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THE HEALTH AND HUMAN SERVICES PREVENTION PLAN

CHAPTER I: Definition of Prevention

For the purpose of this plan, prevention has been subdivided into primary, secondary and tertiary definitions. However, the major focus of the plan is directed at primary and secondary strategies. Definitions are as follows:

Primary Prevention - Actions taken to remove, diminish, or ameliorate the effects of conditions threatening to the well-being of people with the goal of reduced risk in the population.

Secondary Prevention - Actions taken at an early stage to diagnose and treat those individuals suffering the initial effects of threatening conditions with the goal of preventing further adverse effects.

Tertiary Prevention - Actions taken to correct and rehabilitate those individuals suffering severe and prolonged effects of threatening conditions with the goal of preventing more serious dysfunction.

CHAPTER II: Prevention Policy

The role of the State is to ensure that all South Carolinians have an equal opportunity to enjoy good health and social well-being within the parameters of each individual's innate potential. Prevention is an important element in this philosophy because:

a. Human suffering caused by disease and social disabilities can, in many instances, be avoided; and

b. It is, in many cases, more cost-effective, both in financial and human terms, to prevent a problem rather than provide ongoing treatment and remediation.

While the State cannot fully regulate the lifestyle of its citizens, it can safeguard them by providing opportunities such as education, both health and general, environmental protection, quality medical care, productive employment, consumer safety and education, and areas for public recreation. The State can provide prevention activities through motivation, incentive, regulation, and provision of opportunities or programs. In order to move the State more into the area of primary prevention, policy development is crucial so that decision making can grow from a logical and consistent basis rather than being a fragmented series of actions.

Every agency of government has a mission statement. All governmental agencies should have policies whereby the agency's missions are implemented. One of the components of the mission statement for all health and human service agencies should be aimed at preventing the condition which the agency has been established

to address; for example, primary prevention of alcohol and drug abuse rather than treatment, primary prevention of crime rather than treatment of offenders, etc. Prevention policy can be carried out through prioritizing prevention programs and activities. Heretofore, programs which were designed to address the problem once it has occurred have received the greatest priority. It is timely that as agencies and the state begin to examine more cost effective measures, emphasis in funding and program development begin to shift more in the direction of primary prevention.

There are six major strategies to turn prevention policy into action. These are:

1. Research - etiology of diseases/problems, i.e. research in behavior and motivation, development of screening devices and effective prevention techniques.

2. Public Awareness - effective dissemination of information through media campaigns and speakers' bureaus.

3. Legislation/Regulation/Enforcement - governmental actions to provide a legal/policy basis for specific prevention strategies (nonsmoking public areas, raising the purchase age for alcohol, hand gun legislation).

4. Education/Wellness Programs/Training - provided through community education, school based instruction, work site training, professional continuing education and family education.

5. Public/Private Sector Cooperation - coordination of prevention services designed for the same population or problem (i.e. Neighbor-

hood Crime Watch, hypertension screening, congregate eating, well baby services).

6. Increased Targeted Prevention Services - programs, strategies and activities to intervene in specific preventable problems (prenatal care, transportation for the elderly, school alcohol/drug prevention genetic counseling).

CHAPTER III: State Dollars Expended on Prevention Programs By Health and Human Service Agencies in FY 82-83

To help determine the relative priority of State funded prevention services in South Carolina, an examination was made of the amount of State dollars spent during FY 82-83 on prevention-type activities by South Carolina's health and human service agencies.

The policies and priorities of organizations and individuals can generally be determined by an examination of their allocation of resources. More financial resources are usually directed to those items considered to be highest in priority, and vice-versa.

METHODOLOGY

In an effort to produce timely data and prevent duplication of effort, A questionnaire was sent to numerous health and human service agencies, in 1983 served as the basis for a follow-up survey. Respondents were asked to update in greater detail the information previously given. Budget or program staff persons were asked to provide state funding break-outs for

each program listed. In addition, several agencies that had not been included in the previous survey were asked to respond to the question, "By program, what amount of state funds were expended on prevention-related activities by your agency during FY 82-83?"; and/or an examination was made of their agency's line item budget to determine expenditures for prevention.

For the purposes of this analysis, funds were included as "prevention-related" if the program was primarily focused on efforts to prevent problems, or on those problems which, if detected early, can be reversed, corrected or controlled. This definition often is used to describe primary and secondary prevention. Tertiary prevention services are those services which provide treatment or other activities to stop the progress or maintain the severity of a problem and were not included. It is acknowledged that the inclusion and/or exclusion of programs as "prevention-related" were accomplished through subjective decision making. However, it was determined that the purpose of this analysis was to provide an overview of the expenditures for prevention in the state, rather than provide a definitive analysis which accounted for every dollar.

Listed below are the South Carolina health and human services agencies involved in the survey:

Department of Health & Environmental Control
Department of Mental Health
Department of Mental Retardation
Department of Social Services
Department of Youth Services
Department of Corrections
Commission for the Blind
Medical University of S.C.
USC College of Medicine

Department of Education

Commission on Alcohol and Drug Abuse

Department of Vocational Rehabilitation

Commission on Aging

Governor's Office-Division of Highway Safety

School for the Deaf and Blind

It is important to point out that several state funded agencies not included in the survey do provide a significant portion of prevention related services in South Carolina. The State Library, South Carolina Educational Television and the Department of Parks, Recreation and Tourism each offers services that receive significant state funding and which are specifically related to prevention and/or wellness promotion. However, because this plan targets health and human service agencies, expenditures for prevention activities by these other agencies were not included in the funding analysis. Federal and local funds were not included in this analysis. While these funds constitute a substantial proportion of many agency budgets dedicated to prevention, the focus of this report is the allocation of state funds.

STATE HEALTH AND HUMAN SERVICE FUNDS ALLOCATED TO PREVENTION

A total of $52.4 million in state dollars was spent on prevention related services by health and human service agencies in South Carolina during FY 82-83. This represents only 4% of all state funding for these agencies. See Exhibit A.

The Department of Health and Environmental Control and the Commission on Alcohol and Drug Abuse provided the greatest proportion of their respective agency's state dollars on prevention activities. This is easily

understandable because the funding mandates and board policies of these agencies articulate prevention as a primary focus. On the other hand, both the Departments of Mental Health and Mental Retardation, although cognizant of the importance of prevention activities as evidenced by the expenditures of $6.2 million and $365,000, respectively, are mandated to provide treatment services for the mentally ill and mentally retarded. Treatment services are, by their very nature, often more costly than prevention activities.

The Department of Education expended over $18 million on prevention programs in FY 82-83. Of this total, it was estimated that about $14.8 million were allocated to the school districts for health instruction. See Exhibit B.

The expenditures of half a million dollars in state funds by the Department of Social Services included funds for the prevention-related services of Early and Periodic Screening Diagnosis and Treatment (EPSDT) and family planning counseling. The Department of Youth Services spent over $300,000 on prevention activities on the state, regional and local levels in FY 82-83. The Medical University of South Carolina and the USC College of Medicine each spent state dollars on prevention. Yet these funds accounted for only 0.14% and 4.8%, respectively, of each school's budget.

For a detailed description of the funding for prevention by agency included in the survey see Exhibit B. Exhibit C and D on the following pages graphically depict the amount of State dollars spent on prevention in FY 82-83 by health and human service agencies in South Carolina.

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< SOUTH CAROLINA >

9 ~~S.C.~~ HEALTH AND HUMAN SERVICE AGENCY FUNDS ALLOCATION TO PREVENTION[1]
FY 82-83

AGENCY	STATE DOLLARS ALLOCATED TO PREVENTION	% OF AGENCY'S TOTAL STATE DOLLARS[2]	% OF TOTAL STATE PREVENTION MONEY IN HEALTH AND HUMAN SERVICE AGENCIES
Dept. of Health & Environmental Control	$24,547,057	41.95%	46.82%
Department of Education	$18,317,493	2.37%	34.94%
Department of Mental Health	$ 6,266,000	7.58%	11.95%
Commission on Alcohol and Drug Abuse	$ 1,008,773	24.95%	1.92%
Department of Social Services	$ 562,656	.43%	1.07%
U.S.C. ~~Medical School~~ College of Medicine	$ 400,635	4.83%	.76%
Commission for Blind	$ 365,000	15.33%	.70%
Department of Mental Retardation	$ 355,581	.70%	.68%
Department of Youth Services	$ 300,467	1.65%	.57%
Governor's Office of Highway & Safety	$ 130,000	3.40%	.25%
Medical University of South Carolina	$ 100,000	.14%	.19%
Department of Corrections	$ 79,000	.14%	.15%
Department of Vocational Rehabilitation	$ -0-	-	-
School for the Deaf and Blind	-0-	-	-
Commission on Aging	-0-	-	-
TOTAL	$52,432,662	4.09%	100.0%

1. See previous dicussion for explanation of funds included as "prevention-related".
2. See Appendix A for the actual total figures for each agency's State dollars.

~~Chart~~ Exhibit A

LISTING OF STATE PREVENTION FUNDS BY HEALTH AND HUMAN SERVICE AGENCY
FY 82-83

DEPARTMENT	PREVENTION FUNDS	TOTAL	TOTAL STATE FUNDS	% AGENCY STATE FUNDS
S.C. Department of Health and Environmental Control				
Health Education	$ 54,150			
Chronic Disease Prevention and Detection	486,793			
Lead Poisoning	22,495			
TB Control-Outpatient Clinic	912,860			
Disease Surveillance and Investigation	288,986			
Maternal and Child Health Services	2,651,961			
Community Health Services	6,674,698			
Family Planning	2,017,021			
WIC	-0-			
Drug Control	285,492			
Environmental Sanitation	2,066,588			
Radiological Health	494,676			
Environmental Quality Control Management	501,119			
Air Quality Control	459,798			
Wastewater and Stream Quality Control	1,051,551			
Solid Waste	363,100			
Water Supply	295,384			
Shellfish Sanitation	56,574			
Recreational Water	169,378			
S.C. Rural Water and Sewage Grant	225,000			
District Services	1,903,813			
Analysis and Biological Services	248,920			
Community Health Services	3,316,700	$24,547,057	$ 58,521,202	41.95%
S.C. Department of Education				
Funds for the Instruction of School Health Education and Text Books*	$ 14,898,754			
Parent Education Programs	327,899			
Child Development Centers	3,090,840	$18,317,493	$774,194,725	2.37%
S.C. Department of Mental Health				
Estimated expenditures for FY 81-82 (latest data available) Includes funding for Children's Services, Genetic Counseling, Office of Youth Services and Office of Prevention	$ 6,266,000	$ 6,266,000	$ 82,691,543	7.58%
S.C. Commission on Alcohol and Drug Abuse				
Prevention/Education	$ 109,974			
School Intervention Program	508,000			
Alcohol and Drug Safety Action Program	292,342			
Offender Based Intervention	98,457	$ 1,008,773	$ 4,042,394	24.95%
S.C. Department of Social Services				
EPSDT (Early, Periodic Screening, Detection Treatment)	$ 326,644			
Family Planning Counseling	236,012	$ 562,656	$130,851,810	.43%
University of South Carolina ~~Medical School~~ College of Medicine				
Preventive Medicine Department	$ 400,635	$ 400,635	$ 8,289,596	4.83%

* This amount was generated by the SDE by multiplying EFA funds by the appropriate percentage of time which is to be spent on health instruction.

Exhibit B

DEPARTMENT	PREVENTION FUNDS	TOTAL	TOTAL STATE FUNDS	% AGENCY'S STATE FUNDS
S.C. Commission for the Blind				
Prevention Services	$ 365,000			
		$ 365,000	$ 2,381,588	15.33%
S.C. Department of Mental Retardation				
Greenwood Genetics	$ 250,725			
S.C. Department of Mental Retardation Counselors	41,706			
S.C. Department of Mental Retardation Outreach	22,064			
S.C. Department of Mental Retardation Pee Dee Region/ McLeod Hospital Program	5,677			
S.C. Department of Mental Retardation Coastal Region Parent Tape Program	35,409			
		$ 355,581	$ 51,560,575	.70%
S.C. Department of Youth Services				
Direct and Indirect cost of prevention staff at state, regional and local levels	$ 300,467			
		$ 300,467	$ 18,241,095	1.65%
Medical University of South Carolina				
Cardiac Prevention and Rehabilitation Program	$ 100,000			
		$ 100,000	$ 72,220,101	.14%
Governor's Office of Highway Safety (Executive Office of Policy and Programs)				
Program Staff for Prevention (estimated)	$ 130,000			
		$ 130,000	$ 3,737,582	3.4%
S.C. Department of Corrections				
Project Get Smart	$ 79,000			
		$ 79,000	$ 56,692,228	.14%
S.C. Department of Vocational Rehabilitation				
Respondent to DD questionnaire stated no prevention expenditures	-0-			
		-0-	$ 11,312,405	0%
S.C. School for the Deaf and Blind				
School provides residential and day classes for affected clients (no primary/secondary prevention)	-0-			
		-0-	$ 7,043,524	0%
S.C. Commission on Aging				
No State monies expended (Federal funds are utilized for prevention activities)	-0-			
		-0-	$ 1,315,517	0%
TOTAL - ALL	$ 52,432,662	$52,432,662	$1,283,095,945	4.09%

Exhibit B

CHART B

State PREVENTION FUNDS BY HEALTH AND HUMAN SERVICE AGENCY
FY82-83

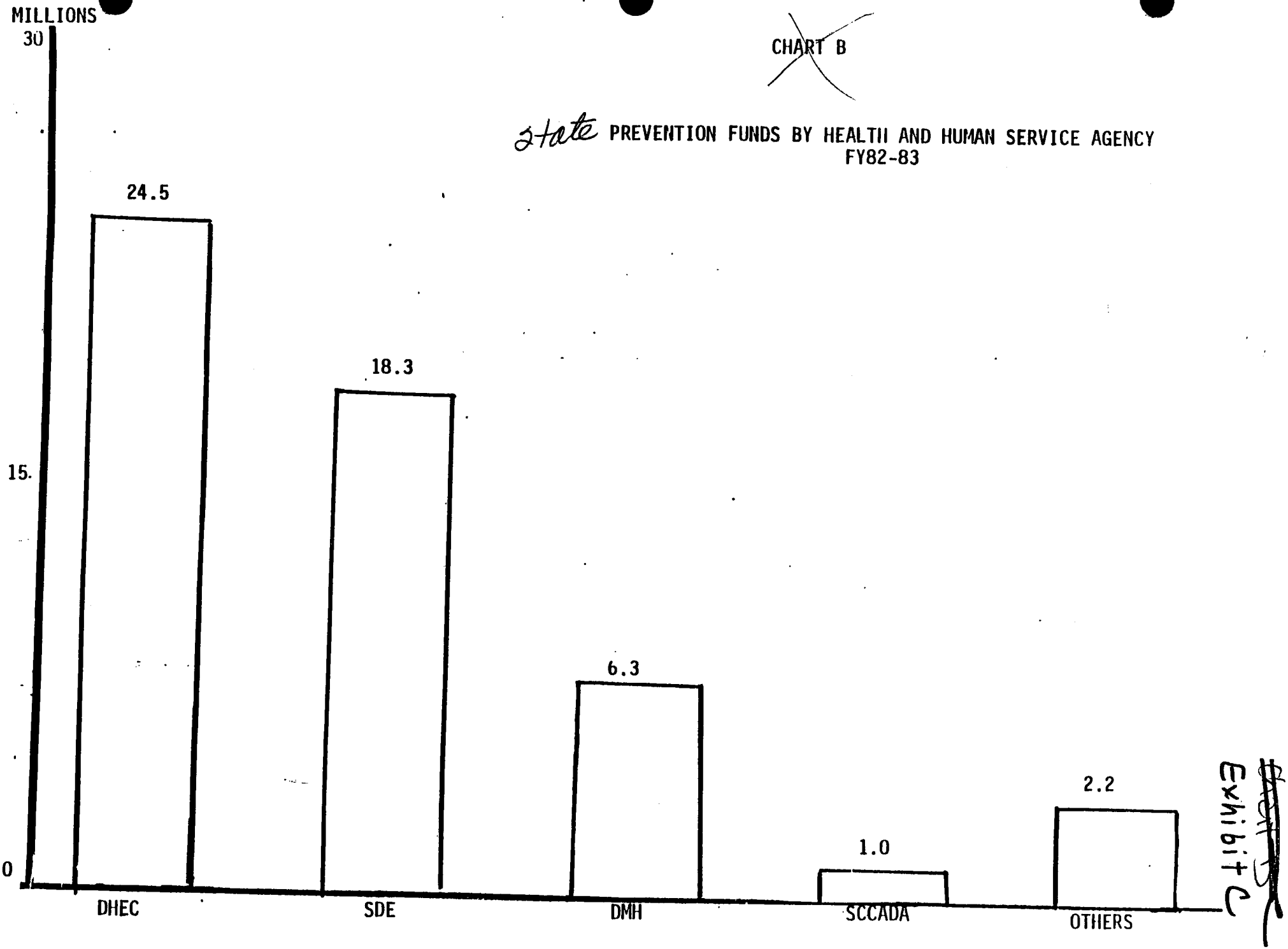
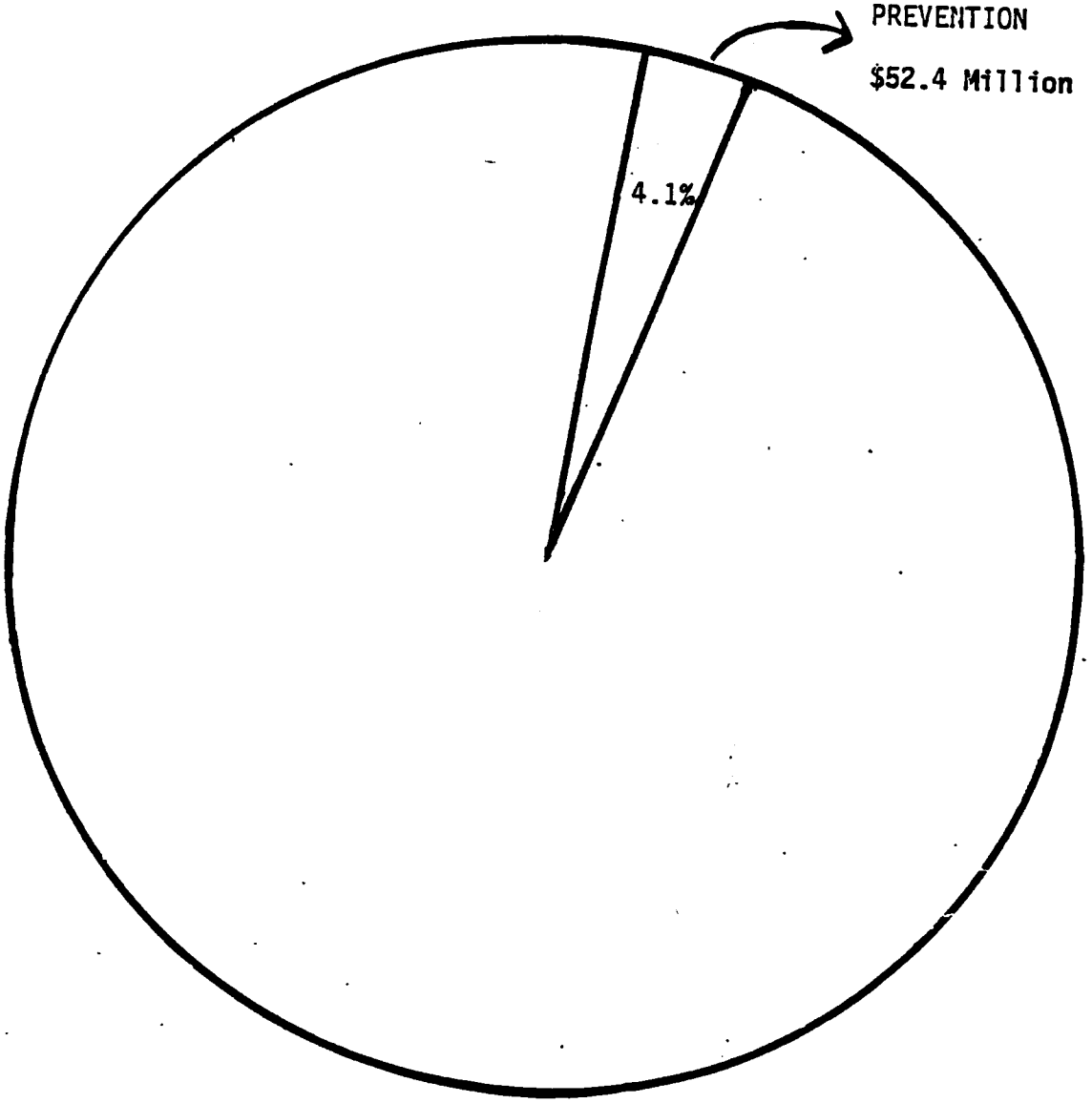


Exhibit C

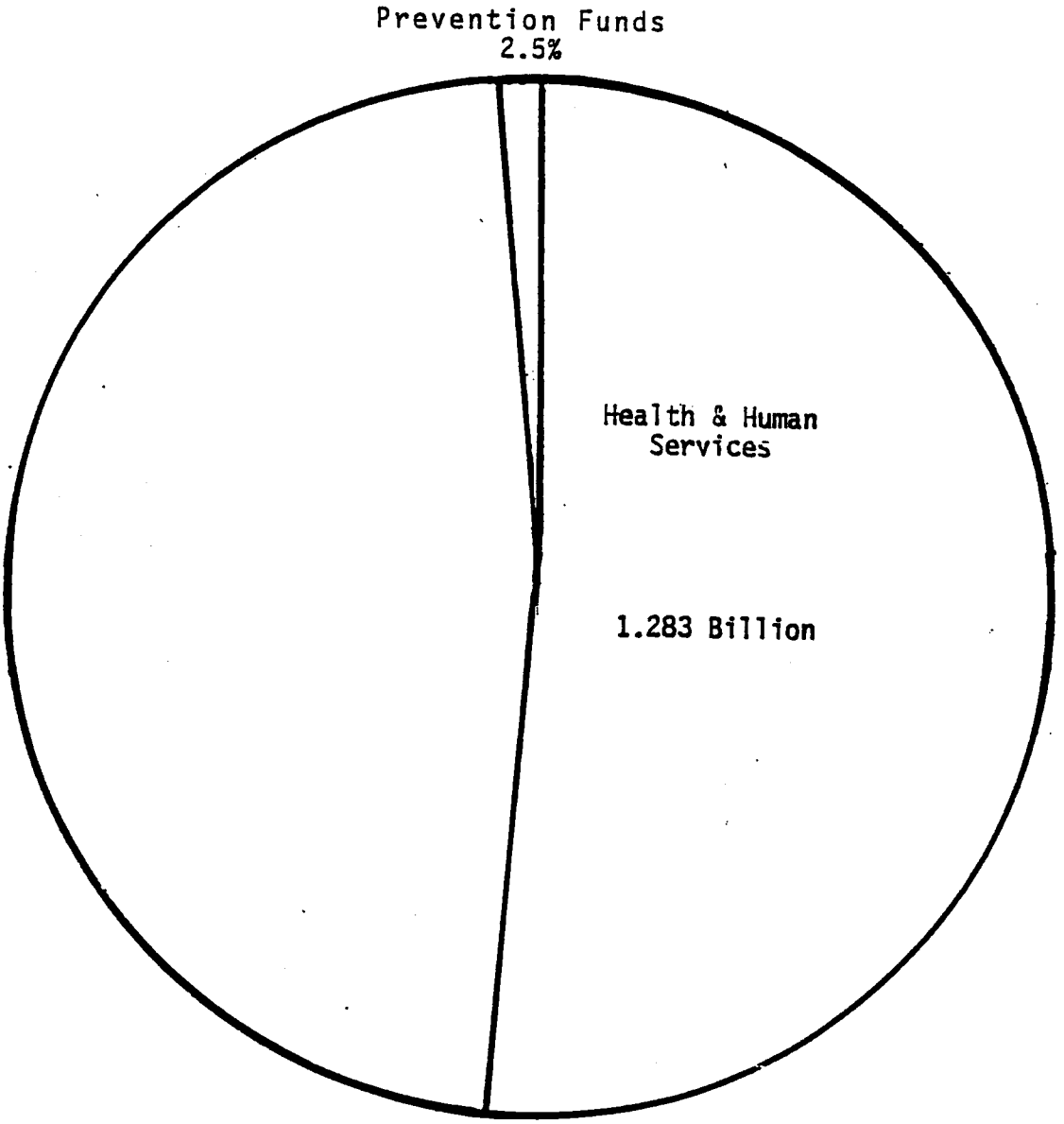
-5-

~~CHART C~~
Exhibit D



STATE FUNDS ALLOCATED TO HEALTH AND HUMAN SERVICE AGENCIES FY82-83

~~CHART D~~
Exhibit E



ALL STATE FUNDS EXPENDED DURING FY82-83

COMPARISON OF PREVENTION FUNDS TO TOTAL STATE DOLLAR EXPENDITURES FY 82-83

Although it is universally agreed that funds should be directed towards such budget items as educational programs, highway systems and correctional institutions, the proportion spent on "prevention" appears to be minimal in comparison. Again, reflecting on the assumption that if one is to view an organizations's policies and priorities by its allocation of resources, it becomes evident that policy-makers in South Carolina have ranked prevention related programs cumulatively low on the State's scale of importance. Prevention-related expenditures by health and human service agencies in FY 82-83 only comprised 2.56% of the state's total outlay of "General" funds. Exhibit E illustrates the proportion of prevention expenditures compared to total state dollar expenditures.

SUMMARY OF SIGNIFICANT FINDINGS

Listed below are the most salient points identified in the analysis of prevention funds in South Carolina:

- Prevention-related expenditures constituted only 4% of the total amount of State dollars spent on health and human services in South Carolina during FY 82-83.

- Although over $52 million were spent on prevention services by health and human service agencies, this was only 2.56% of the total state dollars expended in FY 82-83.

- The Department of Health and Environmental Control and Commission on Alcohol and Drug Abuse contributed the greatest proportion of their agency's State dollars to prevention services, 41.6% and 25.0% respectively.

- Although the Department of Education allocated over $14.8 million to school districts for health instruction, this represented only 2.3% of the agency's total state budget.

- The medical schools in South Carolina provided a total of $500,635, or less than 1%, for prevention-related programs. Yet, the combined state dollars budgets of these institutions is over $80.5 million.

- Although the Department of Mental Health spent $6.2 million on prevention-related programs, this comprised only 7.6% of the agency's total state dollars.

In conclusion, the outlay of $52 million for prevention activities is significant. Although this is a substantial amount of resources when compared to the state's total expenditures, this is a very small amount spent to prevent problems which, if left untouched, progress to problems requiring treatment, maintenance, or institutionalization, all of which are much more costly to the state.

CHAPTER IV: State of the Art

Since the turn of the century, governmental approaches to health and social problems have resulted in the proliferation of social programs. These programs, both governmental and private sector, have become so costly that officials have had to step back and evaluate the health and human service delivery system. This posture has been assumed at both the national and state levels and has led officials to consider prevention as a worthwhile avenue of pursuit.

Historically, the approach to social problems began with emphasis on pre-determination - the individual was somehow predestined to his position in life and could neither be cured nor rehabilitated. This stance changed as a result of the industrial revolution and demographic shifts from an agrarian to an urban culture with greater emphasis placed on environmental causes of social problems. This was the backdrop for the development of social programs during the Great Society of the Sixties. Currently the state of the art has reached an amalgamation of the two philosophical stances with emphasis both on the environment and the ability of the individual to affect his destiny through behavioral choices and lifestyle. As a result, prevention is two-tiered, both environmental (physical, social legislative) and individual.

Development of prevention technology is uneven across areas. While some problems, such as public health problems, lend themselves more evenly to measurement, it is extremely difficult to measure the efficacy of prevention strategies. Data which would enable measurement of development of prevention programs are often nonexistent due to underreporting of incidents or the fact that data are not collected. This deficiency was noted as an obstacle to the development of this report.

CHAPTER V: Executive Summary

Since the late seventies, there has been increasing activity in primary prevention in South Carolina. State agencies and the private sector have independently and collectively endeavored to develop and meet prevention goals through increased primary prevention programming. The South Carolina Primary Prevention Council, a voluntary organization of state and private agencies, has been empowered by the Governor through Executive Order to develop a plan which would further the development of primary prevention priorities in the State.

The framework chosen for this report was based on the health model developed by the Canadian Ministry of Health and Welfare in which prevention problems are analyzed based on contributing factors categorized as: environment, lifestyle, technology and human biology. A description of these categories follows:

ENVIRONMENT: Events and processes external to the individual and over which the individual has little or no control. This includes riks associated with the individual's physical, social, and psychological environment.

HUMAN BIOLOGY: Events and processes internal to the individual and over which the individual has little or no control. This includes risks associated with the basic biology of man and/or the organic make-up of the individual.

LIFESTYLE: Decisions and actions by individuals which are personal choice behaviors and over which the individual (more or less) has control. This includes risks associated with leisure activity, consumption patterns, employment, and other relevant knowledge, skills, and attitudes.

TECHNOLOGY: Decisions and actions by service providers which affect individuals and which require only consent or minimal cooperation of the individuals affected. This includes risks associated with the availability, accessibility, and quality of preventive, restorative/rehabilitative, and curative services.

OUTCOME: The level to which a problem is expected to be reduced within a specified time period

IDENTIFICATION OF MAJOR HEALTH AND HUMAN SERVICE PREVENTION PROBLEMS

The South Carolina Primary Prevention Council designated a committee which identified eight major prevention areas through a nominal group process. These areas are:

- accidents
- adult care
- abuse and neglect
- alcohol
- drugs and tobacco
- child care
- abuse and neglect
- chronic disease
- crime and delinquency
- mental health
- perinatal mortality and morbidity

MAJOR FINDINGS

Committees found that the eight major prevention areas shared some common contributing factors. In order of contribution, these were: alcohol and drug abuse, lack of primary prevention services for targeted groups, smoking, domestic and family violence, lack of resources for parents in conflict, nutrition, lack of knowledge/information, lack of regulation and enforcement, inadequacy of coping/stress, genetic factors and environmental factors.

