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TEXAS
STATE
HEALTH
PLAN**

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Dear Dr. Zetzman:

By this letter, I am approving the Texas State Health Plan as adopted by the Statewide Health Coordinating Council (SHCC) in June 1986. This plan represents a cooperative effort between the state, regional, and local levels of health planning. It should assist in developing realistic solutions to the issues we face in planning for the health needs of our citizens.

As I requested in my approval of the 1985 Health Plan, the SHCC has developed a summary of the recommendations developed by the health-related task forces and committees over the last few years. You have already forwarded a copy of that report for my review.

I encourage you to continue to work closely with the Texas Health and Human Services Coordinating Council and other health planning entities to adjust the health plan to changing needs. Our current state fiscal situation mandates that we seek new ways to coordinate and integrate services so that resources are maximized. I look forward to working with you in meeting the challenges that we face.

Yours truly,

Mark White
Governor of Texas

Dr. Marion Zetzman, Chairman
Statewide Health Coordinating Council
1100 West 49th Street
Austin, Texas 78756

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Texas Statewide Health Coordinating Council

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Parliamentarian

July 14, 1986

The Honorable Mark White
Governor of Texas
State Capitol
Austin, Texas 78711

Dear Governor White:

On behalf of the Statewide Health Coordinating Council, it is with great pride that I forward to you the 1987-88 Texas State Health Plan. Your approval of this plan will culminate over a year of work in identifying key areas in Texas health policy and proposing actions to bring about needed changes.

We have made every effort to produce a plan that fosters a positive, concise approach, and that has the potential for implementation during the next two years. As you know, the health-related agencies of state government will be called upon to address the plan's recommendations in their appropriations requests for the first time this year.

The challenge, as we see it, has been to conceive recommendations which provide policy guidance but do not necessarily require additional funds. A major highlight of the plan is to improve the quality of health education, making it a more viable approach in the prevention of alcohol and drug abuse and teenage pregnancy -- a major problem in Texas. A Governor's Task Force on Health Education is recommended to target and coordinate public and private sector efforts to improve the health status of our school age children.

So that implementation efforts may commence, we respectfully request that you approve this plan at your earliest convenience.

Sincerely,

A handwritten signature in cursive script that reads "Marion R. Zetzman".

Dr. Marion R. Zetzman, Chairman
Statewide Health Coordinating Council

Enclosure

TABLE OF CONTENTS

CHAIRMAN'S STATEMENT	iii
TEXAS STATEWIDE HEALTH COORDINATING COUNCIL MEMBERSHIP	iv
TEXAS HEALTH PLANNING AND DEVELOPMENT AGENCY	v
CHAPTER I: INTRODUCTION.....	1
CHAPTER II: STATE CHARACTERISTICS RELATED TO HEALTH.....	3
CHAPTER III: STATE AND REGIONAL ISSUES.....	5
CHAPTER IV: HEALTH PROTECTION.....	39
CHAPTER V: HEALTH PROMOTION - HEALTH EDUCATION.....	47
CHAPTER VI: PREVENTION, DETECTION AND REFERRAL.....	51
CHAPTER VII: AMBULATORY CARE AND EMS.....	55
CHAPTER VIII: SHORT- TERM INSTITUTIONAL CARE.....	59
CHAPTER IX: LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES.....	63
CHAPTER X: HABILITATION AND REHABILITATION.....	67
CHAPTER XI: MENTAL HEALTH AND MENTAL RETARDATION.....	69
CHAPTER XII: ALCOHOL AND DRUG ABUSE.....	71
CHAPTER XIII: HEALTH CARE COSTS.....	75
CHAPTER XIV: HEALTH PROFESSIONS.....	79
CHAPTER XV: DATA NEEDS.....	85
CHAPTER XVI: MATERNAL AND CHILD HEALTH.....	89
CHAPTER XVII: THE MEDICAL LIABILITY SYSTEM.....	93
CHAPTER XVIII: SPECIALIZED MEDICAL SERVICES, NATIONAL HEALTH PLAN- NING GUIDELINES (NHPG) AND FACILITY BED PROJECTIONS	
INTRODUCTION.....	97
MAGNETIC RESONANCE IMAGING.....	97

TRAUMA CENTERS.....	97
PERINATAL SERVICES (NHPG 3 & 4).....	98
PEDIATRIC SERVICES (NHPG 5 & 6).....	98
OPEN HEART SURGERY AND DIAGNOSTIC CARDIAC CATHETERIZATION (NHPG 7 & 8).....	99
RADIATION THERAPY (NHPG 9).....	99
END-STAGE RENAL DISEASE (NHPG 11).....	100
SHORT-TERM INSTITUTIONAL CARE BED PROJECTIONS (NHPG 1 & 2).....	100
NURSING HOME BED PROJECTIONS.....	103
CHAPTER XIX: NATIONAL HEALTH PRIORITIES.....	107

CHAIRMAN'S STATEMENT

A plan is nothing more than a guide to some desired future. It is generally based on the perception of problematic situations, issues, and the need to resolve them. Concurrently, the function of health planning is to develop ideas, ways, and means that will best meet the priority health needs of all the people; to learn more how health services may be improved, and to make policy proposals for the consideration of administrative and political authorities. The Texas Statewide Health Coordinating Council, the staff of the State Health Planning and Development Agency, and our 24 Regional Health Planning Advisory Committees have genuinely attempted to do these things and to make this 1987-88 edition of the State Health Plan a realistic road map for future action.

An essential test of any plan is whether it can meet the conditions of legal, financial, and political feasibility. We are told a plan that cannot meet these conditions is "little more than a pretense, a proclamation, or an editorial comment." Only time will tell whether this plan meets all conditions of the essential test. We are hopeful that it does.

We are ever mindful that planning documents are very often static and commonly bookshelved; infrequently, if ever, used. We hope this won't be the case with this plan. In any event, I have been reminded that "the play's the thing and not the script." Literally hundreds of "actors" in the Texas health care scene have been — and will continue to be — active, seeking to improve or ameliorate the situations upon which such an effort as this is based. Let's hope for success in achieving the outcomes for our desired future.

Dr. Marion R. Zetzman, Chairman
Texas Statewide Health Coordinating Council
1100 West 49th Street
Austin, Texas 78756-3199
June, 1986

**TEXAS STATEWIDE HEALTH COORDINATING COUNCIL
MEMBERSHIP**

NAME/CITY	CONSUMER/ PROVIDER	OCCUPATION
Adrian A. Arriaga McAllen	C	Broker, AAA Real Estate and Investments
Elizabeth Ann Attel, R.N., MSN Dallas	P	Vice-President, OB-GYN Patient Care Center, Parkland Memorial Hospital
Eugene A. Borrell, Ex-Officio Temple	P	Director, Olin E. Teague VA Medical Center
The Reverend Robert Brooks Houston	C	Priest (The Episcopal Church)
Max Brown, Jr. Dallas	P	Texas Regional Manager, Partners National Health Plan, Inc.
Lynda Calcote Abilene	P	Executive Director, Hospice of Abilene
James L. Caldwell, Ph.D. Austin	C	Advisory Systems Analyst, International Business Machines Corporation
Jack Lester Campbell, FACHE Austin	P	President, St. David's Hospital
The Honorable Buddy Cole Pilot Point	C	County Judge, Denton County
The Honorable Lester Cranek Columbus	C	County Judge, Colorado County
Marjorie B. Daniels Hereford	C	Director, Hereford Senior Citizens Association
James G. Easter, Jr. Houston	P	Director of Facility Planning, UT System Cancer Center
Melinda Gonzales, R.N., B.S.N. Corpus Christi	P	Coordinator for Health Services Corpus Christi Independent School District

Jose L. Gonzalez Laredo	P	Director, Laredo-Webb County Health Department
James L. Grey Austin	C	Manager of Human Resources, Radian Corporation
Lynda Fant Hill Fort Worth	C	Community Volunteer Advocate
Dolores Lawless Beaumont	C	Retired
Edward A.R. Lord, Jr., M.D. Houston	P	Medical Practice, Full Partner Hollins & Lord Associates
The Honorable Frank Madla San Antonio	C	State Representative
M. Madesta Smith Clarksville	C	Community Volunteer Advocate
Michael Cooper Waters, FACHE Abilene	P	President, Hendrick Medical Center
Marion R. Zetzman, Dr.P.H. Chair Dallas	P	Professor of Community Medicine and Special Assistant to the President, UT Health Science Center

STATE HEALTH PLANNING AND DEVELOPMENT AGENCY

**TEXAS DEPARTMENT OF HEALTH
BUREAU OF STATE HEALTH PLANNING AND RESOURCE DEVELOPMENT
1100 West 49th Street
Austin, Texas 78756-3199**

Ron Anderson, M.D., Chairman
Board of Health

Robert Bernstein, M.D., F.A.C.P.
Commissioner of Health

INTRODUCTION

PLAN PURPOSE

The Texas State Health Plan (SHP) is developed by the Statewide Health Coordinating Council (SHCC). It should be used as a guide by all Texas health-related decision-makers in the development of programs and the allocation of resources. This plan represents a large scale cooperative effort to provide direction for refining and implementing the essential health programs for Texas.

This plan identifies major statewide health-related concerns; it recommends strategies to resolve these concerns; and analyzes the need for various types of health facilities and services. It also reviews the key resources of our health service system, i.e., reimbursement for and cost of services, health manpower supply and deployment and other related data. The overarching goal of this plan is to assure equitable access to needed health care services--at affordable prices--for all citizens of Texas.

Implementation of this plan is guided by the SHCC and the State Health Planning and Development Agency (SHPDA) of the Texas Department of Health (TDH). Of course, the ultimate responsibility for implementation resides with the managers of the various health-related public agencies and -- most importantly -- on individual providers and the leaders of associations and organizations in the private sector. Without their cooperation, this plan is doomed to failure.

LEGAL BASIS

The National Health Planning and Resource Development Act of 1974, Public Law 93-641, authorizes health planning and development activities. The Texas Health Planning and Development Act, Article 4418h, Vernon's Texas Civil Statutes, enables the Texas Department of Health to perform the functions outlined in P.L. 93-641. The 69th Texas Legislature amended the state statute to delineate the responsibilities of the SHCC, to set out the purpose and basic form of the SHP, and to provide more specific authority and responsibilities in the collection and analysis of health care data. The federal and state laws together establish the statutory basis for the health planning and development program in Texas.

PLAN DEVELOPMENT NETWORK

The TDH, as the SHPDA, is charged with conducting policy analysis and identifying priority concerns to be addressed in the SHP. This includes involvement of many public and private agencies and associations concerned with the delivery, advocacy and reimbursement of health care in Texas. As the designated planning agency, the SHPDA works closely with the 16 state agencies designated by the governor to implement the parts of the plan that relate to state government. In addition, nearly 200 other state, regional, and local organizations are involved by providing ideas, data, policy reviews, priority setting and implementation. To assure local participation in the process, the governor asked the 24 regional councils of government in Texas to form Regional Health Planning Advisory Committees (RHPAC). This process was completed in early 1985 and the councils actively participated in the development of the 1987-88 SHP. Their cooperation and assistance were invaluable in preparing a plan that reflects the health care concerns throughout all areas of the state. The regional councils, through their association with local groups and individuals in their areas, contributed significantly to the successful development of this plan.

PLAN DEVELOPMENT PROCESS

The plan development process begins with health status and health delivery system policy analysis. This is done with state agency and regional involvement that includes the review of existing and proposed laws, regulations, programs, current services and resources. Key health concerns and needs are identified as potential issues to be included in the SHP. These issues are further developed via a joint effort to identify key issues and to establish priorities as follows:

- Step 1: Contact and coordination with nearly 200 state and regional organizations to solicit key health care concerns.
- Step 2: Development of priority issue statements and a survey of appropriate organizations to provide the initial ranking among key issues.
- Step 3: Staff analysis of the survey response and application of various analytic criteria to identify the top issues in each subject area. Selected criteria used to evaluate the issues include the number of individuals affected and the expected benefits, esti-

mated costs and resources involved, degree of public and legislative concern, and the overall prospects for successful implementation of improvements.

- Step 4: Recommendations are presented to the SHCC for final selection of the top priority issues to be included in the plan.
- Step 5: The SHCC then reviews the top issue in each of the 14 subject areas and considers possible solutions. This assists the SHCC in its legislative activities directed toward the implementation of SHP recommendations. As a matter of information, it should be noted that the chapter sequencing of the 14 subject areas in the SHP bears no relationship to the relative importance of these subject areas.

Issues not selected as priorities for this planning cycle are referred to the special interest organizations for further research and analysis. The issues finally selected as priorities for inclusion in the

plan are then described in detail with specific recommendations made to address the problem.

STATE HEALTH PLAN ORGANIZATION

The SHCC has identified 14 health care delivery subject areas. In each area, a specific issue is briefly addressed, focusing attention on a proposed solution. Each section is then further supported by a chapter annex in Appendix A which contains additional background material, data (or data sources), and a presentation of selected referral issues, i.e., those issues not selected as the priority issue in each subject area.

In addition, the SHP addresses the National Health Planning Guidelines, provides facility bed projections for short-term care hospitals and nursing homes, presents information regarding two professional services and facilities, i.e., magnetic resonance imaging and trauma centers, and cross references the National Health Priorities established by P.L. 93-641 to appropriate sections in this plan.

STATE CHARACTERISTICS

DEMOGRAPHY

Among the demographic variables that most influence health services statewide, the age structure, racial/ethnic composition and geographic distribution of populations are especially crucial. Given the unprecedented population growth in Texas since 1970, the potential for changes in the overall health needs of the population is great.

Although the extremely high growth rates are expected to decline in the second half of this decade, in the four years since the 1980 census the state has grown by an estimated 12.4%. It is estimated that between 1980 and 1983 an additional 922,000 persons (the equivalent of the entire population of New Hampshire) were added to the Texas population through migration. This was the highest net migration in the nation during the period. In 1980 about 6.3% or one of every 16 Americans lived in Texas. That proportion is increasing as high fertility and immigration bring the state closer to becoming the second most populous state. Texas is expected to surpass New York in population size by 1990.

The state's population continues to be concentrated in a few large urban areas. Populations in Metropolitan Statistical Areas (MSA) of Texas increased 38% during the seventies, following a 36% increase during the sixties, and have grown by an estimated 13.4% since 1980. One of every five counties with 20% or greater increase since 1980 is located in Texas. Of the 25 fastest growing MSA's in the nation between 1980 and 1984, 10 are in Texas. However, growth in suburban areas outside the central cities of these MSA's has been two to three times faster than in the central cities themselves over the entire period. This major shift to suburban areas places large demands on delivery of health services, which have traditionally been located in the central cities.

Rural population growth rates kept pace with urban growth in Texas from 1970 to 1980. Comprising about 20% of statewide population in 1980, the rural nonfarm residents continue to be a significant sector of the state population. Despite even growth rates, the larger population base of urban centers means that the percentage of Texas residents that are urban dwellers increases slightly each year.

Texas has a young population, with a median age three years below that of the nation. Slightly higher fertility and net immigration insure that the state's population will remain below the national median age for some time into the future. Increases in the age group 0-14 years will necessitate expansion of maternal and child health and family planning services in Texas when these services elsewhere are being reduced. The largest expected change in age distribution will be the increase in the age group 35-49 years as the baby boom generation ages. Increases in the elderly population of the state should parallel the anticipated growth of this segment of the population nationally. The elderly show far higher indices of hospital utilization than the rest of the population. The U.S. Census Bureau projects that persons 65 years of age and older will comprise 12.7% of the 1990 population and 13.1% of the population in 2000. That proportion in Texas is expected to remain between 9.8% and 10% until the year 2000. Fully one-third of the state's population belongs to an identifiable racial or ethnic minority. Although the minority proportion of the state's population is not expected to increase dramatically in the near future, meeting the health concerns of these groups requires special planning to account for large socioeconomic differences and varying health practices. Hispanics, the largest subpopulation, accounted for about 21% of the total, more than three times the national proportion. Concentrated in South and West Texas, the majority of Hispanics consider themselves of Mexican or Mexican American origin. A recent National Health Interview Survey showed that health resource utilization patterns of Mexican Americans, especially rates of physician and dental visits, were markedly lower than those of other Hispanic subgroups or other minorities. The Texas Black population, largely urban, is concentrated in the Southeast and North Central regions. Rates of growth for Blacks have historically been slightly negative. In 1980 they represented 12% of the total population. The differentials of age structure, income, unemployment, and education among Texas minorities have large implications for health planning and policy decisions.

ECONOMY

Until recently, the Texas economy was characterized by rapid and steady growth. From 1975 to 1985, per capita income increased at nearly 12% per year. The percentage of persons with incomes below the poverty level decreased by 20% from 1970 to 1980, although specific regions, most notably along the border with Mexico, still face high unemployment and high poverty rates. Current survey results show increases in the proportion of Texans living below federal poverty levels in these areas.

Recent indicators of Texas economic activity show the beginning of a period of slow growth, tied to the deteriorating energy market and slow sales and employment in the high technology sector. Net migration into Texas appears to have dropped dramatically from its 1982 peak, as recent employment growth has declined statewide.

Higher rates of unemployment can be expected to increase the general dependency upon public health and medical services. Although the long-term impact is difficult to assess, decreasing estimates of state revenues means that public funds for new initiatives to meet these increased health demands will be severely limited. In fact, some existing services may be trimmed back. However, the recent signs of resurgence in the national economy suggest that the stabilization of the Texas economy could occur relatively soon. In the meantime, all available data should be utilized to structure public health priorities and planning in ways that will maximize resource allocation and utilization.

STATE AND REGIONAL ISSUES

INTRODUCTION

This chapter describes the key health issues as selected by the SHCC and sets out the health priorities of each state planning region. The first part of the chapter identifies statewide priorities and referral issues within each health care subject area. Referral issues are those deemed by the SHCC to be worthy of consideration within the parameters of the plan development process to be referred to proponent organizations for appropriate action. Referral issues are also presented in Appendix A. The second part of the chapter describes the priorities selected in each state planning region and relates them to the statewide priorities selected by the SHCC. The subject areas and priority issue within each area are presented in the order provided under the federal health planning taxonomy, and this order of presentation does not establish a priority ranking among the issues.

HEALTH PROTECTION

Summary of Subject Area

Health protection features a wide spectrum of environmental service activities, including environmental quality management, radiation safety, occupational health and safety, food protection, and biomedical and consumer product safety. Environmental quality alone includes such major thrusts as water quality, air quality, solid waste disposal, and hazardous waste management (excluding radioactive wastes which are included in radiation safety). Therefore, many important issues surfaced during the initial policy analysis phase. These were narrowed to 17 issues incorporated in the plan as the priority issue and the 16 referral issues.

The problem of groundwater contamination was emphasized in the results of the survey sent to more than 200 state agencies, professional associations, regional councils and health-related organizations. The respondents to this survey also chose three other water quality issues as the second, third and fourth highest priorities under health protection. This further demonstrates the depth of concern regarding water quality as an environmental issue.

Priority Issue: Groundwater or sub-surface water contamination, particularly in aquifers.

Referral Issues

1. There is an insufficient number of water treatment, distribution and storage facilities to serve all Texas communities.
2. Better protection of the quality of surface drinking and recreational water supplies is needed.
3. Automobile and industrial air pollution is not adequately addressed.
4. Health hazards from indoor air contaminants, including air pollution of indoor places by tobacco are inadequately addressed.
5. Local funds are insufficient to properly dispose of solid waste.
6. Control of wastewater, solid waste and other health and environmental concerns outside of incorporated cities is inadequate.
7. Identification and cleanup of abandoned hazardous chemical waste sites is lacking.
8. Proper handling, transportation and disposal of hazardous wastes are inadequately addressed.
9. Proper handling, transportation and disposal of radioactive materials are inadequately addressed.
10. Industrial and medical radiation and x-ray equipment which does not meet safety standards, or which is operated by untrained personnel, requires further consideration.
11. The level of employee education about hazardous conditions and materials at the workplace is inadequate.
12. Worksite exposure to hazardous materials is too high.
13. There is an insufficient number of food services inspectors.
14. The level of consumer knowledge of food, nutrition and health quackery issues is inadequate.

15. Foods, drugs and other products that contain potentially harmful substances or materials are improperly labeled.
16. Pesticides and herbicides, especially in the rural areas, are improperly handled and used.

HEALTH PROMOTION/ HEALTH EDUCATION

Summary of Subject Area

Health promotion is the pursuit of physical and mental activities which further or encourage the growth, development and progress of health. It is an interdependent process encompassing both personal responsibility and a health-promoting environment. Health promotion efforts are slowly burgeoning across the state at worksites, hospitals and community centers. Health education is a component of health promotion; the other components are social and environmental supports.

Initial input was obtained from a diverse group of agencies, organizations, professional associations and regional councils. Seven other concerns surfaced from the initial survey.

Priority Issue: Comprehensive health education for school children.

Referral Issues

1. The need for health promotion activities directed at special populations, such as the elderly and low-income populations.
2. Health insurance industry disincentives regarding health promotion efforts.
3. The need for legislative controls on health risk factors.
4. The lack of funding for health promotion programs.
5. The need for worksite wellness programs.
6. The need for health promotion efforts as a component of comprehensive health care.
7. A demonstration of the effectiveness of health promotion programs.

PREVENTION, DETECTION AND REFERRAL

Summary of Subject Area

Prevention, detection, and referral are services which promote optimal physical and mental well-being through preventive measures, early detection of disease or disability and timely referral to the service delivery system.

In the priority survey, the key issue was "high incidence of sexually transmitted diseases (STD)." The input suggested expansion of programs for screening, treatment, and prevention of diseases such as acquired immune deficiency syndrome (AIDS), syphilis, gonorrhea, and chlamydia. This issue was rated as a high or very high concern by 72% of the respondents. Several respondents indicated that STDs in general should be considered the priority issue in this section of the plan. Some placed special emphasis on AIDS as the major problem.

AIDS was selected by the SHCC as the priority issue because of its increasing incidence and the lack of current financial and other resources in this area.

Priority Issue: The increasing incidence of AIDS.

Referral Issues

1. A high incidence of infant mortality.
2. A high incidence of unplanned pregnancies among the indigent population.
3. A lack of comprehensive cancer screening programs.
4. Incomplete cancer reporting to the Statewide Cancer Registry.
5. A limited availability of immunizations to children and adults.
6. A high incidence of other STDs.
7. The incidence of child abuse and lack of programs to adequately manage the children and families involved.
8. Nutritional deficiencies in school age children.
9. A lack of dental and eye care services in public health programs.

10. Inadequate screening for chronic diseases resulting in delayed treatment and disability.

AMBULATORY CARE/ EMERGENCY MEDICAL SERVICES

Summary of Subject Area

Ambulatory care and emergency medical services (EMS) combine two separate, but related subjects. In this plan, ambulatory care issues focus on increasing outpatient facilities and services. EMS issues are concerned with improvement of services through professional training, faster transportation, improved communication capabilities and more efficient procedures.

Ambulatory care offers options in outpatient services that are often less costly than inpatient hospitalization. Ambulatory care services have expanded rapidly during the past five years. Due to the rapid growth among outpatient facilities, new regulatory standards and licensing controls were imposed on ambulatory surgical and birthing centers by the 69th Legislature. Concerning the EMS system, plans are underway for expanding patient evacuation capabilities with additional helicopters, identifying trauma centers for more effective trauma care, and upgrading the EMS communications system with a statewide 9-1-1 emergency access number, including better mobile radio communications.

Pertinent comments were received during the initial input phase of development from two state agencies, five regional councils, two associations and one medical school. Their concerns were narrowed to 11 specific issues, from which EMS communications surfaced from the prioritization process as the priority issue.

Priority Issue: An improved regional EMS communications network throughout the state, emphasizing an upgraded radio communications system between emergency medical and other public safety units.

Referral Issues

1. The establishment of a licensing program and standards for minor emergency clinics.
2. An inadequate number and distribution of specialty care clinics, e.g., oncology treatment

centers, cystic fibrosis treatment centers, pre-natal services for adolescents, and wellness clinics for the elderly.

3. An insufficient number of primary medical care clinics in rural areas.
4. An inadequate range of ambulatory care services for low-income persons.
5. An integrated, regional EMS system with state-wide coordination and a state EMS plan.
6. An integrated, high-quality and coordinated statewide EMS training system.
7. Expanded health insurance coverage for ambulatory care and EMS services.
8. A shortage of EMS vehicles and active, qualified EMS personnel - particularly in medically underserved areas.
9. A shortage of qualified persons to administer cardio-pulmonary resuscitation (CPR).
10. Higher standards for EMS procedures and personnel.

SHORT-TERM INSTITUTIONAL CARE

Summary of Subject Area

Short-term institutional care refers to medical services provided to the general public by general and special community hospitals. The average length of stay is under 30 days. The basic function of these hospitals is inpatient care, although many provide varying amounts of outpatient, ambulatory service. There were 532 hospitals in Texas in 1984 with 73,455 licensed beds. Thirty-seven organizations and agencies responded to the initial issue selection survey. This survey identified the top ten issues of concern and was used as the basis for formulation of the prioritization survey. Seventy-two organizations and agencies responded to the second survey. Several primary issues were identified as a result of analysis of the survey data. These issues involved the impact of the Medicare prospective pricing system, the development of alternative delivery methods by hospitals, and the continued viability of small rural hospitals.

Several survey respondents provided key input into the priority issue selection process. These primary respondents included two associations, two state agencies and three other groups.

Priority Issue: Development of alternative delivery methods by hospitals.

Referral Issues

1. The impact of the Medicare prospective pricing system.
2. The status of indigent health care financial requirements for hospitals.
3. The continued viability of small rural hospitals.
4. The availability of funds for alternative delivery methods.
5. Reimbursement to hospitals for uncompensated/undercompensated services.
6. The unused/under-used short-term hospital bed capacity and administrative difficulties encountered in converting to other uses.
7. The post-discharge placement and care of hospital patients.
8. The need for major capital expenditure review.
9. The need for and availability of capital expenditure funding.

LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES

Summary of Subject Area

Long-term care refers to the personal or professional services needed by people limited in their capacity for self-care. Limitations may be caused by permanent physical or mental impairment or temporary recuperation from severe illness or injury. Long-term institutional care is provided to residents of facilities, including nursing homes, in which the average length of stay is 30 days or longer. The range of long-term care services, including alternatives to institutional care, extends on a continuum from basic homemaker assistance to total dependence upon constant medical attention in an institutional setting.

Initial input was received from 56 state agencies, professional associations, regional councils, public health regions and health-related organizations. This input was narrowed to 11 issues and ranked by the prioritization survey. The SHCC selected the

priority issue and included the remaining concerns as referral issues.

Priority Issue: The quality of care provided by nursing homes.

Referral Issues

1. The affordability of services and the need to contain the cost of care.
2. Limited private insurance coverage for long-term care services and the need to develop this type of insurance.
3. Limited Medicaid and other state funds to provide long-term care for the indigent.
4. The distribution of available Medicaid dollars among institutional, community-based and home-delivered services.
5. The service gaps in home and community care services.
6. The availability of alternate living arrangements.
7. Access to nursing home care for certain special populations, such as the mentally ill.
8. Maldistribution of nursing home beds.
9. Limited availability of skilled-level nursing home beds.
10. The scope of nursing home services.

HABILITATION AND REHABILITATION

Summary of Subject Area

Rehabilitation is the application of medical, social, educational and vocational measures for training or retraining disabled persons to their highest level of functional ability. The term "habilitation" is used for similar activities undertaken for persons born with limited functional ability, as compared with people who have lost abilities due to disease or injury.

Most disabled people in Texas can be treated in community outpatient settings; however, they require specialized facilities with a wide spectrum of services in their communities.

The initial survey of habilitation and rehabilitation (H&R) services produced 55 relevant comments. These issue statements were narrowed to seven.

Concern for each was reflected, as only a narrow difference was scored between the top ranked issue, which is the priority issue, and the remaining six issues, which are now referral issues.

Priority Issue: Fragmentation of the habilitation/rehabilitation delivery system.

Referral Issues

1. Improved access for rural disabled persons to receive outpatient services.
2. The need for an improved job placement mechanism for the disabled.
3. The need for funding of community habilitation and rehabilitation facilities and services.
4. Limited habilitation and rehabilitation public information.
5. The lack of reliable and valid habilitation and rehabilitation data.
6. The need for a case management system.

MENTAL HEALTH/ MENTAL RETARDATION

Summary of Subject Area

Mental illness refers to a broad range of psychological, physiological and organic disorders. Mental retardation refers to significantly sub-average general intellectual functioning.

Initial input from plan development contributors indicated a high level of interest in community-based services for discharged mental health and mental retardation (MHMR) clients. There is a large population group in need of community-based MHMR services, but they are not easily identified. MHMR clients who are "discharged" by a state MHMR institution can, however, be identified. Texas Department of Mental Health and Mental Retardation (TDMHMR) has been mandated to secure appropriate community services for such individuals.

The key contributors to this issue in the plan include five state agencies, most of the 24 regional councils, and private professional associations and organizations.

In addition, planning and program documents from state agencies and private organizations concerned

with drug abuse, alcoholism, education and human services were reviewed, and these led to the specific priority issue shown below and to the following referral issues.

Priority Issue: After-care and community-based services for discharged MHMR clients.

Referral Issues

1. The need to improve the quality of care in the MHMR delivery system.
2. The need for a case management system for MHMR patients.
3. Limited community Texas Department of Mental Health and Mental Retardation (TDMHMR) services capacity (a broader restatement of the priority issue).

ALCOHOL AND DRUG ABUSE

Summary of Subject Area

Alcohol and drug abuse includes the inappropriate use of any form of alcohol, licit or illicit chemical substance, toxic inhalant or volatile substance in ways which adversely affect the life of the user, the family or the community, including physical, mental, emotional or social impairment. The abuse of alcohol and drugs is addressed as a single subject area.

The results of the initial input into this problem area from the state agencies and association and most regional councils reflect strong concerns over the prevention of alcohol and drug abuse through education at all school levels; early intervention services for persons in the early stages of alcohol or drug abuse or addiction; and effective treatment, counselling and rehabilitation programs in the public sector for alcohol and drug abusers and their families.

Priority Issue: Prevention of alcohol and drug abuse through education at all school levels.

Referral Issues

1. The need for early intervention services for persons in the early stages of alcohol or drug abuse or addiction to prevent their continued progression into chronic abuse, and to lessen alcohol or drug abuse-related social and economic costs.

2. Services should provide effective quality treatment and rehabilitation for alcohol and drug abusers and their families in both inpatient and outpatient facilities, especially at the local level.

HEALTH CARE COSTS

Summary of Subject Area

Health care costs refer to private and public expenditures for the provision of health care services and supplies. The rising costs of medical care command increasing public attention. Therefore, it is not surprising that the goal of constraining and moderating the increase in health care expenditures has become one of the central themes of public health care policy. Thirty-eight organizations and agencies responded to the initial request for input. This effort identified the top concerns and was used to structure the prioritization survey. Eighty-nine organizations and agencies responded to the prioritization survey. Further research into health care costs was completed and various analysis methods were applied to the survey results to identify the primary issues.

Priority Issue: Health care reimbursement as it relates to health insurance, patient care systems, health needs of the working poor, and the rising costs of health care delivery.

Referral Issues

1. Indigent care financing.
2. Rural access to care.
3. Professional and related licensing reforms.

HEALTH PROFESSIONS

Summary of Subject Area

The health professions area involves the issues and concerns pertaining to all medical, dental and allied professions employed in health care. An adequate supply and appropriate distribution of health professionals is necessary to meet the needs of our population.

Twelve issues were developed for health professions based on the response received in the initial survey. About one-fourth of the agencies contacted through the policy analysis survey provided input regarding issues affecting health professions. About 40% of the 43 total respondents to the initial survey represented regional interest (16

regional councils), with the remaining 27 respondents reflecting statewide concerns. The initial input resulted in the development of 12 primary issue statements. Almost half of these issues related to concerns regarding supply and distribution or education of health professionals. The prioritization survey received about twice the response rate of the initial survey, with 46% of the approximately 181 entities providing a response.

Priority Issue: Maldistribution of primary care physicians and nurses resulting in a shortage in some rural and inner-city areas.

Referral Issues

1. Continuing education should be encouraged to ensure quality of care and to promote the standardization of qualifications of health professionals throughout the state.
2. The perceived isolation of rural practitioners from innovations in health care delivery and medical technology.
3. The underutilization of nurse practitioners and physician assistants.
4. Licensing of nursing home aides to promote continuity of care in long-term care facilities.
5. A reduction in clinical training opportunities in hospitals as a result of cost containment measures necessitated by recent changes in reimbursement policies of federal entitlement programs.
6. The limited physician placement programs to assist in the recruitment of physicians to physician shortage areas.
7. Unavailability of financial assistance programs for students in health professions education programs.
8. The shortage of psychiatrists, especially in state MHMR facilities.
9. The shortage of registered nurses prepared at the baccalaureate and graduate degree level.
10. The inadequate supply of physical and occupational therapists.
11. The general unavailability of appropriate gerontology training programs.

DATA NEEDS

Summary of Subject Area

The availability of health planning data is of significant concern from both a policy and program development perspective. Accurate and timely data are a vital element in health policy decision-making. Although a wide variety of health and related data currently exists, there are gaps in these data and technical problems with their use. A wide variety of data needs concerns was expressed through the issue identification process. The concerns were condensed into seven major areas which were used as the basis of the subsequent concerns prioritization survey. Neither of the two highest ranking concerns resulting from this survey was selected as the priority data needs issue. The local level input in the area of cancer data and data on high-risk infants focused attention on the need for complete trauma injury data, the third highest ranking concern.

Priority Issue: Incomplete trauma injury data.

Referral Issues

1. Incomplete data on the incidence and prevalence of cancer.
2. The status of data on high-risk infants.
3. The status of emergency medical services systems data.
4. Identification of health and social service beneficiaries.
5. Limited data regarding nutritional status.
6. The unidentified disabled population.

MATERNAL AND CHILD HEALTH

Summary of Subject Area

The provision of comprehensive health care to women and children is essential to the physical well-being of our population. These services include early prenatal care, delivery in an appropriate setting, postpartum care, family planning, pediatric care of the infant in a hospital setting, and preventive health care provided throughout early childhood. The issue of unplanned teenage pregnancies was

originally included in the subject area of prevention, detection and referral, but through the initial survey, it was identified as a priority matter. Survey respondents frequently suggested that children and/or young women and men receive education in reproduction and contraception. In addition, many respondents supported providing contraceptive services that are accessible to teenagers.

In the follow-up priority survey, the majority of respondents indicated concern about two issues: teenage pregnancy and AIDS. The SHCC also believes both issues are of vital importance. To ensure that both topics were addressed in the plan, the SHCC created another chapter, Maternal and Child Health, to address the issue of unplanned teenage pregnancies. Because the chapter includes only one issue for this SHP, there are no referral issues.

