

ALASKA LEGISLATURE SPECIAL COMMITTEE/SUBJECT FILE 8672
2198 SCOMM 86: HEALTH RESOURCES & ACCESS TASK FORCE, 1991-93

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THE BACK PAGE

HOOPER BAY: Broken fluoride pump blamed by officials

Continued from Page A-1

"It appeared what was going on was that the mechanism was pumping only fluoride into the tank, when it should have been pumping both water and fluoride," said Bruce Erickson, western regional manager for the state Department of Environmental Conservation. "It happened right in front of our guy who was out there this week."

As the level of water in the tank dropped lower on day, the equipment show had automatically filled with water from a well. But a second pump injected fluoride into the system, and not water. Erickson said the fluoride concentration in the tank was suddenly a dead to public water supply.

— including those in Anchorage and many villages in Alaska — to reduce tooth decay.

As in many rural Alaska villages, Hooper Bay residents make regular trips to central wells where they fill 5-gallon buckets and haul them home.

Tests of water taken from the holding tank in question, in the center of the village, showed fluoride levels at nearly 18 times the concen-



ROBIN POWELL / Anchorage Daily News

drank, because his family dumped it out before it could be tested.

People who got their water from a second public well in another section of town didn't get sick. The suspect well remains shut off, and villagers are now also getting water from another well at the village school, as well as ponds and an administrator.

There's no among local health agencies reference guide much fluoride to cause sudden when consumed.

But doctors here are probably people in Hooper Bay and recent scientific literature shows that the level in Hooper is dangerous.

"The woman that was hospitalized earlier this week, at this point we can say with quite a bit of certainty that her illness — which could have killed her — was from the fluoride," Dr. Donn Kruse, medical director of the Yukon-Kuskokwim Health Corp., told KTVU-TV in Bethel.

Yet the report makes little mention of what exposure levels it would take to trigger immediate illness in people. The report mentions a 3-year-old who died after eating 200 fluoride tablets.

Thirty-four students in a New Mexico elementary school got badly sick to their teeth drinking water in which a liter measured per million, according to the report. It was 1 to 5 parts

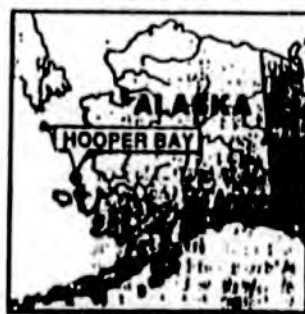
nothing too specific of the literature. Michael Kamrin, at the Institute of Environmental Toxicology at State University, really aren't sure people were exposed to these levels, you're it."

Fluoride illness may have hit 260

State finds Hooper Bay case may be worst ever

By DAVID HULEN 7/1-92 ADN
Daily News reporter

More than 260 villagers in Hooper Bay — nearly 10 times more than previously reported — may have suffered fluoride poisoning last month after drinking water laced with dangerous levels of the chemical, according to a new state study issued Tuesday.



ROBIN POWELL / Anchorage Daily News

A 41-year-old man died after drinking large amounts of water from a village well, and the Hooper Bay incident is now believed to be the largest outbreak of fluoride poisoning ever reported, according to the new study by doctors in the state's Section of Epidemiology.

The report describes a string of serious blunders — from malfunctioning pumps to a barely functioning local government — that

led to fluoride being added at levels nearly 10 times what is considered safe by the federal government.

Dominic Smith died and his 37-year-old wife was hospitalized on Memorial Day weekend after high levels of

Please see Back Page, ALASKA

Mystery sickness hits Hooper Bay

By DAVID HULEN
Daily News reporter

A mysterious illness in a western Alaska coastal village has left a 41-year-old man dead, his sister hospitalized and two other villagers suffering from nausea, vomiting, diarrhea and tingling hands and arms.

Health authorities were scrambling Tuesday to figure out what was making people sick in Hooper Bay, a Yup'ik Eskimo settlement of more than 900 people on the Bering Sea coast northwest of Bethel.

Between 20 and 30 villagers have complained of less serious, flu-like symptoms in the village in recent days, according to Dr. Donn Kruse, medical director of the Yukon-Kuskokwim Health Corp. in Bethel. No one is sure if those illnesses are connected to the more serious cases, he said.

A team from the state Division of Public Health's Section of Epidemiology was scheduled to arrive in the village today to learn more about the illnesses.