Committee findings suggest that the most effective way to target prevention activities would be in efforts that increase knowledge through Education/ Wellness Programs/Training. According to the committees, government activities could play a major role in prevention through legislation and regulation. The following chart cites the frequency with which the various prevention strategies were noted in this plan.

Prevention Strategy	Frequency of Identification	Number of Problem Areas Addressed
Education/Wellness Programs Training	58	8
Legislation	31	8
Public Awareness	30	7
Public/Private Sector Cooperation	23	6
Targeted Professional Services	23	6
Research	10	4

Specific strategy recommendations may be found in the body of the subcommittee reports.

Monitoring Implementation of Recommended Actions and Development of Prevention Activities

In July 1985, the Governor should convene a task force which would develop and implement a survey to assess the progress of the recommended prevention strategies as stated in this plan. This committee should also be responsible for development of an Action Plan for future prevention activities as recommended. The results should be presented to the Governor in January 1986.

In late spring 1984, the South Carolina Primary Prevention Council will sponsor a conference which will, in part, address implementation of the prevention stages recommended herein. These recommendations will be forwarded to the task force when it is convened, for consideration

PREVENTION PROBLEMS, CONTRIBUTING FACTORS, AND PREVENTION STRATEGIES

PROBLEMS	CONTRIBUTING FACTORS	STRATEGIES: RESEARCH	PUBLIC AWARENESS	LEGISLATION REGULATION ENFORCEMENT	EDUCATION WELLNESS TRAINING	PUBLIC/ PRIVATE COOPERATION	INCREASED TARGETED PREVENTION SERVICES
Accidents	Sidewalks, streets, building design/construction			X	X		
	Aging Process		X	X	X		
	Substance Abuse			X	X		
	Distractions				X		
	Weather				X		
	Illness		X		X		
Adult Care, Abuse & Neglect	Lack of nutritional skills among young adults				X		
	Alcohol motor vehicle accidents among young adults		X	X	X		
	Use of tobacco by young adults		X	X	X		
	Domestic violence among middle aged adults			X	X	X	
	Job loss/career change among middle aged adults			X	X	X	
	Lack of support services for elderly adults	X	X	X	X	X	X
Child Care, Abuse & Neglect	Substance abuse		X	X	X	X	
	Family violence		X		X	X	X
	Inadequate parenting		X	X	X	X	X
	Economic stress			X	X	X	
	Inadequate system of education		X	X	X		
	Availability & regulation of child care		X	X	X	X	
Chronic Disease	Improper diet/malnutrition				X		
	Sedentary life-style				X		
	Stress, inadequate coping				X		
	Smoking		X	X	X		
	Alcohol abuse				X		
	Genetic inheritance	X					X
	Lack of early identification		X				X
	Lack of knowledge	X					
	Behavior/maturation						
	Disease	X					
	Patient				X		
	Professional				X		
	Community				X		
Mental Health	Lack of genetic intervention in mental health	X	X	X	X		X
	Lack of family intervention with chronically mentally ill	X	X	X	X	X	X
	Lack of public education Mental health, mental illness & treatment resources	X	X	X	X		X
	Teenage suicide	X	X	X	X	X	

PREVENTION PROBLEMS, CONTRIBUTING FACTORS, AND PREVENTION STRATEGIES

PROBLEMS	CONTRIBUTING FACTORS	STRATEGIES: RESEARCH	PUBLIC AWARENESS	LEGISLATION REGULATION ENFORCEMENT	EDUCATION WELLNESS TRAINING	PUBLIC/ PRIVATE COOPERATION	INCREASED TARGETED PREVENTION SERVICES
Perinatal Mortality & Morbidity	Low birth weight		X		X	X	X
	Smoking		X		X		
	Poor nutrition		X		X		X
	Teen pregnancy		X		X	X	X
	Environmental factors				X		
	Substance abuse		X		X		
	Pregnancy interval less than one year		X				
	Genetic factors		X	X	X	X	X
	Inadequate prenatal care		X	X	X	X	X
	High risk birth in hospital not prepared		X	X	X	X	X
	Disruptive bonding				X	X	X
	Less than optimal day care		X	X	X	X	X
	Lead poisoning				X		X
	Lack of programs for early detection of DD				X		X
	Lack of DD therapy				X		X
	Unsuitable home setting		X		X	X	X
	Failure of health setting to provide anticipatory guidance		X	X			X
	Deficiency of data			X		X	
Crime & Delinquency	Substance abuse				X		
	Lack of cognitive & social skills				X		
	Lack of parenting skills			X	X		
	Lack of resources for parents in conflict				X		
	Lack of basic job skills, habits & employment opportunities				X		
	Lack of appropriate use of leisure activities/resources & peer group				X		
	Lack of attachment & commitment to education				X		
	Lack of ethics concerning illegal activities			X	X	X	
	Lack of registration of hand guns			X			
Substance Abuse	DUI	X	X	X	X		X
	Availability of substances			X		X	X
	Children of addicted parents	X	X		X		
	High risk populations		X		X	X	
	A. Women						
	B. Teens			X	X		X
	C. Elderly			X	X		X

CHAPTER VI: ACCIDENTS

SUMMARY REPORT

PROBLEM

Accidents are the fourth leading cause of death in South Carolina, accounting for 6.7% of the total deaths in the state in 1981. The principal causes of disability and death from injury are motor vehicles, falls and burns/fires. Based upon prevalence, severity and effectiveness of intervention, these are the areas studied in the Plan.

CONTRIBUTING FACTORS

The aging process and design/construction of sidewalks, streets and buildings were contributing factors in all accident areas studied. Distractions, alcohol/drugs, weather and illness were contributing factors in two of the three areas addressed. Other contributing factors are outlined within the body of the Plan. Table 1 provides an overview of identified contributing factors relevant to accidents.

STRATEGIES

Educational programs, public awareness and regulations were major intervention strategies identified for the area of fires, falls and motor vehicles. Table 2 provides a breakdown of strategies by areas. The accident prevention plan provides a detailed discussion of contributing factors, strategies and outcome measures for all areas addressed.

DATA

A problem with prioritizing accident areas was the need for better data to profile the current status and measure progress in accomplishing objectives. There is currently great variability in the depth and reliability of some accident data; in some instances no data existed to determine the problem.

TABLE 1

ACCIDENT PREVENTION PLAN
CONTRIBUTING FACTORS

CONTRIBUTING FACTORS	AREAS		
	MOTOR VEHICLES	FALLS	FIRES AND BURNS
TECHNOLOGY			
Design/construction of sidewalks, streets, buildings	X	X	X
Flammable Fabrics			X
Car Design	X		
LIFESTYLE			
Alcohol & Drug Abuse	X	X	
Distractions	X	X	
Smoking			X
Don't use restraint devices	X		
Speeding	X		
2-wheel vehicles	X		
Alternate heat sources			X
Overloading circuits			X
Material around heat sources			X
Unattended food preparation			X
Wearing apparel		X	
ENVIRONMENT			
Weather	X	X	
Pedestrians	X		
Sidewalk/street maintenance		X	
Poor lighting		X	
Slippery floors		X	
HUMAN BIOLOGY			
Aging process	X	X	X
Fatigue	X		
Illness	X	X	
Poor vision		X	

TABLE 2

ACCIDENT PREVENTION PLAN

TRAFFIC ACCIDENTS

Problem Status

South Carolina currently has eight areas of primary concern which deal with the prevention of traffic accidents. These areas include the following:

Alcohol Countermeasures - The enforcement, adjudication, education and system improvements necessary to impact the largest single highway safety program.

Occupant Restraints - Increase usage of safety belts and child restraints for the reduction of fatalities and severity of injuries from vehicle crashes.

Police Traffic Services - The enforcement necessary to directly impact traffic crashes, fatalities, and injuries.

Traffic Records - The collection, analysis and dissemination of accident data to increase the capability for identifying and alleviating highway safety problems.

Safety Construction and Operational Improvements - The professional and technical engineering services for the improvement of the roadway system in order to reduce the incidence of accidents.

School Bus Driver Training - Providing additional behind-the-wheel instruction or other training to reduce the number of school bus accidents.

Two Wheel Countermeasures - Operator licensing and rider education and training to reduce the number and severity of motorcycle/moped and bicycle accidents.

Pedestrian Safety - The enforcement of safe pedestrian procedures and education of pedestrian and motorist to the dangers of unsafe procedures and the benefits of safe operational procedures.

Within these emphasis areas, there are many preventive programs which are federally, locally, and state funded, for example: Selective Alcohol Enforcement, 55 National Maximum Speed Limit Enforcement, and Infant/Child Restraint programs.

The effectiveness of the programs ongoing within these areas of emphasis can best be measured by increases or decreases in accidents as reflected by South Carolina statistical data obtained from 1980 to 1982.

	1980	1981	1982
All Traffic Accidents	91,016	88,425	88,798
Traffic Deaths	859	846	730
Traffic Injuries	22,599	22,355	23,019
Mileage Death Rate*	3.8	3.7	3.0
Vehicle Miles of Travel	22,658,000,000	23,056,000,000	24,222,000,000
Estimated Economic Loss	$340,000,000	$365,000,000	$380,000,000
Alcohol Related Accidents	11,039	11,446	9,138
Victim Restraint Utilization**	3.4%	3.2%	2.3%
Speeding Citations Issued	234,969	217,017	195,453
DUI Convictions	2,760	3,465	3,601
School Bus Accidents	909	774	747
Motorcycle Accidents	1,764	1,934	2,019
Bicycle Accidents	1,025	1,047	1,070
Moped Accidents	213	256	255
Pedestrian Accidents	1,170	1,201	1,189

*Deaths Per 100 Million Vehicle Miles of Travel
**Injured or Killed Victim Only

Certain programs currently being conducted within some of the emphasis areas do not have a direct impact on the traffic accident situation in South Carolina thus, they cannot be accurately measured by the analysis of statistical data. It is apparent that many traffic safety programs have made substantial contributions towards traffic accident prevention as evidenced by reductions in certain areas. However, other areas have not improved and countermeasures are much needed.

Contributing Factors

Technology: (20%)

Road Character and Design

Car Design

Lack of Computerized Data

Lifestyle: (70%)

Alcohol and Drug Use

Failure to Use Restraint Devices

Speeding

Distractions

2-Wheel Vehicles

Environment: (9%)

Inclement Conditions

Pedestrians

Biology: (1%)

Illness

Age

Fatigue

Prevention Strategies

Technology:

1. Channel of dollars for road improvements
2. Availability of bike lanes
3. Increase engineering training
4. Improve railroad markings
5. Need for air bags and passive restraints
6. Increase dollars for more extensive accident information to apply countermeasures

Lifestyle

1. Enforcement (driving under the influence, alcohol sales to minors, etc.)
2. Education on alcohol and drug use
3. Legislation on alcohol and drug use
4. Education - increase awareness of restraint devices

5. Legislation - restraining children
6. Passives restraint systems
7. Availability of air bag option
8. Enforcement of speeding laws
9. Education - outcome of accidents involving speed
10. Avoid eating, drinking, smoking, and overcrowded cars
11. Improve attention to good driving habits (Defensive Driving Course)
12. Moped legislation
13. Legislation to reinstate use of motorcycle helmets
14. Education for 2-wheel safety

Environment

1. Education - adjust driving to weather conditions
2. Education - for pedestrian and driver
3. Increase enforcement in school zones

Human Biology

1. Control use of medication while driving
2. Education - effects of medication and debilitating illnesses
3. Driver testing
4. Education - don't drive while tired

Outcomes

Traffic accidents are a leading cause of injury and death in South Carolina. It is expected that a 10% decrease in deaths/injuries associated with traffic accidents could conceivable be realized by 1987 if the strategies addressed in this study are implemented. Increased emphasis needs to be placed on new legis-

lation, stricter enforcement of existing traffic laws, and increased for all traffic related programs to allow for more data and manpower for enforcement and education.

Technology:

1. By 1987 increase amount of financial support by 5% for computerized accident data on file.

2. By 1987 decrease in hazardous road conditions by 5%.

3. By 1987 decrease bicycle/automobile conflict by increasing availability of bike lanes by 5%.

4. By 1987 increased training of engineers for improved road design by 10%.

5. By 1987 decreased train/automobile accidents by 5%.

6. By 1987 increase in number of cars equipped with air bags/passive restraints by pressing for enactment of for improve standards for automotive manufacturers.

Lifestyle:

1. By 1987 decrease the number of accidents in which alcohol/drug, speeding, failure to use restraint devices, and distractions were contributing factors by 10%.

2. By 1987 decrease the number of 2-wheel accidents by 10%.

3. By 1987 increase the number of driving under the influence convictions and speeding citations by 15%.

4. By 1987 decrease the injuries/fatalities through enactment of legislation requiring helmet usage by 20%.

Environment:

1. Decrease by 5% accidents resulting from inclement weather by 1987.
2. Decrease by 5% the number of pedestrian injuries/fatalities by 1987.
3. Increase by 25% the number of cases made for violations in school zones. 25%

Human Biology:

1. Decrease by 5% the number of elderly people involved in accidents by 1987.
2. Decrease by 10% the number of accidents that are fatigue or medication induced by 1876.

FIRES AND BURNS

Problem Status

At this time in South Carolina, there are no strategies which, if replicated, can be guaranteed to result in a reduction of morbidity and motality from fire and burns. Though a variety of counter-measures have been launched in the areas of public education, regulation, enforcement and technological change, few programs have had an accompanying evaluation component to document the effects of the intervention on the incidence and severity of fires and burns.

There are relatively fewer deaths and injuries from fire and burns than other causes, but numbers along cannot describe the impact of the burn problem. Medical experts agree that a severe burn is the most devastating injury a human being can sustain and survive.

A severe burn is a personal, familial, and communal catastrophe. For the victim who survives, the consequences of a non-fatal severe burn include extended and painful hospitalization, the financial burden of catastrophic illness, disfigurement, possible disability, and repeated hospitalizations for surgery to correct dysfunction.

Injuries, like diseases, do not occur at random. Certain population groups are at increased risk due to either greater exposure to hazards, decreased ability to avoid hazards, decreased resistance to injury, or reduced likelihood of survival once injured. Among the high-risk groups are infants, the elderly, males, workers in hazardous jobs, people of low socioeconomic status, and people with alcohol problems. Whether for maturational, economic, psychological, or other reasons, members of most high-risk groups tend to be harder to influence with approaches that require changes in individual behavior in order to prevent

injury. Programs intended to change alcohol-related behaviors have generally not produced sustained reductions in deaths. And not only are young children hard to influence, but intensive efforts at a well-baby clinic had no effect on dangerous parental behavior such as leaving matches in reach of small children.

The role of education in reducing injuries includes the education of teachers and decision makers, such as legislators and manufacturers, and the development of widespread understanding of issues, problems and solutions so that there will be public demand and support for relevant laws, programs, and policies. Also important is providing people with information that will be used in the event of an emergency, such as how to escape a fire and perform cardiopulmonary resusitation.

Unfortunately, educational approaches whose success depends on convincing people to do something that requires frequent action, like wearing a seatbelt, typically have had little or no effect. In part, this is because injuries usually result not from lack of knowledge on the part of the injured person, but from failure to apply what is known. This is true of the individuals who may be injured such as the person who knows he should wear a seatbelt, or the mother who knows she should keep her child away from the stove, as well as for the decision makers who determine the probability of injury for others. These decision makers include manufacturers who should realize that their products will be used by less than perfect people, and should design the products so as to minimize the likelihood of injury.

Because people whose behavior is especially hard to influence tend to predominate among the injured, attempts to change individual behavior must be balanced with changes in the man-made environment that will protect everyone. Such

automatic (passive) protection, now taken for granted in insulated hand tools, safety glazing materials and household fuses, is gradually gaining recognition in other realms because of its unmatched potential for prevention deaths and injuries.

Successful injury control requires a mixture of strategies. Their choice should not be determined by the relative importance of casual or contributing factors or by their earliness in the sequence of events. Rather, priority and emphasis should be given to measures that will most effectively reduce injury losses.

Contributing Factors

Technology: (30%)

1. Building Codes
2. Flammable Fabrics

Lifestyle: (60%)

1. Careless Smoking
2. Alternative Heat Sources
3. Overloading of Appliances and Electrical Circuits
4. Material Around Heat Sources
5. Unattended Food Preparation

Environment: N/A

Biology: (10%)

1. Personal Impairment and Limitations

Prevention Strategies

Technology:

1. Develop incentives to encourage modifications of old buildings to comply with current requirements.
2. Mandate smoke detectors on all public and private buildings.
3. Require fire retardant fabrics in all public buildings, all manufactured housing and private dwellings using federal or state funding or mortgage sources.

Lifestyle:

1. Integrating fire and burn safety education into grades kindergarten through 12 curriculum; educating architects and building contractors, and related health professionals in fire safety; and safety and first aid training for health professionals and public.

2. Introduce legislative and regulatory measures regarding self-extinguishing matches and cigarettes, smoke detectors, space heaters, and ground fault interrupters.

Human Biology:

1. Increase the number of households that have an alarm system and fire evacuation plan.

2. Increase through public awareness the location system for small children, elderly persons and invalids who may need assistance in times of fires.

3. Publicize Operation EDITH (Early Detection in the Homes) throughout school systems, citizens watch communities, civic organizations, and mass media.

Outcomes

The South Carolina rate of 59.4 deaths per million ranks sixth highest of the rates for individual states. However, numbers alone cannot describe the impact of the burn problem. Medical experts agree that a severe burn is the most devastating injury a human being can sustain and survive. It is expected that a 15 percent decrease in number of deaths/injuries associated in the study are

implemented. financial support is critical for the success of this program. The objective must be allowed to continue for a long enough period of time to effect a change. The reduction in a public health problem takes time, and quick, short-lived programs are unlikely to show a difference.

Technology:

1. By 1985, an incentative program will be developed to modify old buildings to conform to new building codes.

2. By 1985, Legislation shall be introduced mandating smoke detections in all public and private buildings that are open to the general public.

3. By 1986, legislate fire retardant fabrics and flame resistant materials to be used in all public buildings, manufactured housings, and private dwellings using federal or state funding for mortgage.

Lifestyle:

1. Develop educational programs on fire safety education as required by statute, and present to 25 percent of the school children in South Carolina by 1987.
2. By 1985, introduce Legislation in above cited areas through appropriate channels for implementation.

Environment:

Not applicable

Human Biology:

1. By 1987, increase the number of households that have an alarm system and fire evacuation plan by 20 percent.

2. By 1987, increase through public awareness the location system for use with small children, elderly persons, and invalids who may need assistance in times of fires by 15 percent.

3. By 1986, publicize Operation EDITH (Early Detection in the Home) throughout school systems, citizens watch communities, civic organizations, and mass media.

FALLS

Problem Status

Accidents rank fourth as the leading cause of death in South Carolina. The subcategory of falls is the third leading cause of residential deaths with 145 deaths in 1980, up from 133 deaths in 1979. Most of these deaths occur from age 20 with the majority occurring from age 55 and above. Fifty-seven percent of all falls involve persons age 75 and over. Falls lead the number of fatal accidents with 21 in the industrial setting and falls rank third in the number of farm accidents with 19. Fifty percent of deaths from falls occur in the home.

Statewide, South Carolina has very few prevention programs specifically targeted to the prevention of falls. These programs are mainly designed and conducted for purposes of education and awareness in the major area of prevention of accidents. The effectiveness of these programs in the prevention of falls has had little affect, if any, as illustrated by the rising increase of deaths as a result of a fall.

Presently these programs are: the South Carolina Department of Education, which has developed a curriculum guide for grades K-12 entitled Handbook for Safety Education. This guide is developed in two sections -- elementary and secondary. The elementary section addresses accident prevention in a broad topic and does not specifically address falls and the secondary section only addresses falls in reference to sport safety.

In higher education, the American Red Cross provides first aid and personal safety courses for college age students. These courses only give a cursory look at falls in the curriculum.

The South Carolina Department of Health and Environmental Control recently completed a project in Three Rivers HSA designed specifically for the elderly and the prevention of falls.

The S.C. Safety Council provides literature on health safety that looks at fall prevention.

In South Carolina, community groups have also conducted accident prevention programs but, again, none have addressed falls particularly. In spite of the seriousness of this situation, there probably has been less constructive programming done on a prevention of falls than on any other type of accident prevention. With this in mind, it is apparent that present and future programs must address the accident area of falls through specific strategies which are needed.

Contributing Factors

Technology: (20%)

1. Stairs
2. Sidewalk and street construction

Lifestyle: (40%)

1. Alcohol use and abuse
2. Drug use and abuse
3. Dress and footwear
4. Unsafe actions - hurrying, distractions

Environment: (30%)

1. Sidewalk and street maintenance
2. Weather
3. Poor lighting - night and darkness
4. Slippery floors

Biology: (10%)

1. Aging process
2. Vision
3. Illness and/or disabilities

Prevention Strategies

Technology:

1. Increase the frequency of onsite inspections by the appropriate regulatory authorities on new construction - particularly sidewalks, streets, and stairs by 10%.

2. Increase the number of education programs for all age groups on the hazards of poorly constructed streets, sidewalks and stairs by 1987.

3. Increase awareness of existing public reporting programs about improper construction of sidewalks, streets and stairs by 1987.

Lifestyle:

1. In the development of future drug and alcohol education programs, include a unit specifically addressing the hazards of falls and how it relates to alcohol and drug use and abuse. This unit should be a part of currently offered education programs by 1987. The availability of these programs should be publicized to appropriate agencies and organizations.

2. Development of an education program by 1987 for all age groups on the importance of proper dress and footwear to avoid falls. The availability of this program should be publicized to appropriate organizations and agencies.

3. Development of a safety education unit in the public school system that addresses safe habits and attitudes in relation to fall safety by 1987.

Environment:

1. Increase the frequency of onsite inspections by appropriate regulatory authorities on the maintenance of sidewalks, streets and slippery floors by 10%.

2. Develop an education program about fall safety and hazardous weather conditions for all age groups by 1987. The availability of these programs should be publicized to appropriate agencies and organizations.

3. Increase awareness of currently available public reporting programs by 1987, regarding hazardous sidewalks, streets and floors.

Human Biology:

1. Develop an education program about fall safety and the aging process for the elderly by 1987. The availability of these programs should be publicized to appropriate agencies and organizations.

2. Develop an education program about fall safety and vision for all age groups by 1987. The availability of these programs should be publicized to appropriate agencies and organizations.

3. Increase public awareness about existing programs for persons who have an illness and/or physical disability as it relates to their lifestyles in 1987.

4. Increase education and awareness among personnel administrators/ management on existing state and federal laws regarding job placement for those persons with physical disabilities by 1987.

Outcomes

The category of falls in the third leading cause of residential deaths. Present day statistics show a rising increase of death as a resuslt of a fall. Statewide, South Carolina has very few prevention programs specifically targeted to the prevention of falls, although resources for these programs are currently available at the S.C. Department of Health and Environmental Control and the S.C. Safety Council. Every effort should be made to use already existing resources.

By implementing the recommended prevention stategies, it is expected that a decrease in the number of falls for all age groups, especially the elderly, will result from increased and improved public education and awareness programs about the dangers of falls. The implementation of prevention strategies should also bring about an improved design criteria for home, streets and sidewalks leading to the possibility of reduced insurance rates on home insurance because of special protective measures. Most importantly, any change brought about through the implementation of prevention strategies will lead to an improved health status for all citizens.

Technology:

1. By 1987, decrease the number of falls on sidewalks, streets and stairs by 10%.

2. By 1987, increase the number of public generated reports of hazardous sidewalks, streets and stairs by 5%.

3. By 1987, increase the number of persons participating in education programs by 10%.

Lifestyle:

1. By 1987, decrease the number of falls that have been caused by alcohol and drug use by 10%.

2. By 1987, increase the number of persons participating in education programs about drug and alcohol use and abuse as it relates to fall safety by 10%.

3. By 1987, increase the number of persons participating in safety education units relating to falls safety by 10%.

Environment:

1. By 1987, decrease the number of falls that have occurred due to improper maintenance of sidewalks, streets and slippery floors by 10%.

2. By 1987, increase the number of public generated reports about improper maintenance by 10%.

3. By 1987, increase the number of persons participating in education programs concerning fall safety and hazardous conditions by 10%.

Human Biology:

1. By 1987, decrease the number of falls by the elderly by 10%.

2. By 1987, increase the number of elderly persons participating in fall safety programs by 10%.

In addition to the recommended prevention strategies, it is felt by this committee that an additional recommendation is needed. Because of the limited statistics and information available, we were hindered in our ability to completely research the problem. The need to develop and implement a detailed plan for the uniform reporting of injuries should be explored. Within the framework of present capabilities, this is an obtainable objective by the year 1990.

REFERENCES

1. South Carolina Traffic Accidents, 1980 - 1982. South Carolina Department of Highways and Public Transportation.

2. Accident Facts - 1981, 82, 83. National Safety Council.

3. Highway Safety Plan, 1983. State of South Carolina, Division of Public Safety Programs.

4. Highway Safety Program Funding Guide for Fiscal Year 1983. State of South Carolina, Division of Public Safety Programs.

5. Highway Safety Program Funding Guide for Fiscal Year 1984. State of South Carolina, Division of Public Safety Programs.

6. An Epidemiologic Study of Burn Insuries and Strategies for Prevention. U.S. Department of Health, Education, and Welfare.

7. Fire Prevention Manual. National Fire Protection Association.

8. Preventing Disease Objectives for the Nation. U.S. Health and Human Services Promoting Health.

9. Detailed Mortality Statistics, South Carolina 1981. Volume 2. Columbia, S.C.: S.C. Department of Health and Environmental Control, 1982.

10. Handbook for Safety Education - K-12. Columbia, S.C.: S.C. Department of Education, 1981.

11. 1983 Special Study Supplement to the 1982 State Health Plan. Columbia, S.C.: South Carolina Statewide Health Coordinating Council, 1983.

12. Promoting Health/Preventing Disease - Objectives for the Nation. Washington, D.C.: Department of Health & Human Services, Public Health Service, 1980

13. South Carolina Vital and Morbidity Statistics, 1980. Volume 1. Columbia, S.C.: S.C. Department of Health and Environmental Control, 1982.

14. South Carolina Industrial Commission Annual Report 1981-82. Columbia, S.C.: S. C. Industrial Commission, 1982.

15. South Carolina Farm Accident Report. Clemson, S.C.: Clemson University, Cooperative Extension Service, 1983.

16. Falls. Chicago, IL: National Safety Council, no date.

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Chapter VII: ADULT CARE, ABUSE AND NEGLECT

SUMMARY

The problematic issues associated with the adult years cover a wide spectrum, ranging from financial and work-related items to physical and mental health-related items. As a point of departure, these wide-ranging issues have been delineated and analyzed according to three phases of the adult years: Young Adults (approximately ages 18-25); Middle Aged Adults (26-59); and Older Adults (60). The problems identified were chosen by a process resulting from assessment surveys, relevant data and study of current need. The characteristics of the problems associated with each of the three phases of adulthood present a logical transition from one phase to the next.

YOUNG ADULTS

The issues of this phase are characterized by deficiencies in developing and forming functional life skills in several primary areas: occupational/career skills, social/community skills, and health/medical needs skills. The emphasis is on the developmental/formative aspects of these primary functional life skills.

MIDDLE AGED ADULTS

Deficiencies and failures in development and formation of several life skills during the Young Adult phase are manifested as concrete individual and intra-familial discords and aberrations, e.g., domestic violence, and dissolution and reformation of families. Job loss/career changes are increasing as a result of rapid technological and social changes. Incomplete development and failure of formation of one or more primary functional life skills during the preceding phase are continued here as precipitating and predisposing factors in the manifestation of these phenomena.

OLDER ADULTS

The issues in this phase are largely associated with the logistical problems of daily living, i.e., availability of supportive services for autonomous living, access to comprehensive rather than piecemeal medical and health care. The logical continuation of the previous issues is apparent in this phase. Early success in the formation and development of primary prevention support systems may result in less need for supportive services in this third phase.

The problematic issues described in the following sections, therefore, should be considered in this sequential cause/effect context though the three phases of adulthood.

SUMMARy OF RECOMMENDATIONS FROM THE TASK GROUP ON

ADULT CARE, NEGLECT AND ABUSE

1. Increase the level of knowledge and use of nutritional information by young adults in South Carolina.

2. Reduce the use of tobacco products by young adults through social channels, parent education, mass media, legislation to restrict smoking in public and work places, and through financial incentives.

3. Reduce the number of alcohol related vehicle accidents among young adults through DUI legislation, financial incentives, social channels, parent education and the use of mass media.

4. By 1987 reduce the incidence of family homicides by 10%.

5. By 1987 reduce the incidence of domestic violence by 15%.

6. By 1987 reduce unemployment among 40-49 age group to 1% below the national average.

7. By 1987 increase by at least 10% the range of support services available to older people in order to enhance their quality of life and daily functioning.

LACK OF ADEQUATE KNOWLEDGE ABOUT NUTRITIONAL SKILLS AMONG YOUNG ADULTS

The diet of South Carolinians, the "typical American diet," is often greasu, oversugared, oversalted, and overprocessed. This diet is often rich in sources of cholesterol and saturated fats. According to a U.S. Department of Agriculture report, approximately 50% of Americans have diets which provide less then the recommended amounts of the essential nutrients. Continuing trends point toward poorer quality diets in all segments of society. In addition, many South Carolinians are overweight, a factor frequently associated with health disorders such as hypertension, heart disease and diabetes.

Our nutritional habits are developed early, and early adulthood appears to be one of the prime times for additional educational intervention. Adult nutritional tasks during this age often include fitting individual diet to adult lifestyle, childbirth, and providing nutritional guidance to new families.

PREVENTION STRATEGIES

1. Local health departments should take the initiative in offering sound classes or other educational services on obesity and nutrition education. Consideration may be given to forming coalitions with appropriate non-profit organizations.

2. Agencies such as Department of Health and Environmental Control, Department of Social Services and Clemson Cooperative Extention Service should expand their services of publishing and making widely available materials such as nutritional flyers, brochures and pamphlets or other media programs including Educational Television.

Formal and informal methods of nutritional education should be consistently made available to Aid to Families with Dependent Children and/or food stamp program recipients.

3. Nutritional education services should be made an integral part of both in-patient and out-patient medical services. These services should extend beyond the normal hospital dietary planning.