Priority Issue: The high incidence of unplanned pregnancies among the teenage population.

THE MEDICAL LIABILITY SYSTEM

Summary of Subject Area

The medical liability system involves the provision of adequate, affordable, and available professional liability insurance. It involves the practice and delivery of health care, the insurance industry, and the civil justice system. Liability insurance produces significant impact on the health care delivery system; this priority concern was determined to be of major importance by the SHCC. The inclusion of this issue in the SHP evolved from a review and analysis of 13 health and health-related task force reports published during the past two years, and from comments received during the plan development process.

The SHCC determined that rather than considering this issue with the health care costs chapter, its importance justified addressing it as a separate issue. Since the chapter includes this issue only, there are no referral issues.

Priority Issue: The medical liability insurance system.

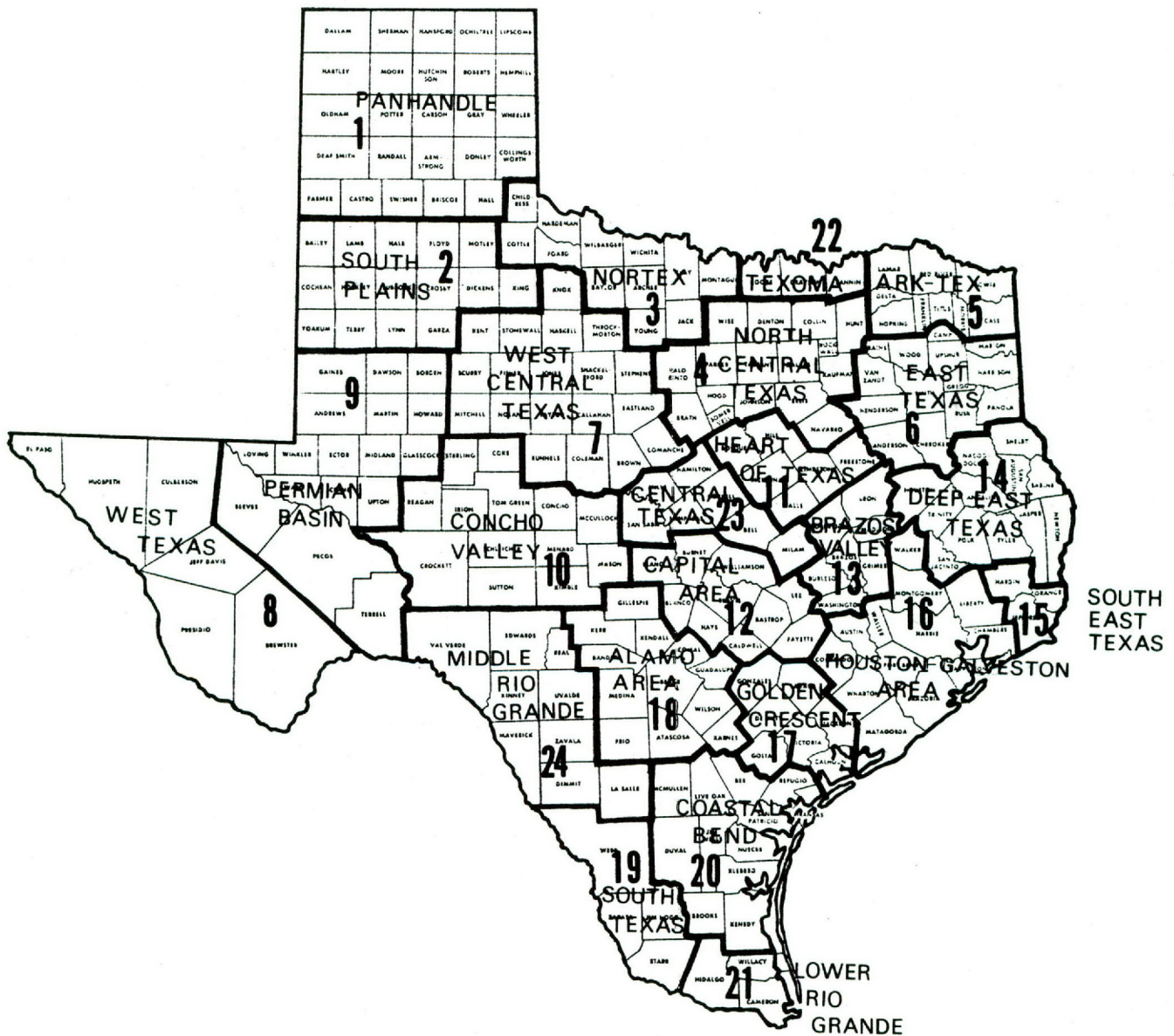
REGIONAL ISSUES

All regional health planning advisory committees (RHPACs) were asked to rank, in priority order, the issues within each health care delivery subject area. The top priority within each earea is shown. Rankings were made from alternate sources for state planning regions from which no response was received from the RHPAC.

Originally, the RHPACs were asked to rank priorities in 13 health care delivery subject areas. During the plan development process, the alcohol and drug abuse areas were combined and the 12 regional

priorities are presented accordingly. After consideration of the input received, the SHCC established maternal and child health as a separate issue from the prevention, detection, and referral subject area. Finally, as a result of a study of various task force reports, the medical liability system was added as a special issue. These changes resulted in the 14 subject areas discussed in the first part of this chapter. These latter two additions to the plan content are not, however, included in the regional priority tables which follow as they were added after completion of the prioritization process.

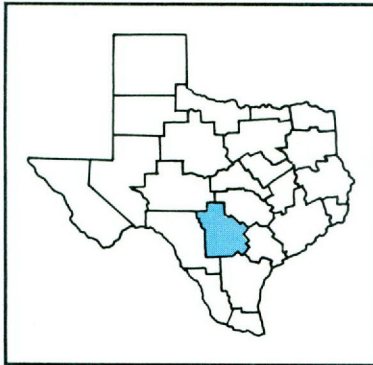
STATE PLANNING REGIONS AND REGIONAL COUNCILS



STATE PLANNING REGIONS, REGIONAL COUNCILS, AND HEALTH PLANNING ADVISORY COMMITTEES

REGION NUMBER	STATE PLANNING REGION	REGIONAL COUNCIL	REGION NUMBER	STATE PLANNING REGION	REGIONAL COUNCIL
1	Panhandle	Panhandle Regional Planning Commission Amarillo, Texas Chairman-Honorable Austin C. Rose Executive Director-Gary Pitner Regional Health Planning Adv. Cmte. Chairman-Tom Christian	13	Brazos Valley	Brazos Valley Development Council Bryan, Texas Chairman-Honorable R.J. Holmgreen Executive Director-Glenn J. Cook Health Planning Advisory Committee Chairman-Donald A. Sweeney, Ph.D.
2	South Plains	South Plains Association of Governments Lubbock, Texas President-Honorable Paul Executive Director-Jerry South Plains Health Planning Adv. Cmte. Chairman-T. J. Taylor	14	Deep East Texas	Deep East Texas Council of Governments Jasper, Texas President-Honorable Wayne Baker Executive Director-E. Ray Hill D. E. Tx. Reg. Hea. Plng. Adv. Cmte. Chairman-Lacey Chimney
3	North Texas	Nortex Regional Planning Commission Wichita Falls, Texas Chairman-Honorable Bill Nobles Executive Director-Edwin B. Daniel Regional Health Advisory Committee Chairman-Lynn Heller	15	South East Texas	South East Texas Regional Plng. Comm. Nederland, Texas President-Honorable John Banken Executive Director-Don Kelly South East Tx. Hea. Plng. Adv. Cmte. Chairman-Dolores "Sunny" Lawless
4	North Central Texas	North Central Texas Council of Govts. Arlington, Texas President-Honorable Gary Skaggs Executive Director-William J. Pitstick Regional Health Planning Committee Chairman-Honorable Buddy Cole	16	Gulf Coast	Houston-Galveston Area Council Houston, Texas President-Honorable Jodie Stavinoha Executive Director-Jack Steele Houston-Gal. Hea. Plng. Adv. Cmte. Chairman-Justus Sundermann
5	North East Texas	Ark-Tex Council of Governments Texarkana, Texas President-Willie Giles Smith Executive Director-James D. Goerke Regional Health Advisory Committee Chairman-Willie Giles Smith	17	Golden Crescent	Golden Crescent Regional Planning Comm. Victoria, Texas President-Honorable Shirley Young Executive Director-Patrick J. Kennedy Regional Health Planning Adv. Cmte. Chairman-Honorable Stanley Mikula
6	East Texas	East Texas Council of Governments Kilgore, Texas Chairman-Honorable Lee Williams Executive Director-Glynn J. Knight Reg. Hea. Plng. & Human Res. Adv. Cmte. Chairman-Ron Cox	18	Alamo	Alamo Area Council of Governments San Antonio, Texas Chairman-Honorable James Sagebiel Executive Director-Al J. Notzon, III Reg. Hea. & Human Svcs. Adv. Cmte. Chairman-Julia Knight
7	West Central Texas	West Central Texas Council of Govts. Abilene, Texas President-Honorable Rod Waller Executive Director-Brad Helbert Regional Health Planning Advisory Cmte. Chairman-Honorable Terry Julian	19	South Texas	South Texas Development Council Laredo, Texas Chairman-Honorable Jose Carlos Saenz Executive Director-Amando Garza, Jr. Regional Health Advisory Committee Chairman-Agapeto "Cuate" Molina
8	Upper Rio Grande	West Texas Council of Governments El Paso, Texas President-Honorable Alicia Chacon Executive Director-Justin R. Ormsby Regional Health Planning Advisory Cmte. Chairman-Miguel Barron, M.D.	20	Coastal Bend	Coastal Bend Council of Governments Corpus Christi, Texas Chairman-Honorable Gilberto Uresti Executive Director-John P. Buckner Coastal Bend Health Council Chairman-Helen Gurley
9	Permian Basin	Permian Basin Regional Planning Comm. Midland, Texas Chairman-Honorable Richard Sitze Executive Director-Ernie Crawford Health Council Chairman-	21	Lower Rio Grande Valley	Lower Rio Grande Valley Dev. Cncl. McAllen, Texas President-Honorable Tony Gutierrez Executive Director-Robert A. Chandler Health Planning Advisory Committee Chairman-Henry Morrison
10	Concho Valley	Concho Valley Council of Governments San Angelo, Texas Chairman-Honorable Hershel Davenport Executive Director-Robert R. Weaver Concho Valley Health Planning Adv. Cmte. Chairman-Fritz Landers	22	Texoma	Texoma Regional Planning Commission Denison, Texas President-Honorable Horace Groff Executive Director-Larry D. Cruise Texoma Health Council Chairman-Sue Malnory
11	Heart of Texas	Heart of Texas Council of Governments Waco, Texas President-Honorable Dick Black Executive Director-H.W. Davis Regional Health Planning Adv. Cmte. Chairman-Bill Rogers	23	Central Texas	Central Texas Council of Governments Belton, Texas President-Honorable John Garth Executive Director-Walton B. Reedy Regional Health Planning Adv. Cmte. Chairman-Honorable Gene Blake
12	Capital	Capital Area Planning Council Austin, Texas Chairman-Honorable John Trevino, Jr. Executive Director-Richard G. Bean Regional Health Planning Adv. Cmte. Chairman-John W. Barton	24	Middle Rio Grande	Middle Rio Grande Development Council Carrizo Springs, Texas President-Ron Carr Executive Director-Michael M. Patterson Regional Health Planning Adv. Cmte. Chairman-Eleio Ramirez

**ALAMO STATE PLANNING REGION
(ALAMO AREA COUNCIL OF GOVERNMENTS)**



S P R : 18

1985 POPULATION (EST.) : 1,350,900

Area (sq. miles) : 11,354

Number of Counties : 12

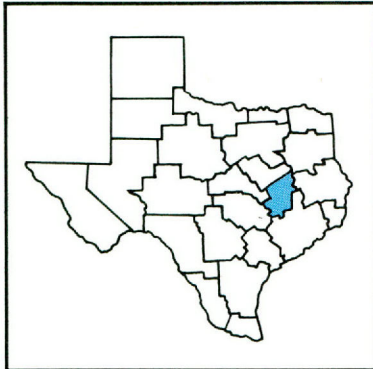
PLAN COMPONENT	REGIONAL PRIORITY	SHCC ACTION
HEALTH PROTECTION	Groundwater, or subsurface water, contamination, particularly in the aquifers.	P
HEALTH PROMOTION & HEALTH EDUCATION	Health education for school children.	P
PREVENTION, DETECTION & REFERRAL	High incidence of sexually transmitted diseases.	P
AMBULATORY CARE & EMS	Inadequate range of ambulatory care services for low-income persons.	R
SHORT-TERM INSTITUTIONAL CARE	Continued viability of small rural hospitals.	R
LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES	Quality of care provided by nursing homes.	P
HABILITATION AND REHABILITATION	Access of rural disabled to H&R outpatient services.	R
MENTAL HEALTH AND MENTAL RETARDATION	Aftercare services for discharged MHMR clients.	P
ALCOHOL AND DRUG ABUSE	Prevention of alcohol and drug abuse.	P
HEALTH CARE COSTS	Indigent care financing.	R
HEALTH PROFESSIONS	Maldistribution of primary care physicians and nurses.	P
DATA NEEDS	Incomplete data on incidence and prevalence of cancer.	R

P=Priority addressed in the State Health Plan.

R=Referral Issue in the State Health Plan.

BOLD PRINT WITH SHADED AREA identifies the top ranked priority.

**BRAZOS VALLEY STATE PLANNING REGION
(BRAZOS VALLEY DEVELOPMENT COUNCIL)**



S P R : 13

1985 POPULATION (EST.) : 188,900

Area (sq. miles) : 5,124

Number of Counties : 7

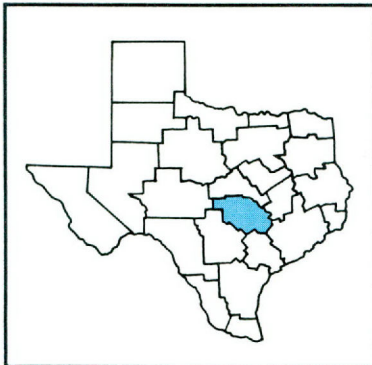
PLAN COMPONENT	REGIONAL PRIORITY	SHCC ACTION
HEALTH PROTECTION	Better protection of the quality of the state's drinking and recreational water supplies.	R
HEALTH PROMOTION & HEALTH EDUCATION	Lack of funding for health promotion programs.	R
PREVENTION, DETECTION & REFERRAL	High incidence of infant mortality.	R
AMBULATORY CARE & EMS	An integrated, regional EMS system with statewide coordination and a State EMS Plan.	R
SHORT-TERM INSTITUTIONAL CARE	Post discharge placement and care of hospital patients.	R
LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES	Quality of care provided by nursing homes.	P
HABILITATION AND REHABILITATION	Access of rural disabled to H&R outpatient services.	R
MENTAL HEALTH AND MENTAL RETARDATION	Limited community MHMR services capacity.	R
ALCOHOL AND DRUG ABUSE	Prevention of alcohol and drug abuse.	P
HEALTH CARE COSTS	Insurance reform.	P
HEALTH PROFESSIONS	Shortage of psychiatrists.	R
DATA NEEDS	Status of data regarding high risk infants.	R

P=Priority addressed in the State Health Plan.

R=Referral Issue in the State Health Plan.

BOLD PRINT WITH SHADED AREA identifies the top ranked priority.

**CAPITAL STATE PLANNING REGION
(CAPITAL AREA PLANNING COUNCIL)**



S P R : 12

1985 POPULATION (EST.) : 758,100

Area (sq. miles) : 8,480

Number of Counties : 10

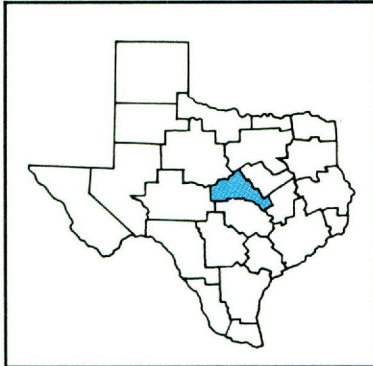
PLAN COMPONENT	REGIONAL PRIORITY	SHCC ACTION
HEALTH PROTECTION	Groundwater, or subsurface water, contamination, particularly in the aquifers.	P
HEALTH PROMOTION & HEALTH EDUCATION	Health cost containment.	R
PREVENTION, DETECTION & REFERRAL	High incidence of sexually transmitted diseases.	P
HEALTH CARE COSTS	Indigent care financing.	R

P=Priority addressed the State Health Plan.

R=Referral Issue in the State Health Plan.

The Capital Area Planning Council chose to rank only four of the twelve issues presented in the prioritization survey. The four here were considered equally important concerns within this region.

**CENTRAL TEXAS STATE PLANNING REGION
(CENTRAL TEXAS COUNCIL OF GOVERNMENTS)**



S P R : 23

1985 POPULATION (EST.) : 304,000

Area (sq. miles) : 6,540

Number of Counties : 7

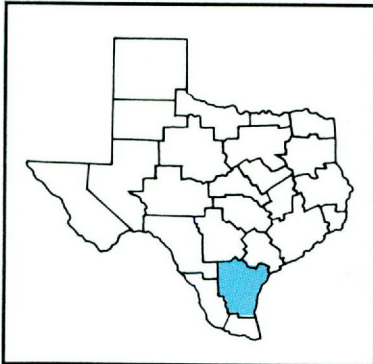
PLAN COMPONENT	REGIONAL PRIORITY	SHCC ACTION
HEALTH PROTECTION	Insufficient water treatment and storage facilities for all communities statewide.	R
HEALTH PROMOTION & HEALTH EDUCATION	Lack of funding for health promotion programs.	R
PREVENTION, DETECTION & REFERRAL	High incidence of sexually transmitted diseases.	P
AMBULATORY CARE & EMS	Expanded health insurance coverage for ambulatory care and EMS services.	R
SHORT-TERM INSTITUTIONAL CARE	Reimbursement to hospitals for uncompensated/undercompensated services.	R
LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES	Quality of care provided by nursing homes.	P
HABILITATION AND REHABILITATION	Funding of community H&R facilities and services.	R
MENTAL HEALTH AND MENTAL RETARDATION	Aftercare services for discharged MHMR clients.	P
ALCOHOL AND DRUG ABUSE	Prevention of alcohol and drug abuse.	P
HEALTH CARE COSTS	Indigent care financing.	R
HEALTH PROFESSIONS	Limited clinical training sites in hospitals.	R
DATA NEEDS	Identification of health and social services beneficiaries.	R

P=Priority addressed in the State Health Plan.

R=Referral Issue in the State Health Plan.

BOLD PRINT WITH SHADED AREA identifies the top ranked priority.

**COASTAL BEND STATE PLANNING REGION
(COASTAL BEND COUNCIL OF GOVERNMENTS)**



S P R : 20

1985 POPULATION (EST.) : 511,100

Area (sq. miles) : 11,436

Number of Counties : 12

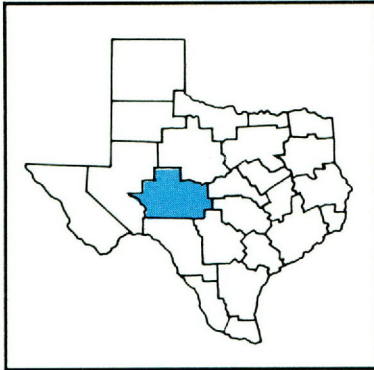
PLAN COMPONENT	REGIONAL PRIORITY	SHCC ACTION
HEALTH PROTECTION	Inadequate control of wastewater, solid waste and other health/ environmental concerns outside incorporated cities.	R
HEALTH PROMOTION & HEALTH EDUCATION	Lack of funding for health promotion programs.	R
PREVENTION, DETECTION & REFERRAL	High incidence of infant mortality.	R
AMBULATORY CARE & EMS	An integrated, regional EMS system with statewide coordination and a State EMS Plan.	R
SHORT-TERM INSTITUTIONAL CARE	Reimbursement to hospitals for uncompensated/undercompensated services.	R
LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES	Scope of services provided by nursing homes.	R
HABILITATION AND REHABILITATION	Fragmentation of delivery system.	P
MENTAL HEALTH AND MENTAL RETARDATION	Aftercare services for discharged MHMR clients.	P
ALCOHOL AND DRUG ABUSE	Prevention of alcohol and drug abuse.	P
HEALTH CARE COSTS	Indigent care financing	R
HEALTH PROFESSIONS	Underutilization of nurse practitioners and physician assistants.	R
DATA NEEDS	Identification of health and social services beneficiaries.	R

P=Priority addressed in the State Health Plan.

R=Referral Issue in the State Health Plan.

BOLD PRINT WITH SHADED AREA identifies the top ranked priority.

**CONCHO VALLEY STATE PLANNING REGION
(CONCHO VALLEY COUNCIL OF GOVERNMENTS)**



S P R : 10

1985 POPULATION (EST.) : 140,600

Area (sq. miles) : 16,376

Number of Counties : 13

PLAN COMPONENT	REGIONAL PRIORITY	SHCC ACTION
HEALTH PROTECTION	Groundwater, or subsurface water, contamination, particularly in the aquifers.	P
HEALTH PROMOTION & HEALTH EDUCATION	Health education for school children.	P
PREVENTION, DETECTION & REFERRAL	High incidence of unplanned pregnancies among the teenage population.	P
AMBULATORY CARE & EMS	An integrated, regional EMS system with statewide coordination and a State EMS Plan.	R
SHORT-TERM INSTITUTIONAL CARE	Reimbursement to hospitals for uncompensated/under-compensated services.	R
LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES	Affordability of long-term care.	R
HABILITATION AND REHABILITATION	Access of rural disabled to H&R outpatient services.	R

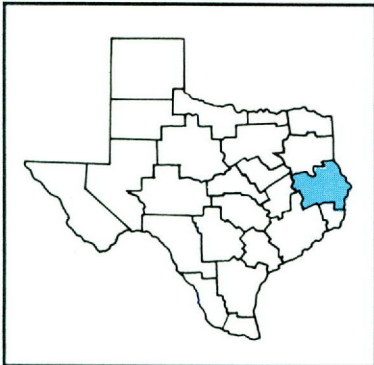
P=Priority addressed in the State Health Plan.

R=Referral Issue in the State Health Plan.

BOLD PRINT WITH SHADED AREA identifies the top ranked priority.

These priorities represent the input of the Concho Valley Council of Governments to the planning process for the 1985 State Health Plan. Several plan component areas have been added since that time, but are not presented since the region did not participate in the prioritization process for the 1987-88 plan.

**DEEP EAST TEXAS STATE PLANNING REGION
(DEEP EAST TEXAS COUNCIL OF GOVERNMENTS)**



S P R : 14

1985 POPULATION (EST.) : 318,100

Area (sq. miles) : 9,970

Number of Counties : 12

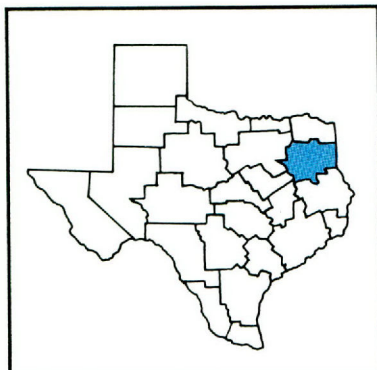
PLAN COMPONENT	REGIONAL PRIORITY	SHCC ACTION
HEALTH PROTECTION	Insufficient water treatment and storage facilities for all communities statewide.	R
HEALTH PROMOTION & HEALTH EDUCATION	Health insurance system.	R
PREVENTION, DETECTION & REFERRAL	High incidence of infant mortality.	R
AMBULATORY CARE & EMS	Shortage of EMS vehicles and active, qualified EMS personnel, particularly in MUAs.	R
SHORT-TERM INSTITUTIONAL CARE	Continued viability of small rural hospitals.	R
LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES	Affordability of long-term care.	R
HABILITATION AND REHABILITATION	Funding of community H&R facilities and services.	R
MENTAL HEALTH AND MENTAL RETARDATION	Quality of care in the MHMR delivery system.	R
ALCOHOL AND DRUG ABUSE	Early intervention services for persons in early stages of drug abuse or addiction.	R
HEALTH CARE COSTS	Rural access to care.	R
HEALTH PROFESSIONS	Isolation of rural practitioners from innovations in health delivery and equipment.	R
DATA NEEDS	Status of data regarding high risk infants.	R

P=Priority addressed in the State Health Plan.

R=Referral Issue in the State Health Plan.

BOLD PRINT WITH SHADED AREA identifies the top ranked priority.

EAST TEXAS STATE PLANNING REGION (EAST TEXAS COUNCIL OF GOVERNMENTS)



S P R : 6

1985 POPULATION (EST.) : 660,100

Area (sq. miles) : 10,022

Number of Counties : 14

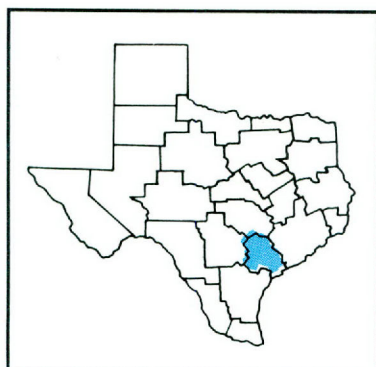
PLAN COMPONENT	REGIONAL PRIORITY	SHCC ACTION
HEALTH PROTECTION	Insufficient water treatment and storage facilities for all communities statewide.	R
HEALTH PROMOTION & HEALTH EDUCATION	Special populations.	R
PREVENTION, DETECTION & REFERRAL	High incidence of unplanned pregnancies among the teenage population.	P
AMBULATORY CARE & EMS	Shortage of EMS vehicles and active, qualified EMS personnel, particularly in Medically Underserved areas (MUA).	R
SHORT-TERM INSTITUTIONAL CARE	Continued viability of small rural hospitals.	R
LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES	Limited availability of skilled level nursing home beds.	R
HABILITATION AND REHABILITATION	Lack of job placement mechanism for the disabled.	R
MENTAL HEALTH AND MENTAL RETARDATION	A case management system for MHMR patients.	R
ALCOHOL AND DRUG ABUSE	Prevention of alcohol and drug abuse.	P
HEALTH CARE COSTS	Rural access to care.	R
HEALTH PROFESSIONS	The lack of continuing education requirements for health professionals.	R
DATA NEEDS	Status of data regarding high-risk infants.	R

P=Priority addressed in the State Health Plan.

R=Referral Issue in the State Health Plan.

BOLD PRINT WITH SHADED AREA identifies the top ranked priority.

**GOLDEN CRESCENT STATE PLANNING REGION
(GOLDEN CRESCENT REGIONAL PLANNING COMMISSION)**



S P R : 17

1985 POPULATION (EST.) : 174,100

Area (sq. miles) : 6,097

Number of Counties : 7

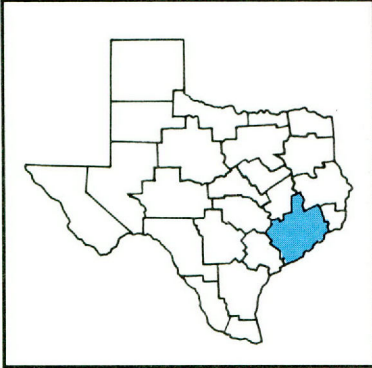
PLAN COMPONENT	REGIONAL PRIORITY	SHCC ACTION
HEALTH PROTECTION	Groundwater, or subsurface water, contamination, particularly in the aquifers.	P
HEALTH PROMOTION & HEALTH EDUCATION	Health education for school children.	P
PREVENTION, DETECTION & REFERRAL	High incidence of unplanned pregnancies among the teenage population.	P
AMBULATORY CARE & EMS	Improved EMS regional communications system including 911 availability throughout the state.	P
SHORT-TERM INSTITUTIONAL CARE	Development of alternative delivery methods by hospitals.	P
LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES	Affordability of long-term care.	R
HABILITATION AND REHABILITATION	Access of rural disabled to habilitation and rehabilitation (H&R) outpatient services.	R
MENTAL HEALTH AND MENTAL RETARDATION	Limited community MHMR services capacity.	R
ALCOHOL AND DRUG ABUSE	Prevention of alcohol and drug abuse.	P
HEALTH CARE COSTS	Indigent care financing.	R
HEALTH PROFESSIONS	Maldistribution of primary care physicians and nurses.	P
DATA NEEDS	Status of data regarding high-risk infants.	R

P=Priority addressed in the State Health Plan.

R=Referral Issue in the State Health Plan.

BOLD PRINT WITH SHADED AREA identifies the top ranked priority.

**GULF COAST STATE PLANNING REGION
(HOUSTON-GALVESTON AREA COUNCIL)**



S P R : 16

1985 POPULATION (EST.) : 3,917,000

Area (sq. miles) : 12,444

Number of Counties : 13

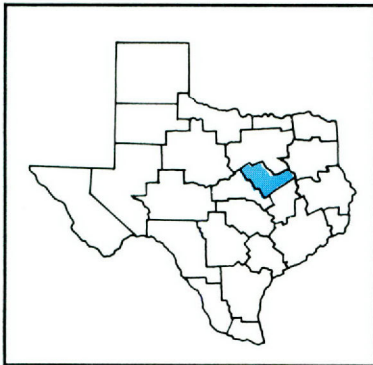
PLAN COMPONENT	REGIONAL PRIORITY	SHCC ACTION
HEALTH PROTECTION	Pollution of the air with automobile emissions and industrial contaminants.	R
HEALTH PROMOTION & HEALTH EDUCATION	Health education for school children.	P
PREVENTION, DETECTION & REFERRAL	High incidence of infant mortality.	R
AMBULATORY CARE & EMS	Improved EMS regional communications system including 911 availability throughout the state.	P
SHORT-TERM INSTITUTIONAL CARE	Development of alternative delivery methods by hospitals.	P
LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES	Quality of care provided by nursing homes.	P
HABILITATION AND REHABILITATION	Fragmentation of delivery system.	P
MENTAL HEALTH AND MENTAL RETARDATION	Limited community MHMR services capacity.	R
ALCOHOL AND DRUG ABUSE	Prevention of alcohol and drug abuse.	P
HEALTH CARE COSTS	Indigent care financing.	R
HEALTH PROFESSIONS	Maldistribution of primary care physicians and nurses.	P
DATA NEEDS	Status of data regarding high-risk infants.	R

P=Priority addressed in the State Health Plan.

R=Referral Issue in the State Health Plan.

BOLD PRINT WITH SHADED AREA identifies the top ranked priority.

HEART OF TEXAS STATE PLANNING REGION (HEART OF TEXAS COUNCIL OF GOVERNMENTS)



S P R : 11

1985 POPULATION (EST.) : 282,200

Area (sq. miles) : 5,611

Number of Counties : 6

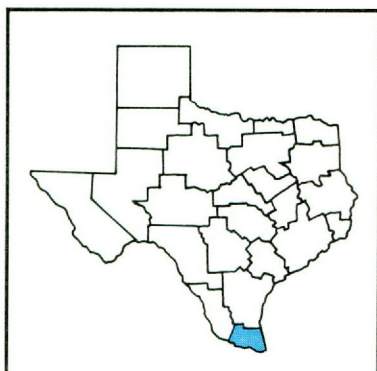
PLAN COMPONENT	REGIONAL PRIORITY	SHCC ACTION
HEALTH PROTECTION	Insufficient water treatment and storage facilities for all communities statewide.	R
HEALTH PROMOTION & HEALTH EDUCATION	Health insurance system.	R
PREVENTION, DETECTION & REFERRAL	High incidence of sexually transmitted diseases.	P
AMBULATORY CARE & EMS	Shortage of EMS vehicles and active, qualified EMS personnel, particularly in Medically Underserved Areas.	R
SHORT-TERM INSTITUTIONAL CARE	Continued viability of small rural hospitals.	R
LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES	Quality of care provided by nursing homes.	P
HABILITATION AND REHABILITATION	Access of rural disabled to habilitation and rehabilitation (H&R) outpatient services.	R
MENTAL HEALTH AND MENTAL RETARDATION	A case management system for MHMR patients.	R
ALCOHOL AND DRUG ABUSE	Prevention of alcohol and drug abuse.	P
HEALTH CARE COSTS	Rural access to care.	R
HEALTH PROFESSIONS	Maldistribution of primary care physicians and nurses.	P
DATA NEEDS	Incomplete data on incidence and prevalence of cancer.	R

P=Priority addressed in the State Health Plan.

R=Referral Issue in the State Health Plan.

BOLD PRINT WITH SHADED AREA identifies the top ranked priority.

LOWER RIO GRANDE VALLEY STATE PLANNING REGION (LOWER RIO GRANDE VALLEY DEVELOPMENT COUNCIL)



S P R : 21

1985 POPULATION (EST.) : 629,800

Area (sq. miles) : 3,019

Number of Counties : 3

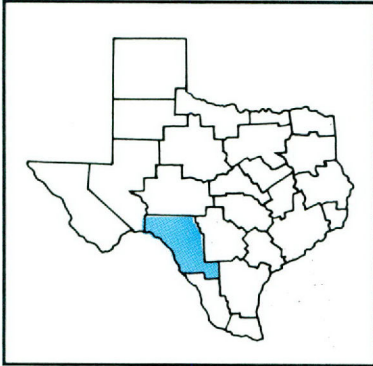
PLAN COMPONENT	REGIONAL PRIORITY	SHCC ACTION
HEALTH PROTECTION	Improper handling and use of toxic pesticides and herbicides, especially in rural areas.	R
HEALTH PROMOTION & HEALTH EDUCATION	Health education for school children.	P
PREVENTION, DETECTION & REFERRAL	Incidence of child abuse and lack of programs to adequately manage the children and families involved.	R
AMBULATORY CARE & EMS	An integrated, regional EMS system with statewide coordination and a State EMS Plan.	R
SHORT-TERM INSTITUTIONAL CARE	Development of alternative delivery methods by hospitals.	P
LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES	Affordability of long-term care.	R
HABILITATION AND REHABILITATION	Fragmentation of delivery system.	P
MENTAL HEALTH AND MENTAL RETARDATION	Quality of care in the MHMR delivery system.	R
ALCOHOL AND DRUG ABUSE	Prevention of alcohol and drug abuse.	P
HEALTH CARE COSTS	Indigent care financing.	R
HEALTH PROFESSIONS	The lack of continuing education requirements for health professionals.	R
DATA NEEDS	Status of data regarding high-risk infants.	R

P=Priority addressed in the State Health Plan.

R=Referral Issue in the State Health Plan.

BOLD PRINT WITH SHADED AREA identifies the top ranked priority.