ROBIN POWELL / Anchorage Daily News

"There are many questions, and so far, not many answers," said Dr. Michael Beller, one of the epidemiologists going to the village.

Nearly all of those who became ill had recently drunk water from one of two public wells in the village, leading some residents to suspect that the water in the well was contaminated. The well was shut off over the weekend, and officials from the state Department of Environmental Conserva-

Please see Back Page, HOOPER BAY

Bad pump, water

Malfunction likely link to man's death

By DAVID HULEN
Daily News reporter 5-30-92

A malfunctioning pump probably caused very high levels of fluoride in a tank of drinking water in the village of Hooper Bay sometime last week, when one man died and between 20 and 30 other villagers suddenly became ill, state environmental authorities said on Friday.

Doctors are still investigating the death of 41-year-old Dominic Smith, the near-death of his sister and the sudden, flu-like symptoms in virtually everyone else who drank water from one of two public wells in the village. Doctors strongly suspect fluoride poisoning — the symptoms match — but they're still waiting for autopsy results and other laboratory tests to say for sure.

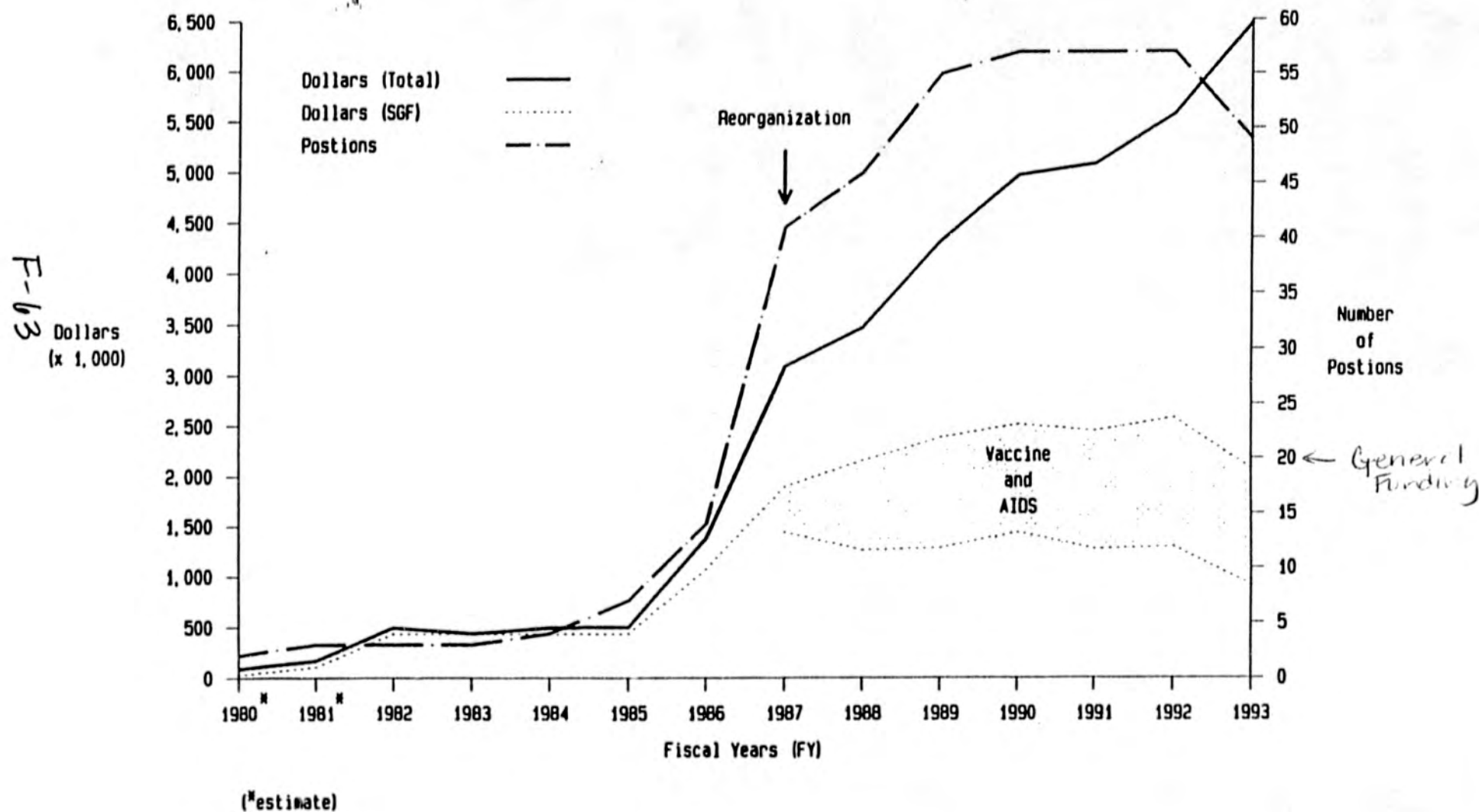
Smith's sister, Melba Joseph, was released from the Bethel hospital this week, and virtually no one else has been reported ill with similar symptoms since the water supply was shut off last weekend. People suffered nausea, vomiting, diarrhea and fatigue and some also had neurological symptoms such as tingling hands and arms.