4. Expand school health education programs which emphasize diet for individual and family health. Reinforce the Governor's Plan for the '80s.

5. South Carolina citizens should be able to know and apply the following basic nutritional concepts:

   A. The 3 basic food groups (carbohydrates, proteins, fats).

   B. The role of sodium and potassium in nutrition and health.

   C. The nutritional content of foods available at market.

   D. Caloric intake.

   E. Vitamins, minerals and trace elements.

   F. The use of preservatives and chemicals in foods.

   G. Methods of food preparation and storage and their impact on mutrition.

GOAL

Increase the level of knowledge and use of nutritional information by young adults in South Carolina.

ALCOHOL-RELATED MOTOR VEHICLE ACCIDENTS

AMONG YOUNG ADULTS

PROBLEM STATUS

According to the Surgeon General's report on Health Promotion and Disease Prevention, Healthy People, Americans aged 15 to 24 now have a higher death rate than 20 years ago. Although the death rate for the 40 million young Americans in the 15 to 24 year age group is 2.5 times the rate for children, it is substantially below that for other age groups. Yet, while health for this age group, as for other, is considerably better than 75 years ago, there is one startling difference: for adolescents and young adults, recent progress has not been sustained, as it has been for other age groups.

In 1960, the adolescent/young adult mortality rate was 106 deaths per 100,000. By 1970, the rate was up to 128. By 1976, it had dropped to 113 -- but 1977 statistics show an increase again to 117. This represents nearly 48,000 deaths in 1977 alone.

In 1977, motor vehicle accidents were the leading cause of mortality in the 15 to 24 year age group, accounting for 37% of all deaths. Although a complex interaction -- of driver, vehicle and roadway -- determines the risk of accidents, nevertheless a teenage or young adult driver who is involved in a traffic accident is twice as likely to die as a driver 25 years old or older.

Alcohol consumption is clearly implicated in many of the fatalities. About half of fatally injured drivers have been found to have blood alcohol concentrations of more than 100 mg/dl (100 milligrams of alcohol per deciliter of blood). In most states, this is considered presumptive evidence of intoxication. Blood

alcohol levels even lower than 100 mg/dl increase the likelihood of an accident -- especially for teenagers, the elderly, and others particularly sensitive to alcohol. Young people also place themselves at greater risk by driving while under the influence of marijuana or other drugs.

The following data are taken from Alcohol and Fatal Traffic Accidents in South Carolina 1975-1977, S.C. Commission of Alcohol and Drug Abuse. Sixty-nine percent of all driver deaths were alcohol-related, i.e., at least one driver or pedestrian in the accident had been drinking. Beginning with accidents in which the speed was about 25 mph, the proportion of alcohol-related deaths increased with each 10 mph increase in speed. This finding implicates vehicle speed as an important factor in alcohol-related accidents: at speeds of 60 mph and faster, 88% of victims had been drinking, and 84% had a blood alcohol concentration (BAC) of .05 or higher. Thirty-six percent of all driver victims were under 25 years old; 35% of the victims with a BAC of .10 or more were under 25 years old. A BAC of .10 is the legal threshold for driving under the influence in South Carolina. Young drivers were more likely to be killed at lower BAC levels than older drivers, but the larger number of young driver deaths is mainly due to exposure risk; that is, there are relatively more young drivers on the roads at a particular time. Seventy-three percent of the pedestrian victims had been drinking. If the sobriety of other drivers and pedestrians in the accident is considered, 80% of pedestrian deaths were alcohol-related. Over half (52%) of the pedestrians had BAC's of .20 or higher, compared with 31% of drivers and 14% of motorcyclists. Compared to younger victims, pedestrians over age 35 were more likely to have a negative BAC (i.e., had not been drinking) or a very high BAC. Victims under 35 were more likely to have been drinking, but generally had been drinking less.

PREVENTION STRATEGIES

Prevention strategies can be categorized into five areas:

1) Legislative actions should be taken to restricting the availability of alcoholic beverages to young adults, especially in relation to driving vehicles.

The research findings in this area point out a direct relationship between the legal drinking age and the incidence of alcohol-related motor vehicle accidents involving young adults (ages 18, 19, and 20). Therefore, establishing the legal drinking age (for all alcoholic beverages) at 21 years old is an effective preventive strategy in reducing this particular problem.

Several additional legislative actions include: making it illegal to consume and to possess opened beer and wine containers in a vehicle; stiffer mandatory jail terms and fines, as well as driver's license suspension, for DUI convictions including first offenders.

2) Financial disincentives could be provided through markedly higher automobile, health and life insurance premiums for offenders.

3) Peer conformity pressure is one of the most powerful influences in the onset of substance abuse among young persons. If their activities are systematically programmed to provide a positive influence, peers may become effective agents of prevention. Systems for recruiting and training natural leaders to help their fellow adolescents understand and overcome processes that lead toward drug abuse are just beginning to be explored. Short-term results indicate that strategy may indeed be effective, but much remains to be learned about the relative influence of same age versus older peers and how they can be recruited, trained, and managed to maximize their impact.

4) Parental education in drug education is needed.

Unfortunately, almost nothing is known about how to educate parents to prevent onset of potentially dangerous drug-using habits among their children. Programs helping parents to manage their own behavior more effectively would be likely to prevent excess and self-destruction among offspring as well.

5) Promoting more positive and fewer negative models in popular media is another needs to be systematically studied. Censorship of negative influences may be less desirable than promotion of positive ones, but there are few examples of how that task can be effectively accomplished.

GOAL

Reduce the number of alcohol-related vehicle accidents among young adults through DUI legislation, financial incentives, social channels, parental education and the use of mass media.

INITIATION AND RETENTION OF TOBACCO PRODUCTS USE AMONG YOUNG ADULTS

PROBLEM STATUS

Of the issues pertaining to young adults studied by the Adult Care, Neglect and Abuse Subcommittee, that of the use of tobacco products ranked second overall on the basis of prevalence, severity and availability of effective prevention/ intervention.

Known primary adverse effects to the health of the user of tobacco products are as follows:

Malignant Neoplasms

Cancer of the lung

a) Epidemiological evidence derived from a number of prospective and retrospective studies in the United States, Canada, Europe and Japan, coupled with experimental and pathological evidence, confirms the conclusion that cigarette smoking is the main cause of lung cancer in men. These studies reveal that the risk of developing lung cancer increases with the number of cigarettes smoked per day, the duration of smoking and earlier initiation, and diminishes with cessation of smoking.

b) Cigarette smoking is a cause of lung cancer in women but accounts for a smaller proportion of cases than in men. The mortality rates for women who smoke, although significantly higher than for female nonsmokers, are lower than for men who smoke. This difference may be at least partially attributed to dofference in exposure: the use of fewer cigarettes per day, the use of filtered and "low tar" cigarettes and lower levels of

inhalation. Nevertheless, even when women are compared with men who apparently have similar levels of exposure to cigarette smoke, the mortality ratios appear to be lower in women.

c) The risk of developing lung cancer among pipe and/or cigar smokers is higher than for nonsmokers but significantly lower than for cigarette smokers.

d) The risk of developing lung cancer appears to be higher among smokers who smoke "high tar" cigarettes or smoke in such a manner as to produce higher levels of "tar" in the inhaled smoke.

e) Ex-cigarette smokers have significantly lower death rates for lung cancer than continuing smokers. The decline in risk following cessation appears to be rapid both for those who have smoked for long periods of time and for those with a shorter smoking history, with the sharpest reductions taking place after the first two years of cessation. There is evidence to support the view that cessation of smoking by large numbers of cigarette smokers would be followed by lower lung cancer death rates.

f) The risk of developing lung cancer appears to be higher for smokers who have chronic bronchitis. Though both conditions are directly related to the amount and duration of smoking, an additional risk for lung cancer appears to exist for cigarette smokers with chronic bronchitis which is independent of age and number of cigarettes consumed.

g) Increased death rates from lung cancer have been observed among urban populations when compared with populations from rural environments.

The evidence concerning the role of air pollution in the etiology of lung cancer is presently inconclusive. Factors such as occupational and smoking habit differences may also contribute to the urban-rural difference observed. Detailed epidemiologic surveys have shown that the urban factor exerts a small influence compared to the overriding effect of cigarette smoking in the development of lung cancer.

h) Certain occupational exposures have been found to be associated with an increased risk of dying from lung cancer. Cigarette smoking interacts with these exposures in the pathogenesis of lung cancer so as to produce very much higher lung cancer death rates in those cigarette smokers who are also exposed to such substances.

i) Experimental studies on animals utilizing skin painting, tracheal instillation or implantation and inhalation of cigarette smoke or its component compounds have confirmed the presence of complete carcinogens as well as tumor initiators and promoters in tobacco smoke.

Cancer of the larynx

a) Epidemiological, experimental and pathological studies support the conclusion that cigarette smoking is a significant factor in the causation of cancer of the larynx.

b) The risk of developing laryngeal cancer among cigarette smokers as well as pipe and/or cigar smokers is significantly higher than among non-smokers.

c) The magnitude of the risk for pipe and cigar smokers is about the same order as that for cigarette smokers.

d) Experimental exposure to the passive inhalation of cigarette smoke has been observed to produce premalignant and malignant changes in the larynx of hamsters.

Cancer of the oral cavity

a) Epidemiological and experimental studies contribute to the conclusion that smoking is a significant factor in the development of cancer of the oral cavity and that pipe smoking, alone or in conjunction with other forms of tobacco use, is causally related to cancer of the lip.

b) Experimental studies suggest that tobacco extracts and tobacco smoke contain initiators and promoters of cancerous changes in the oral cavity.

Cancer of the esophagus

a) Epidemiological studies have demonstrated that cigarette smoking is associated with the development of cancer of the esophagus.

b) The risk of developing esophageal cancer among pipe and/or cigar smokers is greater than that for nonsmokers and of about the same order of magnitude as for cigarette smokers, or perhaps slightly lower.

c) Epidemiological studies have also indicated an association between esophageal cancer and alcohol consumption. The combined exposure of alcohol consumption and cigarette smoking is associated with especially high rates of cancer of the esophagus.

Cancer of the urinary bladder

a) Epidemiological studies have demonstrated a significant association between cigarette smoking and cancer of the urinary bladder in both men

and women. These studies demonstrate that the risk of developing bladder cancer increases with inhalation and the number of cigarettes smoked.

b) Clinical and pathological studies have suggested that tobacco smoking may be related to alterations in the metabolism of tryptophan and may in this way contribute to the development of urinary tract cancer.

Although many questions about the carcinogenic effects of tobacco remain to be answered, and other factors may be implicated as additonal data accumulated, it is now clear that cigarette smoking has been implicated as an important factor in the production of cancer of the lung and several other sites, and that a significant reduction in the use of cigarettes would be followed by a substantial decrease in mortality from these diseases.

Cardiovascular and Coronary Heart Diseases

The 1964 Ssurgeon General's report on cigarette smoking found that, on the average, cigarette smokers in the United States have a 70% greater chance of developing coronary heart disease than nonsmokers. Since that time, this association has been repeatedly confirmed and the cigarette habit has been indicted as a prime risk factor for heart attacks. Further, the risk appears proportional to the numbers of cigarettes smoked daily. What alterations in risk may be seen with the use of filter and "low tar" cigarettes remains to be studied more fully. It has also been clear for may years that the cigarette habit has been a most important contributor to the morbidity and mortality from peripheral arterial vascular disease. On both accounts therefore -- coronary and peripheral arterial disease -- there have been urgent reasons for attempting to limit and, in time, eliminate the cigarette habit. There have been impressive

reasons (such as reduced cardiovascular risk in ex-smokers as compared with smokers) for believing that a major impact on the incidence of cardiovascular disease in the United States would be made by a successful antismoking program. To date, there are signs of the beginning of this success in adults.

It is estimated that 46 million persons in the United States use tobacco products. The rate or prevalence increases from 1 in 20 for the 11 and under age group, to 1 in 5 for the age 12 group, to 1 in 3 for the age 18 group. For the age 30, 50, 60 groups, the prevalence rates are 62%, 69% and 78%, respectively. Among females in the age 30, 50, and 60 groups, the rates are 42%, 40% and 36%, respectively. The age/sex sub-group which shows the largest gain is that of 13-19 year old females.

Cigarette smoking is clearly identified as the chief preventable cause of death in our society and as the most important public health issue of our time.

Cigarettes cause some 340,000 unnecessary deaths each year, 129,000 of these from lung cancer.

More than $13 billion is spent each year on smoking related health care, and smoking causes at least another $25 billion in lost production and wages.

Eighty-five percent of all lung cancer deaths could have been avoided if people never took up smoking.

If it were not for lung cancer deaths, overall cancer mortality would have fallen, reflecting improved diagnosis, treatment, and survival times for other forms of the disease. Only 10% of lung cancer victims survive five years after diagnosis.

PREVENTION STRATEGIES

Prevention strategies can be categorized into five areas:

1) Through use of natural channels of socialization among young adults

Peer conformity pressure is one of the most powerful influences for the onset of substance abuse among young persons. If their activities are systematically programmed to provide a positive influence, peers may become effective agents of prevention. Systems for recruiting and training natural leaders to help their fellow adolescents understand and overcome processes that lead toward drug abuse are just beginning to be explored. Short-term results indicate that strategy may indeed be effective, but much remains to be learned about the relative influence of same age versus older peers and how they can be recruited, trained, and managed to maximize their impact.

2) Through parental education

Unfortunately, almost nothing is known about how to educate parents to prevent onset of potentially dangerous drug-using habits among their children. Programs helping parents to manage their own behavior more effectively would be likely to prevent excess and self-destruction among offspring as well.

3) Through use of mass media

Promoting more positive and fewer negative models in popular media is another possibility that has not been systematically studied. Censorship of negative influences may be less desirable than promotion of positive ones, but there are few examples of how that task can be effectively accomplished.

4) Through legislative action restricting smoking in public and work places

This particular preventive strategy is effective primarily in two ways. First, it promotes and creates an attitude or perception of smoking as an unattractive, dirty, annoying habit, thus reducing the attractiveness to young adults contemplating the initiation of smoking. Second, it makes smoking behavior more inconvenient in public and employment settings and reduces the harmful effects of passive smoking on the rest of the population.

5) Through financial incentives

This preventive strategy could be effective in reducing both the onset and the continuation of smoking behavior among young adults. Financial incentives could be provided through the use of reduced premium costs for individual and group health insurance coverage and other employee benefits.

OUTCOME

Reduce the use of tobacco products by young adults through social channels, parent education, mass media, legislation to restrict smoking in public and work places, and through financial incentives.

DOMESTIC VIOLENCE

AMONG MIDDLE AGED ADULTS

PROBLEM STATUS

Domestic violence includes psychological abuse, physical aggression, and life-threatening violence. Because of the lack of reliable information on psychological abuse and abuse by women of male spouses, the following treatment will concentrate on physical abuse and life-threatening abuse by males of female spouses. Because other committees are dealing with abuse of children by parents, the present paper will not concentrate on that aspect of the problem. However, it must be noted that family violence begets family violence, and that no effective intervention against child abuse is possible unless violence by adults against each other is addressed.

PREVALENCE AND SEVERITY

According to a recent study, 21% of South Carolina women have endured physical violence from their spouses: 10% or 52,000 in the last 12 months. Approximately 5% of South Carolina women have been severely beaten or attacked with knife or gun.

There is no significant difference between income levels, occupation, race, education, or urban-rural when predicting domestic violence. However, we do know that family violence begets family violence. Women whose parents often engaged in physical conflict are 30% more likely to be victims themselves. Pregnant women are 3 times more vulnerable than non-pregnant women, and children born of abused women are 10 times more likely to report abuse to themselves. Therefore, secondary or tertiary prevention among young and middle adults is primary prevention for the next generation.

PREVENTION STRATEGIES

Prevention strategies must be based on the assumption that a person learns from parents (or spouse) to use violence for conflict resolution within the family. Isolation contributes to the incidence and continuance of abuse (physical, geographical, or psychological isolation). 43% of abused women in a recent study turned to no one. 25% wanted emergency shelter; 2% got it. Legal aid was desired by 27%; received by 2%. Alcohol and drug abuse, lack of physical outlets, economic stress, and family dissolution and reformation also contribute to the problem.

Proven strategies are known: however, they are not widely available in South Carolina. We therefore propose:

1. Regional emergency shelters with access to existing support services such as medical care, counseling, child care, legal aid, and transportation have been piloted and proved successful in South Carolina. This system must be expanded and funded on a permanent basis.

2. Intervention with potential child abusers (at-risk parents) through such programs as "Welcome Baby" significantly reduces the risk of family violence.

3. A highly visible information and referral network is necessary. Increasing the visibility and effectiveness of the Program Assistance Line and the regional Information and Referral and telephone crises centers is a priority.

4. South Carolina should draft and pass legislation allowing a person threatened with domestic violence to get protection from the court without filing criminal charges.

5. We must develop family life education for children and adults, including nonviolent alternatives for conflict resolution.

6. Require police domestic violence teams, including female members on every police force. Restructure training programs at Criminal Justice Academy.

OUTCOME

Reduce incidence of domestic violence 15% by 1987. Reduce incidence of family homicides 10% by 1987.

JOB LOSS/CAREER CHANGE

AMONG MIDDLE AGED ADULTS

PROBLEM STATUS

The unemployment rate in South Carolina hovers just below 10% and is projected to remain at 7 to 8% throughout the 1980s. The bulk of new employment opportunities will be white collar, non-manufacturing jobs (11 million more white collar jobs in the '80s, compared with 7.5 million new blue collar). By 1990, there will be 3 million college graduates looking for jobs that don't exist for them.

PREVENTION STRATEGIES

A systematic reordering of the state's industrial recruitment priorities, along with a support system for business and industry and job training opportunities will be necessary to effectively intervene.

The primary cause is technological unemployment, leaving persons experienced in a specific and obsolete job skill without perceived alternatives. Contributing factors include functional illiteracy, geographic isolation, lack of self-esteem, physical disability, and prejudice among employers vs. persons over 40.

Suggested interventions include the following:

1. Focus efforts of State Development Board on areas hit hardest by permanent technological unemployment, along with rural areas.

2. South Carolina Department of Education must include adult literacy education as a priority, with commensurate funding.

3. Employment Security Commission must provide on-site intervention and evaluation of displaced employees where major industries close or drastically reduce their work force.

4. Laws prohibiting age discrimination should be publicized and aggressively enforced.

OUTCOME

Reduce unemployment among persons 40-49 to 1% below the national average by 1987.

LACK OF ADEQUATE SUPPORT SERVICES FOR OLDER ADULTS

PROBLEM STATUS

A national health survey (National Center for Health Statistics, 1979) investigated the chronic condition which affects those sixty-five years of age and older. Twenty-five percent (25%) of the elderly males were found to be limited in activity due to heart conditions, with 16% reporting arthritis and rheumatism as other primary causes of limitation. Females participating in # the study identified arthritis and rheumatism as the primary causes of limitation, with heart conditions and hypertension and visual impairments in descending rank in terms of limiting these individuals.

It should be pointed out that because South Carolina experiences a higher morbidity and mortality rate from hypertension, cerebrovascular disease than the nation as a whole, it can be expected that proportionately more elderly would be limited by these conditions within the State as compared to all other states. Also, as the elderly population in the State increases (the figure for 1980 is over 13.3% of the total population), the incidence of these conditions will increase, thus requiring special attention to be given to those services/devices which aid in the mobility, independence and quality of living of the older population.

In 1980, there were almost nine thousand individuals over the age of 65 in licensed long-term care facilities (excluding mental health and mental retardation facilities). This is 3.1% of all individuals over the age of 65.

Most of the elderly within the State (about 95%) are currently able to remain in their own homes rather than in institutions, but more may be able to do so

with the provision of certain home-based or community support services.

The three leading causes of death in individuals aged 65 or older in South Carolina in 1980 were: diseases of the heart, cerebrovascular disease, artherosclerosis. The leading discharge rate from hospitals for those 65 and older during 1979 was for "diseases of circulatory system."

Due to increased age and its consequential effect on physical well-being, chronic and acute conditions afflict the elderly more than any other population group. The elderly are limited to a much greater extent than any other population group. Fifty-one percent (51%) of the population over 65 have limited activity, and 20% are unable to carry on major activity. A study in 1978 revealed that the elderly experienced an average stay in hospitals of 11.9 days per year.

Budgetary restraints of existing services, as well as restrictive state and federal laws and regulations, are contributing factors that limit the necessary services in all of the communities in the State. The 1980 census reveals 21.9% of people aged 60+ years are below the poverty level.

The high incidence of proverty among the aged restrict their purchasing power for necessary services.

The disappearance of extended families contributes to the problem. The number of children per family has continued to decrease since World War II.

Transportation poses a problem with this group. Many of them are not able to drive and do not live where public transportation is available. Hiring assistance to medical and other services is costly.

PREVENTION STRATEGIES

1. By 1986, the percentage of individuals over the age of 65, who are limited in activity as a result of chronic conditions, should be reduced by 15% of this age group.

2. By 1986, the percentage of individuals over the age of 65, who are provided long-term care in an institutional setting, should be reduced to less than 3% of this group.

3. By 1986, the number of elderly served in congregate meal sites or receiving home delivered meals should increase to 25% of the total resident population of individuals over 60 years of age.

4. By 1986, home delivered meal programs should be developed to serve the elderly in those areas of the state which are not currently served.

5. Medicaid reimbursement criteria should be re-evaluated by 1985 to increase the number of patients who can be served appropriately by home care as opposed to institutional care.

6. By 1986, tax incentives should be developed to encourage care by relatives for an older relative in a home setting rather than in an institutional environment.

7. By 1983, to provide training in Gerontology/Geriatrics to all health and human service providers and their immediate supervisors who serve the elderly population.

8. By 1990, to have the cost of providing medical care to indigents, not covered

by Medicaid, shared equally by public, proprietary and not-for-profit providers.

9. By 1986, the medical universities should have in place chairs of Gerontology and other colleges and universities should offer certificate programs in Gerontology.

10. Quality home health care service in the home should be available by 1986.

11. By 1986, the South Carolina Dental Association should develop services to improve dental care and dental health for the elderly in the community and nursing homes.

12. By 1986, increase the availability of day care by 10%.

13. To develop geriatric medical/mental health diagnostic units to work in cooperation with families and agencies by 1990.

14. By 1986, to implement a system of "private pay" for those persons having resources to purchase services.

15. By 1990, the Department of Education should include family life education, including education on aging in the curricula beginning in the elementary grades.

16. By 1986, to have transportation services for the elderly coordinated by a single agency.

OUTCOME

Increase by at least 10% the range of support services available to older people that will increase the quality of life and daily functioning by 1987.

REFERENCES

1. Bauer, Katherine G. - Improving The Chances For Health: Lifestyle Change And Health: Lifestyle Change And Health Evaluation
   San Francisco: National Center for Health Education: 1981

2. Governor's Health Goals: Prevention For The 1980s - South Carolina Governor's Office

3. Nutrition And Your Health: Dietary Guidelines For Americans
   U.S. Department of Agriculture and U.S. Department of HHS, February 1980

4. Nutrition: Food At Work For You - U.S. Department of Agriculture Bulletin

5. Levin DL, et al: Cancer Rates And Risks, 2nd ed. DHEW Pub. No. (NIH) 79-691. U.S. Government Printing Office, Washington, D.C. 1974.

6. Healthy People: The Surgeon-General's Report on Health Promotion and Disease Prevention. DHEW Pub. No. (PHS) 79-55071A. U.S. Government Printing Office, Washington, D.C. 1979.

7. Smoking Statistics Fact Sheet - American Lung Association

8. 1981 Surgeon-General's Report. U.S. Government Printing Office, Washington, D.C.

9. Luce BR, and Schweitzer SO: Smoking and alcohol abuse: A comparison of their economic consequences. New England Journal of Medicine 298:569-571, 1978.

10. Teenage Smoking: National Patterns of Cigarette Smoking, Ages 12-18, in 1972 and 1974. National Institutes of Health. U.S. Government Printing Office, Washington, D.C.

11. Utech DS, and Hoving KL: Parents and peers as competing influences on the decisions of children of different ages. Journal of Social Psychology 78:267-271, 1969.

12. McKennel AC: Implications for health of social influences in smoking. American Journal of Public Health 59:1998-2004, 1969.

13. Thompson EL: Smoking education programs 1960-1976. American Journal of Public Health 68:250-257, 1978.

14. Maccoby N, and Roberts D: Information processing and persuasion. In: Sage Communication Research Annuals, Vol. II (F Kline and P Claarke, eds). Sage Publications, New York, 1974.

15. McGuire WJ: Inducing resistance to persuasion: Some contemporary approaches. In: Advances in Experimental Social Psychology, Vol. I, Pp 191-229 (L Berkowitz, ed). Academic Press, New York, 1964.

16. Berstein D. and McAlister A: The modification of smoking behavior: Progress and problems. Additive Behaviors 1:89-102, 1976.

17. Walsh TT: Alcohol and Fatal Traffic Accidents in South Carolina, 1975-1977. S.C. Commission on Alcohol and Drug Abuse, Division of Research and Evaluation, Columbia, S.C., March 1979.

18. The Alcohol and Health Report for South Carolina. S.C. Commission on Alcohol and Drug Abuse, Columbia, S.C., July 19, 1982.

19. Barsby SL, and Marshall GL: Short-term consumption effects of a lower minimum alcohol-purchasing age. Journal of Studies on Alcohol 30:1665-1679, 1977.

20. Douglas R, Filkins L, and Clark F: The Effect of Lower Legal Drinking Ages on Youth Crash Involvement. University of Michigan, Highway Safety Research Institute, Ann Arbor, 1974.

21. Ewing JA, and Rouse BA (eds): Drinking Alcohol in American Society -- Issues and Current Research. Nelson-Hall, Chicago, 1978.

22. Filkins L, and Flira J: Alcohol-Related Accidents and DUI Arrests in Michigan, 1979-79. University of Michigan, Highway Safety Research Institute, Ann Arbor, 1978.

23. Initial impact of raising legal drinking age from 18 to 21. The Bottom Line on Alcohol in Society, Spring 1979.

24. Wechsler H (ed): Minimum-Drinking-Age Laws -- An Evaluation. Lexington Books, Lexington, 1980.

25. Raising the legal drinking age is a sobering experience: More and more states find that turning off the spigots also dries up the chances of death or serious injury. Journal of American Insurance 57:25-28, Spring 1981.

26. South Carolina Traffic Accidents. S.C. Department of Highway and Public Transportation, Columbia, S.C., 1981.

27. Wagenaar AC: Effects of an increase in the legal minimum drinking age. Journal of Public Health Policy 2(3):206-225, 1981.

28. Wagenaar AC: Legal minimum drinking age changes in the United States: 1970-1981. Alcohol and Research World 6(2):21-26, 1981/82.

29. Wagenaar AC: Preventing highway crashes by raising the legal minimum age for drinking: An empirical confirmation. Journal of Safety Research 13:57-71, 1982.

30. Wagenaar AC: Raised legal drinking age and automobile crashes: A review of the literature. Abstracts & Review in Alcohol and Driving 3(3):3-8, March 1982.

31. Wagenaar, AC: Traffic Safety Effects of Legal Restrictions on Access to Alcoholic Beverages: A Multi-Level Time Series Evaluation. University of Michigan, Highway Safety Research Institute, Ann Arbor, 1982.

32. U.S. Census 1980 and 1982 (projection)

33. What Lies Ahead - A New Look. United Way of America, Alexandria, Virginia

34. 1983 Special Study Supplement To The 1982 State Health Plan S.C. Statewide Health Coordinating Council State Health Planning and Development Agency.

35. Prevention Of Crimes Of Sexual Assault In South Carolina

36. Study Of Family Violence And Its Implications On Human Service Policy And Programs In South Carolina - Tai Sugimoto

37. Status Relationships In Marriage: Peer Factors In Spouse Abuse - Hornung, McCullough, and Sugimoto

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Chapter VIII: CHILD CARE, ABUSE AND NEGLECT

SUMMARY

In precise terms, child abuse and neglect is the outcome of six major social problems -- insufficient quality child care, illiteracy, poor health and malnutrition, lack of permanency, inadequate parenting and family violence. A subcommittee consisting of sixteen members, representing thirteen public and private agencies, collaborated during a three month period to respond to a specific planning objective: to identify and prioritize prevention problems in the area of child care, abuse and neglect; to analyze the state-of-the-art and recommend feasible prevention strategies which could be met by 1987. The committee found the task to be frustrating due to the constraints of developing a very concise package to address the mammoth and complex problem of child care, abuse and neglect. The determinants or contributing factors are numerous and varied. It was very difficult to narrow these to a manageable system.

Prevention strategies for children and families have little or no research with defensible results. The studies that are published report incidence data and infer predictors or indicators. For example, interviews with abusive and neglectful parents reveal a profile of the isolated, un-parented parent, so then we say that parents need support and need competent parents of their own in order to be parents. We do not, however, have research that shows us exactly how we could "make up for" perinatal and early child-rearing isolation or inadequate parents. There are some few programs which attempt to provide the support, and they report anecdotally that for periods of time, these parents exhibit better parenting from which their children benefit.

In the judgement of the subcommittee, the "problem" is complex and interrelated. After an extensive nominal group process, problem topics were identified and recommendations were made. It was determined that many of the prevention strategies addressing other major primary prevention areas such as substance abuse, perinatal morbility and mortality, mental health, and crime and delinquency will have a preventive impact on child care, abuse and neglect. Most activities which will help improve family functioning and life will have a positive impact on child care.

It appears that lifestyles and environmental factors are the leading indicators contributing to problems in child care in the form of abuse and neglect. There are only a few programs which can be considered true primary prevention. Most of the available services are secondary prevention and treatment oriented programs. No one agency or group can adequately address this issue, but all agencies and groups, public and private, must be encouraged to work cooperatively to deal with this complex issue.