**MIDDLE RIO GRANDE STATE PLANNING REGION
(MIDDLE RIO GRANDE DEVELOPMENT COUNCIL)**



S P R : 24

1985 POPULATION (EST.) : 147,000

Area (sq. miles) : 14,333

Number of Counties : 9

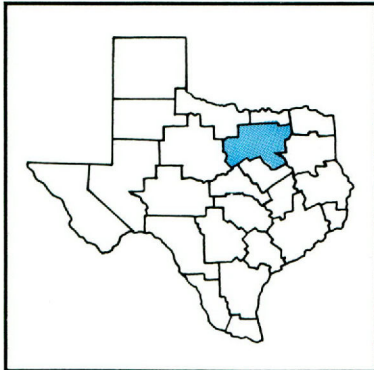
PLAN COMPONENT	REGIONAL PRIORITY	SHCC ACTION
HEALTH PROTECTION	Inadequate education of employees about hazardous conditions and materials at the workplace.	R
HEALTH PROMOTION & HEALTH EDUCATION	Many health promotion programs do not address the groups with the greatest need for risk reduction (e.g., minorities).	R
AMBULATORY CARE & EMS	Inadequate range of ambulatory care services for low-income persons.	R
SHORT-TERM INSTITUTIONAL CARE	Status of indigent health care financial support requirements for hospitals.	R
LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES	Quality of care provided by nursing homes.	P
HABILITATION AND REHABILITATION	Access of rural disabled to H&R outpatient services.	R
ALCOHOL AND DRUG ABUSE	Prevention of alcohol and drug abuse.	P
HEALTH CARE COSTS	Indigent care financing.	R

P=Priority addressed in the State Health Plan.

R=Referral Issue in the State Health Plan.

These priorities represent the input of the Middle Rio Grande Development Council to the planning process for the 1985 State Health Plan. Several plan component areas have been added since that time, but are not presented since the region did not participate in the prioritization process for the 1987-88 plan.

**NORTH CENTRAL TEXAS STATE PLANNING REGION
(NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS)**



S P R : 4

1985 POPULATION (EST.) : 3,498,400

Area (sq. miles) : 12,552

Number of Counties : 16

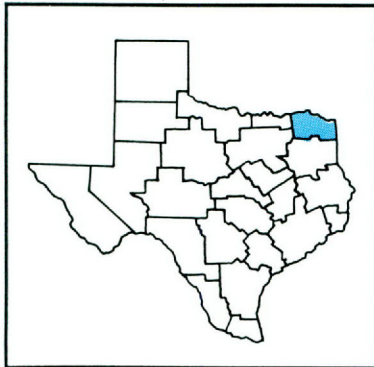
PLAN COMPONENT	REGIONAL PRIORITY	SHCC ACTION
HEALTH PROTECTION	Identification and clean-up of abandoned hazardous chemical waste sites.	R
HEALTH PROMOTION & HEALTH EDUCATION	Health insurance system.	R
PREVENTION, DETECTION & REFERRAL	Incidence of child abuse and lack of programs to adequately manage the children and families involved.	R
AMBULATORY CARE & EMS	An integrated, high-quality, coordinated statewide EMS training system.	R
SHORT-TERM INSTITUTIONAL CARE	Impact of the Medicaid prospective pricing system.	R
LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES	Quality of care provided by nursing homes.	P
HABILITATION AND REHABILITATION	Fragmentation of delivery system.	P
MENTAL HEALTH AND MENTAL RETARDATION	Aftercare services for discharged MHMR clients.	P
ALCOHOL AND DRUG ABUSE	Effective treatment, counselling and rehabilitation programs for drug abusers and their families.	R
HEALTH CARE COSTS	Insurance reform.	P
HEALTH PROFESSIONS	Maldistribution of primary care physicians and nurses.	P
DATA NEEDS	Identification of health and social services beneficiaries.	R

P=Priority addressed in the State Health Plan.

R=Referral Issue in the State Health Plan.

BOLD PRINT WITH SHADED AREA identifies the top ranked priority.

**NORTH EAST TEXAS STATE PLANNING REGION
(ARK-TEX COUNCIL OF GOVERNMENTS)**



S P R : 5

1985 POPULATION (EST.) : 257,800

Area (sq. miles) : 5,831

Number of Counties : 9

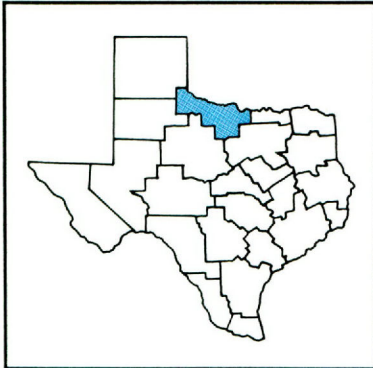
PLAN COMPONENT	REGIONAL PRIORITY	SHCC ACTION
HEALTH PROTECTION	Insufficient number of food services inspectors.	R
HEALTH PROMOTION & HEALTH EDUCATION	Health education for school children.	P
PREVENTION, DETECTION & REFERRAL	High incidence of sexually transmitted diseases.	P
AMBULATORY CARE & EMS	Shortage of EMS vehicles and active, qualified EMS personnel, particularly in Medically Underserved Areas.	R
SHORT-TERM INSTITUTIONAL CARE	Reimbursement to hospitals for uncompensated/ undercompensated services.	R
LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES	Gaps in home and community delivered long-term care services.	R
HABILITATION AND REHABILITATION	Funding of community H&R facilities and services.	R
MENTAL HEALTH AND MENTAL RETARDATION	Aftercare services for discharged MHMR clients.	P
ALCOHOL AND DRUG ABUSE	Effective treatment, counselling and rehabilitation programs for drug abusers and their families.	R
HEALTH CARE COSTS	Rural access to care.	R
HEALTH PROFESSIONS	Availability of financial assistance programs for students in health professions education programs.	R
DATA NEEDS	Incomplete data on incidence and prevalence of cancer.	R

P=Priority addressed in the State Health Plan.

R=Referral Issue in the State Health Plan.

BOLD PRINT WITH SHADED AREA identifies the top ranked priority.

NORTH TEXAS STATE PLANNING REGION (NORTEX REGIONAL PLANNING COMMISSION)



S P R : 3

1985 POPULATION (EST.) : 226,600

Area (sq. miles) : 10,156

Number of Counties : 12

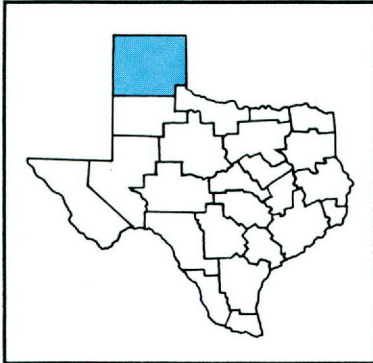
PLAN COMPONENT	REGIONAL PRIORITY	SHCC ACTION
HEALTH PROTECTION	Better protection of quality of the state's drinking and recreational water supplies.	R
HEALTH PROMOTION & HEALTH EDUCATION	Health education for school children.	P
PREVENTION, DETECTION & REFERRAL	High incidence of unplanned pregnancies among the indigent population.	R
AMBULATORY CARE & EMS	An integrated, regional EMS system with statewide coordination and a State EMS Plan.	R
SHORT-TERM INSTITUTIONAL CARE	Continued viability of small rural hospitals.	R
LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES	Limited availability of skilled level nursing home beds.	R
HABILITATION AND REHABILITATION	Fragmentation of delivery system.	P
MENTAL HEALTH AND MENTAL RETARDATION	Quality of care in the MHMR delivery system.	R
ALCOHOL AND DRUG ABUSE	Early intervention services for persons in early stages of drug abuse or addiction.	R
HEALTH CARE COSTS	Rural access to care.	R
HEALTH PROFESSIONS	Maldistribution of primary care physicians and nurses.	P
DATA NEEDS	Status of Emergency Medical Services System data.	R

P=Priority addressed in the State Health Plan.

R=Referral Issue in the State Health Plan.

BOLD PRINT WITH SHADED AREA identifies the top ranked priority.

**PANHANDLE STATE PLANNING REGION
(PANHANDLE REGIONAL PLANNING COMMISSION)**



S P R : 1

1985 POPULATION (EST.) : 396,300

Area (sq. miles) : 24,900

Number of Counties : 25

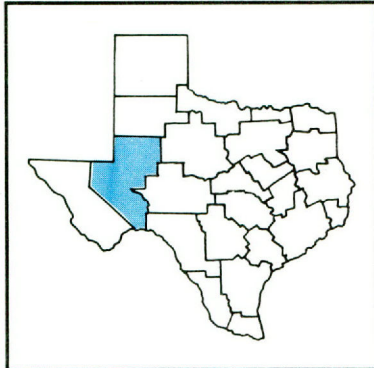
PLAN COMPONENT	REGIONAL PRIORITY	SHCC ACTION
HEALTH PROTECTION	Groundwater, or subsurface water, contamination, particularly in the aquifers.	P
HEALTH PROMOTION & HEALTH EDUCATION	Special populations.	R
PREVENTION, DETECTION & REFERRAL	High incidence of sexually transmitted diseases.	P
AMBULATORY CARE & EMS	Improved EMS regional communications system including 911 availability throughout the state.	P
SHORT-TERM INSTITUTIONAL CARE	Continued viability of small rural hospitals.	R
LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES	Affordability of long-term care.	R
HABILITATION AND REHABILITATION	Fragmentation of delivery system.	P
MENTAL HEALTH AND MENTAL RETARDATION	Provision of care to mentally ill persons who may not technically qualify for MHMR services.	R
ALCOHOL AND DRUG ABUSE	Early intervention services for persons in early stages of drug abuse or addiction.	R
HEALTH CARE COSTS	Indigent care financing.	R
HEALTH PROFESSIONS	Inavailability of gerontology training programs.	R
DATA NEEDS	Status of data regarding high- risk infants.	R

P=Priority addressed in the State Health Plan.

R=Referral Issue in the State Health Plan.

BOLD PRINT WITH SHADED AREA identifies the top ranked priority.

**PERMIAN BASIN STATE PLANNING REGION
(PERMIAN BASIN REGIONAL PLANNING COMMISSION)**



S P R : 9

1985 POPULATION (EST.) : 374,900

Area (sq. miles) : 23,515

Number of Counties : 17

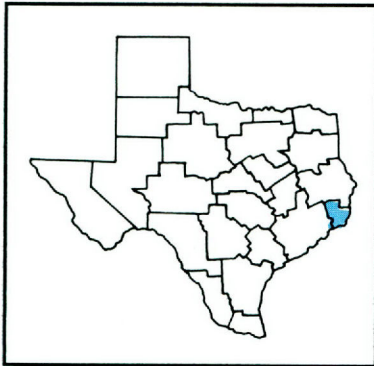
PLAN COMPONENT	REGIONAL PRIORITY	SHCC ACTION
HEALTH PROTECTION	Insufficient water treatment and storage facilities for all communities statewide.	R
HEALTH PROMOTION & HEALTH EDUCATION	Health education for school children.	P
PREVENTION, DETECTION & REFERRAL	High incidence of sexually transmitted diseases.	P
AMBULATORY CARE & EMS	Insufficient number of primary medical care clinics in rural areas.	R
SHORT-TERM INSTITUTIONAL CARE	Unused/under-used short-term hospital bed capacity & administrative difficulties encountered in converting to other uses.	R
LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES	Distribution of Medicaid and state funding for long-term care services.	R
HABILITATION AND REHABILITATION	Funding of community H&R facilities and services.	R
MENTAL HEALTH AND MENTAL RETARDATION	Limited community MHMR services capacity.	R
ALCOHOL AND DRUG ABUSE	Early intervention services for persons in early stages of drug abuse or addiction.	R
HEALTH CARE COSTS	Insurance reform.	P
HEALTH PROFESSIONS	The lack of continuing education requirements for health professionals.	R
DATA NEEDS	Incomplete data on incidence and prevalence of cancer.	R

P=Priority addressed in the State Health Plan.

R=Referral Issue in the State Health Plan.

BOLD PRINT WITH SHADED AREA identifies the top ranked priority.

**SOUTH EAST TEXAS STATE PLANNING REGION
(SOUTH EAST TEXAS REGIONAL PLANNING COMMISSION)**



S P R : 15

1985 POPULATION (EST.) : 391,400

Area (sq. miles) : 2,196

Number of Counties : 3

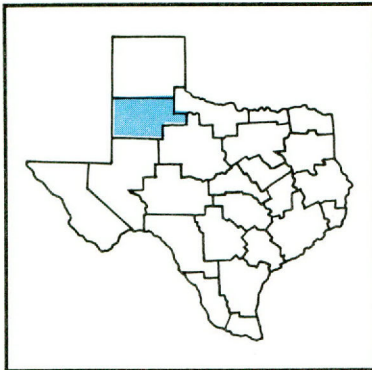
PLAN COMPONENT	REGIONAL PRIORITY	SHCC ACTION
HEALTH PROTECTION	Groundwater, or subsurface water, contamination, particularly in the aquifers.	P
HEALTH PROMOTION & HEALTH EDUCATION	AIDS education.	P
PREVENTION, DETECTION & REFERRAL	High incidence of sexually transmitted diseases.	R
AMBULATORY CARE & EMS	Inadequate range of ambulatory care services for low-income persons.	R
SHORT-TERM INSTITUTIONAL CARE	Status of indigent health care financial support requirements for hospitals.	R
LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES	Distribution of Medicaid and state funding for long-term care services.	R
HABILITATION AND REHABILITATION	Fragmentation of delivery system.	P
MENTAL HEALTH AND MENTAL RETARDATION	A case management system for MHMR patients.	R
ALCOHOL AND DRUG ABUSE	Effective treatment, counselling and rehabilitation programs for alcohol and drug abusers and their families.	R
HEALTH CARE COSTS	Indigent care financing.	R
HEALTH PROFESSIONS	Maldistribution of primary care physicians and nurses.	P
DATA NEEDS	Incomplete data on incidence and prevalence of cancer.	R

P=Priority addressed in the State Health Plan.

R=Referral Issue in the State Health Plan.

BOLD PRINT WITH SHADED AREA identifies the top ranked priority.

**SOUTH PLAINS STATE PLANNING REGION
(SOUTH PLAINS ASSOCIATION OF GOVERNMENTS)**



S P R : 2

1985 POPULATION (EST.) : 384,000

Area (sq. miles) : 13,756

Number of Counties : 15

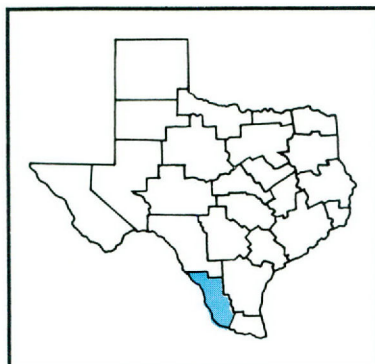
PLAN COMPONENT	REGIONAL PRIORITY	SHCC ACTION
HEALTH PROTECTION	Proper handling, transportation and disposal of radioactive materials.	R
HEALTH PROMOTION & HEALTH EDUCATION	Health cost containment.	R
PREVENTION, DETECTION & REFERRAL	High incidence of unplanned pregnancies among the teenage population.	P
AMBULATORY CARE & EMS	Inadequate range of ambulatory care services for low-income persons.	R
SHORT-TERM INSTITUTIONAL CARE	Status of indigent health care financial support requirements for hospitals.	R
LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES	Quality of care provided by nursing homes.	P
HABILITATION AND REHABILITATION	Access of rural disabled to H&R outpatient services.	R
MENTAL HEALTH AND MENTAL RETARDATION	Quality of care in the MHMR delivery system.	R
ALCOHOL AND DRUG ABUSE	Prevention of alcohol and drug abuse.	P
HEALTH CARE COSTS	Indigent care financing.	R
HEALTH PROFESSIONS	Maldistribution of primary care physicians and nurses.	P
DATA NEEDS	Identification of health and social services beneficiaries.	R

P=Priority addressed in the State Health Plan.

R=Referral Issue in the State Health Plan.

BOLD PRINT WITH SHADED AREA identifies the top ranked priority.

SOUTH TEXAS STATE PLANNING REGION (SOUTH TEXAS DEVELOPMENT COUNCIL)



S P R : 19

1985 POPULATION (EST.) : 165,800

Area (sq. miles) : 6,643

Number of Counties : 4

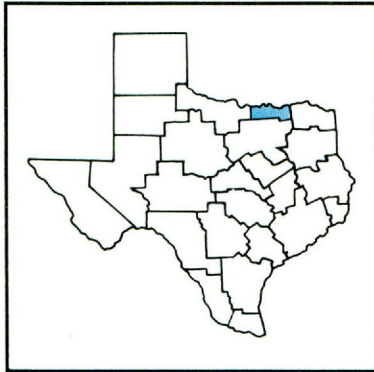
PLAN COMPONENT	REGIONAL PRIORITY	SHCC ACTION
HEALTH PROTECTION	Inadequate control of wastewater, solid waste and other health/environmental concerns outside incorporated cities.	R
HEALTH PROMOTION & HEALTH EDUCATION	Health cost containment.	R
PREVENTION, DETECTION & REFERRAL	Lack of comprehensive cancer screening programs.	R
AMBULATORY CARE & EMS	An integrated, high-quality, coordinated statewide EMS training system.	R
SHORT-TERM INSTITUTIONAL CARE	Continued viability of small rural hospitals.	R
LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES	Limited availability of skilled level nursing home beds.	R
HABILITATION AND REHABILITATION	Access of rural disabled to H&R outpatient services.	R
MENTAL HEALTH AND MENTAL RETARDATION	Limited community MHMR services capacity.	R
ALCOHOL AND DRUG ABUSE	Prevention of alcohol and drug abuse.	P
HEALTH CARE COSTS	Licensing reforms.	R
HEALTH PROFESSIONS	The lack of continuing education requirements for health professionals.	R
DATA NEEDS	Unidentified disabled population.	R

P=Priority addressed in the State Health Plan.

R=Referral Issue in the State Health Plan.

BOLD PRINT WITH SHADED AREA identifies the top ranked priority.

**TEXOMA STATE PLANNING REGION
(TEXOMA REGIONAL PLANNING COMMISSION)**



S P R : 22

1985 POPULATION (EST.) : 148,300

Area (sq. miles) : 2,736

Number of Counties : 3

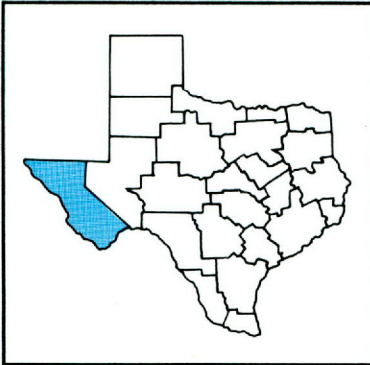
PLAN COMPONENT	REGIONAL PRIORITY	SHCC ACTION
HEALTH PROTECTION	Groundwater, or subsurface water, contamination, particularly in the aquifers.	P
HEALTH PROMOTION & HEALTH EDUCATION	Health cost containment.	R
PREVENTION, DETECTION & REFERRAL	High incidence of unplanned pregnancies among the teenage population.	P
AMBULATORY CARE & EMS	Establishment of licensing and standards for minor emergency clinics.	R
SHORT-TERM INSTITUTIONAL CARE	Reimbursement to hospitals for uncompensated/ undercompensated services.	R
LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES	Gaps in home and community delivered long-term care services.	R
HABILITATION AND REHABILITATION	Fragmentation of delivery system.	P
MENTAL HEALTH AND MENTAL RETARDATION	Aftercare services for discharged MHMR clients.	P
ALCOHOL AND DRUG ABUSE	Prevention of alcohol and drug abuse.	P
HEALTH CARE COSTS	Rural access to care.	R
HEALTH PROFESSIONS	The lack of continuing education requirements for health professionals.	R
DATA NEEDS	Identification of health and social services beneficiaries.	R

P=Priority addressed in the State Health Plan.

R=Referral Issue in the State Health Plan.

BOLD PRINT WITH SHADED AREA identifies the top ranked priority.

**UPPER RIO GRANDE STATE PLANNING REGION
(WEST TEXAS COUNCIL OF GOVERNMENTS)**



S P R : 8

1985 POPULATION (EST.) : 573,600

Area (sq. miles) : 21,788

Number of Counties : 6

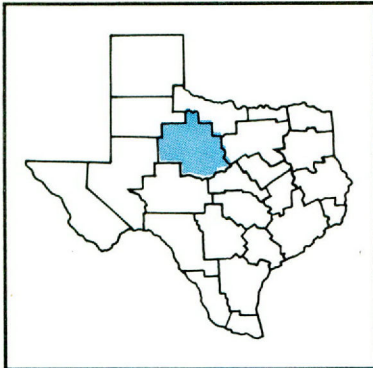
PLAN COMPONENT	REGIONAL PRIORITY	SHCC ACTION
HEALTH PROTECTION	Pollution of the air with automobile emissions and industrial contaminants.	R
HEALTH PROMOTION & HEALTH EDUCATION	Lack of funding for health promotion programs.	R
PREVENTION, DETECTION & REFERRAL	High incidence of unplanned pregnancies among the indigent population.	R
AMBULATORY CARE & EMS	Improved EMS regional communications system including 911 availability throughout the state.	P
SHORT-TERM INSTITUTIONAL CARE	Status of indigent health care financial support requirements for hospitals.	R
LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES	Gaps in home and community delivered long-term care services.	R
HABILITATION AND REHABILITATION	Access of rural disabled to H&R outpatient services.	R
MENTAL HEALTH AND MENTAL RETARDATION	a: Increased detection & prevention; b: Lower cost home & family support programs for physically disabled and elderly.	R
ALCOHOL AND DRUG ABUSE	Effective treatment, counselling and rehabilitation programs for drug abusers and their families.	R
HEALTH CARE COSTS	Indigent care financing.	R
HEALTH PROFESSIONS	Maldistribution of primary care physicians and nurses.	P
DATA NEEDS	Status of data regarding high risk infants.	R

P=Priority addressed in the State Health Plan.

R=Referral Issue in the State Health Plan.

BOLD PRINT WITH SHADED AREA identifies the top ranked priority.

**WEST CENTRAL TEXAS STATE PLANNING REGION
(WEST CENTRAL TEXAS COUNCIL OF GOVERNMENTS)**



S P R : 7

1985 POPULATION (EST.) : 329,400

Area (sq. miles) : 17,893

Number of Counties : 19

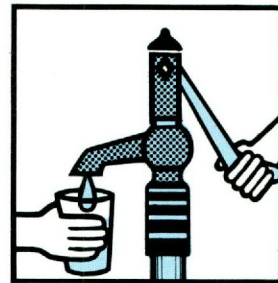
PLAN COMPONENT	REGIONAL PRIORITY	SHCC ACTION
HEALTH PROTECTION	Better protection of the quality of the state's drinking and recreational water supplies.	R
HEALTH PROMOTION & HEALTH EDUCATION	Health education for school children.	P
PREVENTION, DETECTION & REFERRAL	High incidence of unplanned pregnancies among the teenage population.	P
AMBULATORY CARE & EMS	Insufficient number of primary medical care clinics in rural areas.	R
SHORT-TERM INSTITUTIONAL CARE	Continued viability of small rural hospitals.	R
LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES	Affordability of long-term care.	R
HABILITATION AND REHABILITATION	Fragmentation of delivery system.	P
MENTAL HEALTH AND MENTAL RETARDATION	Aftercare services for discharged MHMR clients.	P
ALCOHOL AND DRUG ABUSE	Prevention of alcohol and drug abuse.	P
HEALTH CARE COSTS	Rural access to care.	R
HEALTH PROFESSIONS	Maldistribution of primary care physicians and nurses.	P
DATA NEEDS	Identification of health and social services beneficiaries.	R

P=Priority addressed in the State Health Plan.

R=Referral Issue in the State Health Plan.

BOLD PRINT WITH SHADED AREA identifies the top ranked priority.

HEALTH PROTECTION

**PRIORITY
ISSUE**

Groundwater, or subsurface water contamination, particularly in the aquifers.

PROBLEM STATEMENT: Groundwater contamination is increasing in scope in Texas, and in several localized areas constitutes a serious hazard to health, containing substances which range from raw sewage to toxic chemicals and cancer-causing agents. Though Texas is a large state geographically, its population is growing rapidly, thereby creating an ever increasing demand on its water supplies and spillage of waste into its aquifers.

BACKGROUND AND POLICY ANALYSIS

Groundwater is subsurface water that saturates the spaces between soil particles and rocks. Aquifers are layers of sand, gravel or rocks that contain large volumes of groundwater. According to the U.S. Geological Survey, the nation's aquifers may hold as much as 16 times the total volume of water in the Great Lakes.

Groundwater, unlike surface water in rivers and streams, moves very slowly. This situation causes any contaminants to remain in the still waters of the aquifer for long periods of time without dissipating. Once trapped in an aquifer, the contaminant can remain for decades, even centuries. Removing contamination, when possible, is extremely difficult and very expensive.

Underneath more than half of Texas are numerous aquifers, small and large (See Figures A and B), two of which are unique. The Edwards Aquifer near Austin and San Antonio is protected as a "sole source" aquifer by the Environmental Protection Agency (EPA). The Ogallala Aquifer, reaching from west Texas to South Dakota, is the largest aquifer by volume in the world. In 1980, the Texas portion of the Ogallala contained 420 million acre-feet of water; but by the year 2000, hydrologists estimate that pumping will have reduced the water in storage to 363 million acre feet.¹ Areas of significant groundwater level decline are shown in Figure C.

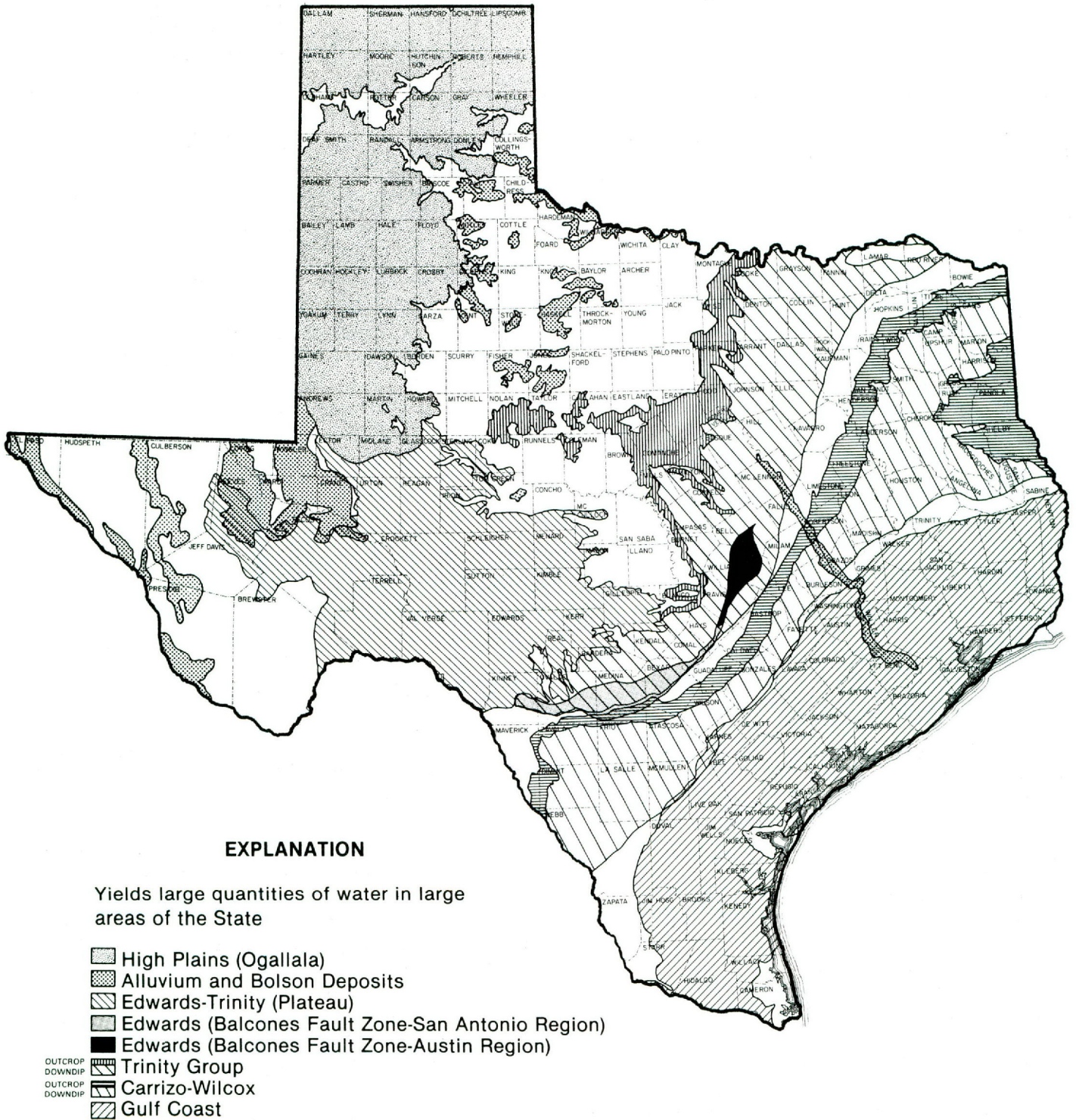
Forty-five percent of the drinking water in Texas comes from groundwater reserves, and 60% of all the water consumed in Texas for domestic, industrial, or agricultural uses--about 10.85 million acre-feet per year--is drawn from groundwater. The annual effective recharge of Texas groundwater supplies totals only 5.3 million acre-feet, leaving a deficit of 5.5 million acre-feet per year.²

As the state's groundwater supplies are being reduced, there are many hazards that threaten the quality of essential water resources:

- Oil and gas operations could increase sodium or chloride concentrations in local groundwater supplies.
- Hazardous waste sites that are not properly prepared and monitored. Figure D shows the EPA National Priority List (NPL), or "superfund", sites in Texas. As of May 1986, 12 of the 26 NPL sites in Texas have been identified as having caused contamination of groundwater.³ Nationally, of all factors, hazardous waste sites have had the greatest effect on groundwater.
- Overpumping in coastal areas has led to saltwater intrusion in some aquifers.⁴ In Galveston County, and the city of Freeport, this has led to saltwater intrusion into the Gulf Coast Aquifer.