Officials with the Department of Environmental Conservation said on Friday they were still not entirely sure what happened. But they had become more and more convinced that a malfunction put too much fluoride in the water.

Please see Back Page, HOOPER BAY

Section of Epidemiology

Fiscal Years 1980 - 1993



Fiscal Year	Number of Positions	Total Budget	SGF (Total)	Federal (Total)	(SGF) Vaccine	(SGF) AIDS
FY80	2	85.0	25.0	60.0		
FY81	3	165.0	105.0	60.0		
FY82	3	492.1	432.1	60.0		
FY83	3	433.9	433.9	-		
FY84	4	491.7	426.7	65.0		
FY85	7	498.7	433.7	65.0		
FY86	14	1,374.7	1,068.0	306.7		
FY87	41	3,081.5	1,888.3	1,193.2	*453.0	
FY88	46	3,457.9	2,148.6	1,309.3	*392.6	*498.0
FY89	55	4,303.1	2,376.1	1,927.0	*600.0	*498.0
FY90	57	4,953.3	2,505.9	2,447.4	*575.4	*498.0
FY91	57	5,065.8	2,442.2	2,623.6	*671.5	504.7
FY92	57	5,555.1	2,571.3	2,983.8	*883.7	397.2
FY93	49	6,466.7	2,071.3	**4,395.4	*885.2	271.4

* These amounts are included in the SGF totals.

** Includes the following anticipated new awards in FY93:

Injury-Violence	\$150.0
Hepatitis B	\$569.2
Breast & Cervical Cancer	\$250.0
Immunization Action Plan	<u>\$300.0</u>
	\$1,269.2