CHILD CARE, ABUSE & NEGLECT

MAJOR CONTRIBUTING FACTORS

MAJOR PREVENTION STRATEGIES	Availability and Regulation of Child Care Centers	Inadequate System of Education	Economic Stress	Inadequate Parenting	Substance Abuse	Family Violence
Improve Regulations & Enforcement of Regulations	X			X		
Provide Incentives to Private Sector to Develop Child Care Centers and to improve Quality	X		X		X	
Require two Units, one of Family Life and one of Health Education for High School Graduation		X	X	X	X	X
Community Education Should be Expanded to Include After-school Programs for School-aged Children.	X		X	X	X	X
Use Publicly-funded Media to Produce and Distribute Educational Materials to Heighten Awareness of Needs of Families and Children	X	X		X	X	X
Direct Public Resources to Combine with Private Resources in Development of Family Support and Emergency Shelter Programs	X		X	X	X	X
Develop and Regulate Minimum Standards for Public Agencies which Serve Children and Families	X	X	X	X	X	X

Data on the need for prevention strategies with a coordinated approach to prevention is exhibited by the following:

53.4% of all women are in the labor force

440,000 adults in Soduth carolina are functionally illiterate

194,611 children in South Carolina live in 53,719 families with poverty level incomes

300 children in South Carolina are legally free for adoption and another 2,700 children are in out-of-home placement

14,000 children in South Carolina are reported to have been abused and neglected during the most recent year

1 in every 10 mothers experience physical violence in the home

Technology

Mal-Distribution of Child Care Centers

1. Review zoning requirements for child care centers and modify as needed.
2. Encourage with incentives additional child care centers in areas without the service.
3. Require a certificate of need as in nursing homes.
4. Funding for more regional child care centers.
5. Conduct study to determine needed location of centers.

Public Resource Allocation

1. Redistribute child care center funding based on needs assessment.
2. Use of media to educate the public concerning the need for child care centers.

Lack of Control of Day Care Centers (Need to improve regulations and Legislation)

1. Modify existing laws to strengthen enforcement ability (more control on in-home child care).
2. More controls on in-home child care centers.
3. Establish minimum mandatory in-service training days that day care center staff must have each year.
4. Tighten regulations and licensing procedures with more workers to enforce these regulations.
5. Increase regulation of day care and 24-hour care.

Inadequate Diet

1. Regulations should be established and enforced regarding nutritional standards in day care centers.
2. Tighten regulations and licensing procedures with more workers to enforce these regulations.

Fragmented Delivery System

1. Plan all funding control of child care centers under one agency (authority).
2. Encourage or give incentives to industry for day care facilities for employees.

Lifestyle

Parents Who Work Outside the Home

1. Encourage or give incentives to business for day care facilities for employees.

Latchkey Kids (School age children who do not have a caretaker at home during after school hours)

1. Stimulate and regulate after-school programs for children ages 5-14; fund programs; use sliding fee scale.
2. Support and regulate existing after school programs (example: Boys Club, YMCA) with nutritional standards added.

Environment

Inadequate Diet

1. Public awareness programs, geared toward parents, on current nutritional information.

2. Provide two balanced meals a day at the school and public day care and private day care centers where slots are purchased with public funds.
3. Public education through schools and media.
4. Life skills and parenting skills for the homebound.
5. Minimum standards for nutritious meals established and enforced for all day care centers.
6. Health education.

Latchkey Kids

1. Stimulate and regulate after school programs for children ages 5-14; using a sliding fee scale.
2. Support and regulate existing after school programs.

Human Biology

Handicapping Conditions

1. Increased genetic screening with increased availability. (i.e., amniocentesis for low-socioeconomic persons).
2. Develop a system of support groups throughout the state for parents with similarly handicapped children when they can provide support through care, day care, etc.
3. Increase research funding.
4. Educate parents, the community - re: handicaps.

ILLITERACY

CONTRIBUTING FACTORS

Technology

Education System

System Response to Disabilities

Irrelevancy of Education

Lifestyle

Unemployment

Irrelevancy of Education

Environment

Unemployment

Irrelevancy of Education

Value Systems

Biology

Organic, Physical, Learning Disabilities

PREVENTION STRATEGIES

The failure to provide a quality education to the youth of South Carolina constitutes the most preventable form of child neglect. To permit our children, our most valuable resources, to reach adulthood without the critical reading, writing, mathematic and scientific skills that are required in a complex society is to condemn them to second class citizenship and a life of deprivation. Moreover, such neglect of our youth is a clear and perilous threat to our future and survival as a society.

The gravity of the problem requires prompt and dramatic leadership at all levels: the Governor, the Legislature, elected school officials, leaders of industry, parents and private citizens. We offer the following recommendations to initiate the necessary change so that each of our youth will have the opportunity to become all that they are capable of. It is important to note that a dramatic decline in the rate of functional illiteracy in South Carolina will not occur ovedrnight. There simply are no quick solutions to our problems.

Specific recommendations are as follows:

1) The State Department of Education take a comprehensive random sample of graduates, at 2, 5 and 10 year distance, to determine relevance of education to their world of work.

2) All teachers in the elementary grades should be required to have completed a comprehensive program on the recognition of visual, auditory and emotional disabilities that may, if undetected and untreated, interfere with a child's achieving his or her maximum potential. Specifically, a requirement for certification for teaching in the elementary grades should be the completion of a minimum number (eg. 30) of University credit hours in developmental psychology, speech pathology, audiology and related fields.

3) All teachers in the secondary grades should be required to have completed a comprehensive program on the recognition of the signs and symptons of emotional disturbance and chemical dependence.

4) All teachers in the secondary grades should be required to have a masters degree in the discipline in which they teach (eg. mathematics, science, english, social studies, etc.). Implementation should be phased in.

5) The salaries of teachers should be increased in response to improvements in preparation for teaching. For example, the salary paid to a biology teacher with a masters degree in biology should be competitive with what that individual could reasonably expect to be paid with that level of training in another setting.

6) The State of South Carolina should pass the necessary legislation and provide financial assistance to local school districts to enable them to develop cooperative agreements with colleges, universities and private industry whereby qualified individuals are recruited into elementary and secondary schools to teach for one semester or one year. To attract qualified individuals from colleges, universities and industry, a supplemental salary or reasonable bonus should be offered. Further, tax incentives may be used to encourage industries to permit their employees a semester or year leave of absence to teach in the elementary or secondary schools.

7) The curriculum offered in elementary and secondary schools should be strengthened with greater emphasis placed upon the rigorous disciplines of mathematics, science, foreign language, literature and history.

8) The State of South Carolina should offer different types of high school diplomas. One type of diploma should be given to students who complete a rigorous academic program of mathematics, science, literature, history and foreign language. A second type of diploma should be available to students who choose to follow a less rigorous academic program. Such students should, however, be required to complete a minimum of course

work in academic fields including mathematics, English, and science. Finally, a "Certificate of Attendance" should be given to students who, because of ability or by choice, do not complete the minimum course requirements noted above.

9) Teacher's expectations of what constitutes acceptable performance must be increased at all grade levels. This means that all students must be held responsible for meeting reasonable standards for promotion to the next grade level. Second, the practice of "social promotion" must be abolished. Third, all school districts should be encouraged in the strongest possible way to "close" the campuses of their high schools. The norm of only approximately 30 percent of fourth year students attending classes after noon of their senior year must be changed. Time is precious and the educational system cannot afford to surrender one-half of a year.

10) Improvements in the system of education that will effectively reduce the functional illiteracy of its graduates will, no doubt, require the expenditure of additional funds. But, additional monies should not be allocated to a system that, with only cosmetic changes will ultimately yield only more of the same. Increases in funding should be reserved only for "real" changes. For example, increasing the salary of all teachers will not improve their effectiveness. No amount of additional salary will suddenly make an unqualified teacher qualified. Higher salaries should be used as an incentive to recruit to the teaching profession those individuals with a demonstrated competence (eg. a masters degree in a discipline) in an academic subject matter.

11) Finally, we recommend that the Governor appoint a standing Task Force on quality education and that such Task Force be independent of the existing elementary and secondary education system and bureaucracy. The Task Force should be composed of experts in the relevant academic disciplines as well as leaders in the industrial and business communities. Its task should be to evaluate the "cost-effectiveness" of schools, the quality of the curriculum, and the requirements for teaching positions.

POOR HEALTH AND MALNUTRITION

CONTRIBUTING FACTORS

Technology

Need for Health Education

Inadequate Distribution of Health Facilities

Lifestyle

Economic Stress

Functional Education

Alcohol and Drug Abuse

Environment

Economic Stress

Value Systems

Biology

Birth Defects

Handicaps

Low Birth Weight

PREVENTION STRATEGIES

Technology

Need for Health Education

1. Prioritize quality health programs in public school system.
2. Require educational programs where health and nutrition is discussed with school children.

3. Hospitals, health departments, home health nurses, and dieticians should focus more on health education to increase knowledge of nutrition, exercise, stress management, etc.
4. Increase availability of medical screening and care for low income pregnant women and children aged 0-12.
5. Establish a medically indigent program for South Carolina.
6. Expand the Aid to Families with Dependent Children (AFDC) (welfare) program to cover intact families where head of household is unemployed and/or there is no or marginal income.
7. Establish emergency medical funds for medications, etc.
8. Increase number of days and services covered by Medicaid.
9. Funding to recruit and train staff and volunteers for outreach.

Inadequate Distribution of Health Facilities

1. Increase family health centers in rural areas.
2. Provide incentives for private sector to establish facilities where needed, e.g., tax breaks, payment, also require certificates of need.
3. More facilities funded by state and counties.
4. Increase emphasis on home health nursing in rural areas.
5. Increase number of health departments in rural areas.

Lifestyle

Economic Stress

1. Improve design of existing programs which aid in food distribution (i.e., Women, Infants and Children (WIC).
2. Increase public and business information on good health.

3. Increase public awareness of WIC program available through County Health Departments.

4. Increase knowledge of food stamp program and AFDC available to low-income families.

Functional Education

1. Require educational programs where health and nutrition is discussed with school children.

2. Upgrade state public education system especially in rural and low socio-economic areas.

Alcohol and Drug Abuse

1. Increase educational and recreation programs regarding stress reduction.

2. Support group counseling in schools.

3. Increase public awareness of dangers of alcohol and drug abuse during pregnancy.

4. Encourage children of alcoholics or drug abusers to get involved in Al-Anon or Alateen.

Environment

Economic Stress

1. Increase low-income housing.

2. Increase community education through media.

Value Systems

This area is difficult and perhaps inappropriate for public resource allocation to address, but is a contributing factor.

1. Increase awareness of importance of health and nutrition in ethnic or cultural neighborhoods whose values may differ from the "norm."

2. Increase public education through school curricula at all grades, and through media.

Biology

Birth Defects

1. Target high risk groups for educational information and supplemental services (e.g., teen pregnancy).
2. Expand pre-natal public funded programs.
3. Greater attention to ensuring that these children are referred to Supplemental Security Income (SSI) or other funding sources as early as possible. This will increase chances for better health and nutrition.
4. Increase awareness of Crippled Children's Program, Easter Seals, etc.

Handicaps

1. Same as above.
2. Public education via media and schools.

Low Birth Weight

1. Same as above.
2. Increase awareness of special needs (nutrition, special care, etc.) of low birth infants.

LACK OF PERMANENCY

CONTRIBUTING FACTORS

Technology

- Public Perception of Need for Permanence
- System and Program Deficiencies
- Inadequate Practice
- Judiciary

Lifestyle

- Behavior Problems of Children and Families
- Public Attitude of "Children as Chattel"
- Custody Decisions
- Lack of Family Support

Environment

- Negative Family Perception of Children's Traits
- Inadequate Parenting
- Divorce or Death of Parent
- Public Information/Perception
- Needs of Waiting Children

Biology

- Handicaps
- Genetic Traits

PREVENTION STRATEGIES

Technology

Public Perception of Need for Permanence

1. The public needs to be better informed and better educated as to why permanent families are needed for children - that food and shelter alone are not adequate in fostering the development of healthy human beings. The public needs to know what is happening to children now and what could be done to improve the situation.
2. Additional media coverage for need of families for specific types of kids.

System and Program Deficiencies

1. Require that only persons with specialty training work with these families and have specialized caseloads (require certification and on-going training).
2. Maximum loads of 15 to 20 families per worker.
3. Establish continuum of care for child between and within agencies.
4. Increase effectiveness of the Children's Coordinating Cabinet.
5. Review Termination of Parental Rights (TPR) guidelines and propose statutory changes to encompass more offenses.
6. Enforce TPR laws and guidelines.
7. Review need for state involvement in all child relinquishments (custody/guardianship), including private group/foster homes.
8. Unification of child welfare services delivery system.
9. Increase numbers of protective service workers with better training and higher salaries commensurate with education and experience.
10. Development of an independent living program for 16-19 year olds who are not interested in adoption or a family situation.

Inadequate Practice

1. Intensify and require more indepth Permanency Planning training for workers.
2. More emphasis on rehabilitation of families, i.e., home.

Judiciary

1. Provide in-service training for Solicitor's.
2. Recruit and train Guardians ad Litem to be responsible and committed to children.
3. Full implementation of new law requiring judicial review of all cases.

Lifestyle

Behavior Problems of Children and Families

1. Expansion and development of therapeutic foster care program.
2. Additional and more indepth training for foster parents.
3. Encourage parents to form support groups.
4. Expand and develop treatment facilities for children with behavioral problems.
5. Provide individual and group counseling, self-help groups, etc. to help child understand behavior, causes and results.
6. Add life and parenting skills to high school curriculum.

Public Attitude of "Children as Chattel"

1. Public education toward changing attitudes.

Custody Decisions

1. Training of Family Court Judges regarding needs of children in custody decisions.

Lack of Family Support

1. Encourage families to seek support with their identity problems.
2. Encourage better communications within family units.

Environment

Negative Family Perception of Children's Traits

1. Educate families and community to recognize and become more sensitive to abuse and neglect of children.
2. Encourage in-service training on child abuse and neglect.

Inadequate Parenting

1. Educate people to do careful self evaluation prior to parenting (family education/schools).
2. Life skills taught in schools.
3. Provide homebound life skills instructors.
4. Need for better rehabilitation techniques.

Divorce or Death of Parent

1. Individual or group counseling (to include self-help groups) should be made available.

Public Information/Perception

1. Educate and inform public of the needs of children and effects of non-permanency.

Needs of Waiting Children

1. Involve the children as much as possible in planning for their future.
2. Provide individual and group counseling to deal with the child's concerns.
3. Increase medical insurance for adoptive children.

Biology

Handicaps

1. Increase availability of prenatal care and genetic counseling.
2. Provide financial support to families and/or foster home/adoptive homes to cover costs of care.

Genetic Traits

Same as above.

Further recommendations as follows:

1. Child abuse, neglect, and abandonment cases must be given priority by county solicitors so that long delays (months and even years) in achieving permanency for children will be avoided. The legal system should be a help rather than a hindrance to dependent children.

2. Committed, responsible guardians ad litem should be appointed to represent the child's best interest in court proceedings. The new program in the Midlands to recruit and train volunteer guardians ad litem should be expanded throughout the State.

3. Private children's homes should be encouraged to seek training for staff in working with families with the goal of rehabilitation and reunification. Frequently children in children's homes have not been adequately prepared for adoption prior to Termination of Parental Rights (TPR). Lack of preparation increases likelihood of disruption.

4. The Department of Social Services must put more emphasis on consistent follow-through in case management. Frequently each new caseworker

initiates a new treatment plan for a case rather than accepting the history and existing plan as the agency's plan.

5. Agencies must accept responsibility for problem children rather than attempting to shuffle them to other agencies. A more effective means of insuring responsibility with the intent of serving children must be devloped. The Governor's Children Coordinating Cabinet should refine efforts toward impact on services to children in South Carolina.

6. Agencies should give greater consideration to bringing early termination of parental rights petitions, e.g., at the thirty day hearing, when there is clear and convincing evidence that rehabilitation is not indicated (as in the case of severe abuse) virtually impossible, or likely to take many years.

7. Private children's homes should operate under the same auspices as other agencies in that they should meet licensing requirements and also be reviewed by the Foster Care Review Board System. Parents should not be permitted to "give away their children" by placing them informally in the children's homes where they could remain indefinitely. Other states by law prohibit these informal arrangements.

INADEQUATE PARENTING

CONTRIBUTING FACTORS

Technology

- Functional Illiteracy
- Lack of Social Support
- Education System

Lifestyle

- Functional Illiteracy
- Mobility of Families
- Stress

Environment

- Functional Illiteracy
- Stress
- Personality
- Role Modeling
- Parental Expectations
- Family Disruptions

Biology

- Stress
- Personality

PREVENTION STRATEGIES

Technology

Functional Illiteracy

1. Education

Lack of Social Support

1. Preventive services should be emphasized when helping families in times of crisis.

2. The family-support system should be voluntary and offered to all families. Categorical programs miss families in crisis and create service-connected stigma.

3. A family-support system includes personal guidance, emergency financial assistance, referral to and support for other services such as home-makers, day dare, case management, etc.

4. A family-support system should operate primarily in the families' own homes through home visiting. The support should also be practical guidance on a continuous intensive basis. Families should not be defined as "sick" and in need of "treatment."

5. The primary care giver (provider) in a family-support system needs training and experience with children together with training in the skills related to social work.

6. Organization of a family-support system is through central planning and monitoring with local administration and service delivery.

7. Family-support services emanate from the neighborhood so that workers are familiar with local conditions and resources. Larger cities must be divided into local neighborhoods and the program decentralized to these neighborhoods.

8. Families in crisis should be assisted on the same day they apply.

9. The guidance aspect to a family is discontinued as soon as possible, and the family helped to become independent and self-sufficient again.

10. The family-support system is adapted to the special characteristics and needs of minority groups if need be.

11. Determine model programs in other countries and states; send a study group to observe and recommend a system for our use.

Education System

1. Require a minimum number of family life enrichment courses for high school students.

2. Require the school system to provide information to parents on what they can do to help the child at home.

3. If teachers identify characteristics which might indicate possible family problems, refer family to a support group who could visit or invite family to attend self-help meetings.

Lifestyle

Functional Illiteracy

1. Use of media -- television, radio -- to present programs on parenting, child development.

Mobility of Families

Stress

1. Free group workshops at community level on how to deal with stress.

Environment

Functional Illiteracy

1. More adult educational emphasis.

2. Follow Governor Riley's Education Plan.

Stress

1. More support groups across state.

Personality

Role Modeling

Parental Expectations

1. Teach child psychology in high school.

2. Life skills course.

Family Disruption -- Death and Divorce

1. See earlier recommendations.

Human Biology

Function Illiterate

Stress

Personality

1. See earlier recommendations.

FAMILY VIOLENCE

CONTRIBUTING FACTORS

Technology

- Availability of Weapon
- Learned Behavior
- System Dysfunction
- Lack of System Response to Violence
- Economic Stress
- Judicial System
- Media Emphasis on Violence

Lifestyle

- Alcohol and Drug Abuse
- Learned Behavior
- Women as Chattel
- Parental Expectations

Environment

- Learned Behavior
- Organic Brain Dysfunction
- Sexual Stereotype
- Economic Stress
- Competitive Emphasis of Society
- Occupational Lifestyles
- Family Disruption
- Parental Expectations

Biology

- Organic Brain Dysfunction and Handicapping Conditions

PREVENTION STRATEGIES

Technology

Availability of Weapons

1. Stricter gun control.
2. Outlaw handguns.
3. Require signature for purchase of bullets.

Learned Behavior

1. Provide media materials which demonstrate non-violent but caring family life (60 second spots, etc.).

System Dysfunction

1. Less emphasis on violent sports.
2. Provide transcripts of recent hearings by Governor's Crime and Delinquency Council to National Task Force on Family violence.
3. State-wide registry with 24 hour availability should be established for cases of suspected abuse or neglect.
4. More stringent qualifications should be required for social workers and other protective service personnel.
5. Battered children syndrome should be a mandatory differential diagnosis for children under 5 who have traumatic injuries.

Lack of System Response to Violence

1. Provide emergency shelters for family violence victims -- mothers and children.

2. Support legislation to simplify the judicial process for cases of domestic violence.

3. Provide additional in-service training of law enforcement to deal with domestic violence -- the victims and the abusers.

4. Provide counseling services for victims and abusers.

5. Provide public awareness campaigns.

6. Mandatory continuing education regarding the identifications of child abuse and neglect should be required of family practitioners, pediatricians, and emergency medical service physicians.

7. Funds for research to substantiate that protective services are actually protecting children and maintaining family integrity.

Economic Stress

1. Provide for financial counseling for families.

2. Enhance opportunities.

3. Economic assistance planning stressed through South Carolina Department of Social Services and schools.

4. County and/or state governments should bear the expense of medicolegal procedures in a multi-agency coordinated sexual assault programs, utilizing existing resources where possible.

5. Allocate more funds for prevention programs as opposed to programs for the period after abuse has occurred.

Judicial System

1. Same as earlier recommendations.

2. Courts should be encouraged to accept nurse practitioners trained in the treatment and identification as an expert witnesses so they may be utilized in areas which lack physician support.

Media Emphasis on Violence

1. Provide public awareness materials on effect of violence in the media on children.

2. Encourage media industry to establish a rating system for programs to indicate levels of violence in addition to sex or explicit language ratings.

3. Encourage through persuasion Federal Communications Commission (FCC) regulations limiting violence on television.

Lifestyle

Alcohol and Drug Abuse

1. Schools emphasizing training on dealing with feelings and more positive addicting methods - e.g., Glogger's method.

Learned Behavior

1. Public awareness.

2. Parenting skills.

Women as Chattel

1. Equal Rights Amendment (ERA) ratified.

Parental Expectations

1. Teach child psychology in high schools.

Environment

Learned Behavior

1. See above.
2. Outreach programs (re: parenting skills, parental support).

Organic Brain Dysfunction

1. More research funding.

Sexual Stereotype

1. Ratify Equal Rights Amendment (ERA).
2. Encourage media with positive imaging of women.

Economic Stress

1. See above.

Competitive Emphasis of Society

1. Emphasis on less combative sports.

Occupational Lifestyles

1. Certain occupations have been identified as having a high risk for family violence, stress; teach other outlets for individuals to vent their frustrations -- fitness programs, individual and group counseling, etc.

Family Disruption (Separation/Death)

1. Require agencies involved in a family disruption to offer counseling around the disruption.

2. Support the establishment of self-help groups.

Parental Expectations

1. Parenting skills and child psychology courses taught in high school.

Biology

Organic Brain Dysfunction and Handicapping Conditions

1. Programs to identify these high risk infants and to provide the needed parental support and education to prevent possible abuse.

REFERENCES

Reyes, J.A. and Associates, Inc. A Curriculum On Child Abuse And Neglect, DHEW Contract No. 105-78-1103, April, 1979.

Sherman, Phillips, Haring, Shyne. Service to Children In Their Own Homes: It's Nature and Outcome. ed. by Child Welfare League Of American, Inc., 1973.

The U.S. Department of Health and Human Services. Better Health For Our Children: A National Strategy, v.II, DHHS (PHS) Publication No. 79-55071, 1981.

Central Midlands Regional Planning Council. Child Abuse and Neglect Prevention and Treatment, S.C. State Clearinghouse No. 04-0004-0, August 7, 1979.

Hamman, Wood and Atkins. Welcome Baby Manual, April, 1982.

The Family Task Force. Government As Model Employer, March, 1983.

South Carolina Perinatal Association. Guidelines For Achieving Perinatal Health In South Carolina, Second Printing, May, 1981.

South Carolina Conference On Children And Youth. Conference Proceedings, State of South Carolina, 1981.

Abramczyk, Lois W., Ed. D. Issues of Children and Youth In South Carolina, Pub. Center For Child And Family Studies, 1982.

Perinatal Curriculum Project, University of South Carolina. Healthy Moms Make Healthy Babies, USC Printing Department, Second Printing, revised, 1978.

Governor's Task Force. Prevention Of Child Abuse And Neglect, State of South Carolina, Final Report, 1982.

Boggs, Elizabeth M., Ph.D., and Henney, R. Lee, Ph.D. A Numerical And Functional Description Of The Developmentally Disabled Population In The United States, EMC Institute, Bill Of Rights Act As Amended In PL 95-602.

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Chapter IX: CHRONIC DISEASE

SUMMARY REPORT

The Chronic Disease Subcommittee identified and prioritized six important problem areas of chronic diseases in South Carolina that need to be addressed through prevention activities. They then analyzed each problem in terms of status, determinants, contributing factors, prevention strategies and outcomes expected if the recommended strategies are implemented. Eighteen individuals, representing 16 public and private organizations with various relevant backgrounds served as members. Many of these people devoted substantial time and effort to the project over a three month period.

The problem areas identified are shown in their order of priority below. Based on analysis of prevalence, severity, and availability of effective preventive measures, several problems received the same priority level.

1. cardiovascular diseases
2. cancer
   lung diseases
3. dental diseases
   endocrine/metabolic diseases, particularly diabetes
   musculoskeletal diseases

For all problem areas except musculoskeletal diseases, lifestyle factors were judged to be the most important contributing factors, ranging from 50% for cardiovascular to 75% for lung diseases. Biological contributing factors ranged from 5% for lung and dental diseases to 50% for musculoskeletal diseases, while technology and environment generally contributed considerably less.

Within lifestyle, four factors were consistently identified as major contributing factors. Sedentary lifestyle (inadequate exercise), smoking (and other tabacco use), stress (and inadequate coping skills) were each identified in connection with four problem areas. Inappropriate diet or malnutrition was identified as contributing to five problem areas. Other important contributing factors were alcohol abuse, inadequate oral hygiene, injury, overexposure to ultraviolet radiation, and sexual practices.

Major biological contributing factors included age, race, sex, genetic inheritance, and contributing or predisposing diseases. The most important was genetic factors, named in connection with all six problem areas.

Under technology, the major contributing factors named in five areas were insufficient knowledge base/research regarding the diseases and inadequate effective education for patients, professionals, and the public at-large. Inadequate screening/early identification was listed in four areas and insufficient professional care resources in three.

Few environmental factors were identified for more than one problem area. Environmental pollutants, occupational hazards and environmental stress, however, were each listed for two areas.

The major strategies selected which were judged to be most effective in combating these problems focused primarily on lifestyle changes, but there were also several repeated strategies related to improving technology. Generally major strategies cut across problem areas and contributing factors alike.

Education strategies surfaced more often than any others. Public or community education efforts were recommended most often, but school, patient, and professional education also appeared frequently.

Research constituted the second major type of strategy. Most problem areas needed additional research into the etiology of diseases in order to develop more primary prevention strategies as well as research regarding effective treatment. Another important area of research needed centered around understanding behavior and motivating change.

A number of strategies centered around changing smoking behavior. They included anti-public-smoking legislation and education, as well as, smoking cessation programs. Wellness program-related strategies and their individual components were very common. In addition to reduced tobacco use efforts, these included promotion of exercise, positive diet changes and increased skills to cope with stress.

Early identification through risk identification and screening was frequently recommended as was genetic screening and counseling. Other common strategies included increasing availability of professional services, reducing environmental pollutants, and strengthening/enforcing Occupational Safety and Health Administration (OSHA) standards.

INTRODUCTION

In the history of chronic diseases, the one overriding fact is that the major success in combatting these costly conditions are attributable to public health activities. Accordingly, the greatest impact on those chronic conditions inflicting the highest burden on our state will best be addressed through community-based efforts. Priorities should include: health education, particularly in the schools and among high-risk community groups; continued research, including improvements in educational and motivational strategies; legislation in support of public health endeavors; and, where applicable, incentive programs which encourage healthy lifestyles.

Although agreement was reached on which chronic diseases would best be dealt with first, the committee felt a more productive approach was to identify specific health promoting activities common to the prevention of the major chronic diseases. Since disease-oriented programs tend to be more narrowly focused, which does not permit the extensive interdisciplinary involvement necessary to change community behavior, this lifestyle orientation seemed appropriate. Programs targeted at the adoption of a prudent diet, smoking prevention and cessation, increased physical activity, a safer, cleaner and supportive environment, and the identification of high-risk-for-illness populations and those in the earliest stages of the disease process would prevent those specific chronic diseases of interest and be administratively more amendable to comprehensive methodologies.

Intervention programs directed at these various behaviors are advocated. Evaluation should be based initially on behavioral changes rather than disease status becuase of the lag time between behavior change and decreased disease. However, close scrutiny should be maintained over program objectives, with continual updating occurring as current scientific knowledge dictates.

It is the firm belief of this expert subcommittee on the primary prevention of chronic diseases that such efforts are scientifically justified and are a cost-effective investment for our state. Prevention is a keystone in a quality life.

CARDIOVASCULAR DISEASES

Problem Status

Cardiovascular disease (CVD) is the most serious health problem of all chronic diseases affecting the South Carolina population in 1983. Over 48% of all deaths in South Carolina are attributed to CVD each year.

The total number of deaths in 1982 in South Carolina due to CVD was 12,143. They are broken down into the following categories: Rheumatic Fever, 61; Hypertensive Heart Disease, 412; Ischemic Heart Disease, 5,926; Chronic disorders of Endocardium and other Myocardial insufficiencies, 520; Hypertension, 132; Cerebrovascular Disease (Stroke), 2,378; Atherosclerosis, 266; and other Circulatory Diseases, 284. One of every four people in South Carolina has one or more forms of CVD.

Contributing Factors

TECHNOLOGY [25%]:

- Hypertension Control
  - Personal medical service
  - Education -
    - A. Patient/community
    - B. Professional
  - Research/knowledge base and transfer

LIFESTYLE [50%]:

- Malnutrition
  - Saturated fat

Salt

Triglycerides

Obesity

Smoking

Poor coping style (Type A personality)

Sedentray lifestyle

ENVIRONMENT [5%]:

Stress

Soft water

BIOLOGY [20%]:

Heredity

Diabetes and other contributory diseases

Age (Older)

Sex (Male)

Race

Prevention Strategies

Technology factors can comprise 25% of the total effect in the reduction of CVD. Already technology has played a great part in providing many teatments for CVD. These include evaluation measures, surgery procedures and medications. Additional research increases the knowledge base for scientists and helps with the transfer of knowledge to citizens of South Carolina Scientists still strive to discover the unknown factors which cause CVD development. Research programs should be supported to continue technological developments which can reduce the incidence of CVD.

Hypertension is a risk factor of CVD which affects 38% of the South Carolina population. The risk factor should be identified and controlled to reduce an individual's total risk of cardiovascular disease.

Modification of lifestyle can have the greatest percentage of effect on reduction of cardiovascular disease at 50%. The major lifestyle factors affecting CVD which should be changed include: Malnutrition, smoking, high stress level, sedentary life style and hypertension.