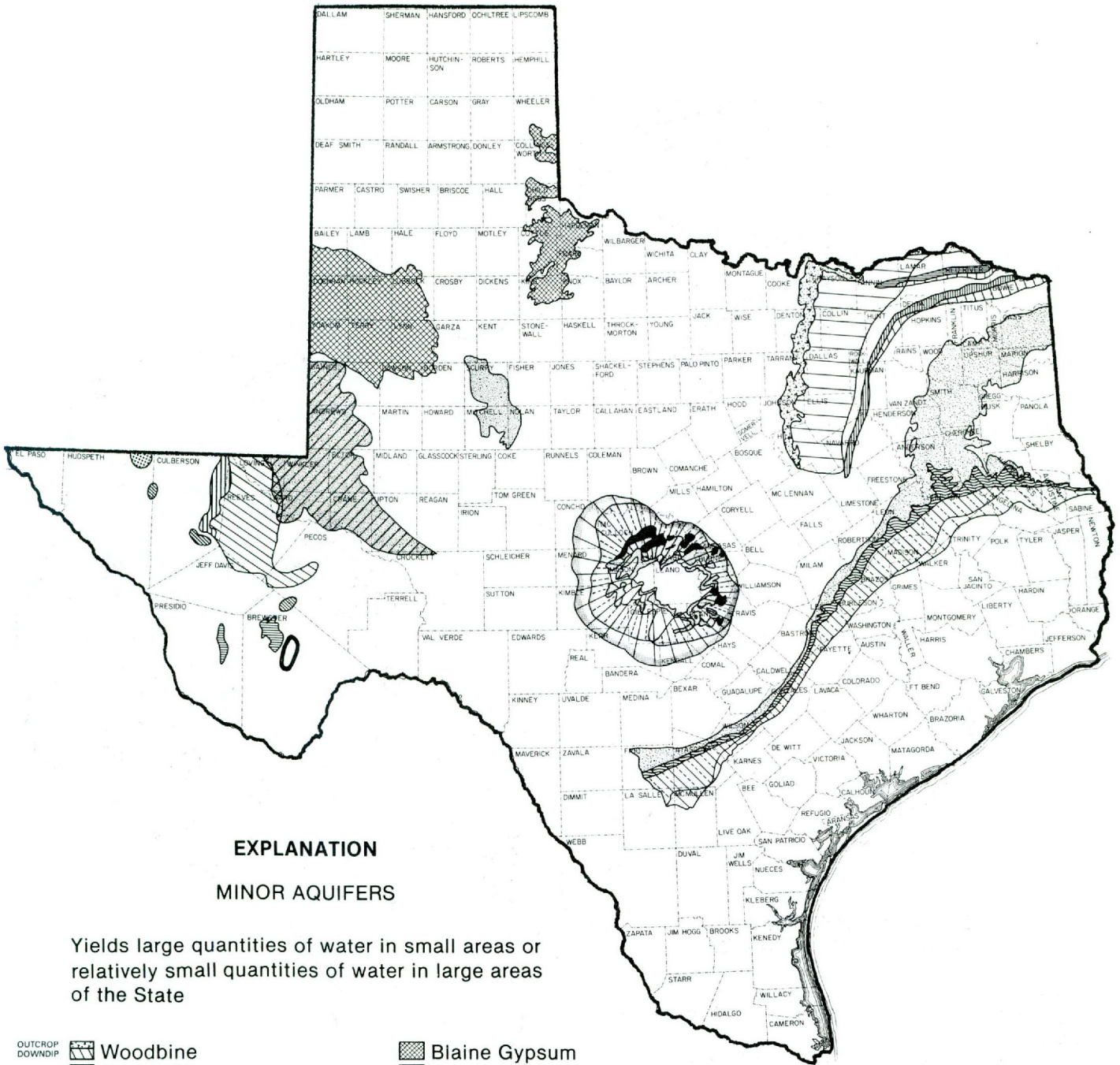
Public concern has been expressed regarding the threat to groundwater from the following proposals:

**FIGURE A
MAJOR AQUIFERS IN TEXAS**



SOURCE: Texas Water Development Board

**FIGURE B
MINOR AQUIFERS IN TEXAS**



EXPLANATION

MINOR AQUIFERS

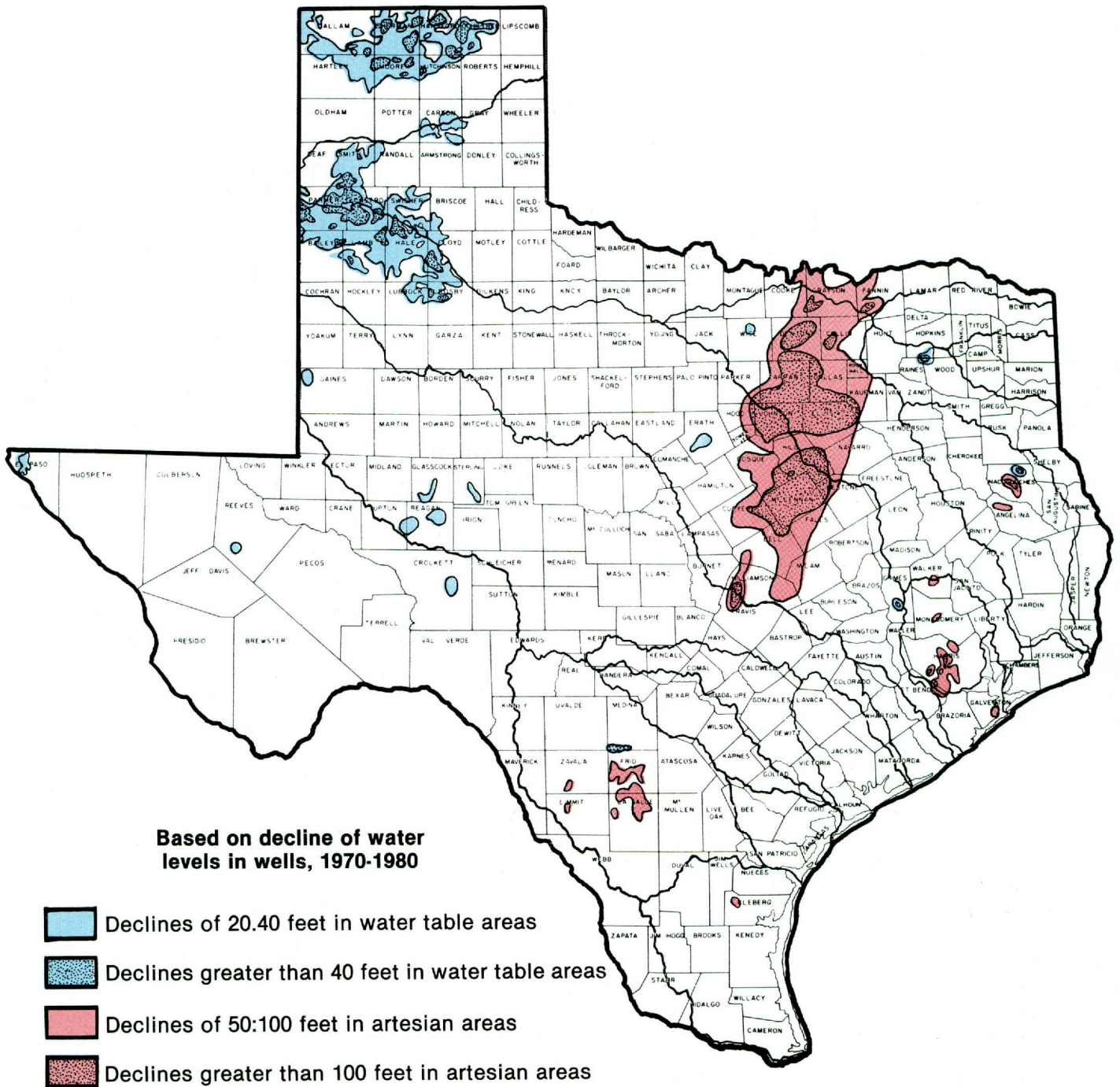
Yields large quantities of water in small areas or relatively small quantities of water in large areas of the State

- | | | |
|--------------------|-------------------------------|--|
| OUTCROP
DOWNDIP | Woodbine | Blaine Gypsum |
| | Queen City | Igneous Rocks |
| | Sparta | Marathon Limestone |
| | Edwards-Trinity (High Plains) | Bone Spring and Victorio Peak Limestones |
| | Santa Rosa | Capitan Limestone |
| | Hickory Sandstone | Rustler |
| | Ellenburger-San Saba | Nacatoch Sand |
| | Marble Falls Limestone | Blossom Sand |

Note: Other Aquifers Undifferentiated (Not Shown)

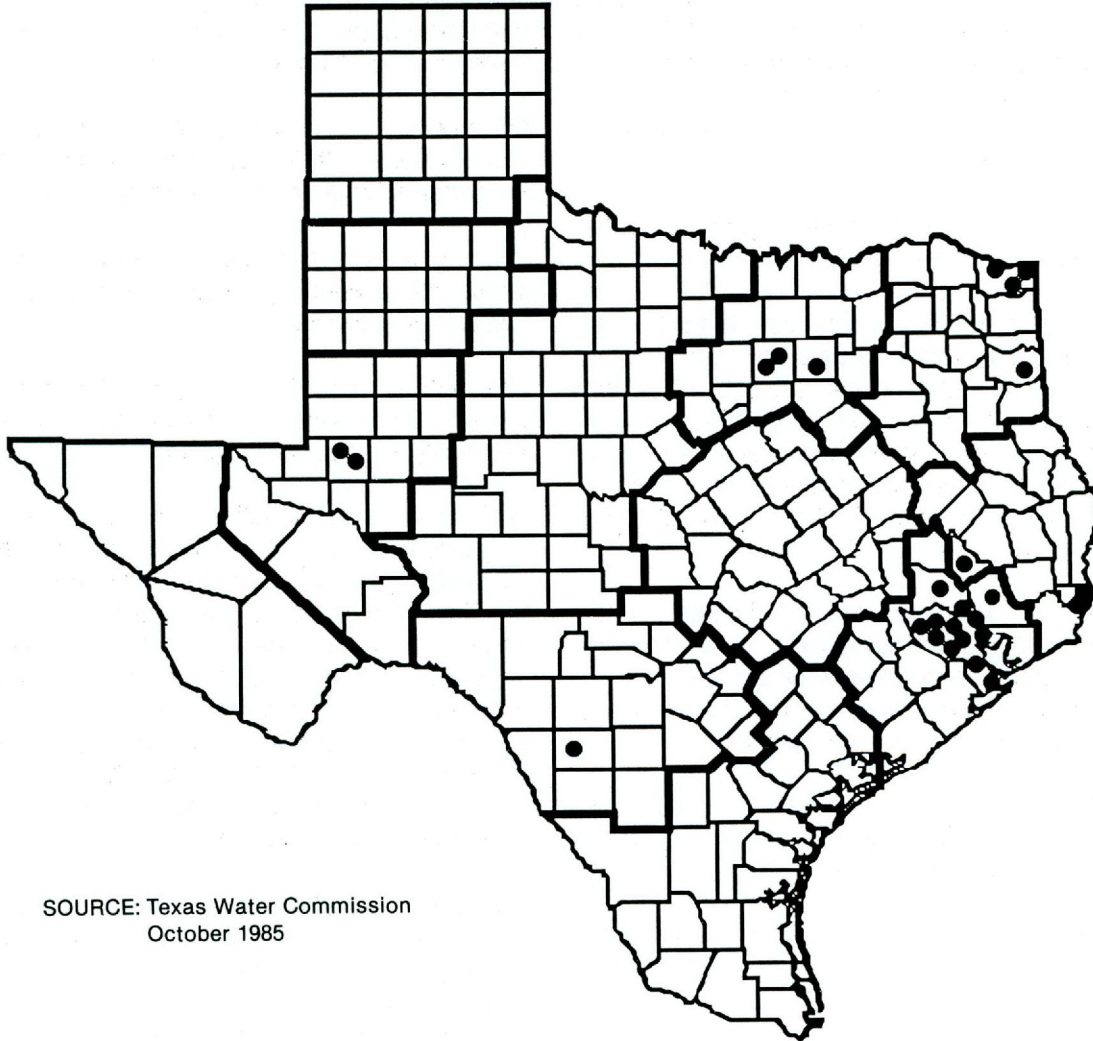
SOURCE: Texas Water Development Board

FIGURE C
AREAS EXPERIENCING SIGNIFICANT
GROUND-WATER LEVEL DECLINE, 1970-1980



SOURCE: Texas Water Development Board

**FIGURE D
SUPERFUND SITES IN TEXAS**



SOURCE: Texas Water Commission
October 1985

—Federal authorities are considering a site over the Ogallala Aquifer in Deaf Smith County as a possible location for a high-level radioactive waste disposal site.

—Requests have been submitted to the Texas Railroad Commission to route a cross-country oil pipeline across the Edwards Aquifer.

New construction, where wrongly placed or uncontrolled, can also be a danger to groundwater reserves. The Edwards Aquifer, for example, is made up of fissured and cavernous limestone with the recharge zone composed of exposed beds of Edwards limestone. Under these conditions, septic tank effluent and heavy storm water runoff can flow directly into the aquifer without filtration of the contaminants. In densely built areas, this insidious pollution can eventually make an aquifer's water useless for human consumption. At present, the

Edwards Aquifer supplies approximately one million persons with their daily water needs.

Gradually, the state's groundwater reserves are being depleted through overuse--chiefly by agricultural irrigation--and remaining supplies are threatened by various pollutants.

INTERVENTION ALTERNATIVES

Alternative 1: Charge one agency of state government with the overall responsibility for all actions concerning the coordination and planning for groundwater protection.

Protection of the state's aquifers and groundwater supplies is a large task now involving several state agencies. The agency with the principal responsibility for water quality in Texas is the Texas Water Commission (TWC). TWC also enforces the

laws governing hazardous and industrial waste. TDH oversees the disposal of municipal solid waste and the quality of drinking water. The Texas Railroad Commission controls oil and gas operations. The Texas Water Development Board approves requests for loans of State of Texas monies for certain water development projects. Additionally, numerous underground water districts have some control over actions which could affect the subsurface water within their jurisdictions.

Alternative 2: Provide stronger regulation of the design, construction, and operation of landfill sites.

Unplanned and poorly constructed landfills can create a danger to health, especially when located near a shallow groundwater site. Local landfills often contain small quantity wastes ranging from photo chemicals to paint thinner, pesticides and used motor oil. In rural areas, the possibility of a casually prepared waste site placed above a local water supply is a concern.

Alternative 3: Promote more vigorous water conservation strategies, especially for agricultural irrigation methods and equipment as well as for coastal areas where overpumping has caused saltwater intrusion and ground subsidence.

New techniques and government loans for the purchase of modern irrigation equipment encourage conservative agricultural watering.

Alternative 4: Initiate more extensive and comprehensive groundwater monitoring programs, including a survey of the extent of groundwater contamination.

Several government agencies monitor groundwater at random to check for contamination; however, different agencies have different requirements and the information is seldom shared.

Alternative 5: Prohibit landfill disposal sites over sensitive aquifers, i.e., the Edwards Aquifer and its recharge zone.

Even landfill sites which are properly designed and constructed will eventually allow leachate to escape. Since there is very little natural soil filtering above the Edwards Aquifer, contamination is inevitable. Such sensitive areas must be ruled unsuitable for any landfill disposal sites.

Alternative 6: Encourage alternative disposal methods for hazardous waste, e.g., resource recovery, reduction, or detoxification through

economic incentives such as taxes or fee scheduling.

This alternative already has been written into law. During the 69th Texas Legislature, House Bill 2359 was passed, providing a means to improve disposal methods through a waste end tax.

Alternative 7: Approve additional underground water districts with the authority to restrict and control the factors which contaminate groundwater.

Such methods are usually viewed critically in Texas where landownership also conveys surface and subsurface water rights.

Alternative 8: Limit building density to control the levels of storm water runoff and septic tank drainage, especially over sensitive aquifers.

High density construction over sensitive aquifers may eventually be the greatest danger. The Texas Hill Country is an attractive living area, and new housing is being added continually. Construction of homes and commercial malls increases the impervious cover and the amount of chemicals, herbicides, oil, tar, etc. which is flushed away during a rainstorm. Because of the high impervious cover, much of these wastes run off rapidly and soak quickly through the thin soil layer and eventually through the rock fissures into the aquifer.

Because of the rock which closely underlies the surface, sewage pipe placement and construction are expensive over the Balcones Fault/Edwards Aquifer. Only by very costly construction techniques can there be any assurance that these pipes will not crack or separate, leaking raw sewage into the aquifer.

Septic tanks are a logical alternative; however, the underlying rock also prevents proper filtration of the effluent. Used sparingly, septic tanks are acceptable; however, extensive usage can cause groundwater pollution.

ALTERNATIVES SELECTED

Each of the alternatives is needed and they are complementary. Selected for special emphasis are Alternatives 1, 4, 7 and 8.

Recommendations:

1. That the Texas Water Commission be the responsible lead agency in coordinating and planning for groundwater protection.

2. That the Texas Water Development Board, under their groundwater monitoring program, coordinate information gathered by all agencies having groundwater monitoring functions, and also survey the extent of groundwater contamination in Texas.
3. That the Texas Legislature designate additional underground water districts where needed to protect the groundwater resources of the state.
4. That standards for building densities be enforced, or where not established, that appropriate standards be locally developed and applied in areas where wastewater effluent and storm water runoff endanger the quality of sensitive aquifers. These standards would be developed in compliance with professional architectural and engineering levels of practice.

REFERENCES

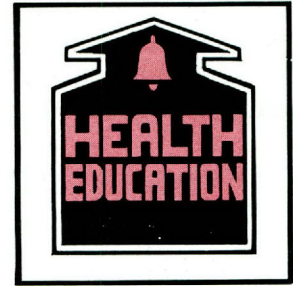
¹U.S. General Accounting Office, Federal and State Efforts to Protect Ground Water (Gaithersburg, MD: GAO, February 21, 1984), p. 76.

²ibid.

³David Sorrells, Texas Water Commission, telephone conversation on June 3, 1986.

⁴U.S. General Accounting Office, op. cit., pp. 76-77.

HEALTH PROMOTION/ HEALTH EDUCATION



**PRIORITY
ISSUE**

Comprehensive health education for school children.

PROBLEM STATEMENT: The quality of existing levels of health education in Texas school districts is inconsistent.

BACKGROUND AND POLICY ANALYSIS

A comprehensive approach to quality health education for school children is needed to prevent health problems among the future adults of Texas. Health promotion for children may have the greatest long-term impact on morbidity and mortality rates. Of the four leading causes of death in Texas today, three are chronic diseases: heart disease, cancer, and stroke.¹ Studies have demonstrated that about 50% of these deaths are attributable to lifestyle or personal behavior.² Increasing the emphasis on healthful lifestyle practices can potentially affect a large proportion of the unnecessary causes of sickness and death.

Health and physical education are included among the 12 subject areas identified by the Texas Legislature for use in Texas school districts. The State Board of Education, by rule, has identified the essential elements for each subject area, including health. These "Rules for Curriculum," Title 19, Texas Administrative Code, Chapter 75, spell out the health-related concepts and skills which must be taught in each grade, kindergarten through 12. These curricular guidelines include content about hygiene and daily health practices, safety, alcohol and drug abuse, as well as health concepts and skills that involve interaction between individuals and that affect the well-being of people collectively. These guidelines do not specifically include family life or reproductive education at any grade level.

Adequate teacher preparation is essential to effective comprehensive school health education. Teachers must be appropriately equipped and trained to present the subject matter of health as in any other subject area. As of January 9, 1986, of the

172,713 teachers in Texas, there were 572 teachers certified in health and physical education; and 1,232 teachers certified in health.³ There is a shortage of appropriately credentialed teachers for health education.

Health-related organizations report a wide range of implementation levels regarding school health education. However, no data exists to document how health education is implemented in local schools across the state. Much public and legislative concern has been expressed regarding this issue. All areas of the state (through survey input from the COGs and other organizations) expressed a need for an active program of comprehensive health education within their local schools.

The structure is in place for school-age children in Texas to learn about and experience healthy lifestyles. The structure includes:

- mandatory school attendance
- the local independent school districts
- State Board of Education
- the Texas Education Agency (TEA)
- the Texas Department of Health (TDH)
- a system of regional education service centers (RESC) which are a vehicle to disseminate resources and training
- the regional councils of government (COGS)

Health promotion efforts targeting children are not, of course, solely the responsibility of the schools. The influence of the family unit is critical, and the home environment, as well as the influence of institutions such as the church, business/industry,

and civic groups, is important to consider. The rationale for targeting school-age children with a comprehensive health education strategy includes the following elements:

- school-age children comprise 22% of the total state population.
- childhood and adolescence are key periods for the development of health-related attitudes and behaviors which are continued through life.
- this approach can have a greater quantifiable impact in terms of years of life lost.
- essentially all children must attend school. Therefore, children of all ethnic and socio-economic backgrounds will be exposed to concepts and curricula regarding healthy lifestyles.
- children can potentially serve as conduits of information and change to their families and friends, thereby reaching other populations in the community.
- a recent, extensive school health education evaluation study conducted nationwide validates the effectiveness of health education curriculum on health knowledge, attitudes, and behaviors.

The goals of comprehensive school health education include both short-term and long-term outcomes. The short-term goal is to produce the level of health necessary to ensure that students can perform well in school. This short-term goal is congruent with the current state-level initiative for improvement of the educational system. The long-term goal is longer life with both decreased disability and health care costs. The aim is to assist children to develop into healthy, productive, employed adults, knowledgeable as consumers of health care services.

INTERVENTION ALTERNATIVES

Alternative 1: Family life education (courses that typically encompass gender-role development, body image, family formation, reproduction and childbirth, and interpersonal relationships) specifically need to be added to the Rules for Curriculum, Chapter 75, State Board of Education. The prevention of unintended teen pregnancies is a major social policy goal in the state (refer to Chapter XVI). Since revisions to current health curriculum fall under the purview of the State Board of Education, the Board should proceed, through its public rule-making authority, to make this addition to the curricular guidelines.

Alternative 2: There is a need for more adequately prepared teachers in health education. Effective health education in the schools requires qualified teachers. This involves a combination of strategies to address pre-service education, certification, and inservice/continuing education. State and local level incentives are required to encourage high school or college students, or teachers to seek certification in health education. On the state level, the TEA, TDH, and other health-related agencies could collaborate in this initiative. At the local level, community networks or coalitions (see Alternative 5) could assist with providing such incentives.

Alternative 3: Consistent levels of health education in schools throughout the state need to be implemented. This alternative can be accomplished with the creation of a governor-appointed, short-term, single purpose task force. The function of this body would be to share information and resources regarding school health education between public and private sectors. A suggested composition of this task force is shown in Exhibit A. A report could be prepared that details these health education resources, programs, and teaching modules throughout the state. The report would be presented to the State Board of Education for their use. This information could then be disseminated to the RESCs to assist in their function of providing teacher inservice education.

Alternative 4: The Texas Cancer Council has funded a TEA school health grant proposal to place health educators in 13 of the 20 RESCs. With the aid of a school health coordinator within TEA, this Texas School Health Program is in the process of establishing regional networks. The purpose of these networks, structured to correspond to the boundaries of the RESCs, is to provide access to instructional materials, health data, training, health services, and other resources for teachers and school nurses. The network could include regional and local departments of health, voluntary health associations, professional organizations, colleges and universities, and other similar groups. Funding for this program needs to be continued, with sufficient funds to place a health educator in each of the 20 RESCs.

Alternative 5: Local level networks or coalitions, established with the assistance of the RESCs, could work at the community level in implementing effective school health education. Each local network is recommended to include local elected officials, the president of the school board, the superintendent of each school district, and representatives in each community from religious

EXHIBIT A
GOVERNOR'S TASK FORCE
ON SCHOOL HEALTH EDUCATION

Governor's Commission on Physical Fitness
 Society for Public Health Education
 Teen Parent Initiative Interagency Council
 Texas Department of Health
 Texas Education Agency
 Texans' War on Drugs
 Texas Association of School Boards
 Texas Association of School Nurses
 Texas Association for Counseling
 and Development
 Texas Association for Health, Physical
 Education, Recreation, & Dance
 Texas Association of School Administrators
 Texas Association of Secondary School
 Principals
 Texas Business Group on Health
 Texas Cancer Council
 Texas Commission on Alcohol & Drug Abuse
 Texas Congress of Parents and Teachers
 Texas Health and Human Services Coordinating
 Council
 Texas Department of Human Services
 Texas Dental Association
 Texas Dental Hygienists Association
 Texas Elementary Principals & Supervisors
 Association
 Texas Family Planning Association
 Texas Federation of Teachers
 Texas Medical Association
 Texas Nurses Association
 Texas Pharmaceutical Association
 Texas School Health Association
 Texas State Teachers Association
 Texas Youth in Action
 Lone Star State Medical Association

organizations, public health organizations, business interests, law enforcement agencies, civic groups, professional groups, parent teacher associations, the Junior League and other groups. These networks or coalitions could seek local funds to employ personnel to conduct specific health education (including family life, drug and alcohol abuse prevention programs) and offer financial aid for staff to attend certified health education courses. Knowledge and sharing of the unique resources available in the community, such as health professionals with specific expertise, programs that address local concerns, or industry-sponsored health promotion efforts, will maximize the utilization of such resources.

ALTERNATIVE SELECTED

A combination of all the above alternatives was selected. Curricular revision, by the State Board of Education, is needed to specifically include family life within state curriculum guidelines. Adequate teacher preparation is crucial to the implementation of effective health education programs. A strategy is needed to encourage individuals or teachers to seek appropriate certification in health education.

A cooperative, collaborative approach is necessary to fully maximize the available public and private sector health education resources across the state. The establishment of a short-term, governor-appointed, task force, with a specific focus on health education related information and resource sharing, with subsequent dissemination of this information to the regional level, will facilitate the implementation of a consistent level of quality of health education across the state.

The Texas School Health Program, funded by the Texas Cancer Council, places a health educator in 13 of the 20 RESCs and a school health coordinator within TEA. Regional networks to provide access to health resources, services, and training for teachers and school nurses, are being established. This approach is a valuable contribution to the much needed sharing and maximum utilization of health education resources, and needs to be continued. Additionally, local level networks or coalitions will ensure community participation in implementing effective school health education programs.

Recommendations:

1. Revise the state health curriculum to add family life education at each grade level through the rule-making authority of the State Board of Education.
2. Provide positive state and local level incentives to encourage individuals or teachers to seek certification in health, family life, and alcohol and drug abuse prevention education.
3. Establish a short-term, governor-appointed, task force to promote information and resource sharing between public and private sectors, targeting consistent levels of health education in schools throughout the state, and present its report to the governor and the State Board of Education.
4. Appropriate sufficient funds during the 70th session of the Texas State Legislature to continue the Texas School Health Program to place a health educator in each regional education service center.

5. Develop local level networks or coalitions to ensure local participation in implementing effective school health education programs which include family life and drug and alcohol abuse prevention education.

REFERENCES

¹Texas Department of Health, Texas Health Objectives for 1990: Status Report 1984, p. 1.

²Dever, G. E. Alan, Epidemiology in Health Services Management, Aspen Publication, 1984, p. 36.

³Unpublished document, Texas Education Agency, "1984-85 State Total Counts of Health and P.E. Teachers, Counselors and Nurses," (computer printout), 2/11/86.

PREVENTION, DETECTION & REFERRAL



PRIORITY ISSUE

Increasing incidence of acquired immune deficiency syndrome (AIDS).

PROBLEM STATEMENT: Insufficient program resources to promote prevention and early detection of AIDS and inadequate referral systems.

BACKGROUND AND POLICY ANALYSIS

Acquired immune deficiency syndrome (AIDS) was first recognized in 1981. It is caused by a virus that is transmitted through the exchange of certain body fluids, primarily blood and semen. Those at risk of contracting the infection include homosexual and bisexual males, intravenous drug abusers who share needles, hemophiliacs and others who have required frequent transfusions of blood or blood components, regular sexual partners of anyone in these groups, and infants born to infected women. The Centers for Disease Control (CDC) requests that all newly diagnosed cases of AIDS be reported. As of February 28, 1986, over 17,000 AIDS cases had been reported nationwide.¹ Over 1,000 of these were reported in Texas, which ranks fifth in the nation in AIDS incidence.² Approximately 90% of the cases reported in Texas have occurred in homosexual or bisexual men. Intravenous drug abusers account for approximately 4% of the reported cases (Exhibit A). Of those cases reported in Texas, 57% have died. Of those diagnosed prior to 1984, 86% have died (Exhibit B).

The virus responsible for the AIDS infection (HTLV-III) is not easily transmitted. Some type of contact allowing the exchange of body fluids must occur. Since the primary fluids involved are semen and blood, this contact is usually sexual in nature. Sharing needles to inject drugs is also a significant route of infection. Casual, non-intimate contact has not been implicated in transmission of the HTLV-III virus.

AIDS is strictly defined by CDC. It is only one manifestation of infection with the HTLV-III virus. It is possible for a person to have been infected with the

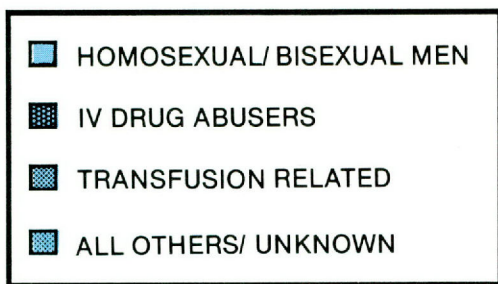
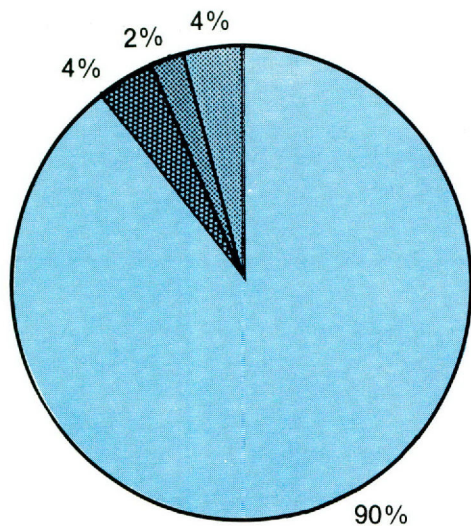
virus, but show no sign of disease. It is also possible for a person to have been infected, show symptoms of illness, but without the specific disorders required for a diagnosis of AIDS. This second condition is known as AIDS-Related Complex (ARC). A person in any of these categories is capable of spreading the HTLV-III virus, regardless of whether or not he or she shows signs of illness. It is possible to be tested for antibodies to the virus. A positive test result in a high-risk individual indicates infection with the virus. It does not necessarily imply that the person will eventually develop AIDS.

With the development of these tests to detect HTLV-III antibodies in blood or plasma, the risk of becoming infected via blood transfusion has been virtually eliminated. Routine screening of donated blood and plasma has been conducted since April 1985.

To eliminate high-risk individuals as blood donors, alternate test sites have been established for HTLV-III antibody testing. These provide free, confidential tests. An essential element of these centers is counseling. Counseling must include accurate information regarding the meaning of the test results, education concerning behavior modification to reduce the spread of the virus, counseling to address the psychological issues that are inherent with a positive test result, and any appropriate referrals.

A person with AIDS has many needs: medical care, insurance, housing, food, financial and legal help, counseling and emotional support, home health care or nursing home care, not to mention the special needs of their families and friends. This assistance is

**EXHIBIT A
AIDS CASES
BY PATIENT CHARACTERISTICS
TEXAS**



SOURCE: Texas Department of Health
Bureau of Epidemiology, March 3, 1986

frequently unavailable. Some services are lacking because of public fear of AIDS; others, simply because resources are so limited. Private community organizations with volunteers are attempting to fill the voids in these areas, but their resources are being stretched beyond their limits.

Because of the severity of AIDS, there is understandably a great deal of public concern. The fact that it is a relatively new disease, which usually involves unique populations, fosters considerable public misconception and fears. These fears can hinder efforts to resolve the problems that exist in the areas of prevention, detection, and referral.

INTERVENTION ALTERNATIVES

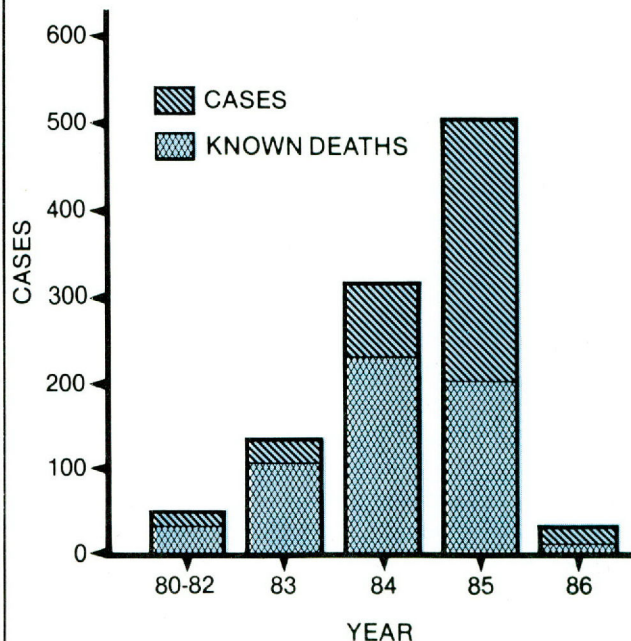
Prevention, detection, and referral are all aspects of intervention that must be considered interrelated. However, there are unique needs in each of these areas which should be discussed individually.

Prevention:

Alternative 1: Support education as the most important tool available in preventing the spread of the HTLV-III virus, since there is no vaccine at this time. The needs of each population that must be targeted are unique.

- A) Homosexual and bisexual males continue to comprise the highest risk group. Transmission of AIDS in this group results from unsafe sex practices that allow body fluids from one individual to enter the blood stream of another. Effective education in safe sex techniques is extremely important. Gay organizations are

**EXHIBIT B
AIDS CASES AND KNOWN DEATHS
BY YEAR
TEXAS**



SOURCE: "Texas AIDS Cases Weekly Surveillance Report," Texas Department of Health, Bureau of Epidemiology, February 22, 1986

making efforts to reach persons at risk by methods such as distributing brochures at clubs and other meeting places, and by staffing hotlines. These organizations have extremely limited resources, relying on volunteers and donations. Their resources are already being stretched, and with the rapid increase in AIDS cases, the needs will soon far surpass the currently available resources.

- B) Intravenous drug abusers have a different set of educational needs. The primary mode of transmission of the HTLV-III virus in this group is sharing needles. However, sexual transmission is also a risk for this group.
- C) Educational efforts should be aimed at health care professionals, providing accurate and current information on the HTLV-III virus, precautionary measures, methods of diagnosis, available treatments, referral resources, counseling needs, and the psycho-social aspects of AIDS.
- D) The general public urgently needs accurate information concerning AIDS. Programs might take the form of public service announcements, workshops, or toll-free information lines. Those persons who do not fall into a high-risk group need to be well informed about how to maintain their low-risk status. Additionally, the fear and anxiety produced by misconceptions and misinformation about AIDS not only result in unnecessary stress for those who are worried, but pave the way for discrimination of anyone perceived to be "at risk".

Alternative 2: Support incentive programs to promote AIDS research in Texas universities. If the rapid increase in AIDS incidence and resulting mortality are to be controlled, research efforts must be increased to develop a vaccine and/or effective treatments. Detection of AIDS and the HTLV-III virus can be viewed from two perspectives. One aspect involves testing individuals for signs of infection. Another involves epidemiological surveillance of incidence.

Alternative 3: Continue current practice of voluntary and confidential testing. This approach allows complete anonymity and confidentiality, two issues that are extremely important to the populations at risk. It also requires that all persons at risk conduct themselves in a safe manner, each assuming that he or she is capable of spreading infection and/or being infected.

Alternative 4: Expand current programs with outreach programs that make voluntary, anonymous testing available at gathering places such as clubs,

drug abuse clinics, and family planning clinics with appropriate associated counseling, education, and referral.

Alternative 5: Incorporate follow-up of sexual partners who might not be aware of their risk status. This would particularly benefit women who might be unaware that their sexual partners are members of high-risk groups. Again, confidentiality is a major concern with this approach and appropriate counseling is imperative. The second aspect of detection involves epidemiological surveillance. Surveillance, in this context, refers to the systematic collection and evaluation of data relating to the occurrence and spread of disease.³ This is an important element of AIDS prevention and detection and is vital in expanding knowledge of AIDS and its transmission.

Alternative 6: Continue epidemiological surveillance of cases of CDC-defined AIDS and assure that qualified staffing is adequate to process increasing case loads in a timely manner. Timeliness can sometimes be critical since some persons with AIDS progress through the course of their disease so quickly that they may die before complete information concerning their risk factors can be obtained.

Alternative 7: Expand epidemiological surveillance programs to include reporting of HTLV-III antibody-positive persons. This is an area that might provide useful data; however, it raises extremely sensitive issues of confidentiality. In addition, it is thought that the number of antibody positive individuals may be 10 to 100 times greater than the number of AIDS cases. The personnel time required to collect this data would be prohibitive.

Referral of persons with AIDS to appropriate resources can be a formidable task. Resources to accept referrals are inadequate, and only limited networks of information are established.

Alternative 8: Provide support to private special interest organizations in efforts to develop community referral and assistance programs.

Alternative 9: Develop a central, statewide, coordinated information and referral network that would meet not only the needs of the person with AIDS, but also those of health care providers, persons at risk of infection, and the general public.

Additional Concerns:

Alternative 10: Use a statewide task force with experts recruited from many related and involved

fields to provide information and recommendations concerning AIDS-related issues. Such a task force has been organized by the commissioner of health. This task force should be used to assist in policy-making statewide as new issues arise and as more information becomes available.

Alternative 11: Ensure access to resources for persons with AIDS and for those at risk of infection. AIDS presents some unique problems relating to insurability, short and long-term care, mental health care, and school attendance for children. (Chapter VI Annex, Appendix A).

ALTERNATIVES SELECTED

Prevention: Alternatives selected in this area are both 1 and 2. Until a vaccine is developed, education remains an extremely effective tool in preventing the spread of AIDS. Alternative 1 supports educational efforts specifically tailored to the unique needs of targeted populations to include: (A) homosexual and bisexual men, (B) intravenous drug abusers, (C) health professionals, and (D) the general public. Alternative 2 supports incentives for research.

Detection: Alternatives selected in this area are 4 and 6. Alternative 4 deals with the continued operation of free, confidential test sites with expanded efforts to include testing at meeting places. This incorporates comprehensive counseling. Alternative 6 continues current epidemiological surveillance of CDC-defined AIDS cases.

Referral: Both alternatives 8 and 9 are appropriate. Number 8 would provide support to private community organizations in developing referral and assistance programs. Number 9 establishes a central, statewide, coordinated information and referral network.

Additional Concerns: Alternative 10 uses the Commissioner's Task Force on AIDS in statewide AIDS policy-making. Alternative 11 is designed to prevent barriers to resources.

Recommendations:

1. Develop and/or expand educational programs aimed at increasing knowledge about AIDS, the transmission of the HTLV-III virus, and methods of avoiding infection. These are to be specifically offered to: (a) homosexual and bisexual men, (b) intravenous drug abusers, (c) health professionals, and (d) the general public. The Texas Department of Health is a possible lead agency in this effort, as several bureaus are already implementing preliminary projects toward this goal.