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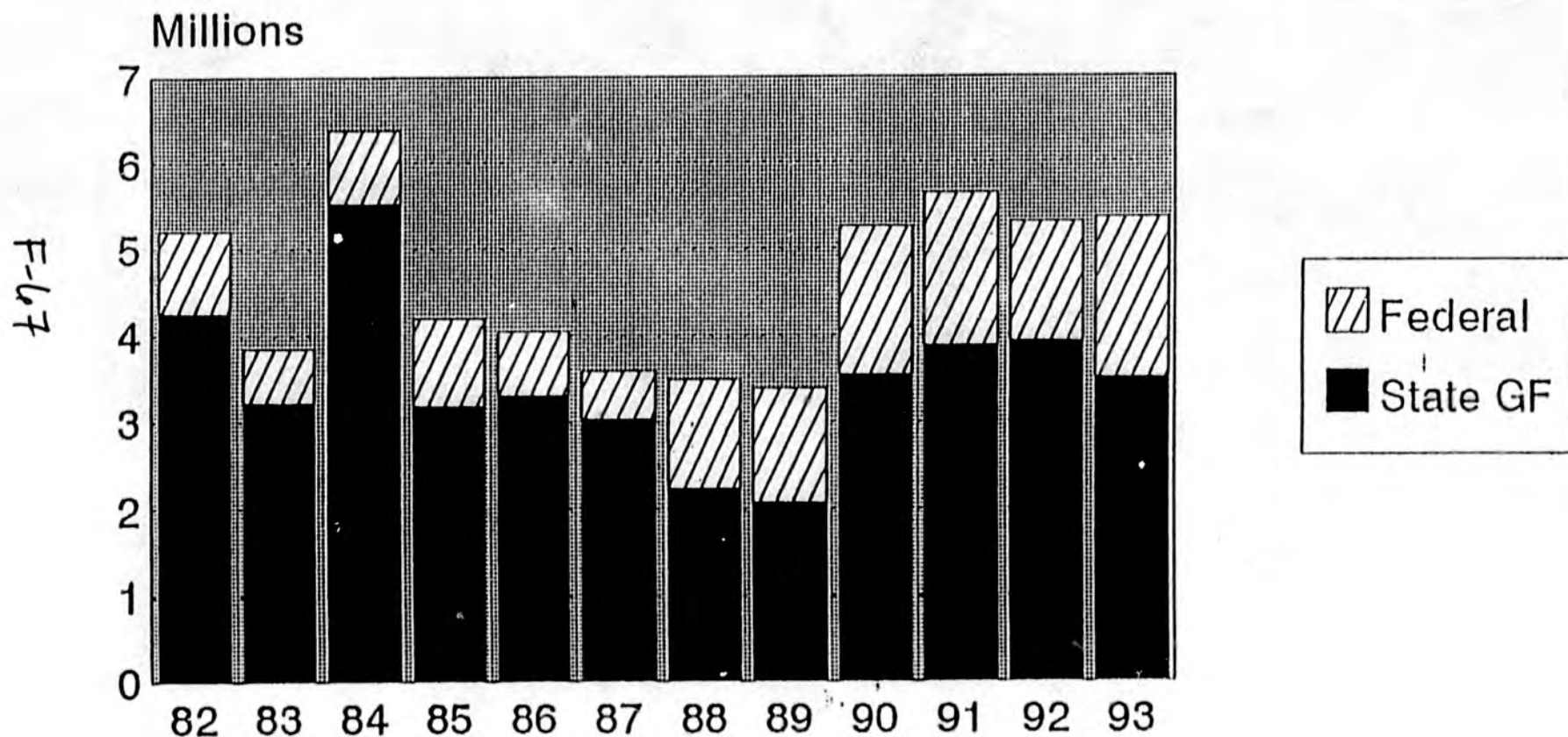
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MCFH EXPENDITURES