The nutritional habits of the South Carolina population should be addressed. Reductions in the amount of saturated fact and salt in the diet are needed. Also, South Carolinians need to reduce obesity.

Cigarette smoking has been proven to increase risk of CVD. Therefore, citizens should reduce amount or cease from smoking cigarettes altogether.

High stress levels in individuals have an effect of CVD. The exact effect is not known, but Type A behavior should be modified to reduced risk of CVD. Also, individuals should learn to cope with the stress in their life.

Exercise is a vital component of cardiovascular fitness. Individuals should be encouraged to maintain a regular exercise program.

Lifestyle changes in the SC population should be induced through educational activities on all risk factors of CVD. Additionally, the mechanisms which can motivate individuals to change their lifestyle must be identified and made available.

Environment accounts for 5% of the CVD problem in South Carolina. Stress is becoming increasingly popular as a subject of investigation as to the exact effect of stress in development of CVD. Also, soft water appears to have an effect.

Environment has received a great deal of attention lately with regard to no-smoking areas. The sub-committee recommends continuation of the establishing of no-smoking areas, and further research to determine the effects of second-hand smoke.

Human biology accounts for 20% of the CVD problem in South Carolina. Heredity, sex, age, and race are a part of the biology aspect. Also, diabetes and other contributory diseases are factors in development of CVD. These factors in human biology need further study to determine effective intervention strategies.

Specific recommendations are as follows:

TECHNOLOGY

1. Institute or continue hypertension screening and follow-up counseling programs.

2. Expand both community and professional education programs.
   Institute Kindergarten through twelfth grade (K-12) education program related to lifestyle.

3. Legislative support for cardiovascular disease risk reduction programs.

4. Research in development of motivation techniques and strategies.

5. Research investigation of prevelance of risk factor behavior.

LIFESTYLE

1. Promotion of prudent dietary habits through:

   Community education

   K-12 education

   Wellness programs

   Prenatal counseling

   Continuing education programs for physicians

   Health Department counseling

2. Promote anti-smoking campaigns (particularly K-12)

   Promote non-smoking regulations in work place and public places

   Promote smoking cessation programs

3. Promote wellness type activities in work place and community, i.e., exercise and coping techniques

4. Encourage non-smoking areas in public places, i.e., offices, restaurants

5. Legislation to restrict public ads of negative lifestyle

Outcome

TECHNOLOGY:

Availability of screening-counseling

Legislation

Research

   Education (Motivation techniques)

   Biology/Epidemiology

Tax

Research for identification for risk factor control

LIFESTYLE:

Better education

Better dietary habits

Motivation

Occupational incentives

Role models

(Tax incentives)

ENVIRONMENT:

Non -smoking areas

Health inducing changes

Job design

Insurance rates

HUMAN BIOLOGY:

Early screening

Medical intervention

CANCER

Problem Status

Cancer is the first or second most common cause of death in all age groups with about 5,000 deaths in South Carolina in 1981. Specific causes are known for less than 50% of the cancers, but as high as 80% may have environmental or lifestyle causal components.

We have treated cancer as a grouping of similar diseases in view of overlap of risk factors and lack of knowledge of exact causes.

The effects on individuals are both short and long-term disability or death and are a major cause of loss of productive life.

The treatment cost of cancer is extremely high, both in terms of financial cost of treatment and loss of quality of life.

Contributing Factors

TECHNOLOGY [10%]:

X-rays

Industrial pollution

Lack of knowledge of carcinogens and anticarcinogens

Lack of relevant public and professional education

Lack of screening for pre-cancerous lesions

LIFESTYLE [70%]:

Smoking and other tobacco use

Diet

Sexual practices

Sun worship

ENVIRONMENT [10%]:

Environmental pollution

Ultraviolet radiation

BIOLOGY [10%]:

Mechanism of carcinogenesis

Genetic abnormality

Prevention Strategies

Technological interventions include late stage primary strategies. These are limited to screening for a few sites only and some remain controversial as to specificity, efficacy, frequency need, risk/benefit, and cost-effectiveness. Unwarranted Public anxiety and the need for expensive (hazardous) investigation of false Positive reactions are major problems with population screening. Pap testing for cervical pre-cancer is well documented and available to all except limited segments of the population. Mammography for breast cancer and guiac tests for colon cancer are effective for early detection, but risk/benefits and cost-effectiveness of their usage for the whole population remain unclear.

It appears probable that primary prevention of cancer will ultimately evolve into manipulating the carcinogen-anticarcinogen mechanisms to prevent or reverse both induction and promotion of cancers, rather than trying to prevent all exposure to carcinogens. Therefore, increased research in this area should be a major function in a comprehensive prevention program for the group of diseases we refer to as cancer.

Lifestyle interventions include more of the timely primary prevention strategies. Avoidance of tobacco use and of overexposure to ultraviolet radiation, as well as, diet modification (prudent diet) are all highly rated interventions that

require significant changes in personal lifestyle. The educational methodology for motivating such changes is far from adequate and requires further research. However, useful responses can be anticipated for both children and adults using current techniques if they are implemented by competently trained individuals who discriminately select scientifically-based procedures.

There is overwhelming evidence that discontinuance of all tobacco use would result in a reduction of cancer deaths by nearly one third, and that a major proportion of this reduction would be within the first five years. This should, therefore, have priority as a goal.

Interventions to reduce environmental (occupational and general) pollution by carcinogens must not be overlooked. Unfortunately, there is little specific evidence pinpointing causal relationships and appropriate environmental prevention strategies for major cancers at this time.

Specific recommendations are as follows:

TECHNOLOGY

1. Reduce medical usage and dosage of x-rays.
   Nuclear controls strengthened.

2. Strengthen OSHA technical monitoring and control of Industrial Pollution.

3. Increase basic research of carcinogens and anticarcinogens.

4. Design educational programs targeted to specific problems of motivating lifestyle changes with improved techniques of dissemination and translation to health behaviors.

5. Introduce screening programs when they can be shown to be effective, be cost effective and not increase population risks, i.e., breast, colon, cervix, skin.

LIFESTYLE

1. Discontinue tobacco use.

2. Prudent diet regimen - reduction of total fat and increase in amount of green and yellow vegetables in diet (avoidance of scientifically unproven excesses).

3. Reduce spread of sexually transmitted diseases by education and use of condoms.

4. Educate public concerning dangers of sun worship and promotion of the use of sunscreens.

ENVIRONMENT

1. Identify and reduce pollutions.

   Limit interstate import of pollutants.

2. Use sunscreens.

   Promote use of sunscreen lotion.

BIOLOGY

1. Increase research into mechanisms of carcinegenesis.
2. Increase research into genetic defects.

Outcomes

TECHNOLOGY:	Change
X-ray usage	Minimal
Industrial pollution	Minor
Research	Minor from search for carcinogens, but possibly major from research into anti-carcinogens and understanding mechanism of carcinogenesis (also Biology) most probable area for major breakthrough.
Education	Moderate-major; targeted education required to motivate and effect lifestyle changes
Screening	Minor-moderate.
LIFESTYLE:	
Tobacco usage	Major; up to 80% reduction in lung cancer and lesser but important reduction in other cancers.
Prudent diet	Moderate; 10-50% reduction in gastro-intestinal breast cancer.
Sexual practices	Very minor effect.
Sun exposure	Major reduction in skin cancer.

ENVIRONMENT:

Pollution	Minimal
UV Radiation	Moderate reduction from use of sunscreens in susceptibles.

LUNG DISEASE

Problem Status

While lung diseases, other than cancers, are not listed as the most notable of killers in South Carolina, the impact of these problems continues to be one of the most costly in terms of expense to society and human suffering. Lung diseases such as emphysema, chronic bronchitis, asthma, and the host of occupational lung disease can be directly related to the lifestyle choices of the afflicted person. Prevention to assure lung health is possible.

Contributing Factors

TECHNOLOGY [5%]:

- Medication
  - Bronchiodialator drugs (bronchitis)
  - Antibiotics (Emphysema, pneumonia)
  - Vaccines (Pneumonia)
- Research
  - Bronchitis
  - Asthma
  - Emphysema
  - Pneumonia
- Diagnostic tools (Personal Medical Services)
- Educational programs

LIFESTYLE [75%]:

Alcohol

Smoking

Exercise

Nutrition

Coping style

ENVIRONMENT [15%]:

Air quality

Occupation

BIOLOGY [5%]:

Age (Infant & over 50)

Sex (Male more susecptible)

Severe illness/chronic infection

Pregnancy

Lack of 1 Antitrypsin

Genetic factors

Prevention Strategies

The emphasis for education programs in the future must center around smoking cessation, proper nutritional practices, and moderate exercise. Early recognition of lung problems and quick intervention can reduce these health problems to a great extent. The advancement of the technology in the care of lung disease patients can assist with coping with the problem but have little effect on prevention.

Though there can be a myriad of contributing factors to the diseases we are looking at, smoking continues to be noted as the number one culprit in almost all cases. In many cases of chronic lung disease, there would be little or no debilitation if it were not for the individual's lifestyle, including either smoking or being exposed to second-hand smoke from others. This includes those occupational lung problems that have been much publicized of late.

Environmental factors do play an important role in the problem of lung diseases. These health problems continue to cost the taxpayer billions of dollars each year in lost productivity, suffering, and Social Security benefit payments. Enforcement and constant tightening of air quality standards will further reduce the impact of these diseases. Again, however, smoking by the worker is cited as a major contributing factor in the onset of occupational related lung disease.

Smoking has been identified as a major health problem for the unborn and newborn infants. Smoking by the mother has a direct influence on the development of the fetus and the potential for the child having lung problems after birth. If parents smoke, there is damage to the lung development of the child during the crucial developmental years up until age twelve.

Specific recommendations are as follows:

TECHNOLOGY

1. Research and public education concerning appropriate medication needs to be increased.

2. Increase availability of public educational materials concerning hazards of smoking.

LIFESTYLE

1. Anti-smoking education and legislation needs to be drastically increased.

2. Encourage community and work place wellness programs.

ENVIRONMENT

1. Improve air quality standards.

2. Redesign jobs or change jobs to reduce personal environmental stress.

3. Strengthen Occupational Safety and Health Administration (OSHA) Regulations concerning air quality standards.

4. Legislate the prohibition of smoking in public places.

BIOLOGY

1. Public education as to role of age and sex in disease process needs to be expanded.

2. Early detection of problems needs to be increased through screening programs and education.

Outcome

TECHNOLOGY:

Improvement in physical therapy, respiratory therapy will contribute to ability to cope with disease.

Research on new ways of detection and early intervention would reduce detrimental effects of diseases.

LIFESTYLE:

Reduction in smoking would be the single largest contributor to reducing lung disease.

Early detection of related problems would reduce severity.

ENVIRONMENT:

Strengthening air quality regulations and enforcement will reduce lung disease significantly.

Strengthening OSHA regulation system will help also.

HUMAN BIOLOGY:

Early detection of those predisposed to disease could lessen severity.

DENTAL DISEASES

Problem Status

Ninety-eight percent of the citizens of South Carolina are affected by dental diseases at some point in life. Dental caries and periodontal diseases make up the largest quantity of this "disease." Other conditions such as malocclusions, developmental disorders, and accidents involving the oral tissues might also be reasonably considered since many of these conditions are preventable. Oral cancers and systemic infections from dental origins might also be included in this classification as severe manifestations of dental diseases. Pain, infection, disfigurement and life-threatening situations result from dental diseases. The cost in time and dollars required to treat neglected dental disease is staggering. The challenge is to change a human mind set that has frequently considered dental disease as inevitable when it is, in fact, highly preventable if available measures are implemented.

Contributing Factors

TECHNOLOGY [15%]:

Unavailable dental care

Suboptimal fluoride

LIFESTYLE [70%]:

Poor nutritional status

Suboptimal fluoride

Inadequate oral hygiene

Inadequate education

ENVIRONMENT [10%]:

Suboptimal fluoride

BIOLOGY [5%]:

Congenital defects

Prevention Strategies

Technological strategies include providing information to dental professionals regarding need for dental services and informing them of state of the art prevention practices; doing follow-up surveys of dental service and demand areas to determine continuing or new needs; coordinating with other dental service providers to develop a more uniform service delivery system; involving other health professionals and providers in dental education and prevention-based interventions; developing dental screening and referral systems to ensure identification and problem treatment at early stages. Increase the use of dental sealants to prevent caries.

Lifestyle changes would be brought about by providing community, school and individual education programs to teach the role and responsibility of the individual in his own health care.

Environmental changes could be accomplished by expanding community and school-based fluoride programs.

By 1988, 98% of the dental professionals in South Carolina should be provided information of available prevention services and assistance with implementation upon request; by 1988, 50% of the comprehensive health service providers outside the private practice sector should include dental services in their list of

available services; by 1988, 90% of expectant mothers in public health systems should receive instruction in good oral health practices for their children and families; by 1988, 85% of South Carolina citizens on a public water system should be drinking fluoridated water and 35% of the children in grades K-5 in public school should be participating in fluoride mouth rinse programs. By 1988, 90% of the public school teachers for grades K-5 should be provided information on teaching good oral health practices in their classes. By 1990, dental caries and incipient periodontal disease as evidenced by poor oral hygiene and gingivitis should be reduced 20% from the levels seen in the 1982-83 South Carolina Dental Needs Assessment Survey.

Specific recommendations are as follows:

TECHNOLOGY

1. Pass legislation to require fluoride addition to all except private water systems.

2. Initiate or expand community dental clinics.

LIFESTYLE

1. Begin a systematic education program (K-12) of relationship between nutrition and dental disease; begin similar community-based programs for adults; begin similar programs for expectant mothers.

2. Begin and/or expand community and school-based fluoride programs such as school-based fluoride mouth rinse programs.

3. Begin and/or expand school and community dental health education programs.

4. Increase the availability of professional continuing education so as to provide the latest in prevention information.

Outcomes

TECHNOLOGY:

By providing optimal fluoride to most of the population, there would be a significant reduction in occurrence and severity of caries.

LIFESTYLE:

Education of K-12, adults, and pregnant women may greatly reduce the underlying nutritional problems related to dental disease. Such educational programs would also address oral hygiene problems. The starting of fluoride mouth wash programs K-12 would address major age groups of concern with caries. Long-term effects would be the reduction of adult dental disease, resulting in less time lost from job.

DIABETES MELLITUS - TYPE II

Problem Status

This encompasses all types of diabetes, with Type II (mature onset) being the most prevalent. Diabetes is the seventh leading cause of death in South Carolina, although it may rank as high as third if all complications of the disease are considered. Diabetic perinatal mortality in South Carolina is estimated to be over 75.6 infant or fetal deaths per 1,000 deliveries, over three times higher than the overall perinatal mortality. Gestational diabetes is the sixth leading cause of fetal death in South Carolina. There are an estimated 159,000 diabetic (all types) citizens in South Carolina and 82,659 citizens have already been diagnosed with diabetes.

Secondary prevention related to the complications of Type II and gestational diabetes would possibly save many people large amounts of money and disabling lives. People with diabetes are 25 times more prone to blindness thand non-diabetics and twice as prone to heart disease. Diabetics in South Carolina are hospitalized nearly 2.8 times more often than non-diabetics. The average hospitalization is $1,000 which does not include physician cost, medicine costs, and time off from work. The cost to the patient for medicine, physician visits, and insurance premiums is extremely high.

Contributing Factors

TECHNOLOGY [5%]:

Insufficient/inadequate education

Professional

Public

Patient/family

Insufficient Identification of high risk

Lack of knowledge

ENVIRONMENT [5%]:

Stress

LIFESTYLE [60%]:

Poor diet/obesity

Sedentary lifestyle

Stress

BIOLOGY [30%]:

Age

Sex

Heredity

Race

Other contributing diseases

Prevention Strategies

Scientific data collected so far seem to indicate that obtaining and maintaining ideal body weight, especially in the middle age, black, female population, is the best primary prevention strategy available at this time. Until more research is done into the epidemiology of Type II diabetes, weight control and birth control are all that is available. Many practicing physicians and clinical investigators believe that better degrees of blood glucose control decrease the frequency and severity of the complications of diabetes. The weight of evidence from the literature supports this view.

Specific recommendations are as follows:

TECHNOLOGY:

1. Institute clinical screening for high risk individuals linked with educational follow-up.

2. Promote medical intervention early to minimize losses.

3. Improve educational strategies in public and patient education; Develop motivation techniques; Continue support of basic scientific research into disease cause and treatment.

4. Continue allocation of funds for research and educational programs through appropriate legislation; encourage incentives for diet habit promotion in the private sector through government legislative support.

5. Increase orientation of physicians to prevention risk factors.

6. Continue support of diabetes project.

LIFESTYLE:

1. Promotion of recreational activity which include exercise.

2. Birth control counseling for high risk groups.

3. Proper diet counseling for high risk groups.

4. An emphasis on better educational techniques in K-12, public and professional education as well as enhancing employee lifestyle awareness through programs of coping skills, weight control, and wellness programs.

Outcomes

TECHNOLOGY:

Screening for high risk groups

Professional education

Public education

Patient education

Research

Education for the diabetics

Motivational education techniques

LIFESTYLE:

Promote better dietary habits

Promote exercise

Stress reduction

ENVIRONMENT:

Stress reduction

BIOLOGY:

Weight reduction programs

Avoidance of contributory medications

MUSCULOSKELETAL DISEASES

Problem Status

The musculoskeletal system is composed of bones forming the body's structural framework, the joints or junctures at which two or more bones are articulated, and the muscles attached to the bones, which provide the force which moves them. The diseases effecting this body system are seldom life threatening, but are a major cause of pain, morbidity, and disability resulting in reduced productivity at considerable social and personal expense. Selected on the basis of incidence, the diseases discussed are osteoarthritis, rheumatoid arthritis (RA), low back pain/sciatica, scoliosis, spondylolistheses, ankylosing spondylitis (ANK), and osteoporosis (Osteo).

Musculoskeletal disease afflicts nearly 100 million Americans. Sixty-five million alone suffer one or more types of back pain; 20-30 million suffer mild to chronic forms of rheumatoid arthritis, and one female in four over age 65 indicates osteoporosis.

Contributing Factors

TECHNOLOGY [10%]:

Early detection/Screening (Scoliosis; Spondylolisthesis; R.A. ANK.)

Physical education (low back pain)

Medical management (all)

medication

Surgery

Job modification/retraining (all)

Education

Diet education (osteo)

Patient education (all)

Research knowledge base transfer

LIFESTYLE [25%]:

Injury (low back pain; spondylolisthesis; oseo)

incidental

motor vehicle

recreational/sports

occupational

Sedentary lifestyle

Malnutrition

Over nutrition (all)

Poor food choices (osteo)

Physical activity (all)

Fracture trauma (osteo)

Stress (R.A.)

Smoking

ENVIRONMENT [15%]:

Injury (Low back, spondylolisthesis, osteoarthritis)

incidental

motor vehicle

recreational/sports

occupational

Phychogenic (Depression/anxiety - low back pain)

may impair management and recovery from other conditions

Infection (R.A.; low back pain)

Heavy labor occupations (Osteo; low back pain; spondylolisthesis)

Low sunlight exposure (osteo)

BIOLOGY [50%]:

Age (ank. spon. 20-30 years, others occur with age)

Congenital malformation (scoliosis and spondylolisthesis)

Gender (scoliosis, R.A. - female; low back pain - pregnancy;

ank. spon. - males) (osteo)

Rank (ank. spon. primarily caucasian)

Heredity (ank. spon. - gene area B 27)

Obesity (low back pain; spondylolisthesis)

Posture (Osteo - compression due to upright posture)

Autoimmune dysfunction

Nutrient absorption deficiency (osteo)

Prevention Strategies

Technology prevention strategies through medicine and public health education can have significant impact on improving awareness and knowledge, and attitudes of the public toward these potentially debilitating diseases.

The prime lifestyle prevention strategy is physical fitness. Programs promoting physical education and employee wellness are of paramount importance in fending off joint deterioration resulting from biochemical stress due to muscle weakness and obesity. The general health inducing aspects of a sensible fitness program has overall constitutional benefits contributing to the musculoskeletal system as well.

Environmental prevention strategy of importance is the reduction of occurrence and severity of physical injury which would later contribute to chronic musculoskeletal disease. While it may seem impractical to propose, a de-emphasis, a careful consideration of rules regulating inter-scholastic contact sports in conjunction with the promotion of less contact oriented atheletics would do much to reduce the potentially disabling injuries sustained by youthful participants Renewed support for occupational health and safety in the form of research and regulation should have the desired effect of reducing work related injuries.

Specific recommendations are as follows:

TECHNOLOGY

1. Increased support for Crippled Children's Program.

2. Redouble efforts at public awareness through Public Service announcements and education television programs.

3. Support public school nursing programs.

4. Funding for research, health/nutrition education programs.

5. Continue support of Public Health education via Public Service Announcements and Public Health Department.

6. Incorporate "Wellness" into public school physical education curriculum.

7. Support for employee "Wellness" Programs.

8. Support Public Health Department.

9. Support employee wellness efforts.

10. Funding of research efforts.

11. Funding of rehabilitation treatment centers.

12. Public school physical education/health curriculum.

13. Support of public health education through health department and health insurers.

14. Encourage health/fitness services providers to emphasize rehabilitation efforts.

15. Support vocational rehabilitation.

16. Funding for research.

17. Financial support of treatment centers, research efforts, and medical training.

18. Support of vocational rehabilitation education activities.

19. Continued support of Community Mental Health.

20. Encourage education/counseling specialists at treating hospitals.

21. Support public health nutrition education.

22. Support school health promotion activities.

23. Enact tax incentives for job accomodation made by employers.

24. Support Vocational Rehabilitation.

25. Continue development of occupation training curricula that is less labor intensive.

LIFESTYLE

1. Legislation mandating auto safety standards.

2. Funding for road repair and law enforcement.

3. Support for product testing for sports/recreation equipment and facilities.

4. De-emphasis on contact sports.

5. Enforcement of Occupational Safety and Health Administration (OSHA) standards.

6. Research and support for occupational health and safety.

7. Incentives for weight reduction and control through adjustments of insurance rates.

8. Support for public health education concerning nutrition and diet.

9. Improve Public Nutrition Programs.

10. Improve school nutrition education.

11. Support for treatment centers (patient instruction and family instruction).

12. Support for Public Health Education through Public Health Department.

13. Support for Wellness Programs.

14. Support for improved programs of physical education in public schools.

15. Support for community physical activity centers.

13. Support employee health promotions/stress reduction programs.

14. Support mental health.

BIOLOGY

1. Early screening for congenital malformation.

2. Support of Crippled Children's Programs.

3. Support for School Nurse Program.

4. Education of predisposed population to methods of risk reduction.

5. Genetic counseling.

6. Support for physical education in public schools.

7. Support for employee "Wellness" programs.

8. Incentives for weight reduction and control in insurance coverage.

9. Support for public health education concerning nutrition and diet.

10. Dietary counseling/nutrition education.

11. Improve medical diagnostic capabilities.

Outcomes

TECHNOLOGY:

Medical research

Crippled Children's Program

Public Health Education -- Public Service Announcements and Educational Television -- private insurers

Public school nurse program

Wellness program

Physical education

Vocational Rehabilitation/Job retraining support

Medicaid/Medicare

LIFESTYLE:

Legislata auto safety

Public highway maintenance

Traffic law enforcement

De-emphasize contact sports; emphasize sports product testing

Occupational Safety and Health Administration enforcement

Research and support for occupational health and safety

Physical education in public schools

Wellness

Insurance company sponsored wellness incentives

Public health education

ENVIRONMENT:

Occupational Safety and Health Administration enforcement of standards

Research and support for Occupational Health and Safety

Legislate auto safety

Public highway maintenance

Traffic law enforcement

De-emphasize contact sports; emphasize sports products testing

Community mental health

Vocational rehabilitation

Medical research

Insurance company sponsored incentives for precautions to be adopted by employers

BIOLOGY

Crippled children's program

Public school nurse program

Genetic counseling -- medical school

Public school -- Physical education

Employee wellness programs

Insurance company sponsored wellness incentives

Public health education

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Chapter X: CRIME AND DELINQUENCY

SUMMARY REPORT

The Crime and Delinquency Subcommittee was composed of fourteen representatives from public and private organizations that serve the criminal and juvenile justice systems. The charge to the Subcommittee was to identify prevention strategies that could potentially reduce crime and delinquency in South Carolina.

During subcommittee deliberations, subcategories of crime and delinquency were established and are addressed in the full report. From these subcategories, major contributing factors were reviewed in the areas of technology, lifestyle, environment and biology. The majority of the contributing factors fell within the realms of lifestyle and environment with a great deal of blurring between the two.

The Subcommittee viewed the principal socializing institutions of family, school and work as appropriate areas for prevention strategy implementation. A consensus reached by the Subcommittee was that the school must be the primary public institution to socialize children and provide them with the necessary skills and attitudes to participate as responsible citizens in a law-abiding society.

A summary of the major contributing factors and prevention program strategies is illustrated in the following:

CONTRIBUTING FACTORS	STRATEGIES
Lack of understanding of substance use.	1. Alcohol and drug education for fifth graders.

CONTRIBUTING FACTORS	STRATEGIES
Lack of cognitive and social skills (i.e., problem solving, conflict resolution, impulse control, stress management and communication skills).	1. Affective and life skills education for K-6 grades. 2. Law related education for K-8 grades. 3. Interpersonal skills training for sixth graders.
Lack of parenting skills and resources for families in conflict.	1. Parenting skills education for elementary and middle school students. 2. Parenting skills education provided through community organizations for parents of preschoolers. 3. Parent support groups for parents of elementary and middle school students. 4. Shelters for abused women, children and runaway juveniles. 5. Arrest and overnight detention of assaultive spouses. 6. Rape avoidance awareness programs.
Lack of basic job skills, work habits and employment opportunities.	1. Career information and experience in middle schools.
Lack of appropriate leisure activities, utilization of existing leisure resources and poor peer association.	1. After-school recreation program in schools.

CONTRIBUTING FACTORS	STRATEGIES
Lack of attachment and commitment to education.	1. Lower student-to-teacher ratio. 2. Teacher effectiveness training in college curriculums and on the job. 3. Remedial education for students in elementary grades. 4. Volunteer peer tutoring programs. 5. In-school suspension programs. 6. Mainstream students experiencing academis difficulties.
Lack of appropriate societal ethics concerning illegal activities (i.e., availability of attractive property and easy with which it can be stolen, probability of not getting caught, enjoyment of risk taking, high status for beating the system, materialistic lifestyle, etc.)	1. Expansion of crime watch programs. 2. Require security measures in building codes. 3. Law related education for K-8 grades.
Lack of restrictions on handguns.	1. Adopt handgun control laws with licensing and registration requirements.

The Subcommittee perceived the potential outcome of widespread implementation of these strategies to first influence children's behavior and juvenile delinquency with eventual reductions in adult crime. Reductions are initially anticipated in those crime most frequently committed by juveniles (i.e., vandalism, breaking and entering, larceny, motor vehicle theft and arson). The added benefits of these program strategies will be an increased number of children successfully completing school and becoming gainfully employed.

INTRODUCTION

The problems of crime and juvenile delinquency have been the focus of concerted governmental efforts since the passage of the Omnibus Crime Control and Safe Streets Act, and the Juvenile Delinquency Prevention and Control Act in 1968. Billions of dollars have been expended by both the federal and state governments since that time in an effort to reduce crime and improve the criminal justice system. Concurrently, there has been a major effort to improve the "quality of life" through social programs which began as President Johnson's "war on poverty." The association between poverty and crime seemed to suggest that a reduction in crime would be one of the benefits of the social welfare programs.

In spite of the major efforts by federal, state, and local governments to reduce crime and ameliorate the effects of poverty, both remain serious social problems. Nationally, the crime rate has remained relatively stable during the past ten years with a decline registered in 1982 when the rate of victimization actually declined by 4%. The decrease was realized in the property crime category, specifically household burglary, while the rate of violent crime, i.e., murder, rape, robbery, and aggravated assault remained the same.[1] In South Carolina, the number of reported index crimes (crimes indexed by the FBI on the basis of seriousness) increased 12.4% in 1980, .8% in 1981, and 2.5% in 1982, while the crime rate, or the number of crimes per 10,000 people, increased 10.7% in 1980, decreased 1% in 1981, and increased 1.4% in 1982. The crime rate for violent crimes increased 12.4% in 1982, while the crime rate for non-violent crimes decreased by 1% that year.[2]

Victimization studies indicate that a substantial amount of crime goes unreported to law enforcement agencies; while nationally, the reporting rate was only 48.2% for violent crimes and 26.9% for crimes of theft,[3] the reporting rate in South Carolina appears to be much higher at 80%.[4] Based on an 80% reporting rate, it is estimated that there were 214,443 index crimes in South Carolina in 1982.

Problem Status

Murder

There were 348 murders reported in 1982 which accounted for 1.5% of all violent crimes and .2% of the total index crimes. Firearms were used in 66.7% of the murders and cutting instruments in 20.7%. The most frequent victim was a black male, age 25-29. Murder victims within the family accounted for 29%, outside the family but known to the victim 55.7%. Over 59% of all murders occurred at residences. Two major factors are present in the majority of the murders: alcohol is involved in 40-60% of the murders, with the victim, the offender, or both under the influence of alcohol; and arguments were known to have preceded the murder in 52.9% of cases in 1982.

Rape

There were 1,244 rapes reported in 1982, which accounted for 5.4% of all violent crimes and .7% of the total crime index. Of all persons arrested for rape, 53.9% were under the age of 25; 31% of those persons were white and 68.4% were black. The relationship of the victims to offenders outside the family but known to the victim was 47.2%, strangers 39.4%, and within the family 11.2%. Sixty-two percent of the victims were between the ages of 15-29, and 52.6% of the rapes occurred in residences and 20.8% on the highways, streets, etc.

Robbery

A total of 3,922 robberies was reported in 1982, which accounted for 17% of all violent crimes. Of all persons arrested for robbery, 25.2% were white and 74.4% were black. Firearms were used in 34.2% of the robberies. The greatest number of robberies occurred on streets and highways, accounting for over 39.6% of the total. Robbers tend to be chronic offenders.