2. Continue to provide facilities for free, confidential, anonymous HTLV-III antibody testing and encourage the high-risk populations to seek information regarding their individual antibody status. Incorporate counseling regarding the meaning of test results, information concerning safe activities, and any needed referrals. The Texas Department of Health and local health departments could coordinate this effort.

3. Support current epidemiologic surveillance programs conducted by the Texas Department of Health and consider expansion of available resources.

4. Support the development of a statewide, central, information and referral network that can serve persons with AIDS, health care providers, persons at risk, private organizations with desires to establish local AIDS programs, and the general public. The Texas Department of Health is an appropriate lead agency in this effort.

5. Use the established task force on AIDS in statewide AIDS policy-making as new issues arise or as additional information becomes available.

6. Ensure access to vital resources for persons with AIDS and those at risk of infection. These resources include: facilities for short and long-term care, insurance, and access to mental health services. Children with AIDS also need access to education through school attendance.

7. Support incentive programs to promote AIDS research in Texas universities.

REFERENCES

¹All references to National AIDS incidence statistics were obtained from: Centers for Disease Control, AIDS Program, "AIDS Weekly Surveillance Report - United States" February 3, 1986.

²All references to Texas AIDS incidence statistics were obtained from: Texas Department of Health, Bureau of Epidemiology, AIDS Surveillance Program, "AIDS Cases Reported to the Texas Department of Health" March 3, 1986.

³Abram S. Benenson, Ed., Control of Communicable Diseases in Man, 14th ed., American Public Health Association, 1985.

AMBULATORY CARE/EMS



PRIORITY ISSUE	<i>An improved regional emergency medical services (EMS) communications network throughout the state, emphasizing an upgraded radio communications system between emergency medical and other public safety units.</i>
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PROBLEM STATEMENT: *Communications are essential for the EMS system; however, because of Texas' vast area, rapid and clear communications are often difficult. The Very High Frequency (VHF) band which is used by most EMS units in Texas can only be used for simplex (communication in one direction at a time) operations, and this band is often congested, especially during crisis situations. In addition, because the initial communications link between patient and EMS is usually by telephone, the 9-1-1 emergency telephone number will be addressed.*

BACKGROUND AND POLICY ANALYSIS

In the EMS system, communications are necessary from hospital to ambulance, between ambulance and police or fire units, and between ambulance and patient evacuation aircraft (helicopters or fixed-wing airplanes).

In the VHF band, there is only one frequency recognized for hospital-ambulance use while Ultra High Frequency (UHF) has ten channels available for medical emergencies. In addition, frequency pairs are allotted to UHF, thus providing duplex capability (talking and listening simultaneously) and making telemetry and Advanced Life Support (ALS) systems possible.

With UHF, hospital personnel and the paramedic or emergency medical technician (EMT) at the scene can talk freely, without having to wait for the other to stop transmitting. The doctor can interject with instructions when necessary, and the EMT can ask questions or provide immediate updates on the patient's condition. VHF limitations do not permit this flexibility of communications. Not only is VHF less flexible, but because of congestion on this band, critical transmissions are at times drowned out by other users.

Across Texas, only 98 of the 254 counties have hospitals with UHF base station communications

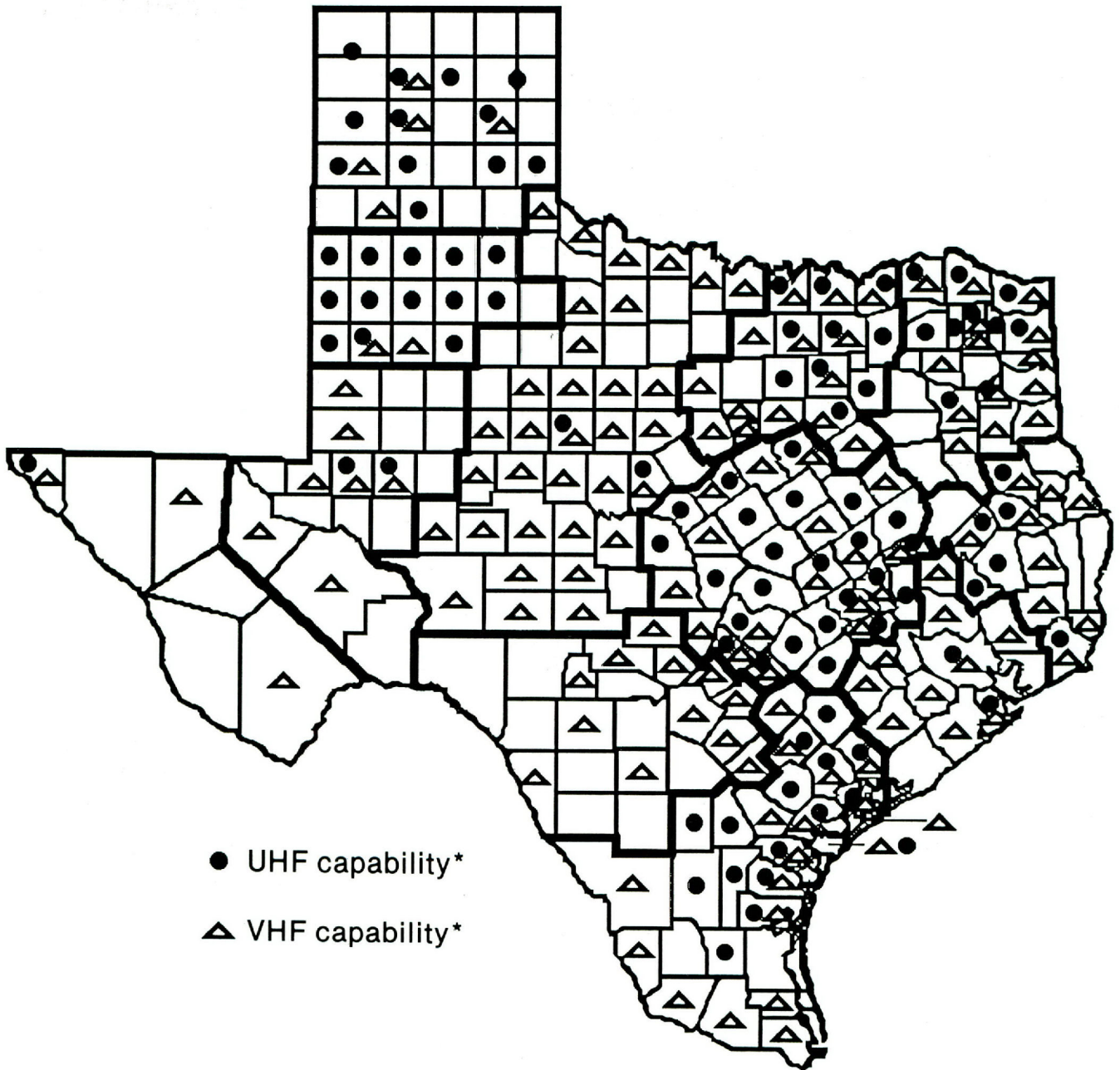
equipment (Figure A). However, some of these counties may have hospital emergency rooms and EMS units which have only VHF radios or no radio equipment at all.

Equipping local EMS vehicles and emergency rooms with radios is an expensive proposition. The necessary number of radios statewide will cost an estimated \$10 million at 1986 prices.¹ Delaying the purchase would add approximately 10 to 12% to the cost each year. In addition, maintenance, transmission towers, permits, and training would increase the estimated cost another \$5 million.

In 1968, American Telephone and Telegraph designated 9-1-1 as the "universal nationwide number" for telephone access to the emergency response system, whether it be fire, police or medical emergency.² This number was chosen because it was shorter and easier to remember under adverse conditions than a standard seven-digit phone number. Furthermore, as a universal emergency number it would be easier for travelers and new residents to phone for help.

As of October 1985, 33 Texas communities were providing 9-1-1 emergency telephone access (Figure B). These 33 communities represent about 19% of the state's population. Harris County is also

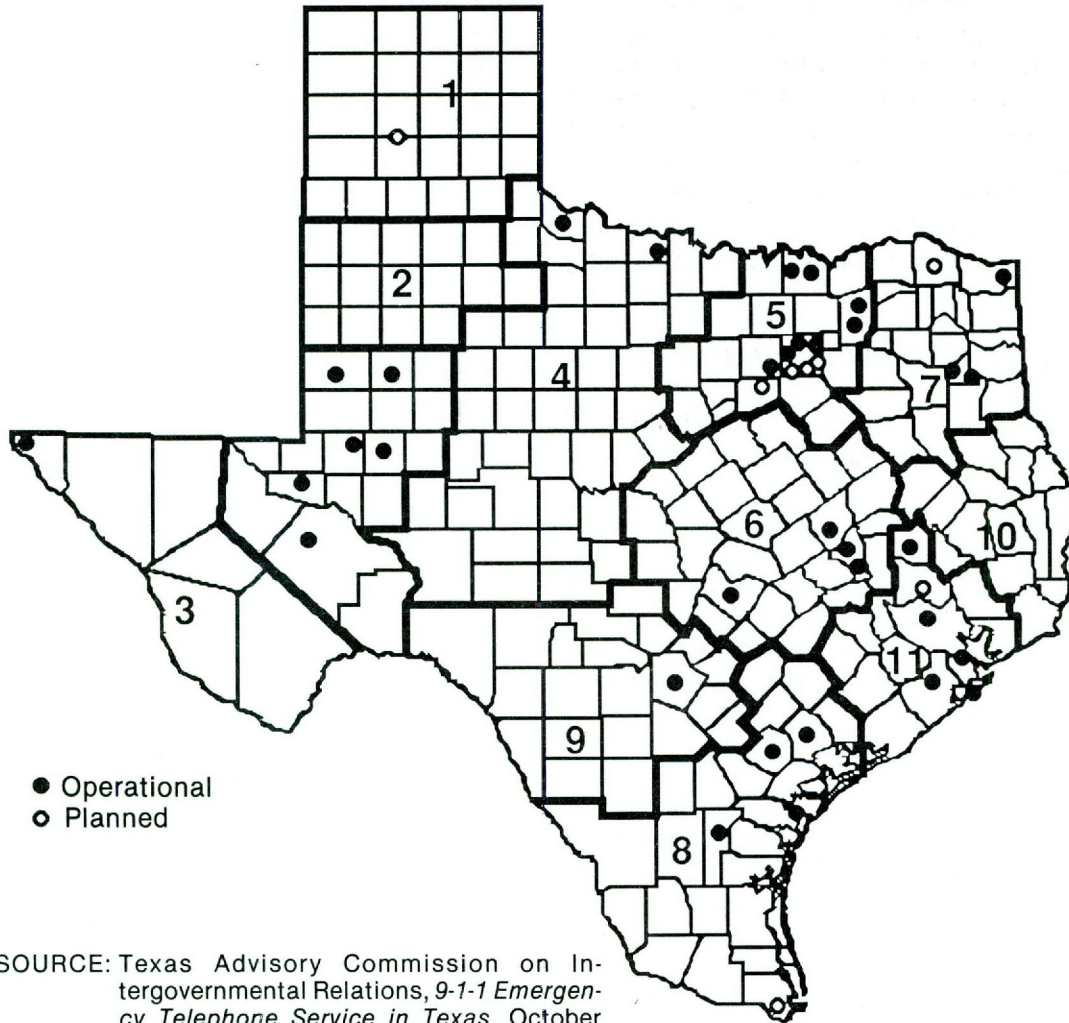
FIGURE A
EMS RADIO FREQUENCIES IN TEXAS



SOURCE: Texas Department of Health
Bureau of Emergency Management
January 1986.

*Indicates that at least one hospital
has this type radio equipment.

FIGURE B
9-1-1 SYSTEMS IN TEXAS



SOURCE: Texas Advisory Commission on Intergovernmental Relations, *9-1-1 Emergency Telephone Service in Texas*, October 1985.

in the system, having inaugurated 9-1-1 service on January 27, 1986. With the initiation of service in Corpus Christi and Tarrant County by 1988, 9-1-1 services will be available to nearly 44 percent of Texas' residents.

The 69th Texas Legislature created the Advisory Commission on State Emergency Communications (ACSEC) whose primary purpose is to study the feasibility of implementing 9-1-1 service statewide. Such a system will cost about \$30 million for the equipment and services if implemented over a period of eight years. The monthly costs to operate a 9-1-1 system statewide are estimated at \$2 million.³ The commission's final report will be presented to the 70th Texas Legislature in January 1987.

INTERVENTION ALTERNATIVES

Upgrading statewide EMS communications is essential to improvement of the emergency medical services system. Previously, federal grants provided funds for EMS communications equipment. This source of funding is no longer available; therefore, the funding for the improvement of EMS communications must come from within Texas.

Alternative 1: Local funding should be encouraged to purchase the radio and telephone services for EMS communications. Much of the previous EMS communications purchases have been made locally, either through private sources, i.e., ambulance companies and hospitals, or through local governments. Equipment purchases will still continue through these entities; however, local sources are not expected to raise the funds

necessary to complete a statewide communications system in the near future.

Alternative 2: State funds should be the primary source of financing EMS communications equipment and services, including a 9-1-1 emergency access system. An upgraded EMS radio network with UHF statewide would allow all local services to have the ability to provide advanced life support services within communities. In addition, 9-1-1 would provide faster, less confusing access to the EMS system. State funding, matched with local funds, has the most reasonable chance for making this program succeed.

ALTERNATIVE SELECTED

Alternative 2 appears to be the most feasible way to upgrade EMS communications statewide.

Recommendations:

1. That the Texas Legislature appropriate funds based on the historical demand for EMS services, to be matched with local funds, for the purchase of EMS radio communications equipment as approved by the Texas Department of Health, Bureau of Emergency Management.
2. That the Texas Legislature mandate 9-1-1 as a statewide emergency access telephone number for full implementation by 1995.
3. That the Texas Legislature use the expertise of the Advisory Commission on State Emergency Communications to oversee the implementation of a 9-1-1 program.

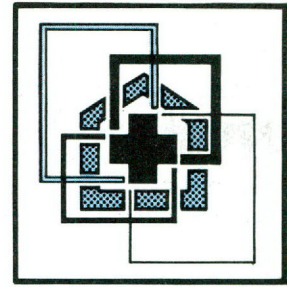
REFERENCES

¹Estimate by TDH, Bureau of Emergency Management, February 1986.

²Texas Advisory Commission on Intergovernmental Relations, 911 and Other Emergency Single-Number Access Systems in Texas, Austin, Texas, December 1979, p. 2.

³Verbal report of the ACSEC Technical Committee, March 20, 1986.

SHORT-TERM INSTITUTIONAL CARE



PRIORITY ISSUE	<i>Development of alternative delivery methods by hospitals.</i>
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PROBLEM STATEMENT: To lessen costs and increase accessibility of health care services, hospitals and other providers should develop alternative delivery methods and provide information to the public regarding the availability and benefit of such services.

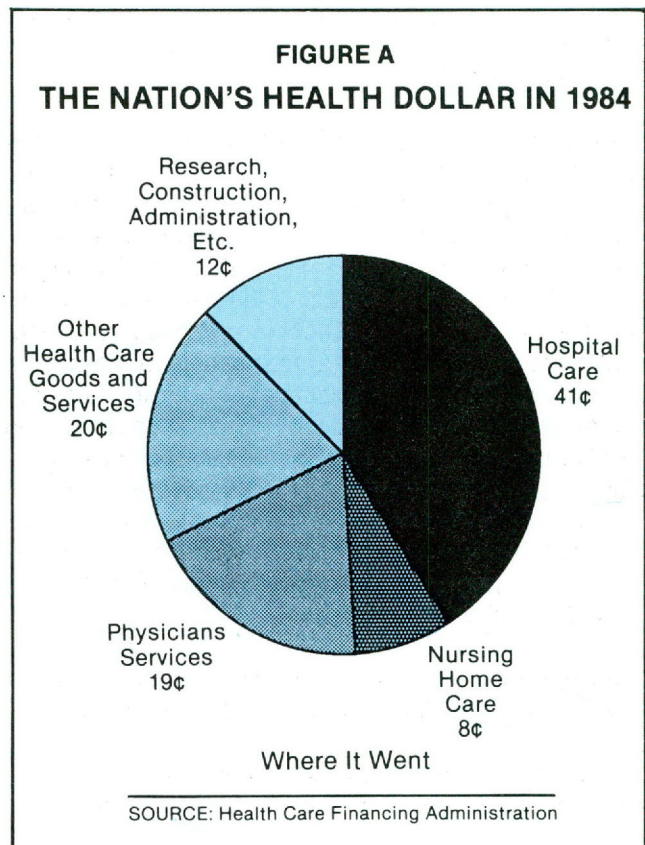
BACKGROUND AND POLICY ANALYSIS

As the costs of medical care have increased, both public and private payers of the state's health care bill have begun to look for less costly ways to provide such care, especially by hospitals which use 41% of the health care dollar (Figure A). Many alternatives to the traditional costly methods of providing care in hospitals have been developed. These outpatient services can be grouped under the term alternative ambulatory care.

Ambulatory care facilities refer to those facilities and organizations, either hospital-based or free-standing, that provide home health care, outpatient surgery, urgent and emergency care, outpatient rehabilitation and therapy, preventive health and fitness programs, hospice care, less than 24-hour care, and other diagnostic and therapeutic services to outpatients. Several factors tend to promote the development of alternative delivery methods by hospitals. The Medicare prospective pricing system, for most hospital services, provides incentives to deliver hospital care in a cost-effective manner. Competition from alternative health plans and other providers necessitates further development of cost-effective health care. Hospitals will lose their market share if they can't offer competitive prices for the same services.¹ Technological advances increase the range of health care available in an ambulatory setting. Insurance coverage is changing to encourage use of ambulatory care.

Nationally, most free-standing alternative health care facilities are being developed by single hospitals and small groups of physicians. Approximately 80% of

Texas hospitals have already initiated or are planning alternative delivery programs. The remaining 20% are mainly small rural facilities of less than 100 beds (Figure A).²



INTERVENTION ALTERNATIVES

The primary impetus for hospitals to develop alternative delivery methods comes from incentives created by benefit patterns and reimbursement policies of the major third party payors--government and commercial insurance--and the financial benefits to be gained from joint ventures.

Alternative 1: Structure third party reimbursement programs to create financial incentives to hospitals using and/or developing alternative delivery methods.

In the past, few government or commercial financial incentives existed to reward the use of ambulatory care rather than traditional inpatient care by hospitals; however, this is changing. Current financial pressures to reduce surplus inpatient facilities and to provide alternative ambulatory care resources are causing appropriate changes in both benefit structure and in reimbursement patterns. As adequate financial support becomes available, an expansion of ambulatory care activities by those hospitals not already involved in such services can be expected. An example of this effort is the Texas Department of Human Services (TDHS) studies into different forms of reimbursement for Medicaid. Several alternatives are being examined including a DRG-type format, a voucher system, and a capitation plan. At least some of these programs will probably move away from traditional patterns that pose problems of fragmentation, and instead emphasize primary care and well-organized referral arrangements.

Insurance coverage influences both consumer health care choices and attitudes.³ Health care insurance programs need to place greater emphasis on financial incentives in the purchasing system to reward high quality care, conservative practice styles, and efficient yet cost-effective health care provision programs such as ambulatory care. This is occurring, but more progress is warranted. The idea is to tie the incentives to specific objectives where the provider and purchaser can agree that progress is needed in a given area, e.g., greater use of outpatient surgery for certain procedures. Payment could be based on actual progress. Such plans establish incentives for the provider that could complement the incentives already in place for insurance holders through their benefits design.⁴

Alternative 2: Establish more joint venture arrangements which provide alternative delivery methods.

There is an increasing incidence of joint venturing in the health care industry among hospitals and

between hospitals and physicians. Participants have developed a wide range of new ventures outside of the traditional hospital framework.

Generally, the objectives among health care joint venture parties are to: provide new sources of capital, increase revenue, achieve economies of scale, update technology, maintain current business practices, reduce costs, share financial risks as well as rewards, introduce new patient markets, improve productivity, and provide management expertise. Some of these programs, such as medical office buildings and laundries, do not involve direct patient care. Because joint venture arrangements are a sharing of both risks and rewards, necessary ingredients for success are trust, active interest, and a strong business and moral commitment. If the joint venture arrangement is between a hospital and physician(s), the arrangement should be carefully segregated from other relationships between the participants.⁵

ALTERNATIVE SELECTED

Financial incentives must be provided to encourage hospitals to develop alternative delivery methods. The accomplishment of this goal may be facilitated by instituting each of the alternatives discussed.

Recommendations

1. Support and fund the Texas Department of Human Services' studies of alternatives to the present Medicaid system to develop a reimbursement system which provides positive financial incentives to encourage use of alternative outpatient services in lieu of hospitalization.
2. Continue to support health care programs which facilitate the use of medically feasible alternative delivery methods, through both individual and corporate efforts of the insurance industry.
3. Encourage participation in joint ventures in alternative delivery methods by hospitals and other health care providers as appropriate through efforts of the health care industry.

REFERENCES

¹Peter Rogatz, M.D., "Directions of Health System for New Decade," *Hospitals*, Vol. 54, No. 1, January 1, 1980, p. 68.

²Ken Peters, Senior Vice-President, Texas Hospital Association, Austin, Texas, February 6, 1986, personal interview.

³Mark Harju and Joe M. Inguanzo, Ph.D., "Insurance Coverage Drives Consumer Behaviors," Hospitals, Vol. 59, No. 21, November 1, 1985, p. 91.

⁴Jane Stein, "New Goals for Business Coalitions," Business and Health, Vol. 2, No. 7, June 1985, p. 44.

⁵Ronald B. Ashworth, exec. ed., "Joint Ventures," Dimensions in Health Care, (Chicago: Peat, Marwick, Mitchell & Co.), September 1985, p. 1-2.

LONG-TERM INSTITUTIONAL CARE AND ALTERNATIVES



PRIORITY ISSUE	<i>Quality of care provided by nursing homes.</i>
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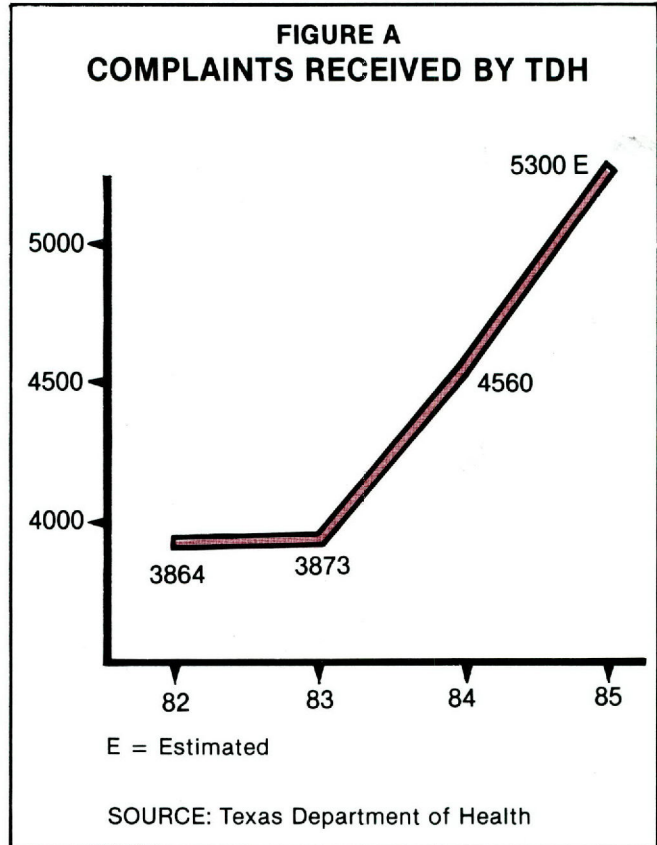
PROBLEM STATEMENT: The number of complaints received, the number of nursing homes placed on vendor hold to delay reimbursement due to deficiencies, and the lack of some needed services indicate that the quality of care provided by some nursing homes across the state should be improved.

BACKGROUND AND POLICY ANALYSIS

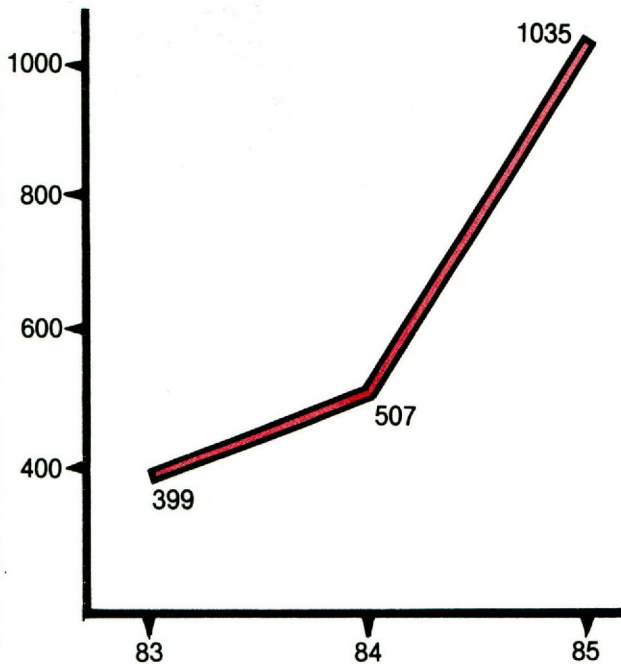
There is ample evidence of high public concern for the quality of care provided to nursing home patients. During the plan development process, at least 12 organizations addressed this issue. Concerns included physical safety, adequacy of care to meet the needs of the patients and the quality of life for these patients. Quality of care was the second highest concern among the eleven identified issues pertaining to long-term care. The SHCC selected this issue as the priority issue.

The past two legislative sessions have produced new laws and special studies pertaining to the quality of care in nursing homes. The 68th Legislature amended the licensing statute to require two unannounced inspections annually and provide penalties for unauthorized disclosure of inspection plans. A House Joint Interim Study Committee on Nursing Home Reform made 13 recommendations to the 69th Legislature. As a result of their report and in conjunction with the TDH sunset review, the 69th Legislature again amended the nursing home licensing laws to provide additional penalties for violation of standards; establish a trust fund for court appointed trustees to continue the operation of a home with serious health and safety deficiencies; and protect nursing home employees from retaliation for reporting patient abuse and neglect. Current legislative committee activities related to quality of care include studies of Alzheimer's disease, elder abuse, and education, training, certification or licensure required of nursing home aides; and a review of nursing home complaints and actions to correct threats to health or safety.

Figures A and B illustrate the number of complaints about nursing homes between 1982 and 1985. While these figures show large increases in



**FIGURE B
COMPLAINTS RECEIVED BY TDoA**



SOURCE: Texas Department on Aging

complaints between 1983 and 1985, the cause of these increases cannot be determined and warrant further investigation. Possible factors which may have contributed include increased enforcement activities, more people using the complaint process, more nursing homes providing a poor quality of care and other causes which are not readily identifiable. Current data concerning complaints are not maintained in a manner which provides easily retrievable data for cause analysis.

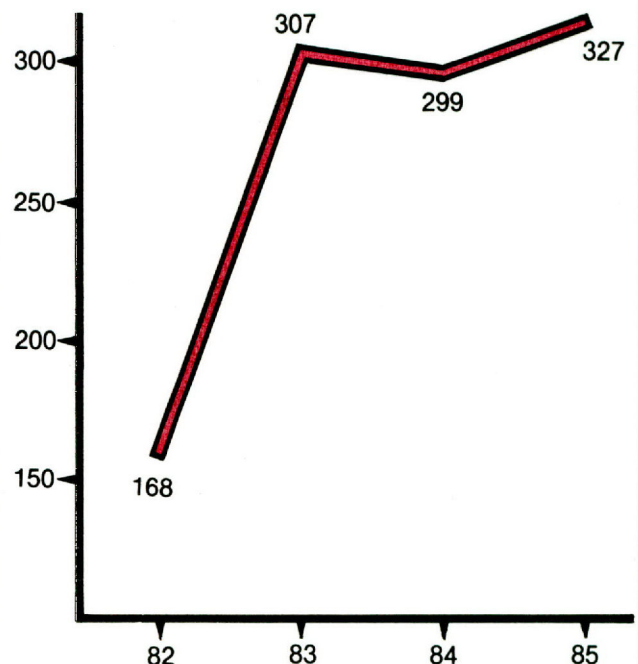
TDH estimates that 35 to 40% of these complaints are valid. The Texas Department on Aging (TDoA) refers approximately 42% of complaints received to TDH for investigation. The major areas addressed by the complaints were patient care, delivery of dietary services, sanitation, staffing, and patients' rights. The number and types of complaints received illustrate that patients, as well as their friends and relatives, are concerned with the quality of care for nursing home patients.

When inspectors find that nursing homes fail to meet the Medicaid standards for participation, the facilities may be placed on "vendor hold" to delay reimbursement until deficiencies are corrected. Figure C

illustrates the number of vendor holds during the past four years. Facilities may be included more than once in these counts. Quality of care is directly related to standards for accessibility, the cost of care, and effective management. Federal and state funds are limited for reimbursing nursing homes for patients unable to pay for services. Many people consider the Texas Medicaid reimbursement method to be a major cause of poor quality in some nursing homes because Texas has one of the lowest Medicaid reimbursement rates in the nation. Representatives from both Texas nursing home associations state that limited funds have also resulted in tighter interpretation of admission standards, with "fewer but sicker" patients being admitted.

Because every nursing home receives the same daily payment for each skilled level or intermediate care level patient under the current Medicaid flat rate reimbursement system, medical revenues are unaffected if a home provides a lower quality of care to achieve savings as long as minimal state standards are met.

**FIGURE C
NUMBER OF VENDOR HOLDS PLACED
ON TEXAS NURSING HOMES BY YEAR***



SOURCE: Texas Department of Health

*Facilities may be placed on vendor hold more than once a year.

The plan survey identified several factors related to quality care in nursing homes. These respondents recommended improvement in the following areas: (1) the leadership and management skills of administrators; (2) a "human dignity" approach to care; (3) the training and regulation of employees who handle disoriented and Alzheimer's disease patients; (4) the level of staff training, (5) the upgrading and enforcement of nursing home licensing standards; (6) bilingual-bicultural health professionals in nursing homes; and (7) a baccalaureate program for long-term care administrators. State agencies, advocacy groups, and long-term care providers are encouraged to consider these factors as they evaluate the quality of care provided in Texas nursing homes.

INTERVENTION ALTERNATIVES

Alternative 1: Change licensing and certification standards to require nursing homes to improve quality.

The report to the 69th Legislature by the House Joint Interim Committee on Nursing Home Reform recommended the following as efforts to improve the quality of care in nursing homes: (1) improve the training and consider the registration or licensing of nurses' aides and other direct care personnel; (2) provide a licensed vocational nurse on the 11 p.m. to 7 a.m. shift; (3) increase the required minimum average staffing hours per patient; (4) authorize appropriate penalties in cases of noncompliance with rules and regulations; (5) provide protection from reprisal for employees who report violations; and (6) require additional hours of dietary consultation. Legislation was enacted to address numbers (4) and (5) above.

TDH is responsible for nursing home inspections for state licensure and certification for participation in the Medicaid and Medicare programs. Facilities which are found to be deficient can be placed on vendor hold, decertified, or have their license revoked. The 69th Legislature authorized TDH to develop administrative penalties to impose fines on facilities which are found to be deficient. These punitive measures are used to ensure care which meets current standards. In this alternative, facilities which meet the minimum standards may be considered as providing quality care.

Alternative 2: Development and implementation of a "case-mix" method for Medicaid reimbursement of nursing home care.

A "case-mix" reimbursement system is based upon the care needs of the patient and the time required of the various staff members to provide this care. Patients are classified according to the types and complexity of services required to meet their needs. A "case-mix" reimbursement system pays providers according to the care actually provided to patients, thus providing more equitable reimbursement for the services.

ALTERNATIVE SELECTED

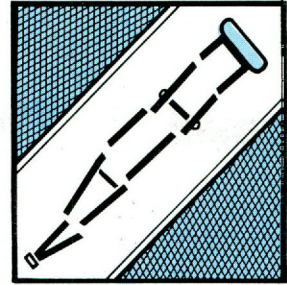
Alternative 2 was selected. Texas is one of only four states which still uses a flat rate method for Medicaid reimbursement for nursing home care. Past efforts to assure delivery of quality care through regulation have failed to provide nursing home administrators with incentives to provide services beyond the minimum requirements of the standards. An incentive/penalty system which provides bonuses for admission of patients requiring special care, achievements in rehabilitation of patients, and discharge of patients; and penalties when these goals are not met, should be included. The "case-mix" reimbursement system with incentives and penalties should stimulate innovative management techniques which will bring the nursing home additional revenues while improving patient care. Other anticipated outcomes include improved access to care for patients, improved management, and improved staff morale with a reduction in staff turnover.

The TDHS is currently working on a "case-mix" reimbursement methodology. Development of recommendations for "indexing" patients (grouping patients according to care needs and staff time requirements) is scheduled for late 1986. Development of the reimbursement methodology and a test are scheduled for 1987.

Recommendations

1. Expedite the development and implementation by the Texas Department of Human Services of a "case-mix" reimbursement system for Medicaid reimbursement of nursing home care.
2. Include an incentive/penalty system in the "case-mix" reimbursement system including admission, outcome and discharge bonuses.
3. Encourage nursing homes to use the "case-mix" scale for charges applied to private pay patients.
4. Include in the "case-mix" system pass-through bonuses to staff personnel who are directly and indirectly involved with achievement of these outcomes and discharge bonuses which are paid to the facility.

HABILITATION AND REHABILITATION



PRIORITY ISSUE

Fragmentation of the habilitation/rehabilitation delivery systems.

PROBLEM STATEMENT: State and community-level agencies need to establish and coordinate networks in administrative and delivery services.

BACKGROUND AND POLICY ANALYSIS

This issue deals with the discontinuity of the various parts of the habilitation and rehabilitation (H&R) health care delivery system. A lack of clarity and specificity exists in the jurisdiction among the various state agencies responsible for H&R services. System components include facilities, services offered, the supply of properly trained professionals, administrative support, equipment and demographic surveys to locate eligible clients. While some H&R agencies function independently providing services for individuals with a single well-defined disability, coordination of H&R services often break down when individuals with multiple disabilities must be served.

Definitions of the individual disabilities have not been closely made to ensure which organizations will serve which populations. Providers of H&R services are divided into public or private sectors, then state or local levels. Then, they may be categorized by the various legal mandates defining "eligible clients," definitions of "disabling conditions" and varying economic eligibility requirements for different programs. Providers may operate their programs with little or no interaction, due to the laws which authorize and fund them.

Three factors also compound the problems created by fragmentation: population growth, the aging of the population, and the increase in the incidence of multiple disabilities. Consequently, more money is needed to provide necessary services.