By Funding Source

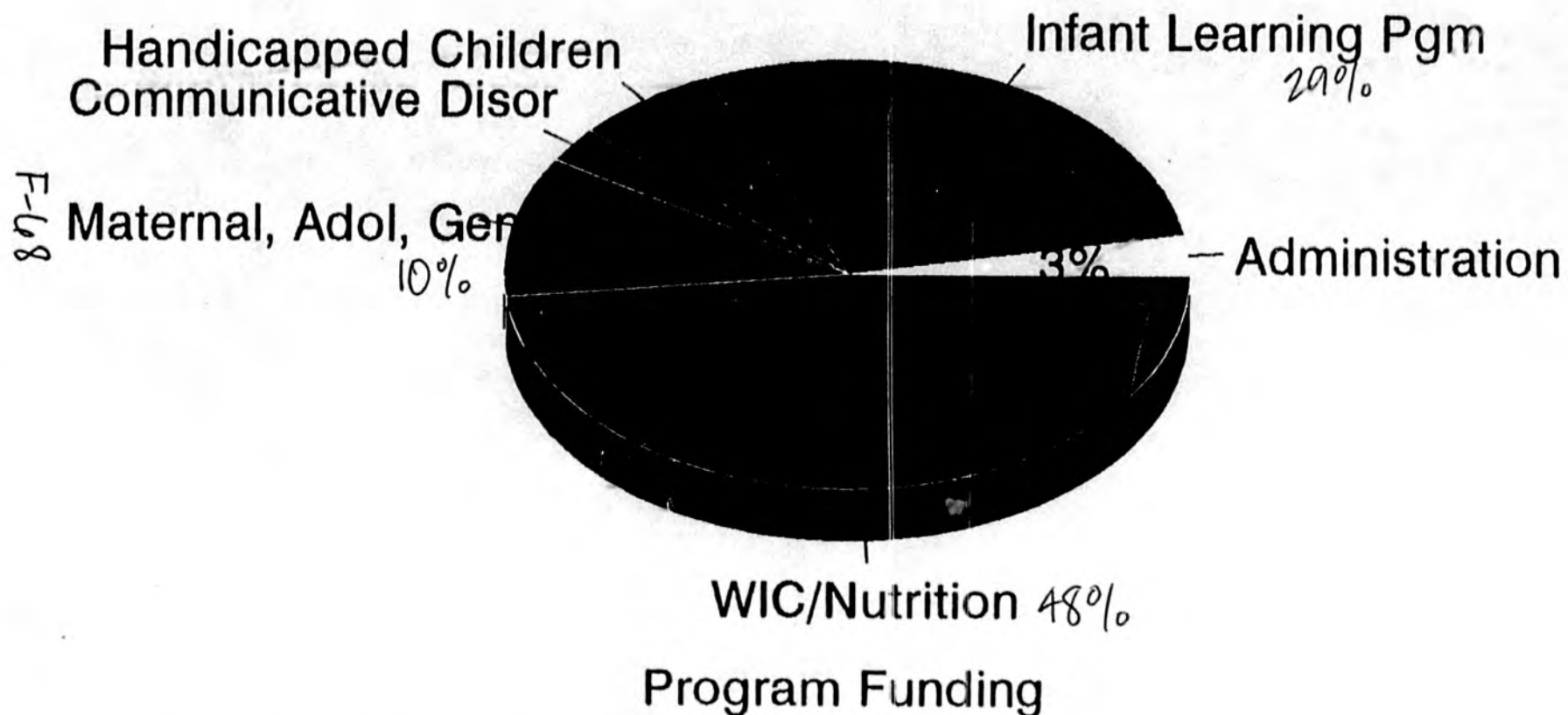


FY93 is Mgmt Plan Estimate

Increase in FY 90 State GF due to GICCY + \$543,000; Prematernal from DFYS + \$600,000; Metabolic Screening from Labs + \$135,000

Section of Family Health

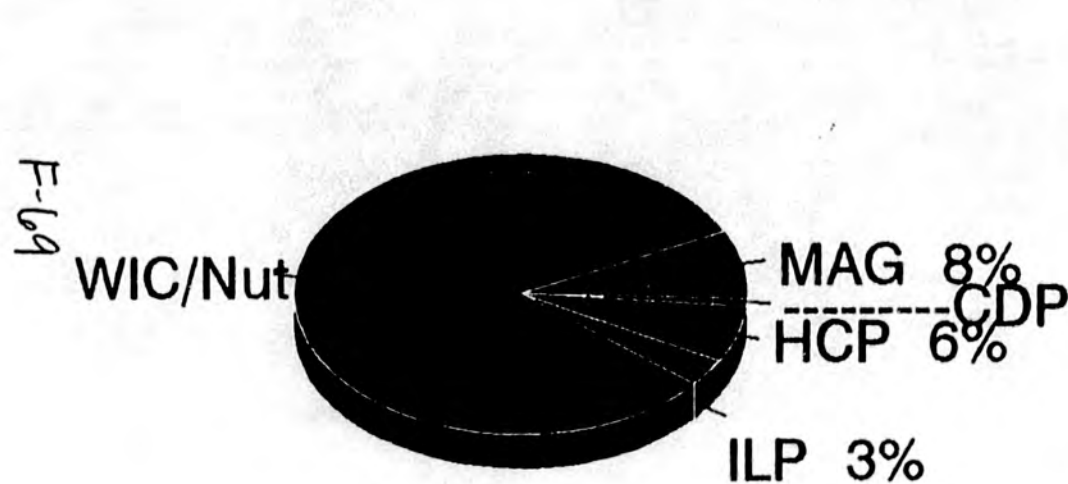
Funding by Program - 1993



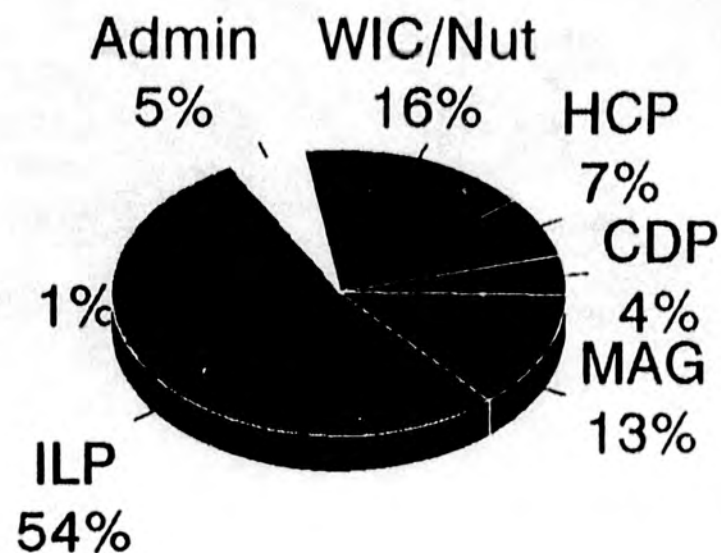
Includes Federal and State Funds
Total Funding = \$19,705,763