Aggravated Assault

There were 17,547 aggravated assaults reported in 1982, reflecting a 17.8% increase over the previous year. Aggravated assaults accounted for 76.1% of the violent crimes and 10.2% of the total index crimes. Eighty-seven percent of the aggravated assaults involved the use of a weapon such as a firearm or cutting instrument.

Recent research by the Rand Corporation indicates that a small number of criminals are responsible for a disproportionate amount of the violent crime. The "violent predator" represents only 10% of all U.S. criminals, but commits nearly 50% of all violent crimes. While the average armed robber commits three heists a year, the "violent predator" commits nearly 135 a year.[5]

While the prevalence of murder, rape, and robbery is relatively insignificant in relationship to all crime, the severity of the impact of the crimes on the victims is extreme, making it a major public concern. The costs to both the individuals involved and society as a whole are extraordinarily high. Victims may suffer permanent injuries that inalterably change their lives, while the offenders, if caught and convicted, suffer a loss of freedom while imprisoned. Enormous costs to society result from prosecution and imprisonment of offenders, and the more nebulous costs resulting from pooled insurance costs for health care or death or disability benefits.

Larceny

There were 91,929 larcenies reported to law enforcement agencies in 1982. Larcenies, or the unlawful taking of the property of another without the use of force or fraud, accounted for 61.9% of all nonviolent crimes and 53.6% of the total crime index, making it the crime with the highest frequency. Thefts of motor vehicle parts, accessories, and contents accounted for 34.3% of the larceny category, while shoplifting made up 14.4%. Persons under the age of 17 accounted for 18.7% of those arrested for all categories of larceny. The total reported value of property stolen in 1982 in larcenies was $28,688,548.

Breaking and Entering

There were 47,675 breaking or entering offenses reported in 1982, reflecting a decrease of 5.1% from the previous year. Breaking or entering, or the unlawful entry of a structure with the intent to commit a felony or theft, accounted for 32.1% of all nonviolent crimes and 27.8% of the index total. Of all persons arrested for this offense, 50.6% were white and 49.2% were black. The total reported value of property stolen in 1982 in breaking or entering offenses was $30,200,964.

Motor Vehicle Theft

There were 8,890 motor vehicle thefts reported in 1982, accounting for 6% of all nonviolent crimes. The reported value of the vehicles stolen was $32,288,241.

Arson

There were 1,276 cases of arson reported in 1982, 627 of which were buildings and 509 of which were motor vehicles. The value of the property involved was $8,096,573.

The crimes of larceny, breaking or entering, motor vehicle theft, and arson are the crimes most frequently committed by juveniles. The percent of arrests in 1982 for those crimes who were juveniles is as follows: breaking or entering, 21%; larceny, 19%; motor vehicle theft, 22%; and arson, 11%, according to SLED data.

Forgery, Fraud, and Embezzlement

There were 3,607 cases for forgery and counterfeiting reported last year; 7,026 cases of bad checks; 5,465 cases of fraud; and 367 cases of embezzlement. Forgery, counterfeiting, and fraud, such as fraudulent nursing home operations, land sales, or home improvements, are crimes usually committed by whites.

Substance Abuse, Specifically Driving Under the Influence

There were 20,718 DUI (driving under the influence of alcohol or drugs) arrests in 1982, 71% of which were white persons and 91% were males and 30% were under the age of 25. Approximately 65 to 70% of all traffic deaths are alcohol/drug related and traffic deaths are the leading cause of death for people less than 25 years of age. There were 29,101 arrests for public drunkenness in 1982, still considered a crime and usually results in a short jail sentence and/or a fine for the offenders.

Status Offenses

The status offenses of truancy, running away, and incorrigibility apply only to people 16 years of age and younger. There were 2,582 runaways reported to the police in 1982, and there were 2,901 juveniles referred to the Family Court for status offenses during the same period. Of those juveniles, 49% were females and 51% were males. By law, status offenders cannot be held in secure facilities.

Victimless Crimes

There were 393 reported arrests for prostitution in 1982; 768 arrests for gambling; and 29 arrests for vagrancy. Of those arrested for prostitution, 288 were female and 105 were male; 201 were white and 188 were black. Of those arrested for gambling, 691 were male and 486 were black.[6]

Vandalism

There were 28,045 cases of vandalism reported in 1982 with a property value of $2,019,252. Juveniles account for approximately 25% of all arrests for vandalism.

Contributing Factors

The contributing factors which seem to correlate with criminal behavior are relevant for all of the crime categories identified, although some factors may be more important for certain kinds of criminal behaviors. Because the factors are common with minor variations in emphasis, the generally accepted determinants and contributing factors are identified below.

ENVIRONMENT AND LIFESTYLE

The majority of the contributing factors to both violent and nonviolent crimes are within the realm of lifestyle and environment, with a great deal of blurring between the two determinants. Common factors involved in violent crimes, or crimes against persons include: substance abuse, lack of constructive problem-solving or conflict-resolution skills, lack of effective social skills, stress and frustration, and inadequate ties to family and community. The preponderance of violence in our society is a contributing factor, particularly for those people that watch an inordinant amount of television and are socialized by it.

According to a 1982 Nielsen Report, "The more violent the programs watched in childhood, the more combative the young adults became."[7] The circumstances surrounding a violent offender's family and youth have tremendous importance. Approximately 80% of the adult men in prison indicate that they were neglected or abused as children and, moreover, approximately 60% had multiple foster home placements as children, suggesting that they were society's outcasts at an early age.[8] Approximately 80% of the rapists were sexually abused as children and most have extreme feelings of anger and powerlessness which they take out on women.[9] The majority of the juveniles sentenced to the Department of Youth Services are males from single-parent families, who have poor relationships with their parents, and are functioning several years behind their grade placement in school.

Contributing factors in the realm of environment for nonviolent crimes include the following: high status for those beating the system; value of money and material possessions; opportunities for illegal economic gain; and no legitimate jobs at a desirable wage level. Within the realm of lifestyle, the following factors were identified: drug/alcohol abuse, failure in school, lack of legitimate job skills, attitudes toward work, appropriate leisure activities, moral values, enjoyment of risk taking, and peer association. Factors relating to technology include: demand for stolen goods, probability of not getting caught, availability of attractive property and the apparent ease with which it can be stolen.

For status offenders and juvenile delinquents, the circumstances surrounding the transition from childhood to adult status are the major factors contributing to

their unacceptable behaviors. Contrary to popular belief, only a small percent (14% in a study in Racine, Wisconsin) of juvenile delinquents go on to commit crimes as adults.[10] The majority of the juvenile delinquents simply "grow up" and become law-abiding citizens. The common factors that contribute to their unlawful behavior, however, are as follows: failure in school, poor social skills, poor relationship with parents, lack of attachment to school or other community institutions, influence of peers, inappropriate leisure activities, poor impulse control, and poor diets, e.g., high sugar consumption.

TECHNOLOGY

In the realm of technology, the availability of handguns is a factor contributing to violent crime. Overcrowded prisons contribute, also, in that violence is more prevalent in overcrowded institutions, and it is commonly believed that many people are worse off socially after incarceration than before.

BIOLOGY

Biology is a relatively unimportant determinant as a casual factor. Very few persons are affected by brain pathologies or chemical imbalance that cause them to commit crimes. Some research suggests that there is a relationship between disabilities, failure in school, and delinquency.

Prevention Strategies

The charge to the Subcommittee to identify prevention strategies to reduce crime and juvenile delinquency necessarily prescribes the focus in two areas: 1) the environmental and lifestyle factors that seem to correlate with criminal behavior, and 2) the "opportunity" factor relating to stealable property and unwary or defenseless victims. By the Subcommittee's definition, prevention strategies must be applied to preventing criminal behavior before it happens

and to preventing criminal activities before the fact. Also, by this definition, prevention strategy excludes: 1) activities directed at people already involved with the criminal justice system, such as people already arrested or in prison; and 2) improvements to the criminal justice system, as its mission is remediation.

In order to prevent crime and juvenile delinquency before criminal behavior is manifested, efforts must be directed at young children that will improve their prospects of productive and lawful lives. Primary prevention must be "...directed to the general population of the principal socializing institutions; family, school, and work. It is designed to strengthen the forces and processes which presently produce relatively law-abiding behavior in most young persons." As another, complementary prevention effort, secondary prevention must be "...directed to specific environmental forces favorable to delinquency. It is intended to disrupt those forces, or to remove classes of individuals from their influence." [11]

It is the consensus of the Subcommittee that the public schools must be the primary public institution to socialize children in a positive way, to provide them with the skills and attitudes that will help them to be moral and law abiding. The importance of teaching children life skills such as constructive conflict resolution in addition to the basic academic skills is critical so that they can be successful as adults socially as well as intellectually and economically. It is anticipated that the public schools will resist the additional burden of providing a life skills curriculum. The task must be assumed by them, nevertheless, as it is those institutions that have nearly all of the children from age six to twelve as a captive audience and have both the facilities and the teachers to carry out the tasks.

Because juveniles' attachment to their schools and their relationship with their peers are major determinants of whether they are lawful or unlawful, the school's role in enhancing a positive attachment and fostering healthy peer relationships is critical. It is the consensus of the Subcommittee that the schools should modify their policies that, in effect, segregate the low achievers and track them into prevocational programs. Rather, the schools should mainstream the low achievers and thereby avoid labeling them in a negative way. Because low educational achievement seems to be a common denominator with juveniles who drop out of school and/or run afoul of the criminal justice system, measures that improve the success of children in school should be expanded and enhanced to the greatest extent possible. The ratio of students to teachers should be lower so that students can get more individualized attention.

As a means of increasing children's attachment to school and building healthy relationships and interests/activities, after-school recreational programs should be offered to elementary school children, using the school facilities. County and city parks departments, private organizations such as Boy Scouts and Girl Scouts and YMCAs should be encouraged to provide athletic and arts/crafts recreational programs. In addition, extracurricular activities should include the greatest number of children possible, and should not be limited to students who excel academically. School bus transportation should be scheduled to allow for children's extended activities at the schools.

Families are the primary socializing influence and, while most families instill moral and nonviolent values in their children, many do not. Because child abuse is perpetuated from one generation to the next, and becuase violence learned at home permeates subsequent relationships, extraordinary efforts must be under-

taken to interrupt the cycle. It is the consensus of the Subcommittee that parenting skills must be taught in the public schools, and that the training must be directed at children in elementary and middle schools in order to capture the greatest number of students possible. Because the most frequent child abuser is an unmarried mother,[12] family planning and parenting skills information should be directed at the middle school students in order to help them make good decisions about becoming parents and provide them with the skills to improve their roles. Other community organizations should develop parenting training programs for parents of pre-school children. Specific skills that should be taught are: consistent discipline, effective communication, appropriate role modeling, encouragement of affection, nurture and support and positive reinforcement of desired behavior.

In summary, the Subcommittee recommends the following measures be adopted as primary prevention measures directed at modifying behaviors, values, and attitudes as a means of reducing crime and juvenile delinquency:

- Target affective and life skills education to K-6 grades.
- Provide law-related education that teaches K-8 students about the legal system, the law, and their rights and responsibilities.
- Mainstream students experiencing academic difficulty, thus avoiding negative labeling.
- Provide remedial education for students experiencing academic difficulty in the elementary grades.

- Utilize school facilities for after-school recreational programs, including athletics and arts/crafts.

- Provide training in interpersonal skills, conflict-resolution, decision-making to sixth graders.

- Provide alcohol and drug education to fifth graders.

- Facilitate parent support groups for parents of elementary and middle school students.

- Provide career information and experience to middle school students.

- Adopt in-school suspension programs so that students can continue their academic work without interruption.

- Lower the student-to-teacher ratios so that students can get more individualized attention.

- Develop volunteer tutoring programs, utilizing peers as appropriate.

- Institute teacher effectiveness training in the college curriculum and on the job.

The Subcommittee recommends the following measures be adopted as prevention measures directed at reducing the opportunity for crime:

- Expansion of "crime watch" programs, whereby, people assume a proprietary interest in the well-being of their neighbors' and their property.

- Expansion of awareness programs on avoidance of rape and assaults by strangers.

- Arrest and overnight detention of assaultive spouses.

- Establishment and support for shelters for abused women and children, and for runaway juveniles.

- Adoption of requirement for security measures in new buildings in city/county building codes.

- Adoption of handgun control laws, including stringent licensing and registration requirements.

Outcomes

The strategy to engage in primary prevention by influencing people's behavior will produce long-term benefits to society, including the reduction of crime and juvenile delinquency. In the short run, concentrating on influencing children's behavior will impact the amount of juvenile delinquency first; and, to a lesser extent, adult crime later. The outcome of a concerted effort to prevent unlawful behavior by juveniles will most likely be seen in a reduction in those crimes that are most frequently committed by juveniles: vandalism, breaking or entering, larceny, and motor vehicle theft. Short-range objectives to reduce the incidences of those crimes, then, are consistent with the Subcommittee's strategy to target prevention programs at children before the manifestation of unlawful behavior. It should be noted that, in all probability, the amount of crime in the aforementioned categories, as well as the amount of juvenile crime, should decline simply as a result of the decrease in the number of people in the at-risk age category. Objectives that take into account the anticipated delay in the implementation of any modification to public school

curriculum, the probable impact, and the natural reduction in crime resulting from demographic factors are as follows:[13]

- By 1987 reduce the number of reported breaking or enterings by 5.3%.
- By 1987 reduce the number of reported vandalisms by 5%.
- By 1987 reduce the number of reported larcenies by 4.7%.
- By 1987 reduce the number of reported motor vehicle thefts by 5.5%.
- By 1987 reduce the number of arsons by 2.8%.

It is assumed that the results of the aforementioned prevention strategies and programs will be widespread and will accrue not only to those that receive the programmatic services, but to society at large. In addition to a reduction in crime, it can be reasonably expected that the number of children who successfully complete school will increase and that the number who become gainfully employed will also increase. The benefits then, to a comprehensive approach are diffused, with a reduction in crime and juvenile delinquency one of the beneficial outcomes.

REFERENCES

1 Criminal Victimization in the United States, 1973-82 Trends. Bureau of Justice Statistics, U.S. Department of Justice.

2 Crime in South Carolina, 1982. South Carolina Law Enforcement Division.

3 Bureau of Justice Statistics.

4 "1983 Fear of Crime Poll." (Mimeographed.) College of Criminal Justice, University of South Carolina.

5 Chaiken & Chaiken, Varieties of Criminal Behavior, Rand Corporation, for the National Institute of Justice (1982).

6 South Carolina Law Enforcement Division.

7 "Combative...TV...TV," South Carolina Women, Volume 4, Number 2 (Fall 1983).

8 Chappell & Taibbi, unpublished Master's Thesis, College of Social Work, University of South Carolina (1975).

9 Todd, Elizabeth, M.S.W., Columbia Area Mental Health Center, Columbia, South Carolina, testimony to the Subcommittee on Crime and Domestic Violence, September 16, 1983.

10 Shannon, Lyle, Iowa Urban Community Research Center for the U.S. Department of Justice (1981).

11 Delinquency Prevention: Theories and Strategies. California Youth Authority (1981).

[12] Lewis, Timothea S., M.S.W., Office of Children's Services, S.C. Department of Social Services, testimony to the Subcommittee on Crime and Domestic Violence, September 15, 1983.

[13] The objectives were based on the percentage of juvenile arrests of total arrests for each particular crime, and the objective to reduce juvenile arrests by 15%. For example, 21% of the arrests for breaking and entering were people under 17 years of age: .21 x .25 = .053. For the purposes of setting measurable objectives, it was assumed that the correlation between arrests and reported incidents of crime is the same for adults and juveniles.

For general reference material on the problem of delinquency and recommended prevention strategies:

Delinquency Prevention from Theory to Practice. Office of Juvenile Justice and Delinquency Prevention, U.S. Department of Justice (1982).

Delinquency Prevention: Theories and Strategies. Office of Juvenile Justice and Delinquency Prevention, U.S. Department of Justice (1981).

Hawkins, J. David and Joseph G. Weis. The Social Development Model: An Integrated Approach to Delinquency Prevention. Center for Law and Justice, University of Washington (1980).

The Prevention of Serious Delinquency: What to Do? Office of Juvenile Justice and Delinquency Prevention, U.S. Department of Justice (1981).

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Chapter XI: MENTAL HEALTH

SUMMARY

A growing number of research studies, indicate that the children of chronic mentally ill patients run a much higher risk than do others for the development of phychiatric disorders. In order to give family members at risk for mental illness information needed to make choices about having children, the South Carolina Depart ment of Mental Health has established and operates on a statewide but limited basis regional genetic clinics. It is recommended that priority be placed on establishing a genetic counseling program on a full-time basis with both a discrete budget and exclusive staff to achieve optimum benefit and to be fully accessible to all citizens.

Even with the benefit of genetic counseling, many chronically mentally ill individuals will continue to bear children at risk. There are indications based on the results of projects operated in Georgia, South Carolina and other states, that the risk children of chronically mentally ill patients run for developing psychiatric disorders can be minimized through the provisions of child and family prevention services. Accordingly, it is recommended that priority be given to the statewide establishment of prevention programs designed to exclusively serve children of chronic psychiatric patients.

Rapid societal change and related technological advances, the weakening of the family and home as the primary child rearing institutions, and other social forces have diminished individuals ability to perceive and understand the progression of their own lives in order to make informed and responsible choices,

to deal with life stresses and crises, to develop constructive goals and values, to develop meaningful relationships, to communicate effectively, to behave responsibly, to be productive and to promote civilization. Competent and comprehensive mental health education programs are thus needed to assist individuals to live more effectively.

The forces that have contributed to severe societal and individual distress have contributed to a dramatic increase in child and adolescent suicide. Programs are needed to deal specifically with this problem.

The report that follows gives information and recommendations to assist in the solution of these problems.

INTRODUCTION

Children of chronic psychiatric patients are over-represented in the chronic psychiatric patient population. Children of chronic psychiatric patients are at severe risk of becoming chronic psychiatric patients.

Throughout the life cycle, individuals do not have available information, training and education that would allow them to maximize contentment balanced with contribution to society, and to cope effectively with life, thereby avoiding or minimizing mental illness.

Teenage suicide is the second leading cause of death among 15 to 24 year-olds nationally.

The report that follows gives information and recommendations to assist in the solution of these problems.

LACK OF GENETIC INTERVENTION IN MENTAL HEALTH

Problem Status

Mental illness such as schizophrenia, affective disorder, alcholism, and panic disorder may have genetic or biological basis and be inherited. Where inherited illness is present, family members have a higher risk of developing illness at some time in their lives than does the general public. Also, the marriage of two people with the same genetic illness represents a very high (50%) risk for the inheritance of the illness by their children of 50%.

Studies by Gershon indicate individuals with affective disorders marry other individuals with the same diagnosis at a higher frequency than expected by chance alone.

Based on conservative risk figures which consider chronic illness alone, approximately 30,000 people in South Carolina probably have a genetic predisposition to genetic psychiatric illness and will require psychiatric hospitalization at some time during their lives.

A second group of high risk individuals are those with a dual diagnosis of mental retardation and mental illness. There are currently 3,000 identified individuals in the state in the mentally ill-mentally retarded category, requiring various levels of treatment and care. Treatment of these individuals is often problematic.

The cost of institutionalization is very high. Using figures from the South Carolina Department of Mental Health and South Carolina Department of Mental Retardation, the minimum cost of institutional care for one year is $21,000 per patient.

Prevention through genetic intervention, i.e., counseling, testing and follow-up has been shown in previous studies of non-psychiatric genetic illness to impact in several areas: the decision not to have children in high risk families, prevention of the expression of the phenotype by early intervention and treatment, and reduction of the seriousness of the sequelae of illness present by intervention and treatment compliance.

Thus, a genetic intervention would impact on approximately 33,000 individuals in South Carolina.

Contributing Factors

TECHNOLOGY

Positive Factors:

Presence of rudimentary genetic counseling and screening network in South Carolina Department of Mental Health and linkage with genetic networks in South Carolina Department of Mental Retardation, South Carolina Department of Health and Environmental Control, and Statewide Genetic Clinics.

Interagency cooperation in the referral process when high risk families are identified.

Some screening and testing procedures for prevention in mental illness and mental retardation, both pre and post-natal are available.

Negative Factors:

Too few genetic associates (none) in mental health to adequately staff the genetic counseling and screening network.

Screening and testing procedures for early detection and intervention are not available to a majority of the high risk population because the present genetic team is unable to service the need without additional support.

Too few programs for children of psychiatrically ill parents, for psycho-social support of families where familial psychiatric illness is present, and for sheltered living and work programs are available.

There is a lack of professional awareness and public education about the biological and genetic issues in mental illness and mental illness/mental retardation, and stigma remains a major issue in mental illness and mental illness/mental retardation.

Different priorities should be placed on existing resources to support a prevention model, such as reallocation of personnel to the mental health center and provision of at least three genetic associates to ascertain high risk families. Genetic intervention and early detection at the local level prior to hospitalization is thus possible.

LIFESTYLE

There is a lack of individual use of prevention strategies in Mental Health, as opposed to Medical Health, such as awareness of signs of illness, early detection and treatment of illness, medication compliance, and mental health check-ups.

In families at high risk for substance abuse which may produce Fetal Alcohol Syndrome, etc., family prevention efforts may be lacking. Also, in females at high risk for substance abuse during pregnancy, urine drug monitoring is not presently available as a prevention tool.

ENVIRONMENT

There needs to be increased awareness of the interaction between the environment and the genetic pre-disposition to illness in expression of mental illness.

The lack of payment by third party carriers, such as medicare, etc., may impact on the family seeking treatment, i.e., financial constraints, and on non-compliance with medications.

Also, non-payment of abortion services in poor, high risk pregnant women may also be a problem which deters individuals from seeking intervention.

Assessibility to services, even though services are provided on a regional basis is a serious issue.

HUMAN BIOLOGY

The presence of a biological illness may contribute to a loss of control in lifestyle, poor nutrition, and problems with medication compliance. Education that the illness is biological, and an increased perception of the burden of the illness in family members with illness is needed.

Genetic testing for mental illness is not yet in a definitive state. However, testing for medication compliance and genetic differences in psychoactive drug metabolism can and should be done more frequently.

Genetic screening, testing, and pre-natal diagnosis where appropriate is needed.

Research efforts in mechanisms of illness and genetic control of drug metabolism in high risk families would be helpful in clarifying disease entities.

Prevention Strategies

1. Bring genetic staffing to an adequate level, i.e., three genetic associates for mental health. One genetic associate costs the state $27,000 per year. The cost of one year of institutionalization is $21,000 per year. Prevention of only one serious mental health/mental retardation hospitalization would pay for the yearly salary of a genetic associate. Prevention of one lifetime chronic hospitalization would support the genetic associate for their entire working life. Thus, full genetic staffing would cost Mental Health about $72,000 per year, or about three hospital beds worth of prevention.

2. Development of a four-person interagency panel to coordinate screening and testing on high risk families facilitate interagency referral and provide continual direction for genetic issues for other state agencies. A corollary to this is that the State of South Carolina should also bring full funding to Mental Retardation: (1) additional genetic associate; (2) Department of Health and Environmental Control; and (3) genetic associates to staff the Mental Retardation and Maternal and Child Care Clinics. This panel would reduce duplication of effort and enhance appropriate referral with early intervention.

3. Full staffing to provide genetic screening, testing and follow-up.

4. Where biological or chemical testing is necessary, mechanisms to provide services on a cost-free basis when the cost cannot be borne would prove more efficient than hospitalization.

5. Initiate a program for the children of psychiatrically ill parents at each mental health center and set up community based psychosocial support groups for families with familial mental illness provision of sheltered workshops and living facilities are important components of any plan which takes into account lifestyle, environmental stress, and biological illness.

6. Professional and public education to increase awareness of the genetic bases of some mental illness; workshops, media, etc. This is very important due to the stigma of mental illness and mental illness/mental retardation.

   Development of educational materials in genetics and psychiatry.

   Development of curriculum material for public school, college, and post-graduate education in genetics and psychiatry.

   Develop materials on personal genetic prevention strategies for patients and their families.

7. Work to develop insurance coverage for genetic evaluation and testing.

8. Work to make available biochemical screening procedures to evaluate personal medication compliance as a regular part of a prevention program.

Outcome

Reduction of the incidence and sequelae of genetic psychiatric illness.

Reduction of the incidence of hospitalization and institutionalization.

Improved personal and family life style.

LACK OF FAMILY INTERVENTION WITH THE CHRONICALLY MENTALLY ILL

Problem Status

The children of psychiatrically disturbed parents run a high risk of developing psychosocial and/or health problems. These children are often neglected or abused (the Pilot Program for these families at Columbia Area Mental Health Center reveals that over 80% of their families have suffered from physical or sexual abuse.

A national survey shows that 29% of children entering foster care do so because of emotional problems of their parents. Another study revealed that 45% of the school-age children of psychiatrically disturbed parents show psychiatric disturbances.

The Family Intervention Program at Columbia Area Mental Health Center has identified four areas that are associated with an increase in the adaptive functioning of children of emotionally disturbed parents:

A. Improved functioning of the psychiatrically ill parent and subsequent assumption of appropriate roles by family members.

B. Mastery of parent skills such as child management and the ability to establish a positive relationship with the child.

C. Availability of positive and frequent contact with a non-impaired adult.

D. Social competence of the child characterized by an ability to express feelings, ability to appropriately seek adult attention, demonstration of adaptive behaviors, and ability to view himself realistically.

Contributing Factors

LIFESTYLE

1. Drug and alcohol abuse
2. Poor diet
3. Child abuse and neglect
4. Poor parenting skills
5. Instability of family unit
6. Unemployment
7. Enmeshment of family members
8. Poor use of leisure time

ENVIRONMENT

1. Isolation and alienation
2. High crime areas
3. Poor housing
4. Less than optimally constructive impact of Department of Social Services, especially with punitive nature of protective services and foster care.
5. Failure of educational system
6. Lack of accessible medical and psychiatric care
7. Ineligibility of parents and children for financial assistance (i.e., Supplementary Security Income and Medicaid).

HUMAN BIOLOGY

1. Genetic predisposition to many psychiatric illnesses (i.e., schizophrenia, manic-depression, depression, alcohol abuse, anxiety states).

2. High incidence of health problems related to stress

Prevention Strategies

LIFESTYLE

1. Drug abuse - will not address as covered by another committee.

2. Poor diet - education thru parenting classes, also by nurse in home visits.

3. Poor parenting skills (also neglect and abuse) - parenting classes with concurrent problem-solving classes for children, demonstation of good parenting thru home visits by professional, family therapy geared at improving proper role functioning of all family members.

4. Instability of family unit - financial resources available to help with rent, electricity, food, medicine, and clothes or whatever is necessary to keep family in stable situation; possible resources would be churches, civic groups, and hopefully the project's own fund - coordination of these resources mandatory.

5. Unemployment - specialized vocational counseling for the mentally ill for actual assistance in finding a job; education of employers of special needs of mentally ill; sheltered workshops for chronically mentally ill; vocational program should be coordinated by Department of Mental Health and private business, understanding existing restraints of Vocational Rehabilitation.

6. Poor use of leisure time - specialist who could teach families leisure activities, who could even accompany families on activities, and who could provide with resources of low-cost leisure activities.

ENVIRONMENT

1. Alienation and isolation of family members from others - services provided that would link families to Potential Support Systems, i.e., extended family, churches, community groups; heavy use of volunteers here to provide support, coordination, and companionship.

2. Department of Social Services - the education of workers to mental illness as well as to the needs of children and families; also coordination of services between mental health and DSS in order to provide the support and opportunities needed for families to make necessary changes rather than the System's causing additional stress through punitive measures (i.e., keeping the family separated).

3. Failure of educational system - service provider, along with the parents, to advocate with the school for special consideration, and service provider to serve as linkage between schools and parents to handle such problems as excessive student absences, parents' misunderstanding of Special Classes, etc.

4. Lack of accessible psychiatric and medical care - transportation and referral provided to families to appropriate resources; new clinics needed in rural or remote areas to provide services closer to home and also to meet needs of the poor; medical doctors and psychiatrists needed who have an understanding of family dynamics, family therapy, etc.

5. Ombudsman - office to help families secure Supplemental Security Income, Medicaid, and other resources.

HUMAN BIOLOGY

1. Genetic predisposition to mental illnesses - to be addressed by another committee.

2. High incidence of health problems - teach families means of reducing stress, nurses to help with early detection of illnesses.

Outcomes

The impact and outcome of such a program would be to decrease the psychiatric problems in the ill parents and to decrease the incidence of emotional and physical disorders in their children.

LACK OF PUBLIC EDUCATION REGARDING MENTAL HEALTH AND MENTAL ILLNESS AND TREATMENT RESOURCES

Problem Status

A. Mental Health resources are under utilized.

B. The stigma attached to being mentally ill or having an emotional problem keeps some people from availing themselves of mental health treatment resources.

C. A lack of awareness of the existence of mental health treatment resources keeps some people from availing themselves of these resources.

D. If mental health resources are available and people with mental health problems do not avail themselves of these resources, they cannot practice prevention, and will not use the resources until they become so ill they require hospitalization.

E. Parents are rarely educated, informed and trained in child-rearing, effective parenting and preparation of children for meeting life's challenges.

F. Schools are often not equipped to provide effective education or social learning experiences through structured activities that allow youth to develop constructive lifestyles, the ability to communicate effectively, the ability to be appropriately compassionate and understanding of others and to be optimally effective in living.

Contributing Factors

TECHNOLOGY

1. Cost of treatment
2. Inadequate public and private mental health insurance benefits
3. Lack of visibility of service (either intentional or unintentional)
4. Lack of transportation (public or private)
5. Lack of widespread living skills programs in educational facilities
6. Eligibility process perceived as demeaning
7. Lack of accessibility to service site

LIFESTYLE

1. Stigma: Attitude that mental illness implies difference, violence, unpredictability, moral deficiency.
2. Lack of factual knowledge about mental illness/emotional problems.
3. Lack of knowledge about available mental health treatment resources.
4. Lack of living skills.
5. Fear people will think you are crazy if you seek mental health care.
6. Fear of doctors, medical treatment.
7. Mental health public awareness program (potentially +).

ENVIRONMENT

1. Psychological inaccessibility to mental health treatment resources, e.g., a service site in a poor black neighborhood will likely be perceived as inaccessible by white clients).