How well fragmentation can be remedied will be directly related to the dollar savings made possible by such efforts. Now is the time to conserve money

and stretch the coverage of services. The expected benefits will affect the eligible clients under all health and human services programs which offer H&R services. No additional costs should be incurred, and in fact, considerable savings can be expected.

Mechanisms for coordinating H&R services are available through the Human Services Interagency Committee (HSIC), the SHCC, the Health and Human Services Coordinating Council (HHSCC), and the Council on Disabilities. These organizations are mandated to plan the delivery of and coordinate health and human services in the state (Exhibits A and B).

INTERVENTION ALTERNATIVES

Fragmentation of the H&R delivery system can be overcome by coordinating the operations of the state agencies concerned and the voluntary cooperation of the private sector. Two alternatives for accomplishing this are as follows:

Alternative 1: Request the HHSCC to make a comparative analysis of all H&R programs offered by member agencies. The HHSCC should develop an action plan to coordinate and/or combine as many services as the analysis indicates is feasible. If necessary, legislative action should clarify health and human services agencies' mandates, client eligibility requirements, and standardize the definitions of disabling conditions. The rules and regulations should be altered to permit interdisciplinary treatment of those with multiple disabling conditions. Legislation could also authorize state agencies to share facilities, administrative costs, and personnel.

The quality of the environment where disabled persons are treated and housed must include facilities which comply with all safety codes with federal and state guidelines to ensure accessible, barrier-free facilities.

Alternative 2: Omit legislative action and carry out the HHSCC comparative analysis. Prepare an action plan and report it to the agency members for implementation.

EXHIBIT A
COMPOSITION OF THE
TEXAS HEALTH AND HUMAN SERVICES
COORDINATING COUNCIL (HHSCC)

Governor (Chairman of HHSCC)
Lieutenant Governor (Vice-Chairman of HHSCC)
Speaker of the House (Adjunct Vice-Chairman of HHSCC)
Chairman, Texas Board of Health
Chairman, State Board of Education
Chairman, Texas Board of Human Services
Chairman, Texas Board of Mental Health and Mental Retardation
Executive Director, Texas Department of Community Affairs
Chair, Texas Rehabilitation Commission Board
Chairman, Juvenile Probation Board
Two State Senators
Two State Representatives
Six Citizen Representatives

ALTERNATIVE SELECTED

The two alternatives are complementary. State agencies must coordinate with the private sector to eliminate fragmentation. There will be the need to contract for privately offered services where public services would prove too costly for a limited number of clients.

The recommended solution to the fragmented H&R delivery system is Alternative 1. It will allow and encourage the agencies to do the job. It should save money and serve a larger number of people more efficiently.

Recommendations:

1. Clarify health and human services agencies' mandates and eligibility requirements and standardize definitions of disabling conditions through a study by the Health and Human Services Coordinating Council. With advisory

assistance of the Human Services Interagency Committee, the study should include a comparative analysis of all habilitation and rehabilitation programs; an action plan to coordinate or combine as many services as feasible; and its conclusions about needed legislative action.

2. Call on the private sector, through the Health and Human Services Coordinating Council, to participate as fully as possible in the activities outlined in Alternative 1.
3. Provide accessible barrier-free facilities for the disabled by insuring that facilities where these individuals are treated and housed meet all safety codes and comply with federal and state guidelines.
4. Provide interdisciplinary guidelines for funding multiple disability habilitation and rehabilitation services to prevent persons with multiple disabilities from being denied services.

EXHIBIT B
STATE AGENCIES UNDER THE PURVIEW
OF THE HHSCC
AS CITED BY THE STATUTE

Texas Department on Aging
Texas Commission on Alcohol and Drug Abuse
Commission for the Blind
Texas School for the Blind
Child Support Enforcement of Attorney General's Office
Texas Department of Community Affairs
Commission for the Deaf
Texas School for the Deaf
Texas Education Agency
Texas Employment Commission
Texas Department of Health
Texas Department of Human Services
Texas Indian Commission
Juvenile Probation Commission
Texas Department of Mental Health and Mental Retardation
Texas Rehabilitation Commission
Texas Youth Commission



MENTAL HEALTH AND MENTAL RETARDATION

PRIORITY ISSUE	<i>After care and community-based services for discharged mental health and mental retardation (MHMR) clients.</i>
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PROBLEM STATEMENT: A need exists for after care and community-based services for discharged mental health and mental retardation (MHMR) clients.

BACKGROUND AND POLICY ANALYSIS

The first priority of the Texas Department of Mental Health and Mental Retardation (TDMHMR), as stated in its Initial Strategic Plan, 1986-1991, is to assist and serve those children and adults who are the most severely disabled, especially those who reside in, or who have the same or similar severity of need as those residing in, a state facility. According to the TDMHMR plan, these first priority individuals are to be assured treatment in their own communities whenever possible. The department is committed to fostering alternatives to treatment in large institutional facilities for mentally ill and mentally retarded persons. In the past, the TDMHMR system was primarily facility oriented with little emphasis on community-based services. There were also legal obstacles to its participation in community services in the areas of budget, services offered, and facility ownership, maintenance and construction. The Lelsz v. Kavanagh settlement agreement and the R.A.J. v. Miller settlement require the development of residential alternatives with improved programming and staffing requirements for those persons receiving treatment from TDMHMR.

community-based care for clients. The agency will need adequate funding to implement these mandates.

INTERVENTION ALTERNATIVES

Alternative 1: The first alternative lies in a large scale infusion of funds which is unlikely. The legislature is faced with some mandated funding requirements in MHMR services, but the amount will be limited because of the current state economic condition.

Alternative 2: Redistribution of existing state-appropriated funds from facilities to community-based services is another alternative. This must be accomplished in a coordinated manner to accommodate the community service needs of discharged MHMR clients and others with the same or similar severity of needs. The redistribution of funds is a major problem with many complexities.

To accomplish this redistribution of funds, TDMHMR must find new ways to operate. As an example, it is developing a case management system in both inpatient and outpatient services. This is one step toward initiating a controlled discharge program for inpatient facilities. Such a plan will provide a treatment plan for each discharged client; identify the client's county of residence; and direct a notice, along with the treatment records, to the client's community-based services facility. Additionally, major efforts will be required to develop appropriate community placements for the numbers of TDMHMR clients who will need them.

SB 791, passed by the 68th Legislature, requires a system of continuity of care through community mental health centers and outreach centers. These centers must offer follow-up services to recently discharged institutional clients and must provide pre-screening and evaluation before admission to a state facility. The 69th Legislature gave TDMHMR new authority in regard to community-based services through SB 633. The legislation and the two court cases provided the needed legal bases for TDMHMR to establish a complete system of

If TDMHMR is able to redistribute its funds to place greater emphasis on community-based services, it can more effectively focus on its first priority individuals. It can then better assure those individuals of appropriate treatment in their own communities by establishing new and improved community-based services. This would be the direct result of improved internal management practices to meet the mandated goal of TDMHMR.

ALTERNATIVE SELECTED

The second alternative was selected. Innovative approaches and techniques in management must be found and used to improve accessibility to community-based services for discharged MHMR clients and others with the same or similar severity of needs.

Recommendations:

1. The legislature is urged to fund the Texas Department of Mental Health and Mental Retardation appropriately to meet mandated responsibilities.
2. Texas Department of Mental Health and Mental Retardation is urged to move quickly in making policy, budget, program, personnel, management structure and treatment mode changes which will provide and improve community-based services for discharged MHMR clients and others with the same or similar severity of needs, and meet those requirements mandated by state and federal law.



ALCOHOL AND DRUG ABUSE

PRIORITY ISSUE	<i>Prevention of alcohol and drug abuse through education at all school levels.</i>
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PROBLEM STATEMENT: Alcohol and drug abuse prevention is not being addressed adequately by quality comprehensive health education at grade levels K through 12.

BACKGROUND AND POLICY ANALYSIS

This plan treats the abuse of alcohol and drugs as a single subject. Alcohol and drug abuse includes misuse of any form of alcohol, licit or illicit chemical substance, toxic inhalant or volatile substance in such a manner and/or quantity that it harms the user, the family or the community, including physical, mental, emotional or social impairment.

Alcohol and drug abuse prevention has been selected as the primary topic for this plan. Prevention of alcohol and drug abuse, through early intervention with school-age children, provides an effective and less costly method of deterring the long-term effects of alcohol and drug abuse.

In terms of intervention, the younger a person initiates alcohol or drug use, the more likely he or she is to become a heavy user and, subsequently, to develop serious health problems. Several surveys have been completed in Texas schools. The results shown in Exhibit A below are typical.

Alcohol and drug abuse caused almost 33% of all preventable deaths ages one through 64 in 1985

(17% of the total of all deaths) (Figure A). The Texas Department of Public Safety reports that in 1984 the 10 to 18-year-old school-age group accounted for 35,477 alcohol and drug-related arrests (see Table A on page XII-3). It is essential that prevention of alcohol and drug abuse be a priority in Texas schools by providing students K-12 with quality, comprehensive health education that includes alcohol and drug abuse units taught by competent teachers.

Researchers have concluded that peer groups are the single most important factor in drug and alcohol use by youths. The quality of children's relationships with parents was second most important.¹ When appropriate instruction in human development, self-concept, and health education are not provided in the classroom (as required by the Texas Education Code-Rules of Curriculum), children may be poorly equipped to refuse alcohol or drugs.

Teaching alcohol and drug abuse prevention requires qualified teachers who receive annual inservice alcohol and drug abuse prevention training.

EXHIBIT A

6% of 7th graders are daily marijuana smokers
 25% of all 7th graders have tried marijuana at least once
 14% of 7th graders have experimented with inhalants
 52% of 7th graders have tried alcohol

10% of 8th graders are daily marijuana smokers
 12% of high school students (grades 10-12) drink alcohol daily
 44% of high school students have tried marijuana at least once
 83% of high school students have tried alcohol

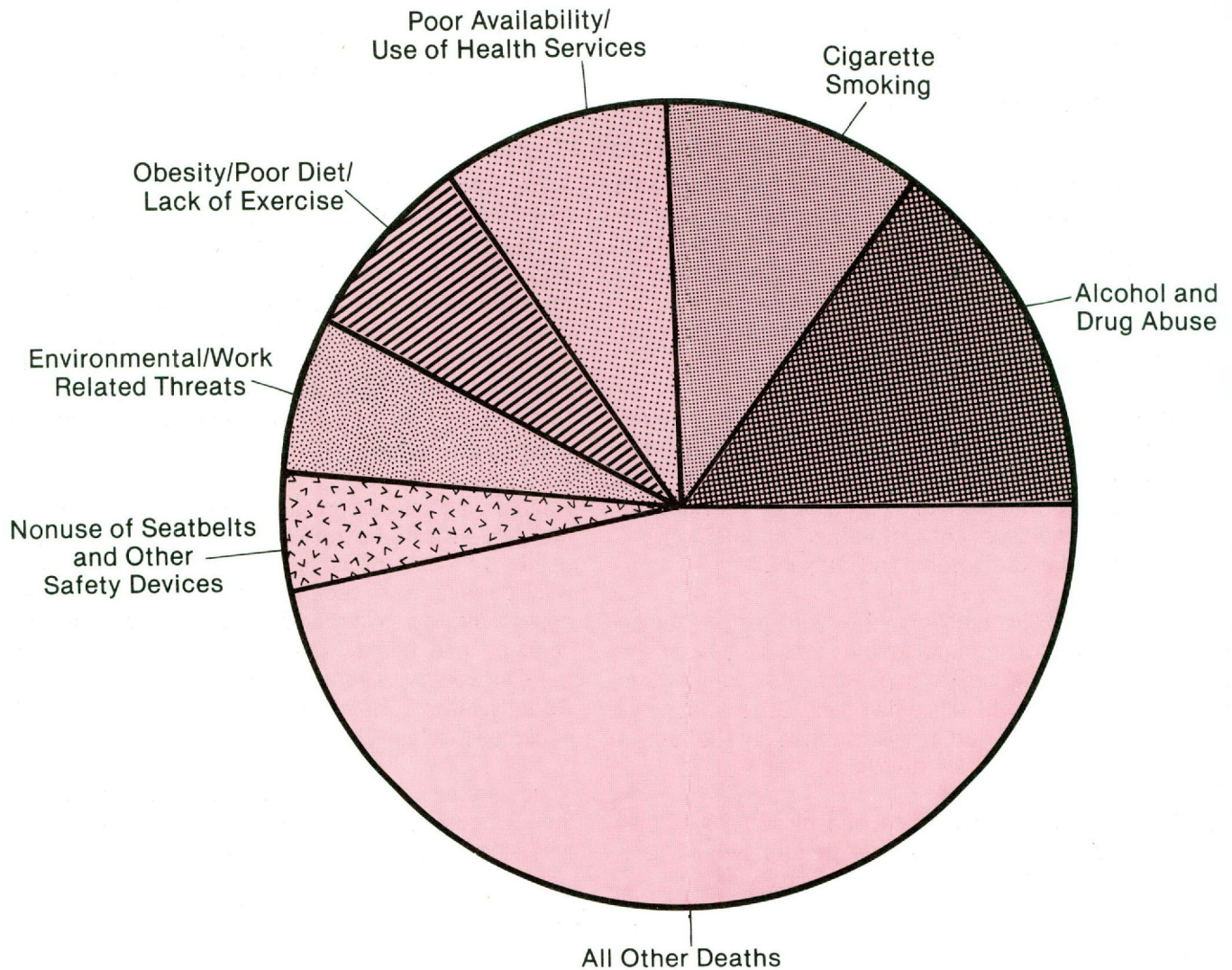
Repeated studies have shown that experimentation with alcohol and drugs is established as early as grades 6-7 (average age, 11.9 years). Abuse with attendant behavioral problems is well established by grades 9-10, and anti-social activities with intervention by the criminal justice system (DUI, DWI, theft, assault and armed robbery) occurs by grades 11-12.

SOURCE: Texans' War on Drugs, Letter of December 19, 1985

FIGURE A

ESTIMATED CAUSES OF DEATH IN TEXAS AMONG PEOPLE AGES 1-64

Alcohol and Drug Abuse	17%
Cigarette Smoking	10%
Poor Availability/Use of Health Services	9%
Obesity/Poor Diet/Lack of Exercise	7%
Environmental/Work Related Threats	5%
Nonuse of Seatbelts and Other Safety Devices	4%
<hr/>	
Estimate of Total Preventable Deaths	52%
All Other Deaths	48%
Total Deaths	100%



Prepared by Senate Subcommittee on Health Services
Senator Carlos F. Truan, Chairman. Scott Plack, Director of Research

Estimates Calculated by Dr. Alfred McAlister of The Center for Health Promotion Research and Development
University of Texas Health Science Center at Houston

TABLE A
CRIME IN TEXAS — 1980-1984
ALCOHOL-RELATED VIOLATIONS AND
DRUG ABUSE VIOLATIONS

DPS	DRUG ABUSE VIOLATIONS (SALE/MANUFACTURE AND POSSESSION)									
	1980		1981		1982		1983		1984	
	M	F	M	F	M	F	M	F	M	F
10 & under	15	0	19	1	14	1	9	1	9	2
11 — 12	80	11	74	30	85	18	97	20	114	30
13 — 14	559	161	637	137	570	177	592	178	895	226
15	850	209	875	229	762	162	746	143	1,027	195
16	1,475	227	1,439	263	1,263	233	1,156	174	1,426	211
17	2,067	322	2,236	338	1,777	280	1,675	205	1,847	232
18	3,087	503	3,644	556	3,024	499	2,500	396	2,642	360
	8,133	1,433	8,924	1,554	7,495	1,370	6,775	1,117	7,960	1,256

ALCOHOL-RELATED VIOLATIONS (DUI, LIQUOR LAWS, DRUNKENESS)

10 & under	45	7	42	4	64	13	62	6	61	5
10 — 12	128	18	91	24	78	30	74	21	60	23
13 — 14	972	260	799	231	809	273	690	280	641	261
15	2,015	355	1,677	345	1,582	392	1,413	421	1,167	348
16	4,463	524	3,745	549	3,853	581	3,343	584	2,722	501
17	8,637	698	8,464	673	8,890	842	7,675	794	6,927	680
18	15,387	1,208	15,503	1,120	15,675	1,225	14,359	1,238	11,870	995
	31,647	3,070	30,321	2,946	30,951	3,356	27,616	3,344	23,448	2,813

Source: Texas Department of Public Safety — Crime in Texas

Teachers must be appropriately equipped to present current drug and alcohol abuse prevention information.

The TEA's "1985 Fall Survey of Pupils in Membership" shows the student census to be 3,149,380 for 1985-86. For 1988-89 it is projected to be 3,548,052, of which 633,914 will be in the age group K-6, where professionals in education and human development indicate alcohol and drug abuse education is most effective.

It appears necessary to establish several precepts before examining alternatives for intervention:

- A. The public should realize that alcohol and drug use by students—whether in or out of school—is a community problem, not solely a school problem.
- B. Parents, local businesses and industry, religious and civic organizations and other groups should work with and support the independent school district staff, the individual schools and local law enforcement.

C. Schools and communities should work together to develop constructive activities for school-age youth during after-school hours.

D. Business and industry have an interest in ensuring that new employees, as well as those already employed, are alcohol and drug free.

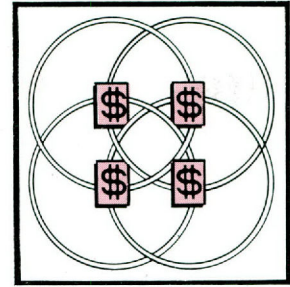
INTERVENTION ALTERNATIVES AND RECOMMENDATIONS

The intervention alternatives and recommendations selected to effect the prevention of alcohol and drug abuse through comprehensive school health education are presented in Chapter V, Health Promotion/Health Education. See Chapter V for a complete discussion of these alternatives and recommendations.

REFERENCES

- ¹Idea Newsletter, August 1985.

HEALTH CARE COSTS



PRIORITY ISSUE	<i>Health care reimbursement as it relates to health insurance, patient care systems, health needs of the working poor, and the rising costs of health care services.</i>
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PROBLEM STATEMENT: The health care industry does not provide sufficient financial incentives for cost effective use of health services or insurance coverage for the working poor.

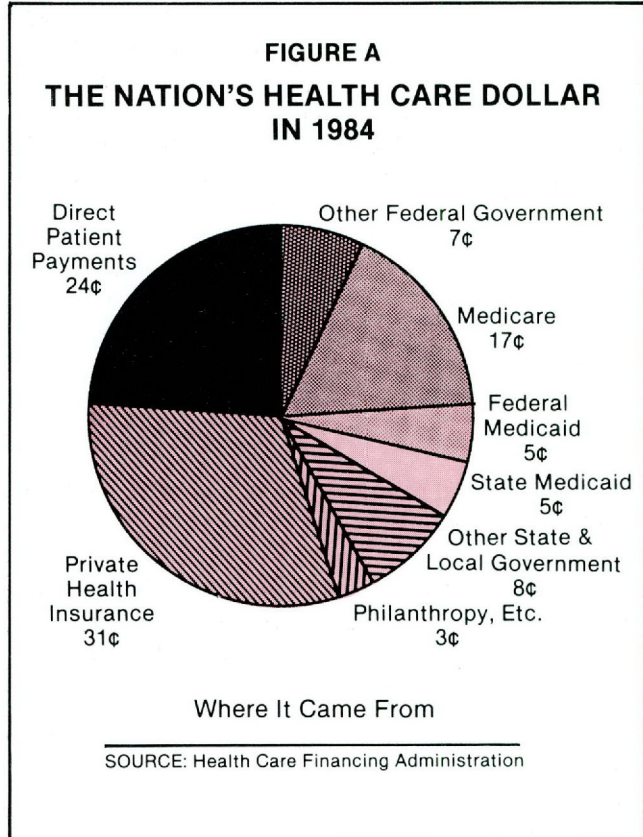
BACKGROUND AND POLICY ANALYSIS

Since the Great Depression, third-party reimbursement for virtually all health care expenses has expanded rapidly. In the past 30 years, insurance for hospital care has grown to cover from 67% to over 90% of the employed. The federal government is a major purchaser of health care services, paying for almost 30% of the nation's health care costs through programs such as Medicare and Medicaid. (Figure A).¹

As in all cases with these reimbursement programs, the costs are ultimately borne by the consumer in the form of taxes and increased insurance premiums. With companies, rising costs are passed on to the employees through smaller wage increases, to stockholders through reduced dividends, and to customers through higher prices.²

Changes in behavior by other parties involved in health care could encourage the cost-effective delivery of medical services while maintaining accessibility and availability of quality health care. Many hospitals, physicians, and health maintenance organizations (HMOs) have modified earlier behavior in favor of more cost efficient methods. Hospitals are increasing the accuracy of patient billing, pursuing community service "wellness" programs, and sharing high-cost diagnostic equipment. Physicians are changing practice patterns to use lower cost alternatives such as outpatient surgery, home care, and generic drug prescriptions, as well as spending more time with their patients to explain services and costs. HMOs are urging changes in federal regulations to allow "experience rating" rather than "community rating" in establishing rates for their clients.

Consumers also must change certain behaviors to lower health care costs. Corporate consumers are beginning programs that correct overuse of services. They are carefully analyzing the utilization rates of company benefit plans. Employees are encouraged



to involve themselves in cost containment activities and to participate in education programs to promote cost-conscious behavior. In their benefit plans, some employers are rewarding healthy lifestyles.³ All sectors of the health care industry, providers, consumers, and third-party payors, must be actively involved in future efforts to contain rising health care costs.

INTERVENTION ALTERNATIVES

Changes in methods of health insurance plus more accurate data upon which to base those changes, should help constrain the rising cost of health care.

Alternative 1: Encourage the use of the most cost-effective type of health care service by changing reimbursement systems to require higher out-of-pocket expenditures for the more costly methods of service.

The extent to which services are reimbursed has an impact on which services are used and, consequently, health care expenditures. In many instances, the structure of covered benefits has encouraged the use of more expensive types of health care, even though less expensive alternatives may be available.⁴

The commercial insurance industry is an integral part of the health care reimbursement system. The responsibility for regulating this industry rests primarily with the states. In Texas, the State Board of Insurance has authority only over those programs sponsored by insurance companies. Although the board requires insurers to submit information on rates charged, it does not actually regulate the health care rates set by commercial carriers.

The ability of the state, through the insurance commissioner, to monitor commercial carriers is potentially a powerful tool for health care cost control. Insurance regulation and/or pressure from the State Board of Insurance can, in turn, encourage carriers to pressure providers to control costs.⁵

Alternative 2: Develop and fund health insurance programs for the working poor.

Health care insurance is different from most insurance programs. Unlike other forms of insurance—life, disability, workers' compensation—it does not protect people solely against severe financial disruption. Benefits include reimbursement for items ranging from major hospitalization to smaller expenses such as prescriptions. The cost of health insurance coverage is growing between 12% and 22% a year.⁶

As the costs of health insurance coverage increase, the number of people who can afford insurance decreases. Between 1979 and 1984, the number of people without health insurance in the United States increased by 22.3%, from 28.7 to 35.1 million Americans.⁷ About half are workers who do not have employment-related health coverage. These people are caught in the "coverage gap" between public and private health insurance. As wage earners, they make too much money to qualify for public programs, yet often they cannot obtain insurance through their employer.⁸ The inability of uninsured workers to get health care on the same basis as insured employees is an important equity issue with serious policy implications.

Alternative 3: Assure access to all types of preferred provider organizations (PPOs) for families and individuals.

The PPO is emerging as a system that attempts to confront rising health care costs through an alternative patient care system. A PPO develops a contract between providers and an employer, an insurance company, or another third party to provide health care to a distinct group of beneficiaries. Providers are reimbursed on a previously arranged, discounted, fee-for-service basis. A common payment is approximately 70% to 85% of the "usual and customary" fee.

The PPO offers incentives for both the consumer and the provider. The patient may use any provider, but there are economic incentives to use PPO providers. The most common consumer incentive is the waiver of beneficiary coinsurance or deductible payments. Care provided by a PPO provider, once the premiums are paid, does not represent an additional cost to the beneficiary. From the viewpoint of the provider, the incentives to join a PPO arrangement include assurance of a more stable patient population, a rapid turnaround time on payment of bills and a lowering of financial risk, since full payment at the negotiated rate is assured.⁹

A crucial part of the effectiveness of PPOs is the extent to which cost-saving actions by providers can be achieved. Discounted services do not necessarily lead to long-term cost savings. The cost of services is not affected because the fee-for-service system is maintained. The effectiveness of a PPO partially depends upon utilization review. The PPO model is based on the assumption that providers will be affected by utilization review and other monitoring programs and will modify their behavior accordingly. This assumption must be valid if PPOs are to prove themselves to be cost-effective.¹⁰

Alternative 4: Emphasize the collection and dissemination of health care-related data, including cost and price information.

Before the effectiveness of health insurance plans can be measured, before insurance programs for the working poor can be properly developed and evaluated, and before patient management systems can be chosen by the consumer, accurate information relative to each process must be gathered. Such information, for example, would allow insurers to evaluate the comparative efficiency (occupancy rates) of health facilities before including them in a PPO. With good information, individual consumers can make more educated decisions about the cost and quality of needed care. Providers can monitor costs and competitive market prices with such information. Employers and insurers can better measure the effectiveness of different benefit plans and alter these plans as necessary, if accurate information is available.

ALTERNATIVE SELECTED

The health care reimbursement system must be altered to meet today's need for quality, available, accessible and cost-effective health care. Because of the extent and complexity of the problem, all of the alternatives discussed are needed.

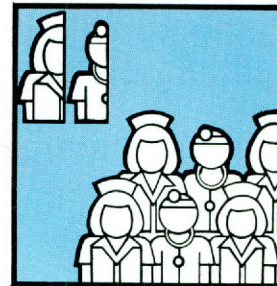
Recommendations:

1. Continue efforts by the commercial insurance industry and government to develop health care coverage that encourages providers to provide medical care in a cost-effective manner, and which encourages beneficiaries to consider the costs of the health care they buy.
2. Develop and fund local and state initiatives (such as the Medically Needy Program administered by the Texas Department of Human Services) and encourage development of corporate programs to assure the availability of health care services for low income, employed Texans who now lack health insurance and those persons diagnosed as having AIDS.
3. Establish rules and laws through the Texas State Board of Insurance and the Texas Legislature to permit equitable development and monitoring of all types of PPOs in the state.
4. Continue and strengthen efforts by the Texas Department of Health and other appropriate state agencies to collect and disseminate health care-related data, including cost and price information.

REFERENCES

- ¹Regina E. Herzlinger and Jeffryl Schwartz, "How Companies Tackle Health Care Costs: Part I," Harvard Business Review, Number 3, July-August 1985, p. 69-81.
- ²Claire M. Lepschultz, J.D., Controlling Health Care Costs: The Role of Business Coalitions, Maryland: Alpha Center, August 1982.
- ³James L. Grey, Manager of Human Resources, Radian Corporation, Interview, March 18, 1986.
- ⁴Constraining National Health Care Expenditures, Maryland: United States General Accounting Office, September 30, 1985.
- ⁵Source Book of Health Insurance Data 1984-1985, Health Insurance Association of America, 1985.
- ⁶Announcing the Health Care for the Uninsured Program, The Robert Wood Johnson Foundation, 1985.
- ⁷"Employed Uninsured Caught in Health Care Coverage Gap," NCHSR Research Activities, Number 79, November 1985.
- ⁸Dorrett Lyttle, Gretchen Engquist-Seidenberg and Fred Teitelbaum, Innovations in Controlling Statewide Health Costs, Center for Policy Research, Office of Research Studies, National Governor's Association.
- ⁹Linking Health Planning and Business Coalitions, A conference sponsored jointly by the Institute for Health Planning and the Southeastern Association of Health Planning and Development Organizations, North Charleston, South Carolina, April 9-10, 1984.
- ¹⁰Sulzasne Viau, PPOs: The State of the Art, Washington, D.C.: Health Publishing Ventures, 1983.

HEALTH PROFESSIONS



PRIORITY ISSUE

Maldistribution of primary care physicians and nurses resulting in a shortage in some rural and inner-city areas.

PROBLEM STATEMENT: In the past five years, the supply of physicians and nurses in Texas has increased at rates more than double the population growth. Despite such increases, certain areas of the state have few or no accessible medical care resources. Problems of geographic maldistribution persist.

BACKGROUND AND POLICY ANALYSIS

Primary Care Physicians

The disparity in the specialty and geographic distribution of physicians in Texas has been known for years. The Texas Medical Association (TMA) identified problems related to geographic distribution of physicians in the March, 1973 issue of Texas Medicine, and stated that "the problem of maldistribution will be with us for quite some time."¹ This assessment proved true. Thirteen years later, the problem has continued as a priority issue impacting access to health care.

In Texas, about 3.2 million persons in rural² areas and 1.5 million persons in urban inner-city locations may experience some access problems in receiving health care services due to an insufficient supply or availability of primary care physicians.³ Access barriers in some areas of the state persist despite the overall growth in the numbers of primary care physicians. Between 1981 and 1985 a 19% increase was noted in this category of physicians (Table A). The growth rate of physicians in all specialties was more than twice the population growth rate during the same period. The state has experienced a substantial in-migration of physicians from out-of-state and foreign countries, as well as significant increases in the number of medical school graduates and growth of physician residency training programs. Despite these factors, disparities still exist between the physician supply in certain rural and urban locations. The 1985 population-to-physician ratio for rural counties in Texas was 2196:1, while the ratio was 1561:1 for urban areas.

Importantly, not all rural areas experience a physician shortage. Fifty-eight of the 205 rural counties are designated as "primary care physician shortage areas" by federal authorities. About 20% of the total population in Texas live in the 205 rural counties, while 15% of the state's primary care physicians are located in these counties (Table B).

In addition to physician shortages in certain rural areas, seven of the 49 urban counties in Texas have clusters of census tracts not served by primary care physicians. All but two of these small areas have poverty rates exceeding 20%, indicating that economic barriers impede access to primary care resources in the surrounding locale.

Currently, there are four approaches statewide that have been developed to improve physician supply and distribution in Texas. Three are state-funded efforts and one activity is federally funded, but state administered by means of a grant to TDH. These approaches are discussed below:

- A. **Family Practice Residency Program.** To increase the number of family practice residency training programs and the supply of physicians practicing in underserved areas, the Family Practice Residency Program was established by the Texas Legislature in 1977. This program is managed by the Coordinating Board, Texas College and University System and is funded at \$7.3 million for 1986 and 1987. The number of residents-in-training numbered 442 in 1986.

TABLE A
PATIENT CARE PRIMARY CARE PHYSICIANS AND POPULATION
GROWTH TRENDS IN TEXAS 1981 TO 1985

	1981			1985			1981-1985 RATE OF CHANGE		
	Physicians	Population	Population To Physician Ratio	Physicians	Population	Population To Physician Ratio	Physicians	Population	Population To Physician Ratio
Urban Counties	6595	11,694,243	1773	8264	12,897,498	1561	+ 20.2%	+ 9.3%	- 13.6%
Rural Counties	1283	2,985,337	2327	1471	3,230,897	2196	+ 12.8%	+ 7.6%	- 5.9%
STATE TOTAL	7878	14,679,580	1863	9735	16,128,395	1657	+ 19.0%	+ 8.9%	- 12.4%

SOURCE: Texas Board of Medical Examiners
Texas Department of Health Population Data System

PREPARED BY: Bureau of State Health Planning and Resource Development
Texas Department of Health

TABLE B
1985 PATIENT CARE PRIMARY CARE PHYSICIANS, POPULATION, AND
POPULATION TO PHYSICIAN RATIOS BY COUNTY POPULATION SIZE FOR TEXAS

<u>Counties By Population Size</u>	<u>Direct Patient Care Primary Care Physicians</u>	<u>Percentage Of Total Physicians</u>	<u>Total Population</u>	<u>Percentage Of Total Population</u>	<u>Ratio of Pop To Dir Pat Care Primary Care Physician Ratio</u>
< 5000	48	0.5	123160	0.8	2566
5000-9999	139	1.4	321772	2.0	2315
10000-19999	371	3.8	886097	5.5	2388
20000-49999	948	9.7	1935402	12.0	2042
50000-99999	660	6.8	1406632	8.7	2131
100000-199999	1057	10.9	1884152	11.7	1783
200000-499999	1582	16.3	2476739	15.4	1566
500000-999999	898	9.2	1491500	9.2	1661
1000000 +	4032	41.4	5602941	34.7	1390
State Total	9735		16128395		1657

SOURCE: Texas Board of Medical Examiners
Texas Department of Health Population Data System

PREPARED BY: Bureau of State Health Planning and Resource Development
Texas Department of Health

About 80% of the total graduates of the Family Practice Residency Programs from 1979 to 1985 have remained in Texas to practice medicine.

B. The State Rural Medical Education Board.

This Board issues student loans to Texas residents for medical school tuition. Five years of practice in a rural county (less than 30,000 population) is required as repayment of the loan (20% of the loan and interest is credited for each year of medical practice). There have been 356 participants in the program, with 42 currently practicing in a rural county in the state. Sixty-seven of the loan recipients have not fulfilled their service obligation. About 65% of the total participants are still attending medical school or a residency program. Funding for this program has been reduced from \$638,000 in 1985 to \$241,200 in 1987. This reduction allows the board to meet only existing loan commitments and restricts the board from providing any additional loans.

C. The Physician Student Loan Repayment Program.

This program was authorized by the 69th Legislature to encourage and retain physicians to practice in economically depressed areas and for serving in certain state agencies. The program is administered by the Coordinating Board, Texas College and University System. As much as \$3,000 per year for up to 5 years may be repaid on an eligible student loan. This program was appropriated \$99,066 for FY 1985-1986, and \$333,000 for FY 1986-1987. Approximately 30 physicians are expected to receive awards in FY 85-86 and 97 in FY 86-87. The effectiveness of this program in attracting future physicians for service in the above circumstances is unknown. The loan repayment amount of \$3,000 per year may not be sufficient to attract physicians to this program.

D. The National Health Service Corps (NHSC) Placement Program.

This program is administered by TDH through a federal grant. Its purpose is the recruitment and placement of NHSC personnel in areas identified as having shortages of health manpower. Medical students receiving loans from the NHSC Scholarship Program for medical education and training are obligated for a minimum two-year service commitment in a designated primary care Health Manpower Shortage Area as repayment of the loan. A year of service is required for each year of educational assistance. Previous NHSC scholarship recipients or students of exceptional financial need in their first year of study are given preference in scholarship awards.

Due to the large number of scholarships awarded in the late 1970's and early 1980's, large numbers of NHSC scholarship recipients were available for placement in the U.S. from 1983 to 1986. There were approximately 102 NHSC primary care physicians practicing in 29 counties in Texas in March, 1986. NHSC physicians are located in 38 of the 86 areas (64 entire counties and parts of 22 counties) currently designated in Texas as primary care physician shortage areas. The projected number of NHSC physicians available for placement in the U.S. will decline by 1988. After 1988, it is anticipated that only 150-200 will be available for assignment, predicated on congressional appropriations for the NHSC scholarship program.