Section of Family Health

Federal VS. State Funding - 1993



Federal Funding



State Funding

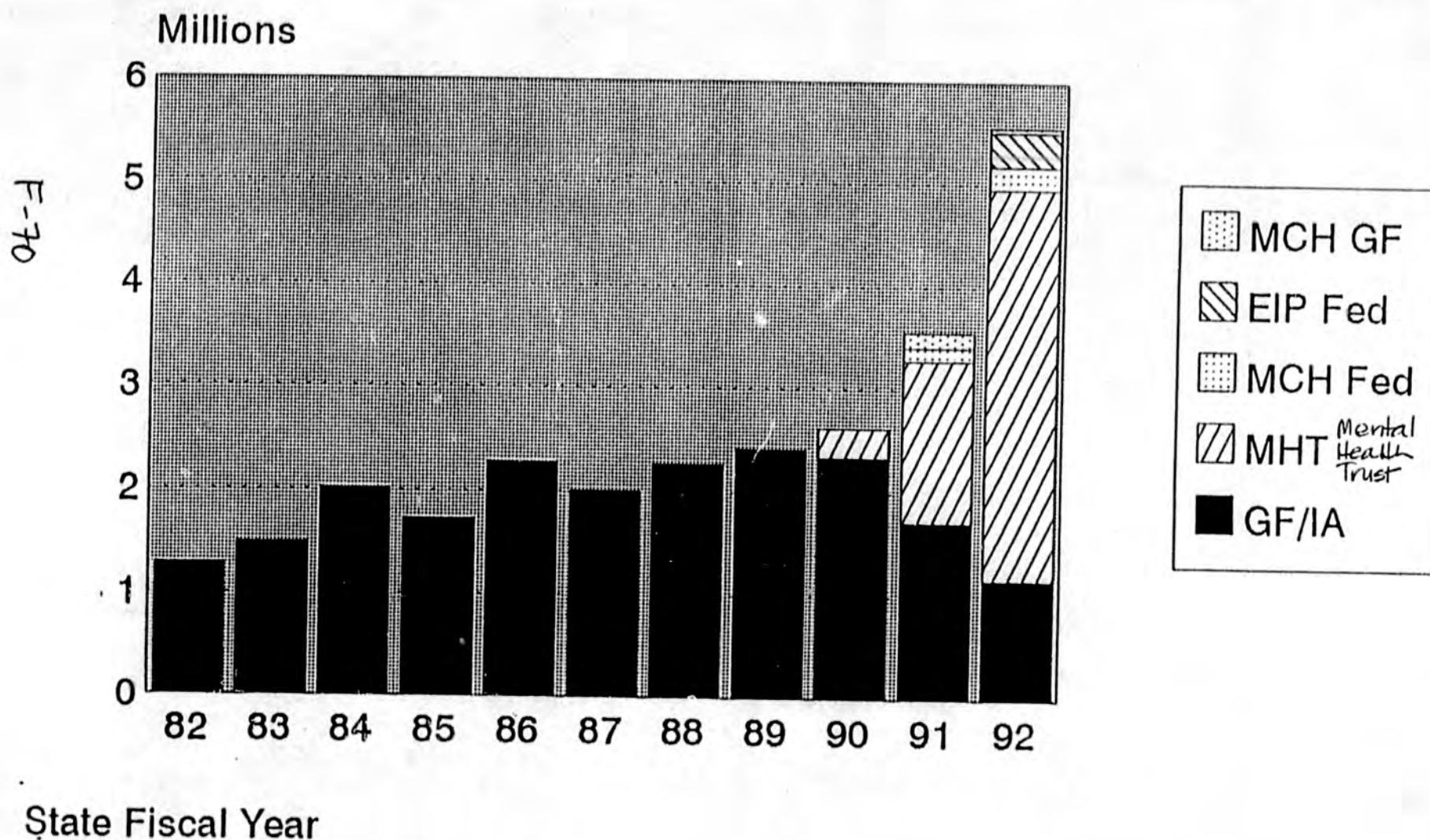
Total Funding = \$19,705,763

