAN	76	11.8	11.8	0.0	21.1	45.7	0.0	23.5
	HARTLEY	48	2.1	2.1	10.4	10.4	19.1	2.1	8.4
	HASKELL	82	2.4	6.1	4.9	9.8	29.6	3.7	8.0
	HEMPHILL	59	10.2	5.1	0.0	13.6	31.6	0.0	11.3
	HENDERSON	663	7.1	8.4	4.5	17.3	48.5	2.0	13.4
	HILL	352	10.5	7.7	6.8	24.1	45.8	1.4	18.3
	HOCKLEY	406	6.9	8.6	3.2	9.6	22.2	0.0	8.7
	HOOD	401	5.0	4.7	4.0	10.0	30.6	1.0	13.7
	HOPKINS	383	6.5	8.4	2.6	13.1	18.4	.5	16.3
	HOUSTON	268	8.2	10.1	4.1	34.7	50.0	3.7	10.7
	HOWARD	510	6.1	7.5	3.3	19.4	43.3	6.1	19.9

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FETAL DEATH STATISTICAL FILES, 1983-1987
BUREAU OF VITAL STATISTICS
TEXAS DEPARTMENT OF HEALTH

PREPARED BY: DATA ANALYSIS SECTION
BUREAU OF MATERNAL AND CHILD HEALTH
TEXAS DEPARTMENT OF HEALTH

COUNTIES BY METROPOLITAN STATUS
 =====

COUNTY PROFILE
 MATERNAL AND INFANT CHARACTERISTICS
 TEXAS RESIDENTS, 1987

METROPOLITAN STATUS =====	COUNTY OF RESIDENCE =====	NUMBER OF LIVE BIRTHS =====	PERCENT LOW BIRTH WEIGHT* =====	PERCENT MOTHERS <18 YRS =====	PERCENT MOTHERS >34 YRS =====	PERCENT SINGLE MOTHERS =====	PERCENT LATE OR NO PRENATAL CARE** =====	PERCENT OUT OF HOSPITAL BIRTHS =====	PERINATAL MORTALITY RATE 5 YR. AVE. =====
Non-Metropolitan	HUDSPETH	41	4.9	4.9	12.2	9.8	61.1	14.8	9.5
	HUNT	1065	7.2	7.3	4.2	19.1	31.9	.5	12.3
	HUTCHINSON	372	6.2	4.0	7.0	7.8	27.4	1.1	18.5
	IRION	26	7.7	11.5	0.0	7.7	26.9	0.0	42.2
	JACK	97	5.2	5.2	2.1	3.1	36.1	1.0	18.5
	JACKSON	197	5.1	10.2	4.6	20.3	33.5	1.5	23.7
	JASPER	499	4.6	8.0	4.6	18.8	32.6	2.0	21.3
	JEFF DAVIS	23	13.0	8.7	8.7	8.7	27.3	0.0	54.1
	JIM HOGG	105	5.7	6.7	6.7	9.5	42.9	1.9	10.6
	JIM WELLS	713	6.6	8.4	5.2	19.4	52.0	3.5	10.0
	JONES	243	7.8	10.3	3.3	18.9	34.0	1.6	9.3
	KARNES	206	4.9	16.0	8.3	19.4	39.8	1.9	10.3
	KENDALL	191	3.7	4.7	5.8	7.3	30.3	4.2	11.5
	KENEDY	8	12.5	0.0	0.0	0.0	71.4	0.0	0.0
	KENT	5	0.0	0.0	0.0	0.0	20.0	20.0	58.0
	KERR	513	7.6	8.0	3.7	16.8	48.1	1.6	14.5
	KIMBLE	42	7.1	2.4	7.1	7.1	30.0	2.4	10.9
	KING	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	KINNEY	51	11.8	2.0	7.8	19.6	35.3	11.8	15.5
	KLEBERG	664	7.2	9.2	5.6	17.2	49.7	1.1	13.2
	KNOX	80	7.5	3.7	11.2	21.2	29.1	0.0	17.5
	LAMAR	643	8.2	9.8	2.6	23.5	58.2	.5	16.2
	LAMB	261	6.1	5.7	2.7	17.6	41.3	.8	11.6
	LAMPASAS	211	4.7	7.1	4.3	15.6	36.4	1.4	8.7
	LA SALLE	94	8.5	14.9	12.8	23.4	48.4	1.1	12.8
	LAVACA	220	5.9	6.4	5.9	19.1	22.5	0.0	18.0
	LEE	181	9.4	3.3	8.3	9.4	29.4	3.9	20.7
	LEON	204	5.9	3.9	5.4	15.2	38.1	1.5	15.7
	LIMESTONE	312	9.0	6.7	4.5	25.0	43.1	1.0	17.7
	LIPSCOMB	48	6.3	2.1	4.2	4.2	23.4	0.0	9.1