2. Lack of adequate public transportation.

3. Media portrayal of mentally ill people; stereotyping, particularly as violent, unpredictable.

4. Distance to service site; lack of adequate transportation.

5. Distorted media portrayal of appropriate behavior.

Prevention Strategies

A. Legislation to mandate increased mental health benefits in public and private health care insurance plans.

B. Educate private sector to advantage of offering mental health benefits.

C. Decrease cost of mental health care by decreased use of physicians, increased use of psychologists, clinical social workers, and psychiatric nurses and clergy.

D. Increased use of group, rather than individual treatment modalities.

E. Sensitize media to mental illness as a problem that needs attention; seek feature articles which present the mentally ill in a humanizing way.

F. Major public awareness program by Mental Health Association.

G. Development of mental health programs aimed at children - for television to be aired after school or on Educational Television during school hours.

H. Development of written and television materials which stress emotional problems as a normal part of life.

I. Development and use of mental health curriculum in school systems, perhaps integrated as part of a general health curriculum.

J. Train non-psychiatric private practitioners to do limited mental health counseling.

K. Develop mobile mental health out-patient teams to make service accessible to remote communities.

L. Make transportation a reimbursible mental health care expense.

M. Upgrade public transportation systems, especially in rural areas.

N. Implementation of additional life skills programs in primary and secondary schools.

O. Provision through bulletins, classes and workshops, public media, etc., of effective parenting information, training and education beginning during school age.

Outcome

A. Passage of mandated mental health insurance legislation.

B. Inclusion of mental health benefits in more private industry benefit packages.

C. Decrease in cost of delivering units of mental health care, especially units of outpatient service.

D. Increase in number of people served in group treatment, modality, decrease in units of individual treatment.

E. Decrease in headlines of the "ex-mental patient slays three" variety.

F. Increase in positive media coverage of mental health and illness

G. Inclusion of mental health curriculum in schools.

H. Increase in number of television programs about mental health.

I. Increase in number of people using community mental health resources.

J. Decrease in number of patient days of psychiatric hospitalization.

K. Mental health resources particularly in the community will experience increased utilization.

L. People will practice prevention to improve or maintain their mental health.

M. Fewer people will require hospitalization, especially long-term hospitalization in state mental institutions, for mental illness.

TEENAGE SUICIDE

Problem Status

A. Suicide is the second leading cause of death among 15 to 24 year olds nationally.

B. The suicide rate for this group has risen more than 40% in the past eight years.

C. The suicide rate for this group has tripled since the 1950's.

D. The ratio of male to female suicides in this group is 4:1.

E. The use of firearms and explosives in suicide for this group has risen dramatically since 1970.

F. According to the Department of Health and Environmental Control, Detailed Mortality Statistics, 1981, suicide among 14-24-year-olds totaled 75. This statistic is under-reported by as much as 50%.

White, male	48
White, female	15
Non-white, male	10
Non-white female	2
Total	75 suicide 15-14-year-olds

Contributing Factors

TECHNOLOGY

1. Transportation by members of age group to community services.

2. Lack of suicide prevention and crisis intervention skills among school personnel.

3. Lack of community suicide prevention services in small and rural communities.

4. Lack of public information specifically concerning teenage suicide.

5. Poor follow-up of individuals who make suicide attempts.

6. Quality of in-patient facilities for 15-24 age group.

LIFESTYLE

1. Lack of knowledge about available services.

2. Perception that individuals will not be understood by professionals.

3. Lack of communication skills by group and unwillingness to ask help from others in peer group.

4. Perceive few options for problem-solving activities.

5. Substance use and abuse.

ENVIRONMENT

1. Negative peer pressure by members of this age group for using mental health services.

2. Violence in society, i.e., crime, television that provides model for suicide.

3. Psychological problems among family members.

4. Lack of communication by parents, ineffective parenting skills.

5. Family conflict.

6. Isolation of teenagers resulting from two-career families.

Prevention Strategies

TECHNOLOGY

A. Increase accessibility of mental health services through more effective public transportation and/or mobile crisis intervention teams in schools.

B. Train teachers, counselors, and school administrators in recognition of warning signals of suicide and basic crisis intervention skills.

C. Designation and publicity in small communities of crisis intervention resources.

D. Public information campaign regarding teenage suicide.

E. Follow-up by mental health professionals of all hospitalized (non-psychiatric) suicide attempts.

F. Evaluation of outcome and improvement in quality of in-patient psychiatric services for 15 to 24 year-old age group.

LIVESTYLE

1. Public information campaign aimed at 15-24 year-old age group concerning mental health services.

2. Public information campaign, visits by mental health professionals to schools for the purpose of changing perception of professionals.

3. Mental health education in schools stressing communication skills, assertion skills and dynamics of suicidal behavior among teenagers.

4. Mental health education in schools stressing problem-solving behavior. Peer counseling programs in schools.

5. Substance use is addressed by other committee.

ENVIRONMENT

1. Public information campaign concerning mental health services, mental health education, including information concerning mental health services.

2. Public information campaign concerning violence in society which leads to impact on media. Mental health education stressing problem-solving skills other than violence.

3. Public information campaign publicizing services available for families and emphasizing connection between family conflict and suicide.

4. Emphasis by community mental health centers on parenting skills and communication.

5. Programs in community centers for "latch-key" children. Component in mental health education regarding two-career families, stress in families.

Outcomes

1. Reduce number of suicides in 15-24 year-old age group from 75.

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Chapter XII: PERINATAL MORTALITY AND MORBIDITY

SUMMARY REPORT

There are presently a number of interventions known to be effective in reducing the incidence of perinatal mortality and morbidity. All can be categorized as one of three main types: medical, nutritional and educational. Currently, the most proven effective interventions are medical and nutritional. Limited data are available for educational interventions.

The most effective intervention for reduction of neonatal mortality, increased survival of low weight and handicapped infants has been neonatal intensive care and the accompanying advances in this medical technology. Some reduction in overall incidence of handicapping conditions has also been shown among survivors of Neonatal Intensive Care Unit. Declines in neonatal mortality, both nationally and in South Carolina, have been attributed to Neonatal Intensive Care Unit care as rates of low birth weight have remained steady or even slightly increased in South Carolina.

Neonatal intensive care, however, is very costly and primary prevention efforts may be better directed toward prevention of the occurrence of the underlying conditions requiring neonatal intensive care unit care, namely, low birth weight, genetic and congenital defects and conditions resulting in developmental disabilities, i.e., birth trauma, anoxia, respiratory distress syndrome.

A foremost requirement for insuring the optimum chance of healthy babies is accessible early and risk appropriate prenatal care and delivery for all pregnant women regardless of ability to pay. In the long run, this is the most cost effective intervention. Adequate and appropriate prenatal care is the essential foundation of most other interventions.

The primary focus of interventions is the reduction of the number of low birth weight babies. Effective interventions include:

- Low birth weight (prematurity) prevention programs: risk screening, early detection education and intensive prenatal management of women at risk for premature delivery.

- Nutritional supplementation: preconceptual, early and continuous protein and calorie supplementation of women at nutritional risk.

- Education to reduce or eliminate personal behaviors which are known to contribute to low birth weight: smoking, alcohol and substance use/abuse.

- Education to avoid exposure to toxic substance in the environment.

- Family planning: prevention, delay, and appropriate spacing of pregnancies among women at risk for low birth weight (and/or genetic defect) - teenage girls at women nutritional risk, women at high risk age of 35 years or older.

- Teenager pregnancy: education to delay onset of sexual activity - early identification of teenage pregnancy and referral for prenatal care, if appropriate.

Other effective interventions aimed at reduction of genetic defects and morbidities associated with low birth weight, developmental delays and handicapped infants include:

- Delivery and post delivery environments which facilitate and support parental newborn attachment, i.e., Family Centered Maternity Care.

- Genetic services, education, counseling, diagnosis and treatments.

- Developmental risk identification and developmental therapy services.

- Education to improve parental skills in infant care, early identification of infant illness, infant stimulation, and infant nutrition.

PROBLEM 1: PERINATAL MORTALITY

FACTORS CONTRIBUTING TO LOW BIRTH WEIGHT BABIES

Lack of Prematurity Prevention Programs

Technology and protocals for prematurity prevention programs have just begun to be applied in South Carolina on a pilot basis and have not achieved a permanent funding base. Patients and providers do not see the benefit of time spent on instruction and monitoring. Providers are not trained in the techniques. Funds and other resources to support low birth weight prevention programs are lacking and little data is available on the cost effectiveness of this intervention. These programs are still considered a highly sophisticated aspect of care available only at Level III centers which causes lack of access to care for the more rural patient. Prematurity may result from a woman's inability to carry a child to term creating the need for better means of identifying and helping these women preconceptually.

Smoking

Smoking has its most important effects on the fetus during the first trimester in its influence on placenta size and subsequent reduction of oxygen to the fetus. Babies of smoking mothers average 200 grams lower in birth weight. It affects the mother in its addictive nature and high risks for respiratory and cardiovascular problems as well as cancer.

Physicians do not uniformly counsel pregnant patients on the relationship of smoking to low birth weight.

Pressures and reasons for smoking include that it is considered sophisticated and risk-taking behaviors are valued by some. Role models by parents or significant others may encourage smoking, as does peer pressure, evidence by increased smoking among teenage girls. Pregnant women may want to keep their weight low and use smoking as an eating substitute. Economic pressures in South Carolina influence smoking as tobacco is a major cash crop and many dollars are spent promoting its use.

Poor Nutrition

The highest risk population (teenage girls and poor women) frequently have the poorest diets. Reasons for this include: lack of information on proper diet and food preparation; pervasive advertising for high calorie and low nutrient foods; utilization of fast food restaurants for both recreational and nutritional needs; and reduced time spent in food preparation at home. Teenage girls are especially concerned with body image and may frequently diet to remain slender. This becomes a major concern when the teenager is pregnant and requires extra nutrients to maintain both her own and her baby's growth.

A weight gain of 20 to 30 pounds during pregnancy for women of average weight preconceptually has been associated with babies weighing over five and a half pounds. This weight gain range is not promoted consistently by all providers across the state. Although approximately forty percent of all pregnant women in the state utilize the Women, Infants and Children Supplemental Food Program (WIC), most do not enter the program in the first trimester when WIC has its greatest impact on birth weight.

Teen Pregnancy

Although family planning services are generally available statewide, accessibility to services in some areas which fit the needs of teenagers may remain a problem. There are many factors which tend to encourage teenagers' early sexual activity: teenagers' risk taking behaviors; changes in societal and family norms; lack of information or understanding of when in the reproductive cycle and how pregnancy occurs; lack of supervision after school; lack of vocational or educational goals which would refocus teenagers' energies; and, in some areas, a sense of "status" or adulthood which pregnancy brings.

Young teenager girls' bodies are not prepared to nurture a baby, particularly if conception occurs three years or less post-menarch. Young teenagers have not completed their own psychological and social development and are not ready to parent their children.

PROBLEM 1: PERINATAL MORTALITY

FACTORS CONTRIBUTING TO POOR PRECONCEPTUAL HEALTH AND HEALTH BEHAVIORS

Environmental Exposures

Drugs prescribed during pregnancy or obstetric medications may adversely affect the fetus. Chemicals and substances having reproductive hazards are proliferating, and physicians may not uniformly assess potential work place hazards, chemical or infectious exposures and counsel about these risks. Occupational choices may involve exposure to toxic substances or infectious disease, but the need of a job may be higher priority than the possible risk of exposure.

Many women lack the knowledge of effects of exposure on fetus and reproductive organs; their level of knowledge and assertiveness skills will influence efforts made to avoid exposure.

The amount of sexual activity and number of partners create risk of sexually transmitted diseases exposure as well as exposure to other pelvic infections. Substance abuse is also categorized as an environmental exposure.

Substance Abuse

Abuse of drugs and alcohol have their most devastating effects on the fetus during the critical first trimester, even before a woman may know she is pregnant.

Physicians generally warn patients about prescription and over-the-counter drugs but may not probe for illegal drug use. Alcohol's effects on the fetus may also not be discussed.

Drugs and alcohol may both be misused as stress relievers, or antidotes for depression, and their use is influenced by role models, peer pressure, advertising and easy availability. Societal promotion of the "no-pain" lifestyle and media images of acceptable, even expected, alcohol and drug use are also strong influences resulting in increased use among teens, and possible diversion of resources to drugs, alcohol and away from proper nutrition and health care.

Interpregnancy Interval Less Than One Year

An interpregnancy interval of less than one year means that a woman's body may not be ready to nurture another baby. This puts her at higher risk of a poor pregnancy outcome.

Some possible reasons for too brief an interpregnancy period are lack of continuity in the medical care system from delivery to family planning; lack of understanding of most likely time to become pregnant; incorrect information on breast-feeding and pregnancy; desire to replace a fetal, neonatal or post-neonatal loss immediately; desire for children closely spaced; familial or spousal expectations of frequent pregnancies; or woman's need of psychological or emotional support received during a pregnancy. An early teenage pregnancy has been correlated with repeat pregnancies while still a teenager.

Genetic Factors

While the technologies are not available for detection, correction or amelioration of all congenital and genetic defects, lack of knowledge of available genetic services and their capabilities by both patients and providers contribute to poor perinatal outcomes.

Genetic influences are initiated in the choice of a partner or spouse, causing family history, presence of sex or race linked characteristics or previous defect to become risk factors. Age of mother is also a risk factor since risks increase after age 35.

Lingering stigmas surrounding genetic defects may also prevent individuals from seeking information or services.

PROBLEM 1: PERINATAL MORTALITY

FACTORS CONTRIBUTING TO HIGH RISK BIRTHS IN HOSPITALS NOT PREPARED FOR NEONATAL HIGH RISK CARE

Inadequate Prenatal Care

The state's definition of inadequate prenatal care is less than six prenatal visits and/or care begun after six months. In 1982, 12.6 percent of all women delivering in South Carolina received less than six visits. 756 women received no prenatal care. Twenty-five percent of all teens 17 years or less who gave birth received no prenatal care.

The content, quality and time appropriateness of the prenatal care received by pregnant women is not generally known.

Women come into care late for a variety of reasons: belief that care is not needed until late in the pregnancy; for some women and especially teens, denial of the pregnancy until the second trimester; transportation difficulties; and lack of availability of no-cost care for poor women in some counties or availability of providers who will accept Medicaid.

Inadequate Risk Determination

Inadequate risk determination is a contributing factor for both poor pregnancy and neonatal outcomes.

Some prenatal care providers do not assess behavioral, environmental or occupational risks; genetic risk determination is not routinely included. If pregnancy risks are assessed, patients may not be transferred to the appropriate

level of delivery due to unwillingness to lose a delivery or belief that delivery can be managed at the level of origin. Also, some risk conditions are not easily recognized in pregnant women or cannot as yet be early identified.

Patients contribute to inadequate risk determination by not seeking care early, and not perceiving the need for early care. They often lack information on what constitutes a risk and tend to "accept their lot," failing to demand care and lacking the assertiveness or knowledge to ask questions.

Expectations, beliefs and judgments regarding the feasiblity of survival of a high risk infact differ, leading to varying levels of effort to assure that survival.

The skills, equipment and experience to care for the high risk neonates are not uniformly available and require recognition of qualifying conditions, stabilization, referral and transport. Provider skills in each may be lacking.

Lack of Training in Newest Technology in Both Public and Private Sectors

The proliferation of new technology creates a continuous need for training; however, training is not always seen as a priority or identified as a need; providers may be more comfortable with outdated but familiar procedures. There is a general lack of resources for training and lack of coordination and funding for training available.

Training is difficult to schedule for medical providers and difficult to obtain training continuity in public and private sectors.

Lack of Cooperation Between Public and Private Sectors

In South Carolina, except for high risk program participants, all public sector prenatal patients are delivered by private physicians with the patients having responsibility for making financial arrangements individually with physician and hospital. The public sector has "the mandate" to provide care for the indigent but lack the fiscal and personnel resources to directly provide delivery attendant services. This dichotomy creates problems of turf guarding, attitudinal problems, confusion over responsibility for patient care and economic and reimbursement questions. It intensifies the difficulties of developing the logistics of referral systems, and record transfers.

Lack of Adequate Funding

Thirty-five percent of pregnant women in South Carolina fall under the category of 150% poverty using Department of Health and Human Services Guidelines. Medicaid payments are not viewed as adequate or turn-around time too slow and cumbersome for some providers to serve prenatally or plan to deliver Medicaid eligible patients. Many women have no insurance because they or their spouses are unemployed or underemployed. Some choose not to purchase insurance. Medically indigent low risk women find arranging for delivery very difficult because of cost which impedes or denies access and uneven county funds for indigent care.

Access and financing low risk prenatal and delivery care are clearly related problems. Financing problems are intensified when neonatal intensive care becomes a necessity for the neonate. This high cost care is available at five Level III regional centers. These centers are funded through a variety of mechanisms. The county of residence of medically indigent women is not required

to contribute to the Level III hospital for neonatal intensive care. Level III hospitals have been reappraising their ability to finance and provide high risk neonatal care for out-of-county residents.

PROBLEM 1: PERINATAL MORTALITY

PREVENTION STRATEGIES

Strategies for Preventing Low Birth Weight

1. Reduce Teen Pregnancy

   a. Develop medical care delivery system appropriate to teenagers' needs. These could include adolescent clinics, mobile health vans for teenagers in rural areas and encouragement of specialized teenagers units in family practice settings.

   b. Availability of pregnancy testing in all middle and high schools with appropriate counseling and referral; pregnancy testing to be done preferably by school nurses.

   c. Increase teenagers' self-esteem, decision-making skills, and career goals.

   d. Increase nutrition education appropriate for teenagers and assess changes in behaviors.

   e. Increase teenagers' awareness of their rights and responsibilities with respect to the medical care system and its providers.

   f. Reproductive/teenager health education should be available in all schools focused on preadolescent age groups.

   g. School health curriculum should be required of all students including secondary schools, vocational schools, community junior

colleges, technical schools, youth groups, to include, but not be limited to the following:

- nutrition information (preconceptual nutrition)
- other health promotion education
- health risks of early sexual activity, including health risks of pregnancy
- contraception
- genetic risks
- parenting education
- cost of childbearing
- decision-making skills
- most likely time of month to get pregnant
- constructive ways of managing stress
- knowledge of rights and responsibilities with medical care systems
- responsibility for one's own health and health behavior

h. Training should be provided to increase skills/knowledge of health teachers. Identification/utilization of community resources to aid in teaching health should be encouraged.

i. State-of-the-art reproductive health education should be available from parents, YM/YWCA, churches, media.

j. Recreational and extra-curricular activities should be available such as:

- increased opportunities for work and volunteer services

- increased skills development and vocational and educational opportunities
- after hours recreation and skills program at schools
- school-based after hours teaching/learning lab for day care children and students

k. Development of leisure skills

l. Encouragement of education and career goals for girls

2. Components of Prenatal Care by all Providers both Public and Private should include:

a. Dietary assessment

b. Education with strong emphasis on nutrition

c. How to recognize symptoms of early labor and appropriate actions

d. Assertiveness skills to interact with medical care system

e. Direct information on impact of smoking, alcohol, drugs and environmental exposures on low birth weight and fetal development; substance use should be part of all prenatal assessments

f. Genetic risk assessment

3. Decrease number of women with interconceptual periods less than one year having babies

4. Decrease number of women smoking pre-pregnancy and during pregnany

Strategies for Preventing Poor Preconceptual Health and Health Behaviors

1. Information, education for all women using public or private family planning services should include the importance of nutrition and sub-

stance use in fetal development with specific recommendations for behavior change.

2. Education on constructive rather than destructive ways of coping with stress should be a component of family planning/general health education.

3. Target family planning messages to women at biological risk for poor infant outcome.

4. Encourage/support adoption alternatives for women at biological risk.

5. Increase public awareness of genetic risk factors and resources for genetic screening.

6. Increase women's awareness of relationship between poor pre-pregnancy health, pregnancy demands and poor pregnancy outcome.

7. Alcohol, cigarettes and substance use needs to be made a standard part of prenatal assessment with information on consequences to fetus/infant provided. Referrals to smoking cessation programs or other educational programs provided.

8. Caloric and protein supplementation in early pregnancy (and preconceptually to women at high nutritional risk). This supplementation to be in addition to Women Infants and Children Supplemental Food Program for high risk women; to increase utilization to Women Infants and Children Supplemental Food Program in 1st trimester.

Strategies for Preventing High Risk Births in Hospitals not Prepared for Neonatal High Risk Care

1. Increase the number of pregnant women who are risk screened at the points of entry and at appropriate intervals and who receive care appropriate to risk. Training should be provided to private medical providers on how to risk screen for possible high risk births to include genetic screening and for women at risk of premature births.

2. Incentives should be identified to encourage risk screening by private providers and disincentives eliminated for referring to appropriate levels of care.

3. Support state system for funding perinatal care centers (obstetrical and neonatal care) to service the identified high risk mothers and infants in designated regions.

4. All hospitals should adhere to South Carolina Perinatal guidelines and require staff to continue training to meet the capabilities required by the guidelines.

5. Continue training in the most effective delivery technologies appropriate to the provider's level of care.

6. All hospitals should offer prenatal care/nutrition/childbirth preparation classes and promote their link to the perinatal referral system as an advantage of their services.

7. Educate providers, patients and public of the importance of

regionalization of care and of Neonatal Intensive Care units in decreasing mortality and morbidity.

Strategy for Preventing Women Receiving Inadequate Prenatal Care

1. All women have the right to quality prenatal and delivery care regardless of ability to pay as the best mechanism to assure children a healthy start in life.

   a. Develop a state system to assure financial access to prenatal and delivery care for all women 150% poverty or less; the state should utilize all available resources: Medicaid, Medically Needy and state dollars.*

   b. Eliminate barriers to efficient Medicaid reimbursement for private providers and thereby increase number of providers willing to accept Medicaid.

   c. Identify state tax incentives for private providers to provide care for indigent mothers and babies.

2. Nurse midwife care should be available in all counties without obstetrician services.

3. Prenatal care should be available at all county health departments.

4. Availability and accessibility of pregnancy testing should be increased with appropriate referral information.

   a. Free pregnancy testing in all health departments, community health centers, rural health initiatives, and hospitals.

b. Increase number of sites for pregnancy testing such as worksites and through Community Action Agencies and day care programs.

5. Develop a system to assure continuity of care for women during pregnancy and through infant's first year of life; specifically continuity from obstetrical services to pediatric services to family planning services.

6. Transportation should be made available to prenatal care sites through use of volunteers, ride sharing and cooperation with community agency transportation capabilities.

7. Increase patients' knowledge of what constitutes quality prenatal care and skills in accessing that care.

8. Increase public awareness of the importance of early prenatal care and what it can mean for mother and baby by the following for the next four years:

    . radio and/or television public service announcements twice a month

    . newspaper articles twice a month

    . utilize church bulletins for messages monthly

        - billboards quarterly

        - posters in day care centers

9. Target information to opinion leaders in "high risk" communities.

10. Organize "resource mother" units or variations in high risk communities.

PROBLEM 2: POSTNATAL MORBIDITY

FACTORS CONTRIBUTING TO POSTNATAL MORBIDITY

Inadequate Date for Problem Identification

At present there are no regulations requiring early identification, or reporting or registry of morbidity conditions other than communicable diseases. The data system for high risk infants is available and could be expanded to meet this need, but cost is a restraining factor, and a mechanism would have to be found to include the private care system in any reporting process. Provider education and skills in use of data systems are not uniform, and the natural resistance to increased paperwork, (increased manpower and time in filling out computer forms) would have to be overcome.

Disrupted Bonding and Attachment Processes

Attachment is critical in the developmental processes of all infants. The regionalization of neonatal intensive care units necessitates baby and family separation, and the low birth weight infant often requires long periods of hospitalization. Transportation difficulties and the fact of mothers working makes frequent visiting difficult. Breastfeeding, the natural bonding process, is not encouraged, initiated or is disrupted for infants, especially low birth weight or "at risk" infants. Thus, high risk infants are particularly subject to poor attachment consequences.

Hospital personnel may not make the special efforts needed to encourage bonding. Attitudes of family and peers may interfere with bonding. Teen mothers, 17 or

less are at high risk for lack of bonding as are parents of a child unwanted or unplanned for.

Poor Parental Understanding of Child Development

All infants require a stimulating environment if developmental processes are to proceed normally, and the developmentally disabled child requires even a more enriched environment.

Public knowledge of child development processes and needs is not widespread or uniform. Child development is poorly taught or not taught at all in schools, and the nuclear family and delayed childbearing increases the probability that parents have few or no recent parenting models. Parents whose own families were disrupted may have learned maladaptive parenting.

Societal expectations of parents' roles are undergoing changes and the behaviors learned from modeling ones own parents may not be applicable to today's circumstances.

Opportunities to learn about child development are limited; health providers do not generally address these educational needs.

Unstimulating Home or Child Care Settings

Lack of early stimulation of infants and children is related to poor mental and physical development. Influential factors include increasing number of single family households with both parents working and thus having little time to spend with children, and non-selective reliance on unskilled day care, family day care, relatives or friends for infant care. Single parent families, particularly with teenage mothers, are at increased risk as are families in

poverty, in overcrowded conditions, or with several small children. The reliance on older siblings or other children to care for infants is also a risk condition.

Failure of Health Facilities to Provide Anticipatory Guidance

Parents need anticipatory guidance on normal developmental stages of infants and children; the need for well child care and immunizations at appropriate intervals; how to recognize signs and symptoms of illness and infections; how to guard against accidents and how to access care. Health care providers may fail to give all or a portion of this guidance because of the time required; lack of reimbursement by third party payers of well child visits when this guidance would be most appropriate; parents not assertively asking for information or parents failing to keep appointments for well child care and not seeing these visits as essential. The developmentally disabled child and his or her family require special guidance and counseling.

Need for Optimal Mental and Physical Health Environment for Infants and Children

With an increasing percent of mothers of infants and young children working and with less availability of an extended family to care for, care is a necessity. Quality day care is expensive and may not be accessible for many families. Individuals who care for a few children are not required to be certified or monitored. In some cases, small children are left in the care of older siblings or young sitters. Training in the areas of early childhood education; infant stimulation; health and hygiene; accident prevention; and recognizing signs and symptoms of illness is needed for day care providers regardless of the number of children cared for. For families of the developmentally disabled child, this

problem is much more severe since these children have special needs and the parents need addtional support and help.

Day care centers may provide an environment for transmission of some illnesses because of caring for a number of children. There is a need to aid centers and/or individuals providing day care in establishing policies and procedures to minimize the possibility of transmission of infections and illnesses.

Lead Poisoning

Lead poisoning is a hazard for infants and children, adversely affecting mental development. Although screening programs are available they may not be adequately used. Parents and/or health care providers may not be aware of the various environments at risk for high lead levels; i.e., older homes being rehabilitated, car battery storage areas. Parents may not recognize symptoms of lead intoxication. Although poor children may be at higher risk of lead poisoning, all children living in older homes are at somewhat higher risk.

Lack of Programs for Early Detection of Developmental Disabilities

Although professionals are available in the state to evaluate infants and children for developmental disabilities, they are not, however, generally organized to provide a multidisciplinary evaluation. For some children, especially those in rural areas, there is lack of access to care for diagnosis and treatment. Another problem with early detection is lack of parental knowledge of normal child development to aid identification of developmental delays. There may also be reluctance on the part of parents to acknowledge problems. Health care professionals may be reluctant to diagnose early or refer for testing and possible identification because of the risk "labeling" the child inappropriately.

There is a significant cost for evaluations. Special testing procedures are needed for the most accurate evaluations of developmentally disabled children.

Lack of Programs to Provide Developmental Therapy to "At Risk" or Identified Developmentally Disabled Children

Programs for parents which both support them and provide opportunities for them to learn how to help their children are not generally available. Therapy programs for developmentally disabled infants and children require specially trained professionals and are labor and equipment intensive. They may not be accessible because of cost, location, and availability of trained professionals.

PROBLEM 2: POSTNATAL MORBIDITY

PREVENTION STRATEGIES

Strategies for Preventing Deficiency of Data

1. Increase legislator awareness of problems and future costs associated with infant and child morbidities that initiate during perinatal period.

2. Introduce legislation/resolution requiring collection and reporting of necessary data.

3. Data system to include incidence data on handicapping conditions and prevention programs.

4. Provide incentives/encouragement for health providers to report handicapped infants and children.

5. Support statewide data collection systems; possibilities to include:
   a. University Affiliated Facilities - South Carolina Handicapped Services Information System
   b. Statewide Perinatal Information System
   c. S.C. Department of Education

Strategies for Preventing Disrupted Bonding Attachment Processes

1. Prevent low birth weight and its sequelia.

2. Target educational messages to women/families at risk for poor attachment.

3. Encourage "rooming in," breastfeeding support for all infants and Family Centered Maternity Care.

4. Hospital personnel should demonstrate positive attitudes, support and facilitate attachment/bonding on all policies/procedures related to mothers/families and newborns and in interactions with new parents.

5. Encourage business/industry to support policies allowing flex-time, job sharing, extended maternity/paternity leaves for families with newborns, particularly high risk infants.

6. Provide travel funds for indigent parents to Neonatal Intensive Care Units to be with their infants.

7. Expand capabilities of regional neonatal intensive care units to service their regions; i.e., follow-up on low birth weight/high risk infants who are released from neonatal intensive care units.

8. Encourage establishment of Level II Centers for "back transfer."

9. Provide for improving services and nursing care for these infants in Level II Centers.

Strategies for Preventing Poor Parental Understanding of Child Development/Understanding Home or Child Care Setting.

1. Provide parenting classes through Health Departments and other agencies.

2. Stress child development in health maintenance visits both in public/private sectors; work through S.C. Chapter American Academy of Pediatrics, S.C. Association of Family Practitioners.

3. Increased use of "Puzzle of Parenting" series by elementary schools, and other education programs for parents of preschool children.

4. Increase the variety of delivery sites for courses in child growth and development/parenting, such as churches, adult education programs, community groups, recreation center programs, community action agencies, council on child abuse, etc.

5. Develop units of instruction on child growth/development for inclusion in high school science/health curriculum, social studies courses.

6. Support community groups' or resource mothers projects which provide home visits to help mothers learn appropriate interaction and stimulation of infants and young children.