Nurses

The distribution of registered nurses has been identified, through surveys, as a problem in Texas, although review of the situation in selected areas of the state has not yielded conclusive evidence of maldistribution. An extensive search for definitive information on nursing shortages suggests isolated occurrences of staffing difficulties in certain rural hospitals and nursing homes. State licensure statistics and other research reports do not substantiate these observations. The 1984 and 1986 licensure statistics for registered nurses indicate a 23% increase in the number of nurses practicing in rural counties and 21% in urban areas.

INTERVENTION ALTERNATIVES

Many personal and other factors affect physician location decisions. Unfortunately, there are no easy or simple formulas for dealing with problems of this type. At the global level, a combination of strategies is required to impact the physician's selection of a practice location. Each of the four existing strategies noted above contributes partially to the solution of this problem by providing a separate method of intervention. However, very limited state and federal funds are expected for the continued support of these programs for 1988 and 1989. For this reason, funding priorities must be established. Recommendations for any additional funds for existing or proposed programs could only be justified if critical gaps were identified in current services. To establish a funding priority, each program should be evaluated. It should be determined which offers the highest yield or benefit from the state's investment of an average \$54,000 per student in FY 1986.⁴

Alternative 1: Maintain the funding level of the Family Practice Residency Program. Between 1979 and 1984, there were 611 residents-in-training.

Seventy-seven percent of these are practicing in Texas, with more than 47% located in cities of less than 50,000 population (Table C). Maintaining the current level of funding in an environment of budgetary cutbacks will sustain the efforts to retain our medical school graduates in Texas.

Alternative 2: Evaluate carefully the funding and placement record for the State Rural Medical Education Board (SRMEB). Although this program has established a reasonable record of loan recovery through loan repayment, the placement record of program participants in rural counties is questionable. Of the 104 program participants who completed a residency program or who defaulted from the SRMEB program while in a residency program, 40% have established a practice. An additional 13% are expected to establish a practice in a rural area. Forty-seven percent of the 104 have defaulted from the program and have repaid their loans and penalties or are involved in collection proceedings with the Attorney General's Office. An additional 14 loan recipients were excluded from the program retention rates because these individuals withdrew from medical school rendering them unable to fulfill their service obligation to the SRMEB program. The increased default penalties instituted in 1983 may reduce the rate of contract non-compliance in the future. The definition of qualified practice locations should be reviewed.

Alternative 3: Establish a state successor program to the NHSC Scholarship and the NHSC

Placement Programs whereby loans for medical education could be administered by the Coordinating Board, Texas College and University System. The physician placement program for service obligations could be administered by TDH. Funding for the federal loan program is being drastically reduced and will result in significant reductions in the number of physicians available for placement in shortage areas. The state program would only be authorized upon the failure of the federal government to reauthorize funding of the national program.

Alternative 4: Develop a program that provides a cooperative arrangement between a statewide non-profit or public organization and medically underserved communities for the recruitment of primary care physicians. Studies have shown that physicians with rural backgrounds are more likely to practice in rural communities. Recruiting efforts should be targeted at physicians from rural areas for placement in rural physician shortage areas. This type of activity would allow communities to use their resources in establishing practice incentives for physicians rather than paying exorbitant recruitment agency fees. Underserved communities should be encouraged to provide financial incentives for physicians to practice in their area, including medical education financial assistance, adequate clinical facilities, medical equipment or salary supplements until a physician becomes fully established. Arrangements with residency program administrators and a statewide organization could also help provide a linkage

TABLE C
GRADUATES OF TEXAS FAMILY PRACTICE RESIDENCY PROGRAMS
FOR THE PERIOD 1979-1984

	All Graduates			Direct Patient Care Grads	
	Number	Percent of Total	Percent in Texas	Number	Percent in Texas
TOTAL GRADUATES 1979-1984 (Incl)	611	100.0%			
GRADUATES PRACTICING IN TEXAS	491	80.4%	100.0%	468	95.3%
Population less than 10,000	109	17.8	22.2	108	22.0
Population 10,000-24,999	97	15.9	19.8	96	19.6
Population 25,000-49,999	25	4.1	5.1	25	5.1
Population 50,000-99,999	47	7.7	9.6	42	8.6
Population 100,000-199,999	45	7.4	9.1	41	8.4
Population 200,000-499,999	70	11.5	14.2	68	13.8
Population 500,000 and over	98	16.0	20.2	88	17.9

SOURCE: Coordinating Board, Texas College and University System

between residents seeking to practice in medically underserved areas and the respective community leaders.

ALTERNATIVE SELECTED

Numerous studies have shown that the greatest potential for resolving problems of physician maldistribution are programs directed to medical students and residents. The availability and location of residency training sites is a predominant factor in whether Texas medical school graduates remain in the state to practice.

The demonstrated success of the Family Practice Residency Program in retaining our medical school graduates in Texas following completion of graduate medical education provides the impetus for assigning a funding priority to this program for the 70th Legislature.

Additional recommendations are included to improve the Family Practice Residency Program and the State Rural Medical Education Board. The development of a cooperative physician placement program is recommended to assist areas with a shortage of physicians in their efforts to recruit and retain physicians.

Recommendations:

Primary Care Physicians

1. Allocate state funds for the Family Practice Residency Program at no less than the 1987 appropriation level of \$7.3 million and as justified by the current program appropriation request. Funding should be adequate to enable the program to meet current funding commitments and allow for the projected growth in the number of residents-in-training during 1988 and 1989.
2. Identify and monitor physician shortage areas by the Family Practice Residency Program in association with the Texas Department of Health and the Texas Medical Association to assist in the recruitment of Family Practice Residency Program graduates for service in areas of need.
3. Reallocate the monies collected by the State Rural Medical Education Board through the repayment of loans (including interest and penalty) by program participants to the board from state general revenue funds for the sole purpose of redistribution as loans to loan candidates.
4. Reevaluate and strengthen the loan repayment provisions of the State Rural Medical Education

Board with the objective to increase the number of participants serving in rural areas.

5. Develop a cooperative statewide program to assist communities in physician shortage areas with the recruitment and retention of primary care physicians. Practice incentives are encouraged to attract physicians to these areas. A statewide organization could administer the program through cooperative arrangements with graduate medical residency programs, community leaders of physician shortage areas, and other appropriate entities.

Nurses

1. Evaluate the lack of substantive evidence concerning distribution problems for registered nurses and determine if a shortage of nurses exists in some areas of the state. Evaluate changes in the employment trends for nurses to determine the effects of reduced hospital occupancy rates, increased severity of illnesses of nursing home patients, and increased home health and community-based health services programs on the demand for nurses.
2. Monitor proposed changes in the educational requirements for licensure as a registered nurse, the decline in nursing school enrollments in Texas, and the increased demand for specialized nurses to determine the effects of these educational and employment trends on the supply of and demand for nurses.

REFERENCES

¹C. Lincoln Williston, "Medical Manpower in Texas: The Challenge," Texas Medicine, March 1973, pp. 106-109.

²Rural is defined in this chapter as non-metropolitan as designated by the Bureau of the Census. Metropolitan areas are generally defined as counties with a population of 50,000 or more.

³Primary Care Health Manpower Shortage Areas are designated by the U.S. Department of Health & Human Services.

⁴Coordinating Board, Texas College and University System, "Overview of Medical and Dental Education in Texas," Health Affairs Division, 1986 (Mimeographed).



DATA NEEDS

PRIORITY ISSUE	<i>Incomplete trauma injury data.</i>
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PROBLEM STATEMENT: No current data collection system in Texas provides comprehensive information on injuries and related disabilities.

BACKGROUND AND POLICY ANALYSIS

Injuries are a significant public health concern in Texas. In 1984, 11,580 residents of the state died as a direct result of motor vehicle accidents, homicide, suicide, and other forms of accidents. Mortality from injuries represents a relatively small percentage of total deaths each year. However, with the exception of the first year of life, injuries are the leading cause of death for Texans under the age of 45. In fact, 49% of deaths in this age group resulted from injuries in 1984.

The concept of "years of potential life lost" illustrates the impact of injuries on overall mortality. This measure takes into account the age at death and computes years of potential productivity lost to early death. If deaths occurring between the ages of one and 65 are considered and "years of potential life lost" calculated, more years of future productivity are lost to injury than to heart diseases and cancer combined (Figure A).

Estimates in the publication Injury in America place the direct and indirect costs of injuries in the nation at \$75-\$100 billion annually. Proportionately, based on population, injury-related expenditures in Texas would conservatively run from \$5 to \$6.5 billion per year with injuries costing every Texan nearly \$400 per year.

Injuries are potentially one of the most preventable of all public health problems. Injury prevention programs developed to date have traditionally been based on mortality information. Injuries leading to death may or may not be similar to non-fatal injuries. In fact, it is estimated that there are 400 non-fatal injuries receiving emergency room care for every injury-related death. In children, this proportional

relationship is estimated to be even greater. The acquisition of population-based injury morbidity data is essential if effective injury reduction programs are desired.

Sources of injury surveillance data can involve a myriad of agencies both within and outside the health care delivery system (Exhibit A). Various advantages, limitations, and costs can be attributed to each data source listed. An effective injury surveillance system must integrate multiple data gathering methods used within these entities to serve a variety of needs. For example, data are needed to plan and evaluate prevention programs, to promote understanding of the factors associated with injuries, and to identify emerging problems such as injuries related to changes in lifestyle, technology and consumer products. The costs associated with establishing an injury surveillance system are potentially quite high. Objectives for the system must be well-defined and the determination of necessary data items carefully made (Exhibit B).

It is important to note that there are other policy-oriented uses of injury surveillance system data. For example, during the last legislative session, data on the cost of injury-related health care would have been valuable in determining the impact of enforced seatbelt and motorcycle helmet legislation. Useful data could also be obtained on rehabilitation services necessary for injury victims. The Emergency Medical Services Patient Evacuation Study Committee found serious gaps in available emergency care rescue systems data. The Texas Health Objectives for 1990: Status Report 1984 reinforced the need for injury surveillance data in controlling injuries as a public health problem. The Statewide Health Coordinating

Council's Task Force on the Regionalization of Specialized Medical Services would have found injury surveillance data extremely beneficial when addressing trauma and trauma care issues.

INTERVENTION ALTERNATIVES

There are four alternative methods of collecting information on injuries.

Alternative 1: Routine active surveillance. This type of data collection system continuously monitors rates of injury morbidity and mortality in defined populations. Not all injuries must be included, but care must be taken in selecting the injuries and appropriate data to allow the estimation of age-specific injury incidence and mortality over time.

Alternative 2: Monitoring "sentinel" injuries. This approach attempts to identify emerging problems or changing patterns in injury rates. Certain types of injuries are selected to serve as sentinels, i.e., to be indicative of larger problems resulting from lifestyle changes.

Alternative 3: Specialized surveillance and registries. This type of data collection system collects more detailed information on the injury-producing event, the nature of the injuries, the patient's survival and disabilities, and outcome of treatment. Information is often forwarded to centralized registries so that data on similarly injured persons from different geographic areas can be compared over time.

Alternative 4: Epidemiologic studies. This concept requires extensive examination of data on the injured in question in an attempt to establish causative and risk factors in the occurrence and severity of injuries. An epidemiologic study may establish incidence rates, but such a study is not a surveillance system unless it is repeated periodically so that trends in incidence can be determined.

ALTERNATIVE SELECTED

The establishment of a specialized surveillance and registry system is selected as the preferred alternative for the following reasons:

- Surveillance can be limited to fewer, more significant injury types.
- More extensive data can be collected on injuries including information on the injury-producing event, nature of injuries, patient survival and related disabilities, and treatment outcome and costs.

—Data are reported to a centralized source allowing geographically-based analyses of injury incidence and severity. This capability is extremely important in Texas with its wide diversity in population composition.

Recommendations:

The following recommendations are made in support of the development of an injury surveillance system in the state.

1. Amend the Emergency Medical Services Act, Article 4447o, VTCS, to reflect a standardized

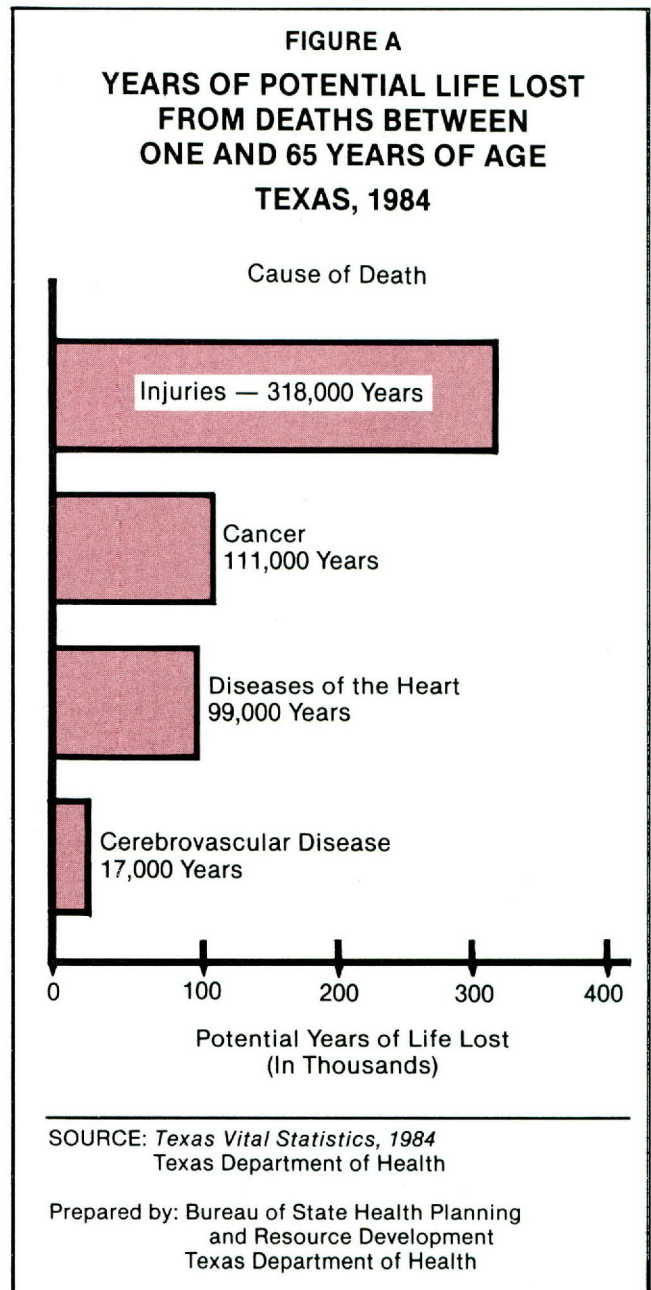


EXHIBIT A
SOURCES OF INJURY
SURVEILLANCE DATA

1. Vital statistics/death certificates
2. Hospital inpatient data
3. Emergency room visits
4. Practitioners' offices
5. Injury surveys
6. Reports from police, fire, and motor vehicle registries
7. Medicaid, insurance, emergency medical systems, and poison centers

SOURCE: "Injury Surveillance—a State Perspective"
Public Health Reports
November-December, 1985

EXHIBIT B
DATA ELEMENTS IN
INJURY SURVEILLANCE

1. Time of injury event
2. Location of injury event
3. Demographic characteristics of person injured
4. Type of injuries
5. Agent causing injury
6. Circumstances surrounding injury event
7. Medical care
8. Health outcome
9. Cost of medical and other care
10. Other, depending on program objectives

SOURCE: "Surveillance in Injury Prevention"
Public Health Reports
November-December, 1985.

method of injury reporting and the establishment of a trauma registry program. In its final report, the Emergency Medical Services Patient Evacuation Study Committee recommended that legislative action be pursued in this area. The Bureau of Emergency Management, Texas Department of Health, is the appropriate entity to develop this legislative proposal and to provide staff support throughout the upcoming legislative session.

2. Identify and develop alternate funding sources for the establishment of injury surveillance systems. The state's current economic condition makes it imperative to seek out alternate funding sources to augment and/or to replace legislative appropriations of state general revenue funds. The Committee on Trauma Research of the National Academy of Science recommended that an Injury Control Center be created within the Centers for

Disease Control (CDC). The program has been implemented at CDC; limited funds are available for the development of injury prevention programs. One aspect of these programs is the establishment of injury surveillance systems to provide baseline data for the development of injury reduction programs. The Bureau of Epidemiology, Texas Department of Health, is the appropriate entity to assume primary responsibility for pursuing this funding source. The Bureaus of Epidemiology and Emergency Management should continue to cooperatively seek out additional sources of support for related projects.

3. Coordinate the development and implementation of data collection systems with key agencies and organizations. The success of the development of a standardized method of injury reporting and the implementation of some form of injury surveillance system depends, to a great extent, on the applicability and usability of the data collected and the efficiency with which they are collected. It is essential that the Texas Department of Health, the Department of Public Safety, the Texas Hospital Association, the Texas Medical Association, EMS providers, and other relevant agencies and organizations work together in designing and implementing this data collection effort.

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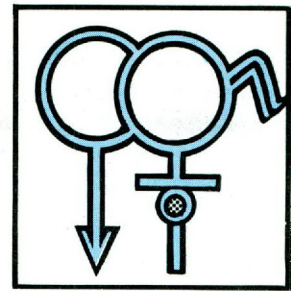
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MATERNAL AND CHILD HEALTH

PRIORITY ISSUE

The high incidence of unplanned pregnancies among the teenage population.

PROBLEM STATEMENT: To prevent first and subsequent unplanned adolescent pregnancies by enhancing educational efforts and family planning services specifically aimed at teens.

BACKGROUND AND POLICY ANALYSIS

Estimates indicate that there are about 339,000 female teenagers in Texas who are sexually active and at risk of unplanned pregnancy.¹ The pregnancy rate for Texas teenagers ages 15-19 (139 per 1000 females) is the fourth highest in the country, and only one state exceeds Texas in the number of pregnancies among girls younger than 15.²

Nationally, pregnancy rates for teens have been increasing. This increase is due, in part, to growth in the percentage of adolescents who have had premarital sexual experience (from 26.8% in 1971 to 42.8% in 1982).³ It is important to note that Texas rates have increased even more rapidly than the national average. Between 1974 and 1980, pregnancy rates in Texas for 15 to 19-year-olds escalated 13.7% compared to 8.2% for the nation.⁴

The adverse effects of adolescent pregnancy are well documented. Teen pregnancies are associated with greater risk of maternal mortality and of premature and low birthweight babies who have reduced chances of surviving infancy and higher rates of mental retardation.⁵ Adolescent mothers are unlikely to receive child support⁶ and typically have lower educational and occupational attainment, reduced income and increased likelihood of welfare dependency.⁷ In an average month of Fiscal Year 1985, 8,800 teenage mothers in Texas received aid to families with dependent children (AFDC) benefits.⁸ Finally, undesired pregnancy has negative emotional consequences for teens.⁹

Aside from the hardships experienced by teens themselves, there is also a heavy economic cost to

society.¹⁰ For example, costs for a child born to a Title XIX eligible Texas teenager are estimated to be \$4,600 for the first year alone.¹¹

The problem of teenage pregnancy has not gone unnoticed. In 1982, the Select Committee on Adolescent Pregnancy produced an extensive report on the issues and problems of teen pregnancy and parenthood and developed recommendations for future action by the state.¹² (See Exhibit 1 in Chapter Annex for a list of the recommendations and progress made in their implementation.)¹³

Legislative concern with teenage pregnancy is also apparent in the Maternal and Infant Health Improvement Act (MIHIA) passed in 1985. The act stipulates that among other services "a special program of preventive, health, medical and facility care, and health education services for adolescents concentrating on adolescent pregnancy and pregnancy prevention" may be provided.

INTERVENTION ALTERNATIVES

An essential component of a teen pregnancy prevention strategy is teaching children and adolescents about human sexuality and reproduction, and helping them make responsible decisions about their lives—including postponing sexual activity. One place where young people can be reached before they become sexually active and where information can be provided at a relatively low cost is in school.¹⁴ However, schools are often avoided as a source for teen pregnancy prevention

programs possibly due to perceptions that education addressing reproductive issues causes an increase in sexual activity and pregnancy.¹⁵ A recent study, however, revealed that sex education does not increase sexual activity and that if teenagers are sexually active, those who have had sex education are less likely to become pregnant.¹⁶ In addition, numerous public opinion polls have shown that a clear majority (70 to 80%) of adults support school instruction on sex education.¹⁷

At present, family life education is not a mandatory part of elementary or high school curricula in Texas. The "Rules for Curriculum," State Board of Education, include content areas through which family life education could be taught. However, family life or sexuality content is not specifically mentioned in the curriculum rules. Data has not been collected to document the number of schools that teach this subject.

Another component of adolescent pregnancy prevention is assuring that family planning services are available and accessible to teens. For every ten teenagers enrolled in family planning programs, almost three pregnancies are averted the following year.¹⁸

TDHS and TDH administer four sources of funds (Titles V, X, XIX, XX) to provide family planning services to people of all ages--including teens. Both departments have a strong commitment to preventing teen pregnancies. Proposed standards for family planning services developed jointly by TDHS and TDH require agencies receiving these funds to provide counseling and medical services that meet the special needs of adolescents. In 1984, about 110,500 teenagers received services from providers funded by TDHS and TDH.¹⁹ In Fiscal Year 1985, an additional 52,547 adolescents received group education sessions at the request of junior and senior high schools and other community organizations which were provided by TDHS Title XX family planning contract agencies.²⁰

Family planning services provided through TDHS and TDH are targeted to low income women. Together, these departments meet the family planning needs of about half of the low income teenagers at risk of unintended pregnancy.²¹ Even though private physicians and agencies also provide family planning services to an unknown number of teens, it is apparent that the needs of many teenagers are not being met.

For maximum effectiveness, program development and implementation should be a coordinated, joint venture among state agencies, local agencies and

communities. Approaches to teen pregnancy prevention must include education as well as medical and counseling services. The intervention alternatives and recommendations relating to education are the same as Chapter V, Health Promotion/Health Education. See Chapter V for a complete discussion of these alternatives. Additional intervention alternatives are described below:

Alternatives 1-5 (See Chapter V).

Alternative 6: Request additional state appropriations to expand outreach, counseling and medical services. Assuming it would cost approximately \$75 per teenager to deliver family planning clinic services and conduct intensive outreach, an additional \$22.6 million would be required to provide services to all teens at risk of unintended pregnancy. If services continue to be targeted primarily to low-income teens, approximately \$6.1 million would be required to address the unmet need for service. Appropriating this amount of money makes fiscal sense. For every dollar spent on family planning for adolescents, more than three dollars will be saved on medical and welfare-related expenses for teen mothers in the first year.²²

Alternative 7: Encourage TDHS and TDH to more actively address the family planning needs of teenagers. Adolescents who are low income, and especially those at high risk of unintended pregnancy, must remain a priority service population. This includes ensuring that:

- outreach education is satisfactory (including coordination with hospitals to reach new mothers and inform them about available services)
- clinics are scheduled and located to maximize availability and accessibility to teens.

Alternative 8: Establish an interdisciplinary group to coordinate public and private resources at the state and local level and to facilitate the development of community-based programs. This group should develop strategies that include:

- coordinating comprehensive services across agencies
- providing general preventive school-based health care
- pursuing additional resources and funding
- initiating public awareness and community education campaigns
- encouraging community organizations to offer programs (i.e., courses on how to resist peer pressure, seminars that encourage parents to talk to their children, and teacher and community leader training)

- acting as a "clearing house" of resources available to teens and promoting their use
- conducting evaluations of prevention programs to assist in developing better interventions.

A subcommittee of the Teen Parent Initiative Interagency Council is the obvious choice for this undertaking. It includes representatives from seven agencies (TDCA, TDH, TDHS, TDMHMR, TEA, THHSCC and TYC) that are involved in providing services to teenagers. The council is also experienced in developing and implementing comprehensive services through cooperative efforts of multiple state and local agencies. Finally, one of their recently-established goals is to address the prevention of first time teen pregnancies. In addition to members of the council, the interdisciplinary group would be composed of representatives of family planning providers, parent groups, teen groups and other advocacy groups concerned with the prevention of teen pregnancy.

ALTERNATIVE SELECTED

All of the above alternatives, as well as the alternatives in Chapter V, have been selected because strategies to prevent teen pregnancies must include both education and family planning services. Family life education as a component of a comprehensive health education curriculum enables school-aged children to make informed, responsible decisions that affect their lives. For those who are sexually active, medical services must remain available and accessible, especially to low-income teenagers.

Recommendations:

- 1-5. (See Chapter V).
6. Secure additional government funding to provide counseling and medical services to teenagers at risk of unintended pregnancy.
7. Encourage the Texas Department of Human Services and the Texas Department of Health to continue their commitment to preventing teen pregnancy. This includes enhancing technical assistance given to the providers they fund to ensure that teenagers are a priority target population and that their special needs are met.
8. Charge a subcommittee of the Teen Parent Interagency Council with developing and implementing teen pregnancy prevention programs that are cooperative efforts of state agencies, local agencies, and communities.

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THE MEDICAL LIABILITY SYSTEM

PRIORITY ISSUE	<i>The medical liability insurance system.</i>
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PROBLEM STATEMENT: There is a need to examine the underlying causes for the increasing cost and decreasing availability of medical liability insurance as it impacts on the health care delivery system and to develop solutions to ameliorate this problem.

BACKGROUND AND POLICY ANALYSIS

In Texas, as in the rest of the nation, there is a problem with the cost and availability of liability insurance. On December 31, 1985, the House/Senate Joint Committee on Liability Insurance and Tort Law and Procedure was created in response to complaints about huge increases in the cost of liability insurance and the inability to renew or obtain liability policies.

Health care providers, specifically physicians and hospitals state they cannot obtain adequate liability insurance; or when they can, the costs are astronomically high. This situation leads to increased medical care costs for everyone and reduces access to care in general.

Health care costs rise with liability insurance costs in two ways:

- directly; by passing on the costs of increased premiums to the patient, and
- indirectly; through the practice of "defensive medicine."

In practicing "defensive medicine," physicians may order extra diagnostic tests or perform additional procedures to provide defense in any potential future lawsuits.

Reduced access to care occurs as doctors may refuse to treat certain high-risk cases out of fear that unsatisfactory results could lead to litigation. The burden of reduced access to care generally falls on the poor and medically indigent, those least able to obtain care. For example, health care providers are

often reluctant to provide services to high-risk obstetrical patients because of the litigation risks.

In the mid 1970's, policymakers in Texas were called upon to resolve what was widely perceived as a "crisis" in the availability of medical malpractice insurance. This situation developed when many insurers left the market because of increases in the number of claims and the amount of settlements. The few remaining insurers raised premium rates drastically.

Physicians were faced with the choice of paying extremely high premiums, practicing without coverage, or limiting or quitting their practice. These choices are extant today. The medical community has actively sought changes to statutes governing the settlement of medical malpractice disputes.

In response, the Texas Legislature enacted the Medical Liability and Insurance Improvement Act of Texas (Art. 4590i, VTCS) in 1977. The purpose of this act is to reduce the cost of liability protection and to ensure the availability of insurance. Sec. 1.02(b) defines this purpose further: "to make certain modifications in the medical, insurance, and legal systems in order to determine whether or not there will be an effect on rates charged by insurers for medical professional liability insurance."

Additionally, the Texas Legislature established in 1975 the Texas Medical Liability Insurance Underwriting Association (the JUA, Art. 21.49-3 of the Insurance Code) to provide medical professional liability insurance for hospitals, physicians, and other health care providers.

Despite an early indication of some stability in premium rates, an "affordability and availability" crisis has again surfaced. Obviously, the earlier legislation did not alleviate the problem.

Some persons believe that the tort reform efforts enacted in other states and the medical malpractice statute in Texas have been eroded by subsequent case law emanating from court decisions. The insurance industry blames an inequitable pattern of settlements by juries in the civil justice system as rationale for the increase in premium rates. Others feel that the problem lies mostly within the insurance industry. Insurance underwriters claim that in order to make a profit, they must raise premium rates for everyone because of actual or potential huge jury awards. However, according to the Professional Insurance Agents of Texas, the cost of liability insurance was priced inadequately during the period 1979-1982. Insurance companies, in trying to raise capital for investments, dropped premium rates to a very low level. The National Association of Independent Insurers (1985 A Critical Year) states "the property/casualty industry must accept the major responsibility for its current financial condition. But, the brutal price war of the last six years is over. The industry has finally realized that a business cannot indefinitely price its product below cost and expect to survive."

Additionally, underwriters and reinsurers are refusing to furnish coverage for risks they perceive as too hazardous, or for risks that are genuinely too hazardous to insure. The insolvency and financial impairment of some reinsurance companies have also contributed to limited availability. The recent emergence of significant reinsurance demand in other countries has diverted reinsurance capacity away from the United States.

Others perceive an insidious replacement of American traditions of corporate risk-taking and personal responsibility with a "no-risk" mentality.

INTERVENTION ALTERNATIVES

Attempts to rectify the current liability system in Texas to ensure affordable and available liability insurance should acknowledge the parameters involved with the following objectives:

- a. modify insurance industry practices through insurance regulation to encourage available and affordable liability insurance premium rates,
- b. ensure fair and reasonable compensation to victims through the civil court system, and

- c. deter negligent practice and improve the quality of medical treatment.

The intervention alternatives include:

1. Federal initiatives should be pursued to address this problem due to its national and international scope. However, since insurance regulation and tort law are addressed by state legislatures, the state is the appropriate level for attending to this problem. This does not preclude future attempts to address insurance questions at the national level and, indeed, there are certain actions currently being undertaken at the federal level.
2. The following alternatives address insurance industry practices and regulation. In order to clearly determine the status of the professional liability insurance industry in Texas, as well as the amount of non-rate-regulated underwriting, the State Board of Insurance should use its authority to request insurance companies to report information on premiums, losses, claims, and exposures. This reported information should be required from both rate-regulated and non-rate-regulated carriers. The State Board of Insurance should determine the amount of liability insurance premiums written by non-rate-regulated carriers, and establish rules to eliminate or restrict such non-regulated coverage.

To encourage competition as a means to keep premiums affordable, the State Board of Insurance should modify the ratemaking process for general liability and medical malpractice policies to include allowable deviations. These deviations should address the risk history, or "experience" rating, of the insured and the presence of risk management programs of the insured. Those health care practitioners with no history of substantiated malpractice or negligence should not have to pay premium rates set to cover an "average-risk" calculation. Health care facilities with a documented excellence in quality assurance monitoring and evaluation activities (by JCAH, Medicare, etc.) should be able to apply for and receive reduced liability insurance rates. Linking these factors of "risk-history" or "experience-rating" of the insured to premium rates would strengthen the validity of the risk analysis concept.

Additionally, immediate relief is needed for health-related, non-profit, charitable organizations seeking liability insurance coverage.

Critical health and human service-related organizations such as senior citizen centers,

rehabilitation centers, and youth-oriented organizations are being forced to close due to a lack of liability insurance coverage. A liability insurance pool for non-profit, charitable organizations should be enacted by statute.

3. A change in the civil justice (tort) environment may be required to rectify an unbalanced system. However, it is felt that more documentation on the relationship between professional liability insurance premium rates and the civil justice system, jury awards, and out-of-court settlements is needed. As more data emerge from analysis of this problem, some changes in the civil justice system may be indicated. The House/Senate Joint Committee on Liability Insurance and Tort Law and Procedure, the Attorney General's Office, and the State Board of Insurance are currently studying this issue. Examination of the civil justice system as one casual factor in this liability insurance crisis should address the relationship between the civil justice system and premium rates and whether civil justice system modification will have an impact on insurance rates.
4. One underlying reason for medical malpractice litigation is the occurrence of negligent acts. Additional efforts should be concentrated here. State professional licensing boards, the hospital industry, the insurance industry, and professional associations should all be involved in this initiative. Currently, under the Medical Practice Act of Texas, and where it may apply to other professional practice acts, incompetent acts may be reported by peer review groups, professional associations, or hospital boards, to the licensing boards. These options need to be closed and such reporting made mandatory.

ALTERNATIVE SELECTED

Since the professional liability insurance crisis is influenced by various dynamic factors, strategies to address the problem should be multidimensional as well. The alternative selected involves three components: an indepth review of the relationship between the civil justice system and premium rates, insurance industry practices through insurance regulation, and the delivery of health care.

One difficulty associated with the analysis of medical liability problems is conflicting information concerning the civil justice system and its relationship to rising insurance costs. Reforms of this system should be undertaken only after a thorough review

which demonstrates that civil justice system changes can directly affect liability insurance costs.

The second component involves the State Board of Insurance taking a major role to determine the status of the professional liability insurance industry in Texas. Modifications to the ratemaking process on general liability and medical malpractice policies should be made. Deviations which encourage competition and thus lower premiums should be allowed for risk history and presence of risk management programs of the insured. Policies can be written and rates set in a manner to encourage safer practices. With this practice, the insurance regulatory system can help to reduce losses.

The legislature should require strict underwriting rules from the State Board of Insurance that will not permit property/casualty insurance companies to write coverage at non-regulated rates.

Additionally, a liability insurance pool for non-profit, charitable organizations needs to be enacted by statute. Immediate relief is needed for critical health and human service-related organizations that are being forced to close due to the unavailability of liability insurance coverage.

The third component is directed at decreasing negligent acts. Lower liability insurance premium rates would be a definite incentive to health care facilities in establishing and strengthening existing risk management programs.

Reporting to the appropriate licensing board of negligent acts performed by licensed professionals should be mandatory. In the health care field, educational efforts should be directed at practitioners targeted by such reporting if deemed appropriate by the licensing board. More stringent sanctions should be imposed as necessary. Peer review and medical care evaluations should be strengthened. Collaborative efforts between professional provider organizations, peer review organizations, hospital associations, and the insurance industry should be encouraged in reducing the incidence of negligent acts. Mechanisms to ensure a system of checks and balances for good faith reporting of negligent acts, incompetence, or unprofessional conduct need to be strengthened.

Recommendations:

1. Encourage the development of a solution to the complex problem of increasing cost and decreasing availability of professional liability

insurance. That solution should respect the issues of accessibility, cost, and equity. That solution may ultimately include changes to the insurance regulatory system, the civil justice system, professional practices acts, and related licensure laws.

2. Enact a statute to require the State Board of Insurance to modify the ratemaking process to include allowable deviations for:
 - a. risk history of insured, and
 - b. risk management programs of insured.
3. Require strict underwriting rules from the State Board of Insurance that will not permit companies writing coverage at nonregulated rates.
4. Enact a statute to create a liability insurance pool for qualified, non-profit charitable organizations.
5. Amend the Medical Practice Act and other practice statutes to provide for enactment of mandatory reporting of incompetent acts to the appropriate professional licensing boards and ensure adequate funding for these boards. This includes an adequate system of checks and balances to protect the reporting individual or group.