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 DEATH STATISTICAL FILES, 1983-1987
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PREPARED BY: DATA ANALYSIS SECTION
 BUREAU OF MATERNAL AND CHILD HEALTH
 TEXAS DEPARTMENT OF HEALTH

COUNTIES BY METROPOLITAN STATUS
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COUNTY PROFILE
 MATERNAL AND INFANT CHARACTERISTICS
 TEXAS RESIDENTS, 1987

METROPOLITAN STATUS =====	COUNTY OF RESIDENCE =====	NUMBER OF LIVE BIRTHS =====	PERCENT LOW BIRTH WEIGHT* =====	PERCENT MOTHERS <18 YRS =====	PERCENT MOTHERS >34 YRS =====	PERCENT SINGLE MOTHERS =====	PERCENT LATE OR NO PRENATAL CARE** =====	PERCENT OUT OF HOSPITAL BIRTHS =====	PERINATAL MORTALITY RATE 5 YR. AVE. =====
Non-Metropolitan	LIVE OAK	131	6.1	1.5	7.6	10.7	41.7	1.5	10.9
	LLANO	120	10.0	4.2	5.8	7.5	21.8	3.3	19.5
	LOVING	2	0.0	0.0	0.0	50.0	0.0	0.0	0.0
	LYNN	108	9.3	8.3	3.7	13.0	40.0	.9	11.1
	MC CULLOCH	127	10.2	7.1	6.3	16.5	38.9	2.4	9.1
	MC MULLEN	16	12.5	0.0	0.0	6.3	43.8	25.0	14.1
	MADISON	137	9.5	8.8	3.6	21.9	42.5	1.5	14.3
	MARION	114	9.6	10.5	5.3	36.0	45.5	6.1	14.1
	MARTIN	85	3.5	7.1	3.5	16.5	41.2	5.9	13.6
	MASON	36	5.6	2.8	5.6	5.6	37.1	2.8	19.5
	MATAGORDA	786	6.7	6.4	5.6	17.0	38.6	.1	14.7
	MAVERICK	763	6.8	6.0	8.5	12.1	41.0	18.7	12.2
	MEDINA	456	5.7	9.6	6.1	15.1	33.6	1.3	14.7
	MENARD	39	5.1	10.3	7.7	12.8	25.6	5.1	25.5
	MILAM	370	7.6	5.1	5.9	18.6	40.6	1.1	17.5
	MILLS	51	5.9	5.9	2.0	13.7	31.4	0.0	21.4
	MITCHELL	139	8.6	6.5	6.5	18.0	39.7	.7	22.3
	MONTAGUE	227	5.3	7.9	3.5	9.7	36.7	4.0	8.0
	MOORE	338	6.8	9.2	2.1	11.5	35.9	2.1	13.5
	MORRIS	196	9.7	10.7	5.6	23.5	32.3	2.6	14.1
	MOTLEY	18	22.2	5.6	5.6	0.0	25.0	0.0	0.0
	NACOGDOCHES	736	6.1	6.8	4.8	14.7	26.8	1.8	17.9
	NAVARRO	636	8.2	8.2	3.6	26.4	48.2	.5	15.0
	NEWTON	161	5.0	9.3	1.9	31.7	28.6	.6	11.3
	NOLAN	266	8.6	7.9	5.6	16.5	42.0	1.9	21.7
	OCHILTREE	160	2.5	5.6	7.5	6.9	28.7	1.2	14.6
	OLDHAM	35	0.0	2.9	5.7	5.7	31.4	0.0	17.4
	PALO PINTO	407	6.1	6.6	4.7	9.6	50.7	.7	18.7
	PANOLA	276	6.5	5.4	4.7	17.8	33.8	1.8	13.0
	PARMER	172	5.8	4.7	6.4	13.4	50.0	4.1	15.8