Strategies for Preventing Poor Infant Nutritional Practices

1. Stress parent anticipatory guidance in health care training programs.
   - medical schools
   - nursing programs

2. Compensate physicians and clinics for health maintenance visits through Medicaid and third party payers.

3. Publicize training resources for professionals available from Child Development Centers located at University of South Carolina campus sites.

4. Increase sources of correct information about sound infant feeding practices: in day care programs, infant clothing departments, public service announcements.

5. Encourage formation of breastfeeding support groups.

6. Encourage public education regarding benefits of breastfeeding.

7. Target educational messages on sound infant feeding practices to mothers at risk.

8. Improve nutrition education in school settings.

Strategies for Preventing Failure of Health Facilities to Provide Anticipatory Guidance

1. Seek third party reimbursement for well child care.

2. State should ensure financial access to well child care for all children in South Carolina whose families are 150% of Health and Human Services poverty or less.

3. All providers of primary care services and providers of well child care should be encouraged to include anticipatory guidance for child development in their services to parents.

Strategies for Preventing Less Than Optimal Mental/Physical Environment In Infant Care

1. Improved standards and enforcement procedures for very small care centers.

2. Regional resources facilities for training preschool workers - concentration on signs and symptoms of illness; when/where to report illness and; developmental stages.

3. Publicize suggested criteria parents should use in selection of extended care services for infants.

4. Encourage community groups to investigate and evaluate child care facilities in their communities and publicize their findings.

5. Provide short courses/educational television media courses in child development for family day care personnel.

6. All licensed family day care personnel should show evidence of knowledge of concepts of infant development in their interaction with infants in their care.

7. Encourage community groups to develop mutual support systems for parents of developmental disabilities children such as developing babysitters cooperatives or training through hospital education programs volunteer respite sitters.

Strategies for Preventing Lead Poisoning

1. Expand use of lead screening program as needed.

2. Assure that public education regarding screening services/symptoms of lead poisoning gets repeated at periodic intervals.

Strategies for Early Identification of Developmental Disabilities

1. Support funding for neonatal intensive care unit follow-up clinics for funding.

2. Train and utilize existing staff of regional child development centers for service and outreach education.

3. Support Crippled Children's Comprehensive Developmental Evaluation Clinic and make it more accessible statewide.

Strategies for Preventing Lack of Programs to Provide Developmental Therapy to "At-Risk" of Identified Developmentally Delayed Children

1. Support funding for South Carolina Handicapped Services Information System.

2. Encourage public schools to "reach down" to the preschooler.

3. Negotiate Medicaid and Third Party Reimbursement for these services.

4. Professional staff of regional child development centers should be utilized for service and outreach education.

OUTCOMES

South Carolina had a perinatal mortality rate of 23.7 per 1,000 deliveries in 1982. By year's end, 1987, the perinatal mortality rate should decrease to 18 per 1,000 deliveries if all present interventions continue with the present or an increased level of support. The determinants of perinatal mortality and morbidity are difficult and slow to change. The expected perinatal death rate of 18 per 1,000 deliveries is projected from present trends. If the interventions recommended here are put into place expeditiously, adequately funded and continued, their effect will be seen in the early 1990's.

Effectiveness of the recommended prevention strategies would best be measured by subsequent increases or decreases in the problems listed below:

	1980	1981	1982
Percent of Births $\leq$ 2500 gms.	8.7	8.9	8.9
White	6	6.1	6.1
Non-White	12.5	12.8	12.9
Percent Births $\leq$ 1500 gms.	1.5	1.6	1.7
White	.9	1.1	1.2
Non-White	2.4	2.4	2.6
Percent of Women Receiving Inadequate Prenatal Care (5 visits or less)	11.4	12.2	12.6
Perinatal Mortality Rate*	23.4	23.5	23.7
White	16.9	17.1	17.2
Non-White	32.8	32.6	33.0
Fetal Mortality Rate*	12.9	12.9	13.3
White	9.4	9.2	9.3
Non-White	18.0	18.3	19.1

	1980	1981	1982
Neonatal Mortality Rate**	10.8	10.9	10.7
White	7.6	8.1	8.1
Non-White	15.4	14.9	14.5
Infant Mortality Rate**	15.6	16.2	16.2
White	10.8	12.4	12.0
Non-White	22.4	21.6	22.2
Post Neonatal Mortality Rate**	4.8	5.3	5.4
White	3.2	4.3	3.9
Non-White	7.0	6.7	7.7
Rate of births to teens***	36.2	33.2	31.9
Rate of teen pregnancy $\leq$ 17****	51.9	48.0	46.0
Incidence of developmentally disabled and specific infant mordidities	Currently no statewide data base or collection systems		
Estimated % pregnant women $\geq$ 35 years who received amniocentesis	18%	20%	27%
Estimate of abnormalties detected	6-7	7-8	9-10

*Rate per 1,000 deliveries
**Rate per 1,000 live births
***Rate per 1,000 female population age 14-17 (1980 census)
****Estimate. Pregnancies = live births, fetal deaths and induced abortions. 1,000 female population age 14-17 (1980 census)

REFERENCES

Budetti, et al. The Implications of Cost Effectiveness Analysis of Medical Technology - Case Study #10 - The Cost and Effectiveness of Neonatal Intensive Care. Office of Technology Assessment, Washington, D.C., August, 1981.

Goldenberg, R.L., et al. Neonatal Deaths in Alabama. 1970-1980; an analysis of birth weight - and race - specific neonatal mortality rates. Am J. Obstet. Gynecol. 145: 545-552.

South Carolina Vital and Morbidity Statistics, 1980, Vol. 1. The Division of Biostatistics, Office of Vital Records and Public Health Statistics, S.C. Department of Health and Environmental Control, Columbia, S.C. August, 1982.

South Carolina Vital and Morbidity Statistics, 1981, Vol. 1. (In press) The Division of Biostatistics, Office of Vital Records and Public Health Statistics, S.C. Department of Health and Environmental Control, Columbia, S.C.

South Carolina Vital and Morbidity Statistics, 1982. Private Communication. The Division of Biostatistics, Office of Vital Records and Public Health Statistics, S.C. Department of Health and Environmental Control. October, 1983.

Better Health for Our Children: A National Strategy. The Report of the Select Panel for the Promotion of Child Health, Vol. 1. Major Findings and Recommendations. U.S. Department of Health and Human Services, Washington, D.C., 1981.

Chilmer, C.S., (ed.) Adolescent Pregnancy and Childbearing Findings from Research. U.S. Department of Health and Human Services, Washington, D. C., December, 1980.

Furstenberg, F.F., Jr.; Lincoln, R., and Menkin, J., (eds.). Teenage Sexuality, Pregnancy and Childbearing. U. of Pennsylvania Press, Philadelphia, 1981.

Teenage Pregnancy in South Carolina: Everybody's Problem. Division of Family Planning and Office of Health Education, S.C. Department of Health and Environmental Control, Columbia, S.C. October, 1983.

"MOD Experts Outline Ways to Reduce Infant Mortality: Maternal/Newborn Advocates," Vol. 10, No. 3, Sept. 1983. March of Dimes Birth Defects Foundation, White Plains, N.Y.

"Maternal and Infant Health in South Carolina: A Description of Priority Problems and Programs." 1983 Special Study Supplement to the 1982 State Health Plan, S.C. Statewide Health Coordinating Council, State Health Planning and Developmental Agency.

Shapiro, S. et al. Changes in Infant Morbidity Associates with Decreases in Neonatal Mortality. Pediatrics 72:408, 1983.

Bakeman R and Brown JV: Analyzing behavioral sequences: Differences between preterm and full-term infant/mother dyads during the first months of life. In Sawin, Hawkins, Walker and Penticuff (eds.), Exceptional Infant, 4, New York: Bruner/Mazel, 1980, 271-299.

Beckwith L: Caregiver-infant interaction: The development of the high risk infant. In T. Tjossem (ed) Intervention Strategies for High Risk Infants and Young Children. Baltimore: University of Park Press, 1976.

Berkowitz, GP and Chapman, SK: Follow-up of the High Risk Infant. Paper presented at the Ninth Annual Neonatal Symposium, Richland Memorial Hospital, Columbia, S.C., September 27, 1982.

DiVitto B and Goldberg S: The effects of newborn medical status on early parent-infant interaction. In T. Field, et al, Infants Born at Risk, 311-332.

Field TM, Hallock N, Tink E. Dempset J, Dabin C and Shuman HH: A first year follow-up of high risk infants: Formulation of a cumulative risk index. Child Development, 49, 1978, 119-131.

Lubchenco LO: Morbidity and mortality in neonatal intensive care units. In Elsa J. Sell (ed) Follow-up of the High Risk Newborn. Springfield, Ill.: Charles C. Thomas, Publ., 1980.

Walker LO: Early parental attitudes and the parent-infant relationships. In Sawin DB, Hawkins RC, Walker LO and Penticuff JH, Exceptional Infant, Vol. 4, New York: Bruner/Mazel, 1980, 234-249.

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Attachment 1

Level I hospitals provide services for uncomplicated deliveries and normal newborn infants. Generally, the number of births at these hospitals is small, and Level I hospitals are only needed in sparsely populated areas. Because of their geographic isolation, these hospitals must be able to manage an infant with acute or potentially life-threatening problems while preparing for immediate transfer to a Level II or Level III hospital. Management might include resuscitation and short-term assisted ventilation with bag and mask or bag and endotracheal tube.

Level II hospitals should provide services for both the normal and high-risk pregnant patient and for the management of selected neonatal illnesses. The list of illnesses that can be diagnosed and treated adequately will be limited in part by the availability of the necessary consultants and in part by the concentration of skilled individuals delivering perinatal care. Most of these hospitals are located in urban and suburban communities where the majority of deliveries occur. This level of neonatal care includes the capability for resuscitation, short-term assisted ventilation with bag and mask or endotracheal tube, intravenous therapy with infusion pumps, arterial blood gas monitoring, continuous cardiorespiratory monitoring with appropriate equipment, performance of exchange transfusion, and oxygen administration.

Level III hospitals function as regional centers and provide all aspects of perinatal care, including intensive care and a broad range of continously available, subspeciality consultation. These hospitals should provide educational programs, consultation services, neonatal transport and back-up support for Level I and II hospitals in their region. The region center must have an

adequate staff of trained personnel who can administer perinatal care, conduct continuing education, and evaluate the quality of perinatal care for the entire region. Personnel at the regional center have the responsibility of communication with parents, medical teams, and hospitals throughout the region. This communication is not only essential for good patient care, but it also is the most effective educational method for improving this care.

Chapter XIII: SUBSTANCE ABUSE SUBCOMMITTEE

SUMMARY REPORT

Introduction

A fifteen member planning subcommittee consisting of representatives from thirteen public and private agencies collaborated, during an approximate three-month period, to respond to a specific planning objective: To identify and prioritize prevention problems in the area of substance abuse; to analyze the state-of-the-art and recommend feasible intervention strategies which could be met by 1987. In response to this objective, the committee established the following parameter for planning purposes:

Identified Substances: Alcohol, other drugs, (licit and illicit) and nicotine.

Population categories: General population, women, youth, elderly.

An adapted version of the Center for Disease Control's Health Planning Format further facilitated the planning process. As a result, six major planning issues were formulated. The detailed report fully describes these recommendations.

PROBLEM

According to the 1979 Surgeon General's Report on Health Promotion and Disease Prevention, Healthy People, alcohol misuse is a factor in more than 10 percent of all deaths in the United States - about 200,000 a year. It is associated with half of all traffic deaths, approximately 25,000 a year, many involving teenagers. Cirrhosis of the liver, which ranks among the 10 leading

causes of death, is largely attributable to alcohol consumption. Alcohol use is also associated with cancer, particularly of the liver, esophagus and mouth. Primary liver cancer is almost exclusively attributed to alcohol consumption. People who drink and also smoke cigarettes have even greater chances of developing esophageal cancer. Excessive drinking during pregnancy can produce infants with severe abnormalities, including mental retardation and Fetal Alcohol Syndrome.

Although there is no question that drug misuse is a major problem, reliable information on actual prevalence is hard to obtain. Much depends on self-reporting and many problems occur among transient populations likely to be missed in any survey.

Cigarette smoking causes most cases of lung cancer and that fact is underscored by a consistent decline in death rates from lung cancer for former male cigarette smokers who have abstained for 10 years or more.

DATA

Per capita, consumption of alcohol by Americans increased during the 1960s--generally attributed to the lowering of the legal drinking age in many States, an increase among young people consuming alcohol and increasing use of alcohol by women. The proportion of heavy drinkers in the population grew substantially in the 1960s to reach the highest recorded level since 1850, though it has leveled off in recent years. Drinking is most prevalant in the younger years and declines after age 50.

Currently average consumption of alcohol for all persons older than 14 is 30 percent higher than 15 years ago--about 2.6 gallons of ethanol annually, representing a total of 28 gallons of beer, plus 2.5 gallons of distilled spirits and 2.25 gallons of wine.

Ten million adult Americans--seven percent of those 18 years or older--are estimated to be alcoholics or problem drinkers. Of all adults who drink, more than a third have been classified as either current or potential problem drinkers, with women making up one-fourth to one-third of the latter. Youthful problem drinkers aged 14 to 17 (intoxicated at least once a month) are estimated to number more than three million, between 20 and 25 percent of the age group.

The social and economic burdens associated with alcohol are enormous. Those who abuse alcohol affect not only themselves but their 40 million family members as well. Alcohol abuse and alcoholism are estimated by the Alcohol, Drug Abuse and Mental Health Administration to have cost the nation nearly $43 billion in 1975, including health and medical costs, lost production, motor vehicle accidents, violent crimes, fire losses, and social response programs.

Heroin addiction, the most serious drug problem in the United States, appears to be declining. In 1978, there were estimated 450,000 addicts, compared with an estimated 550,000 in 1975. It should be noted that the decline parallels demographic changes in the number of young adults.

The toll from highly addicting heroin includes premature death family disruption, and crime committed to maintain the habit. The heroin user is at very high risk of death due to overdose of hepatitis and other infections from contaminated equipment and inpurities in the drug, and from chronic malnutrition because money is spent on heroin instead of food. Preventing consequences of overdose and infection in users is virtually impossible since there is no control over the strength and purity of the drug or the means of administration.

Central nervous system depressants and stimulants with potential for abuse

include many drugs ordinarily prescribed for their medical value. At least one million Americans are believed to misuse barbiturates or other sedative-hypnotic drugs and 300,000 persons are estimated to be addicted to them.

Excessive doses of depressants over a long period can result in both physical and psychological dependence, with abrupt withdrawal (particularly of barbiturates) leading to convulsions which may produce permanent disability or even death.

Overdosing with barbiturates--intentional and accidental--is a leading cause of drug overdose fatalities but has declined somewhat as physicians have changed prescribing practices. Combinations of barbiturates with depressants, particularly alcohol, greatly increase the chance of death because of the synergistic effect of the two.

Cocaine is a stimulant which, despite its high cost, has become very popular for its propensity to induce euphoria and reduce feelings of fatigue. Some 10 million americans have tried cocaine at least once and one to two million are current users. Although physical dependence does not develop, psychological dependence may. Some deaths due to toxic reactions to cocaine have been reported.

Hallucinogens, which distort perception of reality, can cause potentially fatal toxic reactions; and their unpredictable psychic effects may result in unintentionally dangerous behavior. One hallucinogen, PCP (phencyclidine hydrocholoride), has a well-deserved street reputation as a "bad" drug, yet many people use it regularly quite often believing they have purchased a different drug. In 1977, it was associated with at least 100 deaths and more than 4,000

emergency room visits. Other illicit drugs--with less harmful physical and social consequences--are in more widespread use.

Compared to other drugs, the cost of a daily ration of tobacco is low. To a large degree, this is because the cost of other drugs, such as alcohol, marijuana, and most synthetic substances, has been sharply increased as a deliberate social policy, either through taxation or by legal prohibition. This adds the costs of maintaining an illicit distribution system to the costs of the drug itself. In terms of understanding the differences between tobacco and other substances, one must recognize that at present it remains among the relatively inexpensive commodities in most industrialized countries, and for most people, it is almost the easiest ot obtain. Since there is evidence to suggest that the consumption of cigarettes, like other commodities and other drugs is responsive to changes in price, a number of countries are considering taxation schedules that would reduce overall consumption. In 1976, a bill was introduced into the United States Senate that would have raised the taxes on various cigarettes in proportion to the content of tar and nicotine.

The social acceptability of tobacco use and dependence is, at present, in a class by itself. In most developed countries, moderate use of alcohol is accepted and approved. Public consumption of such beverages is part of the fabric of society. Nevertheless, it is considered dishonorable to be seen as an excessive user of alcohol or to be dependent on it, and (despite the prominence of a number of former alcoholics) most people would rather not advertise their difficulties in keeping alcohol use at moderate levels. Most people dependent on tobacco, on the other hand, do not behave as if the continued use represents either a personal inadequacy or a behavior that ought to be kept out of the public eye.

Contributing Factors

Table I illustrates that lifestyle, for all identified issues, contributes to substance abuse problems among the four population categories analyzed in this study.

TABLE I

PERCENTAGE ALLOCATION: DETERMINANT FACTORS FOR IDENTIFIED PROBLEMS

Drinking and driving in the 15-24-year old age group	20	20	40	20
Societal and fiscal costs of alcohol and drugs and nicotine usage	40	15	40	5
Fetal Addictions Syndrome	5	50	20	25
Increase in problems among women related to alcohol and drug abuse in South Carolina	10	30	15	45
Extensive use of marijuana, amphetamines, look-alikes and sedatives among school age population	25	25	25	25
Elderly drug misuse and alcohol abuse	30	30	10	30
Percent Allocation Average	21.66	27.5	25.0	25.0

Strategy

Drinking and driving in the 15 to 24 year old age group reflects the need for additional education, more stringent laws/legislation and more in-school substance abuse prevention programming.

The societal and fiscal costs of alcohol/drug abuse and tobacco usage could be positively impacted by: banning certain forms of distilled spirit, beer, wine, and cigarette advertising; legislative action in terms of outlet control; and involvement of primary health care providers in educational efforts.

The effect of alcohol, drugs and tobacco usage on the educational system in South Carolina could be reversed from a growing health problem through the development of community support programs that encourage healthy lifestyles, stricter legislation regarding availability of drugs and providing activities which serve as alternatives to alcohol and drug use behavior.

Increases in problems among women related to alcohol and drug abuse could be combatted by involvement of traditional medical and health care providers in substance abuse prevention/education programming. Ancillary services such as psychological, sociological and private services should also be involved. Special courses in alcohol/drug for obstetricians and gynecologists should be medical school requirements. Employer and religious leader involvement should also be encouraged.

Elderly alcohol and drug misuse and abuse prevention should concentrate on a computerized, coordinated prescription monitoring system for South Carolina.

Training of care providers (cross sectionally) for the elderly and additional education/information programs for health care and medical professionals and the elderly consumer must be implemented.

The Fetal Addictions Syndrome must be addressed through the development of a screening device that is distributed to all medical care professionals and legislatively mandated for utilization by 1987. Educational experiences for the medical and health care professional and females must be available and accessible by 1987. Advertising of distilled spirits, beer, wine, and cigarettes must comply to health standards. Additional research must be conducted to define the Fetal Addictions Syndrome in South Carolina.

Summary

It appears that substance abuse problems are significantly determined by negative lifestyle and environmental conditions that could be positively re-directed. It also appears that educational experiences, additional information, legislative action, the availability of computerized monitoring systems for prescription control, screening devices for detecting abuse among women and regulated advertising for distilled spirits, beer, wine and cigarettes are several strategies for decreasing health problems associated with substance abuse among South Carolina residents. A most important strategy is citizen involvement and state governmental support--such as is being shown through this five year plan. Implementation of specific strategies as recommended in this report could greatly enhance the lives of residents in this state.

INTRODUCTION

During the past several years, South Carolinians have seen the rapid delineation of risks related to alcohol, drug and nicotine use which can be altered by individual behavior. Recent responses, including more stringent DUI legislation, Budget and Control Board supported school intervention programs for high school students, smoking cessation programs and mass media campaigns provide hope that prevention efforts will continue to improve.

Hopefully, issues and recommended change strategies identified in this report will do much toward reducing costs and health risks related to substance abuse in South Carolina.

DRINKING AND DRIVING IN THE 15-24 YEAR-OLD GROUP

PROBLEM STATUS

Traffic accidents are the leading one cause of death among this age group, and most of these accidents involve a drinking driver. Approximately 70% of accidents in this age group are alcohol related. Increased enforcement of DUI laws, raising the legal drinking age and the judicious use of high-quality media campaigns will reduce the number of drinking/driving episodes among this target population.

CONTRIBUTING FACTORS

Technology	20%
Lifestyle	20%
Environment	40%
Biology	20%

PREVENTION STRATEGIES

To develop a media campaign that focuses on the danger of driving and drinking between 9:00 p.m. and 1:00 a.m. for all South Carolina citizens by 1987.

To form a Blue Ribbon Study Committee that will propose legislation to facilitate the DUI arrest and conviction process utilizing all available technology by 1987.

To develop comprehensive alcohol and drug prevention programs with an essential element being drinking and driving and alternatives to driving drunk by 1987.

To develop model drinking and driving policies for South Carolina colleges and universities by 1987.

To pass illegal *per se* legislation by 1985.

To pass legislation to raise the purchase age for beer and wine to 21.

SOCIETAL AND FISCAL COSTS OF ALCOHOL AND DRUG AND NICOTINE USAGE

PROBLEM STATUS

Millions of dollars are expended each year to treat diseases related to abuse of alcohol, other drugs and nicotine usage. Three major industries exist to promote their usage. The environment impacts the lifestyles of an individual with chemical use constantly promoted through the media. The costs to society in terms of deaths, hospitalization, impaired humans, and fetal addiction symdrome are astronomical.

CONTRIBUTING FACTORS

Technology	40%
Lifestyle	15%
Environment	40%
Biology	5%

PREVENTION STRATEGIES

To raise cigarette prices by 43%.

To publish code of ethics in beer/wine/distilled spirits industry.

To raise purchase age to 21 years of age for all beverages beer/wine/distilled spirits.

To increase sentence and fine for DUI by 200%.

To encourage that each school should integrate coursework in stress reduction/management in overall curriculum.

To develop a comprehensive alcohol and drug abuse prevention program for South Carolina citizens.

To increase School Intervention Program efforts in all schools in South Carolina.

FETAL ADDICTION SYNDROME

PROBLEM STATUS

Exact estimates of number of children with this syndrome are hard to establish. However, it is believed that fetal addiction syndrome is the third largest category of birth defects of this country behind Downs Syndrome and Spina Diffada. This is in many cases preventable through adequate education, labeling and medical procedures. Appropriate screening of women of child-bearing ages, followed by education, treatment where necessary, or proper prescription could reduce the number of children with this syndrome.

CONTRIBUTING FACTORS

Technology	5%
Lifestyle	50%
Environment	20%
Biology	25%

PREVENTION STRATEGIES

To develop knowledge/attitude survey regarding drinking/smoking in women of childbearing years should be implemented through physicians, clinics, family planning clinics and other appropriate outlets.

To design screening devices for hospitals and physician's offices to indicate risk should be mandated by legislation.

To design written information regarding fetal addiction syndrome designed for handouts for doctor's offices, clinics, etc., to be available and distributed.

PROBLEMS AMONG WOMEN RELATED TO ALCOHOL AND DRUG ABUSE

PROBLEM STATUS

More women are entering alcohol and drug treatment programs in this country. Several reasons exist for this condition. Among these reasons are the following: 1) More women are drinking; 2) more women are exposed to the workplace with different stresses; 3) chemical stress relievers are marketed specifically toward women; and, 4) over prescription to women for gynecological reasons. Methods of addressing this problem include education, intervention, and treatment along with proper training in the special needs of women, changing marketing strategies and use of counter advertising and the promotion of wellness programming for women. The latter of these apparently seems to be easily achieved as a result of the recent emphasis on women's preventative health.

CONTRIBUTING FACTORS

Technology	10%
Lifestyle	30%
Environment	15%
Biology	45%

PREVENTION STRATEGIES

To develop educational materials geared specifically to women that should be distributed to business and industries and the public-at-large.

To develop physician education regarding stress in women that should be made available on a formal and scheduled basis.

To design physician education regarding reduction of prescription of certain drugs for women.

To involve psychologists, social workers, school counselors, minister/ religious leaders, and educators in educational experiences regarding problems of substance abuse among this population.

To require sex education in schools and Family Planning clinics.

To increase in public service announcements.

To establish communication link between physicians and pharmacists.

EXTENSIVE USE OF MARIJUANA, AMPHETAMINES, LOOK-ALIKES AND SEDATIVES AMONG THE SCHOOL AGE POPULATION

PROBLEM STATUS

The rates of drugs and alcohol usage among our youth appear to have peaked. The leveling off and slight down turn may be encouraging to many, but usage rates are still quite high. Much work remains to be done in reducing the available supply and lowering the demands that encourage our youth to use mind altering chemicals. Many programs exist to educate our youth and assist them in coping with the factors in society that encourage them to use drugs. However, these efforts must be broadened, further researched, and expanded in depth to all of the youth in South Carolina. A combined approach that focuses on legislation, education, skills development, positive peer influence, counter advertising, proper nutrition, alternatives, early intervention, and treatment for casualties will eventually cost us less in human and financial terms than our present situation.

CONTRIBUTING FACTORS

Technology	25%
Lifestyle	25%
Environment	25%
Biology	25%

PREVENTION STRATEGIES

To deliver comprehensive education/prevention programs for 100% of the South Carolina students by 1987 that focus on skills development, self concept, alternatives nutrition, peer influence and information.

To pass legislation that would ban manufacture and distribution of look-alikes.

To develop of education/prevention courses for students in all South Carolina schools.

To develop support group programs for disruptive families.

To develop a mass-media campaign to be released in 12 separate episodes - one per quarter regarding drug use among the school-age population for three years.

To integrate adequate nutrition programming into treatment and prevention programs.

ELDERLY DRUG MISUSE AND ALCOHOL ABUSE

PROBLEM STATUS

The elderly comprise 10 percent of the population and take 25 percent of prescription medications. Many of these medications were synthesized in the past 30 years and we don't fully understand their effects. The metabolism of the elderly is such that they are more susceptible to the effects of these chemicals and are prone to develop problems with them more quickly. The elderly have more physical ailments and quite often go to a variety of doctors who prescribe medication combinations which often have negative effects by the users. Elderly drug misuse and alcohol abuse is a problem where the victims appear to be motivated and in many cases accessible to programming. Education on use of medication, development of dispensing systems and confronting doctors in conjunction with education of the medical profession and coordination of prescriptions will have beneficial effects with this receptive population. These approaches can easily be tied into the services delivery system for the elderly. Alcohol abuse among this population is not over represented, but these problems develop more quickly as a result of metabolic changes in the elderly.

CONTRIBUTING FACTORS

Technology	30%
Lifestyle	30%
Environment	10%
Biology	30%

PREVENTION STRATEGIES

To train nurses in patient relations regarding senior citizens should be mandated.

To develop a centralized computerized prescription system should be mandated by legislation.

To develop alternatives/education programming (to alcohol and drug abuse) for the elderly and care providers.

To offer educational seminars on special needs of the elderly, to the medical community in South Carolina.

To incorporate the needs of the handicapped in all programming.

To develop a wellness program for the elderly.

BIBLIOGRAPHY

Appenzeller, George W. "Analysis of Drug Arrests, Drug Use and Drug Abuse Treatment Intake 1976-1981 in South Carolina." SCCADA, 1981.

Akins, Robert; Hacke, George; Jacobson, Michael. The Booze Merchants: The Inebriating of America. Washington, D.C., 1983.

Bigelow, Laurie Townsend; Maletic, Ann M.; Porter, Richard J.; Self, Edwin A.; and Walsh, Thomas T. "Alcohol and Health Report for South Carolina." SCCADA, 1982.

Blackwell, B., "Psychotrophic Drugs In Use Today--the Role of Diazepam in Medical Practice." Journal of the American Medical Association, 225:1637-1641, 1973.

Blume, Catherine N. "Uniform Crime Report, Arrest Information Relating to Substance Abuse." SCCADA, 1982.

Connell, P.H. "Clinical Manifestations and Treatment of Amphetamine Type Dependence." Journal of the American Medical Association.

Cruze, Harwood et al. "Final Report: Economic Costs to Society of Alcohol and Drug Abuse and Mental Illness." Washington, D.C., 1977.

Fell, James C. and Terhune, Kenneth W., "The Role of Alcohol, Marijuana and Other Drugs in the Accidents of Injured Drivers." American Association of Automotive Medicine, Proceedings, October 1-3, 1981, San Francisco, CA.

Fofar, J.O. and Nelson, N.M., "Epidemoiology of Drugs Taken by Pregnant Women--Drugs that May Affect the Fetus Adversely." Clinical Pharmacol. Ther., 1414--Part 2:632-642, 1973.

Fourth Special Report to the U.S. Congress on Alcohol and Health, Department of Health and Human Services, National Institute on Alcohol and Alcoholism. Washington, D.C., January, 1981.

Hill, R.M., "Drugs Ingested by Pregnant Women." Clinical Pharmacol. Ther. 14:454-459, 1973.

Lohr, Lilah. "Why Are More Women Misusing Drugs." American Pharmacy, Vol. US18, U." (Oct. 1978) p. 629.

Lynch, Teri; Pines, Alaya M.; Silbert, Mimi H. "Substance Abuse and Prostitution." Journal of Psychoactive Drugs. Vol. 14 (3) (July-September 1982).

Morrissey, Elizabeth R. "Alcohol Related Problems in Adolescents and Women." Post Graduate Medicine, Vol. 64 No. 61 (December, 1978).

Murphy, Sheila; Rosenbaum, Marsha. "Getting the Treatment: Recycling Women Addicts." Journal of Psychoactive Drugs. Vol. 13 (1) (January-March, 1981).

Pardes, H., "The Use of Psychotrophic Drugs by U.S. Adults." Public Health Service Reports, 83:799-810, 1968.

Richmond, Julia B. et al. "Health People: The Surgeon General's Report on Health Promotion and Disease Prevention." Washington, D.C., 1979.

Self, Edwin; Townsend, Laurie. "South Carolina Recidivism Study, Alcohol Safety Action Program." SCCADA, 1978.

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