SPECIALIZED MEDICAL SERVICES, NATIONAL HEALTH PLANNING GUIDELINES (NHPG) AND FACILITY BED PROJECTIONS

INTRODUCTION

Federal laws and regulations governing operation of the health planning program require the State Health Planning and Development Agency to address the resource standards of the National Health Planning Guidelines (NHPG) and to make bed projections for short-term hospitals and nursing home facilities. In addition, two specialized medical services are discussed. They are magnetic resonance imaging and trauma centers.

MAGNETIC RESONANCE IMAGING

The Texas Statewide Health Coordinating Council (SHCC) has determined that magnetic resonance imaging (MRI) is a highly innovative and technological diagnostic imaging process for affecting the quality of medical care in Texas. The SHCC, therefore, created a Magnetic Resonance Imaging Advisory Committee and, under the authority of Public Law 93-641, charged the committee with developing "guidance" for the introduction and acquisition of MRI into Texas.

The committee consisted of providers and consumers of wide expertise including four SHCC members, two radiologists, one physicist, one radiologic technician, one economist and one representative each from the Texas Medical Association, Texas Hospital Association and the now defunct Texas Health Facilities Commission (See Exhibit 1, Chapter XVIII annex, Appendix A).

The committee adopted draft guidelines--preferred by the committee to be called "guidance"--(see Chapter XVIII annex, Appendix A). The guidance was the subject of a public hearing on March 8, 1985, was approved by the SHCC on November 8, 1985, and received final approval by the governor on December 16, 1985.

The guidance is intended to provide assistance to health care providers who intend to offer MRI services to patients in the state. It seeks to accomplish the following:

1. encourage the existence of sufficient MRI diagnostic capabilities to meet the needs of the state;
2. help to ensure that MRI services are provided in a coordinated manner within the area to be served;
3. promote study/research and education/training in the role and utilization of MRI devices; and
4. promote the education and training of health care personnel in the operation of MRI equipment.

TRAUMA CENTERS

Background And Policy Analysis

In Texas, death by injury is the leading cause of mortality for persons age one through 44, and ranks third as cause of death for all ages.¹ (Figure 1, Chapter XVIII annex, Appendix A.) Furthermore, in 1984 there were 318,000 potential years of life lost between the ages of one and 65 in Texas (see Figure A, in Chapter XV), almost triple the years lost to cancer.²

Of the number of trauma deaths in Texas, the greatest number (55.7% in 1984) resulted from motor vehicle accidents.³ (Figure 2, Chapter XVIII Annex, Appendix A.)

Trauma costs society over \$63 million per day in death and disability. The total cost is between \$75 and \$100 billion annually counting lost wages, medical expenses, and indirect costs.⁴

Studies conducted in California found that approximately 40% of all trauma deaths were preventable.⁵ These studies determined that injury victims taken directly to medical facilities with appropriate and effective trauma care had

significantly increased survival rates. The chances of preventable death in those centers was as low as one percent.⁶

In Texas during 1984, there were 7,240 deaths from motor vehicle and other types of accidents.⁷ If 40% of these deaths could have been reduced to one percent, then 2,824 of these 7,240 deaths in 1984 were possibly preventable.

The California studies concluded that the delay incurred in getting patients to appropriate care, or the lack of such care, was chiefly responsible for the unnecessary deaths. To prevent reoccurrences, it was recommended that hospitals committed to trauma care be designated as "trauma centers." This would allow the emergency medical system to recognize and take trauma patients directly to these facilities. Where this was done, follow-up studies found that preventable deaths dropped significantly.⁸

In Texas the issue of trauma care is being studied by two groups. The Task Force on Regionalization of Specialized Medical Services, established by the SHCC, included trauma centers as a special topic of consideration. At the same time, the EMS Patient Evacuation Study Committee was formed by the governor to look at helicopters as a means to transport EMS patients quickly. To ensure that the identification of trauma centers be considered contemporaneously, the regionalization task force made the following recommendation as the initial finding of the study which will be finalized in September, 1986.

Recommendation:

That the Texas Legislature designate the Texas Department of Health as the authority to identify hospitals meeting the standards for trauma centers, and to encourage emergency medical teams to transport trauma patients to the nearest hospital with such certification.

PERINATAL SERVICES (NHPG 3 & 4)

NHPG 3 and 4 relate to national resource standards for obstetric and neonatal services. The federal guidelines state that obstetrical and neonatal services should be planned on a regional basis with linkages between the two services. This is designed to reduce maternal and infant morbidity and mortality and to improve the use of limited resources.

NHPG 3 (Obstetrical Services) states that hospitals which provide care for complicated obstetrical

problems should have a minimum of 1,500 births annually and should have an annual occupancy rate of 75%. Tables 2, 3 and 4 in the Chapter XVIII annex, Appendix A provide 1984 data on the number of obstetric facilities, level II and III obstetrical units, level II and III units with less than 20 beds, and hospitals reporting deliveries.

NHPG 4 (Neonatal Services) states that neonatal intermediate and intensive care beds should not exceed 4 per 1,000 live births per year in a defined service area. Each unit that provides this type of care should contain a minimum of 15 beds. Table 5 in the chapter annex provides 1984 data on the size of neonatal units in Texas hospitals.

Currently, data concerning perinatal services are obtained through a survey which requests self-designation of the level of care provided. This information is not completely reliable because it lacks complex definitions of levels of care. The Task Force on Regionalization of Specialized Medical Services is conducting an additional survey of these hospitals with hopes of obtaining a more accurate picture of available perinatal services throughout the state. In addition, the task force will provide recommendations concerning the feasibility of regionalization of perinatal services.

Additional information on NHPG 3 and 4 is provided in the Chapter XVIII annex, Appendix A.

PEDIATRIC SERVICES (NHPG 5 & 6)

NHPG 5 and 6 relate to the resource standards for pediatric inpatient services established by the federal government. A more detailed discussion of the standards may be found in the Chapter XVIII annex, Appendix A along with a complete citation of NHPG 5 & 6.

Guideline 5 indicates there should be a minimum of 20 beds in a pediatric unit in an urbanized area. Guideline 6 establishes desired minimum occupancy levels by size of pediatric unit: a 20-39 bed unit = 65%; a 40-79 bed unit = 70%; and a unit with 80 or more beds = 75%.

Table 6 in the chapter annex depicts the number of hospitals in 30 urbanized areas with pediatric units by size. Also shown is the number of hospitals with units meeting the guideline standards.

There are also a number of hospitals in Texas which report pediatric utilization but have a smaller number or no designated pediatric beds. These hospitals

are shown in Table 7. Table 8 in the chapter annex provides pediatric bed utilization data.

Though one of the overall goals of the pediatric guidelines is to assure an adequate supply of pediatric beds and inpatient services throughout the state, a representative group of Texas pediatricians, convened at the request of the Task Force on Regionalization of Specialized Medical Services, believes that the principal need in Texas is for a statewide system of case identification and case management. This would provide a means of ensuring that children who need special services have access to those services and continued follow-up wherever they go.⁹

The approach of these physicians to better pediatric services is not to expand or improve the system of facilities and clinics, but to establish better procedures for patient identification, tracking and referral. This tracking system might require local or regional bases for closer contact and coordination of unique health problems. Such a system could also be used for referral arrangements when patients relocate.

The Task Force on Regionalization of Specialized Medical Services is reviewing this group's conclusions for inclusion in its final report which is due in September, 1986.

OPEN HEART SURGERY AND DIAGNOSTIC CARDIAC CATHETERIZATION SERVICES (NHPG 7 & 8)

NHPG 7 & 8 relate to national standards for open heart surgery and diagnostic cardiac catheterization services. A more detailed discussion of these standards and the subject area may be found in the Chapter XVIII annex, Appendix A.

The federal guidelines discuss the number of procedures needed to support a cardiac cath/open heart facility to assure adequate patient access to quality services, maintain the technical skills of medical personnel performing these procedures, and prevent duplication of costly equipment and facilities. The opening of new facilities should be contingent upon the continued maintenance of efficient service levels by already existing facilities.

These service levels are being affected by several new medical developments. In the 1970s, a new procedure, percutaneous transluminal angioplasty (PTA), was pioneered to allow the restoration of blood flow to major coronary arteries without the need for conventional open heart surgery. PTA

does not completely replace surgery, but it is recognized as an alternative to surgery in selected cases. Another new technique being utilized to correct coronary problems without surgery is the use of certain enzymes, such as streptokinase. These enzymes, once injected, tend to break up clots blocking the coronary arteries. Both procedures have the potential of decreasing the number of open heart surgeries which must be performed.

The difficulties and expense inherent in planning future open heart surgery and diagnostic cardiac catheterization capability may be alleviated via regionalization of these services. A network of facilities providing various levels and types of services linked with transfer referral agreements may be a viable course of action. The additional data and expert advice from the Task Force on Regionalization of Specialized Medical Services will be needed to determine if these services should be planned on a regional basis. The task force report is scheduled for release in September, 1986.

RADIATION THERAPY (NHPG 9)

NHPG 9 provides a measure, based upon equipment utilization and population, by which to evaluate the need for additional megavoltage therapy units. The guideline states that each radiation therapy unit should serve a population of at least 150,000 persons and treat at least 300 cancer cases per year and that all units within a service area should provide at least 6,000 treatments per year before additional units are opened. Adjustments are allowed for hardships due to patient travel time.

Tables 12, 13 and 14 in the Chapter XVIII annex, Appendix A provide 1984 data on radiation therapy facilities and units, capacity of units, and numbers of treatments and cancer cases treated. Considering the state planning regions (SPRs) as service areas for radiation therapy, 2 SPRs (SPR 19 and 24) had no units to provide services and 2 SPRs (SPR 4 and 12) had all units within the area providing an average of at least 6,000 treatments per year. Table 15 in the chapter annex provides a projection of need for units for 1991 based upon the 150,000 persons per unit standard and a second projection based upon the 1984 use rate.

The Task Force on Regionalization of Specialized Medical Services will evaluate the data provided in the chapter annex and the report of the Legislative Task Force on Cancer in Texas and will confer with the Texas Cancer Council prior to preparation of its report. The report of the task force will provide recommendations concerning the feasibility of regionalization of radiation therapy facilities and the

need for additional units. The report is to be forwarded to the SHCC in September, 1986.

Additional information on NHPG 9 is provided in the Chapter XVIII annex, Appendix A.

END-STAGE RENAL DISEASE (NHPG 11)

NHPG 11 deals with national resource standards for end-stage renal disease services. A more detailed discussion of the standards and the subject area may be found in the Chapter XVIII annex, Appendix A.

End-stage renal disease (ESRD) is a chronic kidney failure condition which breaks down healthy kidney tissue over time until only dialysis or a kidney transplant can sustain life. However, due to the difficulty in obtaining compatible transplant organs, dialysis is the most common method of treatment. Some of the state's dialysis patients are using home care dialysis methods, but the majority must travel to some type of dialysis facility. Because most ESRD patients are required to undergo the long and frequent dialysis procedures, accessibility to a dialysis facility is an important factor.

The federal ESRD Network 11 and the state Kidney Health Program have been important parts of the ESRD program in Texas. The funding for these programs, both federal and state, has been steadily reduced with the possibility of termination. Should this happen, the loss of the data gathering and service monitoring functions of Network 11, and the reimbursement activities of the Kidney Health Program, can result in a decrease in quality of care, in a curtailment of patient services, and in the possible closing of some facilities which would severely limit accessibility of services. These are concerns which will require close scrutiny and potential evaluation.

The Task Force on Regionalization of Specialized Medical Services is evaluating the ESRD needs of the state, and a report is scheduled for release in September, 1986.

SHORT-TERM INSTITUTIONAL CARE AND FACILITIES BED PROJECTIONS (NHPG 1 & 2)

Background:

Short-term institutional care is inpatient care provided by community general and special hospitals that have an average length of stay under 30 days and are available to the general public. The SHPDA is charged with developing a methodology for projecting the number of short-term care hospital

beds that will be required in Texas. This section will provide a brief overview of the projection methods developed by the SHPDA, the adherence of this method to federal guidelines, and statewide bed range projections and goals for 1991. More detailed information concerning short-term care facilities, methods and projections is presented in the Chapter XVIII annex, Appendix A.

Methodology:

The bed demand projection methodology was developed by the SHPDA with the advice of the Technical Advisory Group on Bed Need Methodology (Exhibit 2 in the Chapter XVIII annex, Appendix A) and adopted by the SHCC. It is the basic use rate method (Exhibit 3, annex). For the 1987 SHP, the methodology was simplified from the previous SHP to provide use rates aggregated at the SPR level and at the Admission Pattern Area (APA) level. The methodology is described in detail in the chapter annex, Appendix A.

Use rates were developed using two types of data from 1984: patient origin data and facility data. The data from Patient Origin Study III (Texas Hospital Association, 1984) were used to allocate patient days back to the counties of residence. This enabled use rates (patient days per year per one thousand in the population) to be based on patient days generated by residents of each county. That is, the use rates were population-based rather than facility-based.

The prediction of 1991 use rates was done by estimating upper and lower bounds since exact prediction is not possible. These use rates were multiplied by 1991 population projections to provide estimates of 1991 patient days, average daily census, bed demand, and the bed ratio. These measures of utilization are related as follows. Patient days are the number of days patients spend in hospitals in a year. When patient days are divided by 365, an average daily census is obtained. The bed demand is found by dividing the average daily census by the desired level of occupancy, expressed as a proportion. The bed ratio is the number of licensed beds to every one thousand persons in the population.

National Health Planning Guidelines:

Federal law requires that the NHPG be taken into account in the development of bed projections. NHPG 1 and 2 address the supply of non-federal general hospital beds. NHPG 1 states that there should be less than 4 beds for each 1,000 persons except for areas with the following characteristics:

(1) a higher percentage of elderly persons than the national average; (2) large seasonal population fluctuations; (3) rural areas; (4) areas with referral hospitals; and (5) urban areas where a large number of beds in one part of an MSA may be compensated for by fewer beds in other parts of the MSA. NHPG 2 states that there should be an average annual occupancy rate of at least 80% except in areas with large seasonal population fluctuations, and in rural areas because of the significant number of small hospitals.

The SHPDA projection methodology allows several exceptions. Occupancy rates can be lower than 80% for smaller hospitals. Rural areas containing primarily small hospitals are allowed to have lower occupancy rates.

The method provides bed demand projections at the SPR and the APA levels, as well as the state total. The APAs group together counties with a minimum of 30% of between-county movement, from patients' residence to facility. This analysis is described in more detail in Appendix A.

1991 Bed Demand Projections and Goals:

Utilization and population data for 1984 are presented by SPR in Table 24, Chapter XVIII, Appendix A. This table includes the number of licensed beds as of January 31, 1986. Population and licensed beds, along with bed ratios for 1986 are presented in Table 25 in Appendix A. Statewide totals are shown in the Summary from Table 24 and 25, below. Also shown are the 1991 bed demand projections in the Summary from Table 26-A on the following page.

1991 Bed Demand Projections for Short-Term Hospitals:

Shown in the Summary from Table 26-A are 1991 bed demand projections for short-term hospitals. The upper bound is based on 1984 utilization rates. The lower bound is based on trend-predicted 1991 utilization rates.

The upper bound estimate results in an overall statewide projected bed ratio of 4.3. It is based on the assumption that the 1984 use rate of 962 patient days per thousand per year will be maintained through 1991. The lower bound estimate of 564 patient days per thousand results in a projected bed ratio of 2.5. It is based on the assumption that the trend shown from 1982 to 1984, of a decrease in the utilization rate, will continue at the same rate. The amount of change was computed for each SPR for the 1991 prediction. When aggregated at the state level, the amount of decrease is 7.7% per year. It should be kept in mind that this figure is based on a lower bound utilization estimate. It is not expected that the utilization rate will decrease by 7.7% per year from now until 1991. Instead, the decrease is expected to be between 0% and 7.7% per year. The prediction is that the utilization rate in 1991 will be somewhere between 962 and 564 patient days per thousand.

Table 26-A in the Chapter XVIII annex, Appendix A, shows bed projections by SPR. Table 26-B shows bed projections by APAs. These bed projections are based on the upper and lower use rate bounds.

Table 27-A in Appendix A provides by SPR licensed beds and beds either under plan review or under

Summary from Table 24 and 25

SHORT-TERM FACILITY AND UTILIZATION DATA 1984, and SHORT-TERM FACILITY AND BED DATA: LICENSED BEDS, 1986

Year	Population	Patient Days	Average Daily Census	Use ¹ Rate	# of Facs.	Licensed ² Beds	Occ. Rate	Bed Ratio ³
1984	15,700,548	15,099,383	41,368	962	532	73,455	56.3	4.7
1986	16,586,461				533	76,125		4.6

1. Use rate is measured in patient days per year per 1000 in the population.
2. Licensed bed count includes five unlicensed state-owned facilities which provide short-term hospital-type care.
3. The bed ratio is the number of beds per 1000 in the population. If the five state facilities are excluded, the bed ratio is 4.55 beds per thousand in 1984, and 4.5 per beds per thousand in 1986.

construction, as of January 31, 1986. It also includes data on 1991 projected bed requirements and shows net additional beds demanded, or excess beds, in 1991. State data are shown in the Summary from Table 27-A, below.

As shown, the total number of beds required for 1991 short-term hospitals ranges from 81,658 to 47,763 beds. The number of additional beds shown to be required if the upper bound rate is obtained is 5,884. The number of beds in excess if the lower bound utilization rate is obtained is 30,086.

Both figures should be interpreted with caution because they do not reflect the number of nonconforming beds in short term care facilities in Texas. Non-conforming beds are licensed beds that do not meet requirements of the Life Safety Code, construction standards, or appropriate design criteria.

The available data indicate that there are approximately 7,600 "design capacity" beds that have been judged to be nonconforming (see Table 28 in the annex to this chapter, Appendix A). This number is obtained from the Integrated Facilities File, TDH. Whenever remodeling is done to facilities that

changes the number of nonconforming beds, the Integrated Facilities File is updated. However, this figure is only an estimate because no agency is currently regularly surveying all hospitals in Texas to obtain counts of nonconforming beds. It is possible that the number of nonconforming beds is actually higher than the estimate because of the age of the old survey data which used now outdated code and design standards.

Regardless, it would not be a prudent policy to base determinations of bed requirements strictly on reported excesses of licensed beds when the number of licensed beds include some that are nonconforming. To accept nonconforming beds as a portion of bed requirements met is to perpetuate a lack of suitable, physically safe and appropriate facilities. Modernization of nonconforming beds is an area requiring attention. The number of nonconforming beds needs to be determined by ongoing systematic surveys.

A variety of factors need to be considered in making decisions regarding placement of projected beds. Besides the resident population's demand for beds, other factors must also be considered such as the nature and location of existing facilities and the

Summary from Table 26-A

**1991 BED PROJECTIONS FOR SHORT-TERM HOSPITALS
BY STATE PLANNING REGIONS (SPRs)**

Projected Population	Average Weighted Occupancy With Min. Level	Estimated Bounds	Projected Use Rate	Projected Patient Days	Projected Average Daily Census	Projected Beds	Projected Bed Ratio
19,222,549	61.8	Upper	962	18,400,511	50,412	81,658	4.3
		Lower	564	10,775,541	29,522	47,763	2.5

Summary from Table 27-A

HOSPITAL BED GOALS FOR 1991 BY STATE PLANNING REGIONS (SPRs)

Licensed Beds	1986		Bounds	1991		Existing Non-Conforming Beds
	Beds In Plan Review	Beds Under Construction		Total Projected Beds	Additional or (Excess) Beds	
76,125	315	1,409	Upper:	81,658	3,809	7,644
			Lower:	47,763	(30,086)	

nature of the area itself. In some situations, it may be more appropriate to place beds utilized by residents of one area in another area. For example, a large rural area with a scattered population may need beds, but may not be able to support a hospital. In this situation, it may be more appropriate to place the beds in adjacent urban centers. There are also areas that contain referral hospitals with particular expertise that draw patients from throughout the state. Therefore, these areas should be allowed more beds than are generated by the demand from area residents.

NURSING HOME BED PROJECTIONS

Background:

The SHPDA has been charged with the responsibility for developing a methodology for determining the number of nursing and custodial beds that will be needed in Texas in future years based on a five-year planning horizon. This section will provide a review of the current nursing home situation in Texas and a brief overview of the bed projection methodology.

More detailed information concerning nursing homes and the methodology is presented in the annex to Chapter XVIII, in Appendix A.

Methodology:

The bed projection methodology is the basic use rate methodology (Exhibit 3 in the annex to Chapter XVIII). It was developed by the SHPDA with the advice of the Technical Advisory Group on Bed Need Methodology (Exhibit 2 in the annex to Chapter XVIII). Use rates were developed for each of three age groups within each county: less than 65, 65 to 74, and 75 and older years. Data from the TDH Nursing Home Patient Origin Study were used to allocate patient days back to counties of residence. That is, use rates (and ultimately the projections) were population-based, rather than facility-based. Use rates were then multiplied by 1991 population projections to get an estimate of the number of patient days for 1991. Projected patient days were then divided by 365 to get an average daily census. The average daily census is then divided by the desired level of occupancy, expressed as a proportion. The desired level of occupancy was specified as 90% for the projections. The result is a bed projection that is an estimate of the number of nursing home beds required in 1991. Because of the decrease in the nursing home utilization rate over the past several years, an upper and a lower bound for the 1991 utilization rate were determined. This is described in more detail in the annex.

1991 Bed Projections and Goals:

Facility utilization data and population data for 1984 are presented by SPR in Table 34 of the annex to Chapter XVIII, in Appendix A. This table shows the number of licensed beds as of December 31, 1984. Table 35, in the annex, shows licensed beds as of January 31, 1986. A summary from Table 34 and 35 can be seen on the following page.

Table 36 in the annex shows the 1991 bed projections for nursing/custodial homes by SPRs and the state totals. The Summary from Table 36 in this section shows the state totals.

The upper bound of the 1991 use rate results in an overall statewide projected bed ratio of 59.7 per thousand population 65 and older. This use rate is based on the assumption that the 1984 use rate of 19,907 patient days per thousand in the population 65 and older will be maintained through 1991. The lower bound of the 1991 use rate is 16,032 patient days per thousand population 65 or older. This use rate results in a projected bed ratio of 48.1 per thousand population 65 or older. The lower bound use rate is based on the assumption that the trend shown from 1981 to 1984, of a decrease in the utilization rate, will continue at the same rate. The amount of change was computed for each SPR for the 1991 prediction. When aggregated at the state level, the amount of decrease is 3.2% per year. It should be noted that the lower bound utilization estimates are based on a very conservative prediction. It is not expected that the utilization rate will decrease by 3.2% per year from now till 1991. Instead, the decrease is expected to be between 0% and 3.2% per year. The result of this prediction is that the utilization rate in 1991 will be somewhere between 19,907 and 16,032 patient days per thousand of the population 65 or older.

Table 37 in Appendix A provides information by SPR regarding licensed beds and beds either under plan review or under construction, as of January 31, 1986. It also includes data on 1991 projected bed requirements and shows net additional beds demanded, or excess beds, in 1991. Statewide, these data are shown in the Summary from Table 37, on the following page.

As shown, the total number of beds required for 1991 nursing/custodial homes ranges from an upper bound of 111,493 beds to a lower bound of 89,774 beds. The number of additional beds shown to be required if the upper bound rate is obtained is 4,554. The number of beds in excess if the lower bound utilization rate is obtained is 17,165.

Both figures should be interpreted with caution because they do not reflect the number of nonconforming beds in nursing/custodial homes in Texas. Nonconforming beds are licensed beds that do not meet the requirements of current Life Safety Code, construction standards, or appropriate design criteria. The available data indicate that there are approximately 9,810 design capacity beds that have been judged to be nonconforming, as of January 31, 1986 (see Table 38 in the annex, Chapter XVIII, Appendix A). This number is obtained from the Integrated Facilities File, TDH. Whenever remodeling is done to facilities that changes the number of nonconforming beds, the Integrated Facilities File is updated. However, this figure is only an estimate because no agency is currently regularly surveying all nursing/custodial homes in Texas to obtain a count of nonconforming beds. It is possible that the number of nonconforming beds is actually higher than the estimate because of the age of the old

survey data which used now outdated code and design standards. Regardless, it would not be a prudent policy to base determinations of bed requirements solely on reported excesses of licensed beds when the number of licensed beds includes some that are nonconforming. To accept nonconforming beds as a portion of bed requirements met is to perpetuate a lack of suitable, physically safe and appropriate facilities. Modernization of nonconforming beds is an area requiring attention. The number of nonconforming beds needs to be determined by systematic surveys.

A variety of factors need to be considered in making decisions regarding placement of projected beds. Besides the resident population's demand for beds, other factors must also be considered such as the nature and location of existing facilities and the area itself.

SUMMARY FROM TABLE 34 AND 35

**1984 NURSING/CUSTODIAL HOME UTILIZATION DATA, and
1986 LICENSED NURSING/CUSTODIAL HOME BEDS**

Year	Population 65 +	Patient' Days	Average Daily' Census	Use ² Rate 65 +	# of Facs.	Licensed Beds	Occupancy ³ Rate	Bed ⁴ Ratio 65 +
1984	1,529,116	29,572,182	81,020	19,339	1,000	101,627	81.58	66.5
1986	1,619,703				1,004	102,712		63.4

- Notes: 1. Patient days and Average Daily Census based on all ages, rather than just 65 and older.
 2. Use rate is measured in patient days (sum across all age groups) per year per thousand in the population who are 65 and older. The use rate of the 65 and older group in the population 65 and older is 17,863.
 3. Occupancy rate is weighted average.
 4. Number of beds per 1,000 in the population 65 and older.

SUMMARY FROM TABLE 36

**1991 BED PROJECTIONS FOR NURSING/CUSTODIAL HOMES
BY STATE PLANNING REGIONS (SPRs)**

1991 Projected Population 65 +	Average Weighted Occupancy With Min. Level ¹	Estimated Bounds	Projected Use Rate 65 +	Projected Patient Days	Projected Average Daily Census	Projected Beds	Projected Bed Ratio 65 +
1,866,889	91.3	Upper	19,907	37,164,688	101,821	111,493	59.7
		Lower	16,032	29,929,541	81,998	89,774	48.1

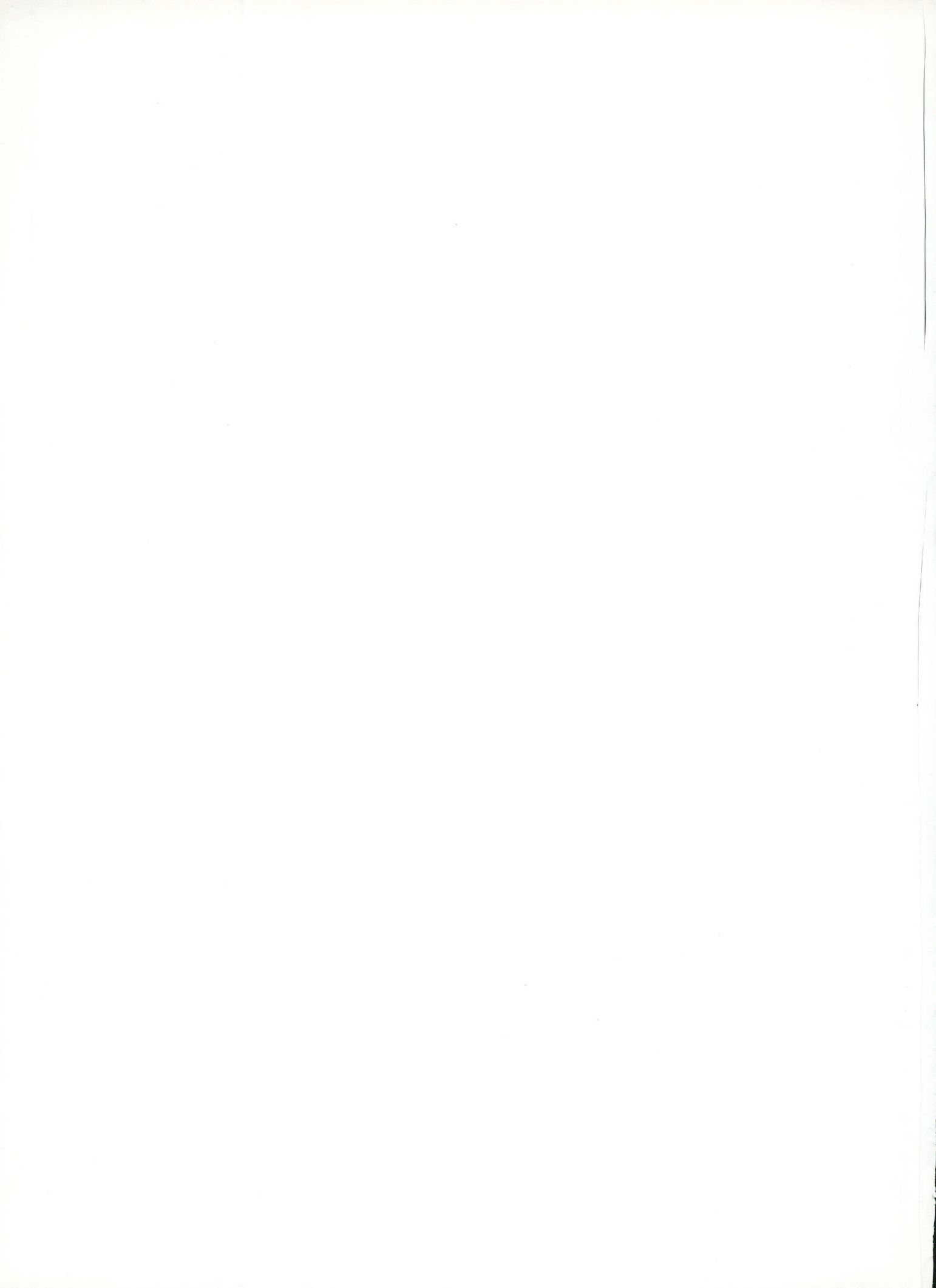
- Note: 1. Average weighted occupancy computed without minimum level is 81.58%. By using a minimum level of 90% for doing the projections, a more conservative estimate of beds required is obtained.

**SUMMARY FROM TABLE 37
NURSING/CUSTODIAL HOME BED GOALS FOR 1991**

1986			1991		Existing Non-Conforming Beds	
Licensed Beds	Beds In Plan Review	Beds Under Construction	Bounds	Total Projected Beds		Additional or (Excess) Beds
102,742	1,061	3,136	Upper:	111,493	4,554	9,810
			Lower:	89,774	(17,165)	

REFERENCES

- ¹Texas Department of Health, Bureau of Emergency Management, from a chart compiled by Dan Perales of the University of Texas Health Science Center at Houston, 1983.
- ²Compiled from Texas Vital Statistics 1984, pp. 15-28.
- ³Ibid.
- ⁴Texas Department of Health, Report EMS Patient Evacuation Study Committee, January 1986, p. 2.
- ⁵Ibid., p. 3.
- ⁶John G. West, et al., "Systems of Trauma Care: A Study of Two Counties," Archives of Surgery, 114 (April 1979): 455-460.
- ⁷Texas Vital Statistics, p. 28-9.
- ⁸West, "Systems of Trauma Care," p. 458.
- ⁹Meeting of the Texas Pediatric Society, Community Health Committee, at the Texas Department of Health on January 17, 1986.



NATIONAL HEALTH PRIORITIES*

As stated in Section 1502 of P.L. 93-641, the Congress finds that the following deserve priority consideration in the formulation of national health planning goals and in the development and operation of federal, state, and area health planning and resource development programs.

1. The provision of primary care services for medically underserved populations, especially those which are located in rural or economically depressed areas. (II; XIII; XIV; A VII; A VIII; A X; A XVIII)
2. The development of multi-institutional systems for coordination or consolidation of institutional health services (including obstetric, pediatric, emergency medical, intensive and coronary care, and radiation therapy services). (XVIII; A VII; A VIII; A XVIII)
3. The development of medical group practices (especially those whose services are appropriately coordinated or integrated with institutional health services), health maintenance organizations, and other organized systems for the provision of health care. (VIII; X; XIII)
4. The training and increased utilization of physician assistants, especially nurse clinicians. (A XIII; A XIV)
5. The development of multi-institutional arrangements for the sharing of support services necessary to all health service institutions. (A VIII)
6. The promotion of activities to achieve needed improvements in the quality of health services, including needs identified by the review activities of Professional Standards Review Organizations (now called Professional Review Organizations) under part B of Title XI of the Social Security Act. (IX; X; A X; A XIV)
7. The development by health service institutions of the capacity to provide various levels of care (including intensive care, acute, general care, and extended care) on a geographically integrated basis. (XVIII; A IX; A XVIII)
8. The promotion of activities for the prevention of disease, including studies of nutritional and environmental factors affecting health and the provision of preventive health care services. (IV; V; VI; XVI; A IV; A V; A XII)
9. The adoption of uniform cost accounting, simplified reimbursement, and utilization reporting systems and improved management procedures for health service institutions. (VIII; IX; A VIII)
10. The development of effective methods of educating the general public concerning proper personal (including preventive) health care and methods for effective use of available health services. (V; VI; XII; XVI; A V; A VI)
11. The promotion of an effective energy conservation and fuel efficiency program for health service institutions to reduce the rate of growth of demand for energy. (A XIII)
12. The identification and discontinuance of duplicative or unneeded services and facilities. (X; XIII; XVIII, A IX; A XVIII)
13. The adoption of policies which will (A) contain the rapidly rising costs of health care delivery, (B) insure more appropriate use of health care services, and (C) promote greater efficiency in the health care delivery system. (IX; X; XIII; XVII; A VIII; A IX; A X; A XII; A XVIII)
14. The elimination of inappropriate placement in institutions of persons with mental health problems and the improvement of the quality of care provided those with mental health problems for whom institutional care is appropriate. (XI)
15. Assurance of access to community mental health centers and other mental health care providers for needed mental health services to emphasize the provision of outpatient as a preferable alternative to inpatient mental health services. (XI)
16. The promotion of those health services which are provided in a manner cognizant of the emotional and psychological components of the prevention and treatment of illness and maintenance of health (VI; XII; A VI; AX)

*Numbers in parentheses refer to chapters in the State Health Plan where National Health Priorities are addressed. Numbers preceded by the letter "A" refer to chapters in Appendix A to the SHP.

17. The strengthening of competitive forces in the health services industry wherever competition and consumer choice can constructively serve to advance the purposes of quality assurance, cost effectiveness, and access. (VIII; XIII; A VIII; A XIII)

*Numbers in parentheses refer to chapters in the State Health Plan where National Health Priorities are addressed. Numbers preceded by the letter "A" refer to chapters in Appendix A to the SHP.





Texas Statewide Health Coordinating Council