* THE VARIABLE LOW BIRTH WEIGHT INCLUDES BABIES THAT WEIGHED 2500 GRAMS OR LESS AT BIRTH.

** LATE OR NO PRENATAL CARE INCLUDES BIRTHS TO MOTHERS WHO RECEIVED NO PRENATAL CARE OR WHO INITIATED CARE AFTER THE FIRST TRIMESTER (> 12 WKS.)

SOURCE: LIVE BIRTH STATISTICAL FILE, 1983-1987
 DEATH STATISTICAL FILES, 1983-1987
 FETAL DEATH STATISTICAL FILES, 1983-1987
 BUREAU OF VITAL STATISTICS
 TEXAS DEPARTMENT OF HEALTH

PREPARED BY: DATA ANALYSIS SECTION
 BUREAU OF MATERNAL AND CHILD HEALTH
 TEXAS DEPARTMENT OF HEALTH

COUNTIES BY METROPOLITAN STATUS
 =====

COUNTY PROFILE
 MATERNAL AND INFANT CHARACTERISTICS
 TEXAS RESIDENTS, 1987

METROPOLITAN STATUS	COUNTY OF RESIDENCE	NUMBER OF LIVE BIRTHS	PERCENT LOW BIRTH WEIGHT*	PERCENT MOTHERS <18 YRS	PERCENT MOTHERS >34 YRS	PERCENT SINGLE MOTHERS	PERCENT LATE OR NO PRENATAL CARE**	PERCENT OUT OF HOSPITAL BIRTHS	PERINATAL MORTALITY RATE 5 YR. AVE.
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Non-Metropolitan	PECOS	315	3.8	8.3	3.5	13.7	45.8	14.0	13.1
	POLK	433	9.7	7.6	4.4	24.7	37.0	2.1	18.4
	PRESIDIO	116	7.8	11.2	3.4	14.7	34.8	12.1	15.9
	RAINS	66	6.1	9.1	7.6	13.6	25.0	3.0	24.5
	REAGAN	83	6.0	13.3	4.8	8.4	27.7	2.4	11.9
	REAL	41	2.4	7.3	12.2	9.8	39.0	7.3	25.8
	RED RIVER	184	5.4	4.9	3.3	22.3	51.4	1.6	22.5
	REEVES	280	5.7	10.4	6.4	16.8	42.7	.7	13.9
	REFUGIO	133	7.5	6.0	6.8	22.6	37.7	4.5	12.5
	ROBERTS	11	9.1	0.0	0.0	18.2	36.4	0.0	13.9
	ROBERTSON	262	7.6	11.1	4.2	35.1	56.0	4.2	12.7
	RUNNELS	151	5.3	4.6	6.0	21.2	30.9	.7	14.1
	RUSK	658	6.4	5.8	5.0	20.1	25.7	1.2	15.7
	SABINE	98	8.2	12.2	7.1	21.4	23.7	2.0	14.3
	SAN AUGUSTINE	117	11.1	10.3	6.0	36.8	45.4	.9	15.9
	SAN JACINTO	187	5.3	5.9	5.9	21.4	39.0	0.0	13.9
	SAN SABA	90	10.0	6.7	7.8	14.4	36.4	4.4	5.5
	SCHLEICHER	54	5.6	5.6	3.7	11.1	37.0	3.7	14.2
	SCURRY	274	6.6	5.1	2.9	9.9	45.2	3.3	16.4
	SHACKELFORD	45	2.2	11.1	0.0	11.1	31.1	0.0	24.5
	SHELBY	330	9.1	9.7	2.7	27.0	36.2	6.4	19.0
	SHERMAN	52	9.6	1.9	7.7	5.8	27.5	0.0	4.1
	SOMERVELL	91	8.8	7.7	4.4	8.8	36.0	3.3	8.6
	STARR	719	5.7	6.5	5.8	9.0	34.9	8.1	7.8
	STEPHENS	181	6.6	7.2	6.1	9.4	35.6	1.7	19.5
	STERLING	31	9.7	9.7	3.2	9.7	35.5	0.0	18.9
	STONEWALL	30	13.3	6.7	0.0	26.7	30.0	0.0	34.7
	SUTTON	59	5.1	6.8	6.8	8.5	40.7	3.4	20.7
	SWISHER	153	8.6	10.5	3.3	14.4	41.3	.7	19.0
	TERRELL	20	0.0	10.0	5.0	5.0	25.0	5.0	7.1

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** LATE OR NO PRENATAL CARE INCLUDES BIRTHS TO MOTHERS WHO RECEIVED NO PRENATAL CARE OR WHO INITIATED CARE AFTER THE FIRST TRIMESTER (> 12 WKS.)

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 DEATH STATISTICAL FILES, 1983-1987
 FETAL DEATH STATISTICAL FILES, 1983-1987
 BUREAU OF VITAL STATISTICS
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PREPARED BY: DATA ANALYSIS SECTION
 BUREAU OF MATERNAL AND CHILD HEALTH
 TEXAS DEPARTMENT OF HEALTH

COUNTIES BY METROPOLITAN STATUS
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COUNTY PROFILE
 MATERNAL AND INFANT CHARACTERISTICS
 TEXAS RESIDENTS, 1987

METROPOLITAN STATUS	COUNTY OF RESIDENCE	NUMBER OF LIVE BIRTHS	PERCENT LOW BIRTH WEIGHT*	PERCENT MOTHERS <18 YRS	PERCENT MOTHERS >34 YRS	PERCENT SINGLE MOTHERS	PERCENT LATE OR NO PRENATAL CARE**	PERCENT OUT OF HOSPITAL BIRTHS	PERINATAL MORTALITY RATE 5 YR. AVE.
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
Non-Metropolitan	TERRY	245	8.2	11.0	2.4	17.6	35.8	0.0	10.6
	THROCKMORTON	35	5.7	8.6	0.0	11.4	22.9	0.0	26.1
	TITUS	420	6.7	8.1	3.3	11.7	27.2	1.7	9.5
	TRINITY	160	8.1	10.0	2.5	21.2	38.0	3.7	17.5
	TYLER	219	9.1	6.8	5.0	17.6	36.7	7.8	14.0
	UPSHUR	450	7.8	6.0	3.3	13.1	36.6	7.3	20.5
	UPTON	80	6.3	6.3	5.0	16.2	25.0	1.2	9.0
	UVALDE	425	6.1	8.7	7.8	12.9	40.2	1.9	10.3
	VAL VERDE	841	3.6	5.8	5.1	12.8	35.7	9.3	14.9
	VAN ZANDT	433	6.0	6.0	6.2	12.2	29.3	2.3	13.0
	WALKER	647	6.5	7.3	5.7	19.3	23.2	1.9	13.0
	WARD	212	8.0	9.9	2.8	17.0	42.1	1.4	11.9
	WASHINGTON	383	7.0	4.4	6.3	22.5	23.5	1.8	12.8
	WHARTON	624	4.5	8.7	5.6	16.8	30.0	3.8	15.2
	WHEELER	67	4.5	9.0	1.5	16.4	32.8	3.0	11.8
	WILBARGER	231	4.3	7.4	4.3	19.5	45.5	0.0	15.2
	WILLACY	415	8.2	6.7	6.5	12.8	50.7	3.6	13.1
	WILSON	329	7.9	4.6	6.4	13.4	31.5	2.1	10.0
	WINKLER	130	7.7	6.9	3.1	14.6	34.6	1.5	18.8
	WISE	460	6.0	5.8	3.3	10.8	38.6	2.7	13.7
	WOOD	381	3.4	8.1	3.9	10.5	33.0	5.8	9.4
	YOAKUM	167	4.8	10.2	3.0	10.2	44.9	1.2	9.5
	YOUNG	283	6.7	8.8	4.6	9.5	31.7	.4	12.1
	ZAPATA	163	9.8	9.8	5.5	9.2	46.0	0.0	18.2
	ZAVALA	276	6.9	8.0	9.4	16.3	52.4	6.9	13.8
	TOTAL		48266	6.7	7.5	5.0	16.3	37.5	2.9

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 TEXAS DEPARTMENT OF HEALTH

COUNTIES BY METROPOLITAN STATUS
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COUNTY PROFILE
MATERNAL AND INFANT CHARACTERISTICS
TEXAS RESIDENTS, 1987

METROPOLITAN STATUS =====	COUNTY OF RESIDENCE =====	NUMBER OF LIVE BIRTHS =====	PERCENT LOW BIRTH WEIGHT* =====	PERCENT MOTHERS <18 YRS =====	PERCENT MOTHERS >34 YRS =====	PERCENT SINGLE MOTHERS =====	PERCENT LATE OR NO PRENATAL CARE** =====	PERCENT OUT OF HOSPITAL BIRTHS =====	PERINATAL MORTALITY RATE 5 YR. AVE. =====
Metropolitan	BELL	4933	6.9	4.5	3.4	14.2	25.2	.6	13.9
	BEXAR	22627	7.2	7.2	6.5	19.6	28.0	1.2	13.7
	BOWIE	1138	8.4	9.2	4.0	27.1	42.0	2.6	13.6
	BRAZORIA	3256	5.9	5.8	4.8	12.6	25.4	.8	12.8
	BRAZOS	1784	5.3	6.1	4.8	15.6	32.3	3.5	13.1
	CAMERON	5521	5.4	6.1	8.9	12.8	42.7	19.0	14.0
	COLLIN	3974	6.1	3.1	8.3	8.3	21.9	2.3	12.3
	COMAL	719	5.8	7.5	5.6	10.3	32.3	1.0	10.0
	CORYELL	928	5.5	4.4	3.4	9.8	23.9	.9	15.2
	DALLAS	36365	8.1	6.7	6.2	26.4	38.5	1.3	15.3
	DENTON	4744	5.1	2.7	6.6	8.4	25.1	1.8	10.7
	ECTOR	2262	7.1	7.8	4.7	14.7	30.4	1.9	13.0
	ELLIS	1447	6.9	7.0	4.5	17.1	31.9	1.1	12.4
	EL PASO	12198	6.8	5.3	7.2	19.5	45.7	4.9	11.9
	FORT BEND	3854	6.5	3.5	9.2	9.6	20.5	1.9	12.1
	GALVESTON	3537	7.2	5.8	6.6	21.7	24.0	.7	14.7
	GRAYSON	1400	7.4	7.1	3.6	16.9	30.9	.4	11.9
	GREGG	1752	6.7	7.9	4.6	20.3	35.5	2.1	15.9
	GUADALUPE	970	5.9	6.7	5.4	16.6	31.3	1.3	15.5
	HARDIN	607	6.8	5.9	4.1	13.0	30.1	1.3	13.1
	HARRIS	51225	7.5	5.3	7.6	23.7	26.1	1.9	17.1
	HARRISON	741	8.1	9.0	4.0	26.2	35.6	3.2	18.8
	HAYS	946	5.0	6.2	7.9	12.7	22.7	2.5	10.8
	HIDALGO	8364	5.6	5.7	9.6	11.4	40.6	17.3	13.4
	JEFFERSON	3760	8.2	5.8	5.7	24.6	30.6	1.8	18.2
	JOHNSON	1479	6.4	6.5	4.4	10.1	39.4	1.3	15.9
	KAUFMAN	788	6.6	7.5	4.7	20.1	33.0	1.9	18.1
	LIBERTY	813	7.3	8.9	4.7	17.7	39.1	.9	16.9
	LUBBOCK	3673	6.8	6.9	4.4	12.8	24.0	.5	12.6
	MC LENNAN	3027	7.6	8.5	4.4	23.9	39.1	1.5	18.1

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DEATH STATISTICAL FILES, 1983-1987
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COUNTIES BY METROPOLITAN STATUS

COUNTY PROFILE
MATERNAL AND INFANT CHARACTERISTICS
TEXAS RESIDENTS, 1987

METROPOLITAN STATUS	COUNTY OF RESIDENCE	NUMBER OF LIVE BIRTHS	PERCENT LOW BIRTH WEIGHT*	PERCENT MOTHERS <18 YRS	PERCENT MOTHERS >34 YRS	PERCENT SINGLE MOTHERS	PERCENT LATE OR NO PRENATAL CARE**	PERCENT OUT OF HOSPITAL BIRTHS	PERINATAL MORTALITY RATE 5 YR. AVE.
Metropolitan	MIDLAND	2154	7.0	5.9	5.2	14.5	25.7	3.0	13.3
	MONTGOMERY	2731	6.2	5.6	6.3	12.9	28.5	1.4	13.2
	NUECES	5186	6.6	6.7	5.3	17.2	39.3	1.1	15.6
	ORANGE	1182	6.7	6.0	3.3	16.3	27.4	1.6	17.6
	PARKER	900	6.0	5.2	5.3	8.0	33.7	1.4	11.6
	POTTER	2195	8.2	7.9	3.6	18.0	52.7	1.4	18.2
	RANDALL	1285	6.4	2.8	5.1	7.7	28.0	1.0	14.6
	ROCKWALL	378	7.4	5.3	5.0	11.9	25.2	4.0	15.1
	SAN PATRICIO	1022	7.3	8.5	7.0	21.5	45.6	1.8	15.6
	SMITH	2448	6.4	7.3	5.6	14.6	23.3	2.4	13.3
	TARRANT	21652	6.6	5.3	5.3	15.9	35.9	1.5	15.0
	TAYLOR	2305	5.3	6.2	4.7	14.9	25.6	.5	15.1
	TOM GREEN	1658	7.0	5.9	3.2	16.3	35.6	.6	13.8
	TRAVIS	10313	6.2	5.4	7.8	18.0	20.0	2.4	11.0
	VICTORIA	1260	6.2	7.4	5.2	18.3	27.5	1.0	11.4
	WALLER	326	7.4	6.1	5.2	23.9	35.5	3.1	21.0
	WEBB	3124	6.6	5.7	7.9	12.6	40.8	3.6	13.8
	WICHITA	2093	7.3	6.7	4.4	18.8	27.0	.3	14.4
	WILLIAMSON	2317	5.6	4.3	6.6	11.0	24.1	3.1	12.2
TOTAL		263561	7.0	5.9	6.5	19.1	31.5	2.6	14.7

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COUNTIES BY METROPOLITAN STATUS
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 TEXAS RESIDENTS, 1987

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TEXAS		301827	6.9	6.2	6.2	18.7	32.5	2.7	14.7

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**Texas Non-Metropolitan Counties with no
Hospital Obstetrical Services
January 1989**
N=92

Aransas	Freestone	Motley
Armstrong	Glasscock	Oldham
Atascosa	Gonzales	Panola
Bandera	Hamilton	Parmer
Blanco	Hansford	Presidio
Borden	Hardeman	Rains
Briscoe	Hudspeth	Real
Burleson	Hutchinson	Red River
Callahan	Irion	Refugio
Camp	Jack	Roberts
Carson	Jackson	Robertson
Chambers	Jeff Davis	San Jacinto
Clay	Jim Hogg	San Saba
Cochran	Kendall	Schleicher
Coke	Kenedy	Shackelford
Collinsworth	Kent	Sherman
Concho	King	Somervell
Cottle	Kinney	Sterling
Crane	Knox	Sutton
Crockett	La Salle	Terrell
Crosby	Leon	Terry
Dallam	Lipscomb	Throckmorton
Delta	Live Oak	Upshur
Dickens	Loving	Van Zandt
Donley	McCulloch	Waller
Duval	McMullen	Wilbarger
Edwards	Marion	Willacy
Falls	Mason	Winkler
Fannin	Menard	Zapata
Foard	Mills	Zavala
Franklin	Morris	

Source: Texas Senate Committee on Health and Human Services,
Telephone Survey, 1989

Texas Counties with No Prenatal Care
February 1989

Archer	Liberty
Atascosa*	Live Oak*
Baylor	Loving*
Borden*	McMullen*
Brooks	Parker
Camp*	Rains*
Chambers*	Reagan
Cherokee	Sabine
Coke*	San Augustine
Concho*	Schleicher*
Ector	Sterling*
Freestone*	Terry*
Glasscock*	Uvalde
Irion*	Walker
Jim Hogg*	Wilson
Johnson	Wood
Kenedy*	Yoakum
Kent*	Young
King*	

*Counties without hospital OB services.

Sources: Bureau of Maternal and Child Care Health, Texas Department
of Health;
Texas Senate Committee on Health and Human Services,
Telephone Survey, January 1989

**West Texas Sample of Physicians Providing OB Care
January 1989
N=51 Counties**

County	<u>Delivering Physicians</u>		<u>Physicians Will Serve</u>		
	No. of OB Phys in Cty.	No. of Fam.Med Phys. in Cty.	Private Pay	Medicaid	MIHIA
Armstrong	0	0	0	0	0
Bailey	0	2	2	0	0
Borden	0	0	0	0	0
Briscoe	0	0	0	0	0
Carson	0	1	0	0	0
Castro	0	2	2	1	1
Childress	0	4	4	4	4
Cochran	0	0	0	0	0
Collingsworth	0	0	0	0	0
Crane	0	0	0	0	0
Crosby	0	0	0	0	0
Dallam	1	0	1	1	1
Dawson	1	3	4	2	2
Deaf Smith	0	5	5	3	3
Dickens	0	0	0	0	0
Donley	0	0	0	0	0
Floyd	0	2	2	2	0
Gaines	0	2	1	1	1
Garza	0	1	1	1	1
Glasscock	0	0	0	0	0
Gray	2	0	2	2	2
Hale	4	2	6	2	2
Hall	0	1	1	1	1
Hansford	0	0	0	0	0
Hartley	0	0	0	0	0
Hemphill	0	2	2	2	2
Hockley	1	0	1	1	1
Howard	2	2	4	3	3
Hutchinson	1	0	1	1	1
King	0	0	0	0	0
Lamb	0	3	3	0	0
Lipscomb	0	0	0	0	0
Loving	0	0	0	0	0
Lynn	0	1	1	1	1
Martin	0	2	2	2	2
Moore	1	0	1	1	1
Motley	0	0	0	0	0
Ochiltree	0	2	2	2	2
Oldham	0	0	0	0	0
Parmer	0	0	0	0	0
Pecos	0	2	2	0	0

Reeves	0	2	2	2	1
Sherman	0	0	0	0	0
Swisher	0	2	2	1	1
Terrell	0	0	0	0	0
Terry	0	0	0	0	0
Upton	0	1	1	1	1
Ward	0	2	2	2	2
Wheeler	0	2	2	2	0
Winkler	0	0	0	0	0
Yoakum	0	1	1	1	1
Totals:	=====	=====	=====	=====	=====
	13	49	60	42	37

Source: MIHIA Program, Texas Tech University, 1989

SCHEDULE OF RATES FOR MEDICAL MALPRACTICE INSURANCE*
1980 and 1988

AMERICAN PHYSICIANS INSURANCE EXCHANGE

Year	FAMILY PRAC(min del)		OB/GYN		FAM PRAC(no del)	
	100/300	1000/1000	100/300	1000/1000	100/300	1000/1000
1980	\$ 1,736	\$ 2,744	\$ 5,150	\$ 8,439	\$ 1,044	\$ 1,650
1988	22,328	46,442	22,328	46,442	2,693	4,955
%Change	1186%	1592%	333%	450%	158%	200%

INSURANCE CORPORATION OF AMERICA

Year	FAMILY PRAC(min del)		OB/GYN		FAM PRAC(no del)	
	100/300	1000/1000	100/300	1000/1000	100/300	1000/1000
1980	\$ 1,302	\$ 2,083	\$ 4,683	\$ 7,493	\$ 896	\$ 1,434
1988	5,238	9,429	18,334	33,001	1,484	2,523
%Change	302%	352%	291%	340%	66%	76%

MEDICAL PROTECTIVE COMPANY

Year	FAMILY PRAC(MIN DEL)		OB/GYN		FAM PRAC(no del)	
	100/300	1000/1000	100/300	1000/1000	100/300	1000/1000
1980	\$ 1,046	\$ 1,046	\$ 4,160	\$ 6,748	\$ 726	\$ 1,162
1988	1,346	3,638	7,246	19,782	929	2,425
%Change	28%	247%	74%	193%	28%	109%

ST. PAUL INSURANCE COMPANIES

Year	FAMILY PRAC(min del)		OB/GYN		FAM PRAC(no del)	
	100/300	1000/1000	100/300	1000/1000	100/300	1000/1000
1980	\$ 1,646	\$ 2,881	\$ 5,492	\$ 9,886	\$ 934	\$ 1,635
1988	3,908	7,191	14,418	29,989	1,997	3,674
%Change	137%	149%	162%	203%	114%	125%

TX MED. LIABILITY TRUST INS. UNDERWRITING ASSOC. (TX JUA) **

Year	FAMILY PRAC(min del)		OB/GYN		FAM PRAC(no del)	
	100/300	1000/1000	100/300	1000/1000	100/300	1000/1000
1980	\$ 2,333	\$ 3,298	\$ 7,920	\$11,280	\$ 1,944	\$ 2,748
1988	7,217	14,766	24,502	57,090	4,010	8,204
%Change	209%	347%	209%	406%	106%	199%

*exclusive of certain metro areas which include Harris, Bexar, Brazoria, Dallas, Galveston, Jefferson, Montgomery counties. The companies in Texas differentiate for rate making purposes these counties from "all other counties"

**does not include JUA assessments which have been made in the past.

Source: Texas State Board of Insurance, 1988.

Weighted Average Cost of Obstetrical Component*
Family Practice Medical Malpractice Insurance - 1988
(\$1,000,000/1,000,000 Coverage)

$$\begin{aligned}
 x &= \frac{\sum (\text{OB Component} \cdot \text{Market Share})}{\sum (\text{Market Share})} \\
 &= \frac{(479,604) + (62,154) + (44,881) + (7,034) + (190,298)}{12 + 9 + 37 + 2 + 29} \\
 &= \frac{801,971}{89} \\
 &= \$9,010.91 \text{ per year per physician}
 \end{aligned}$$

Assumption: Assumes companies charge published rate.
 This assumption may not be true

<u>Company</u>	<u>% Market Share</u>	<u>*Published Cost</u>
American Physicians Exchange	12%	\$41,467
Ins. Corp. of America	9%	6,906
Medical Protective Company	37%	1,213
St. Paul Ins. Co.	2%	3,517
Tx. Med. Liability Trust UW Assoc.	2% ⁹	6,562

Source: State Board of Insurance, 1988

*Published Cost of OB Component = Cost FP(min del)Cost FP(no del)