Federal Funding \$9,632,303/State Funding \$10,073,460

ILP EXPENDITURES

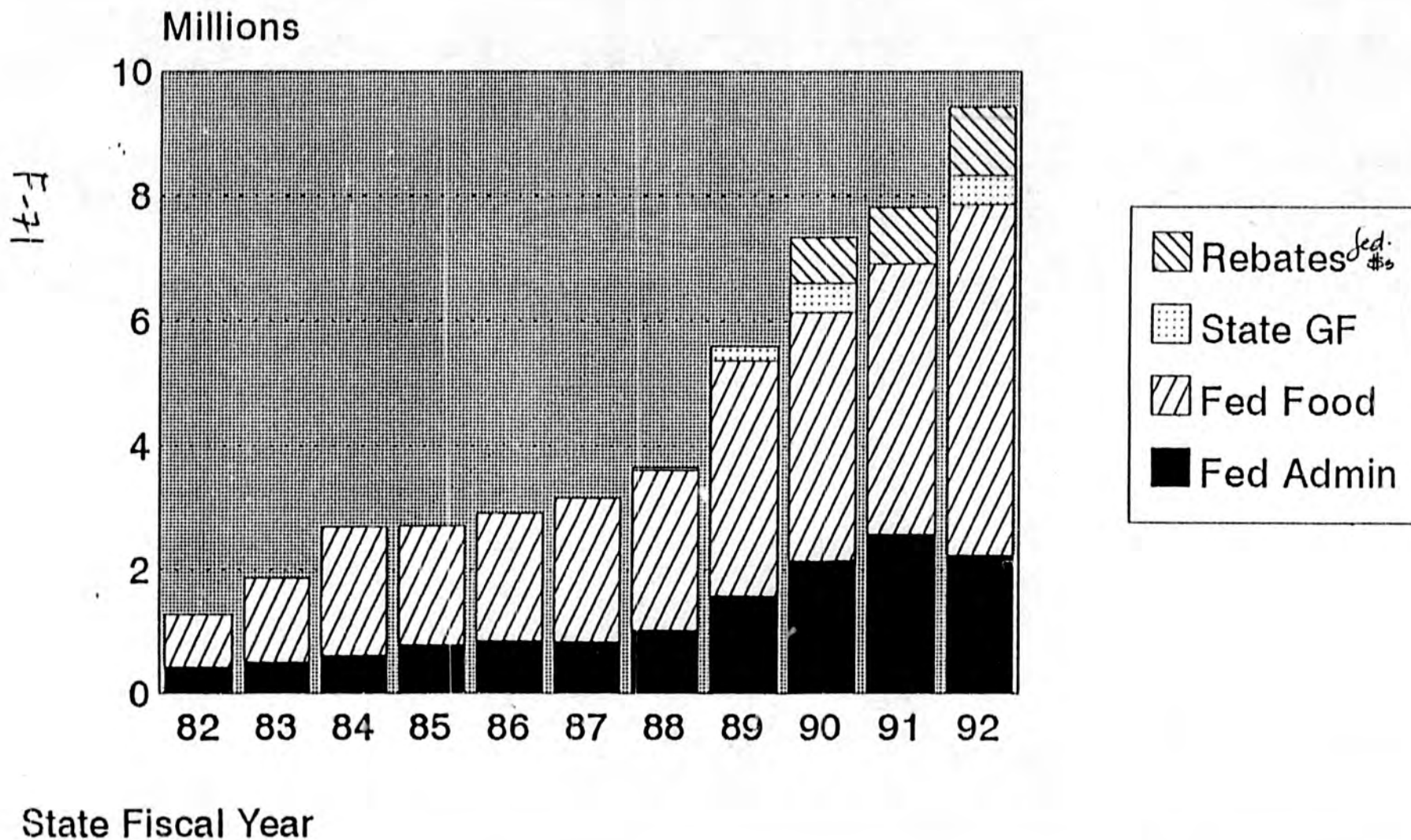
By Funding Sources

Infant Learning Program



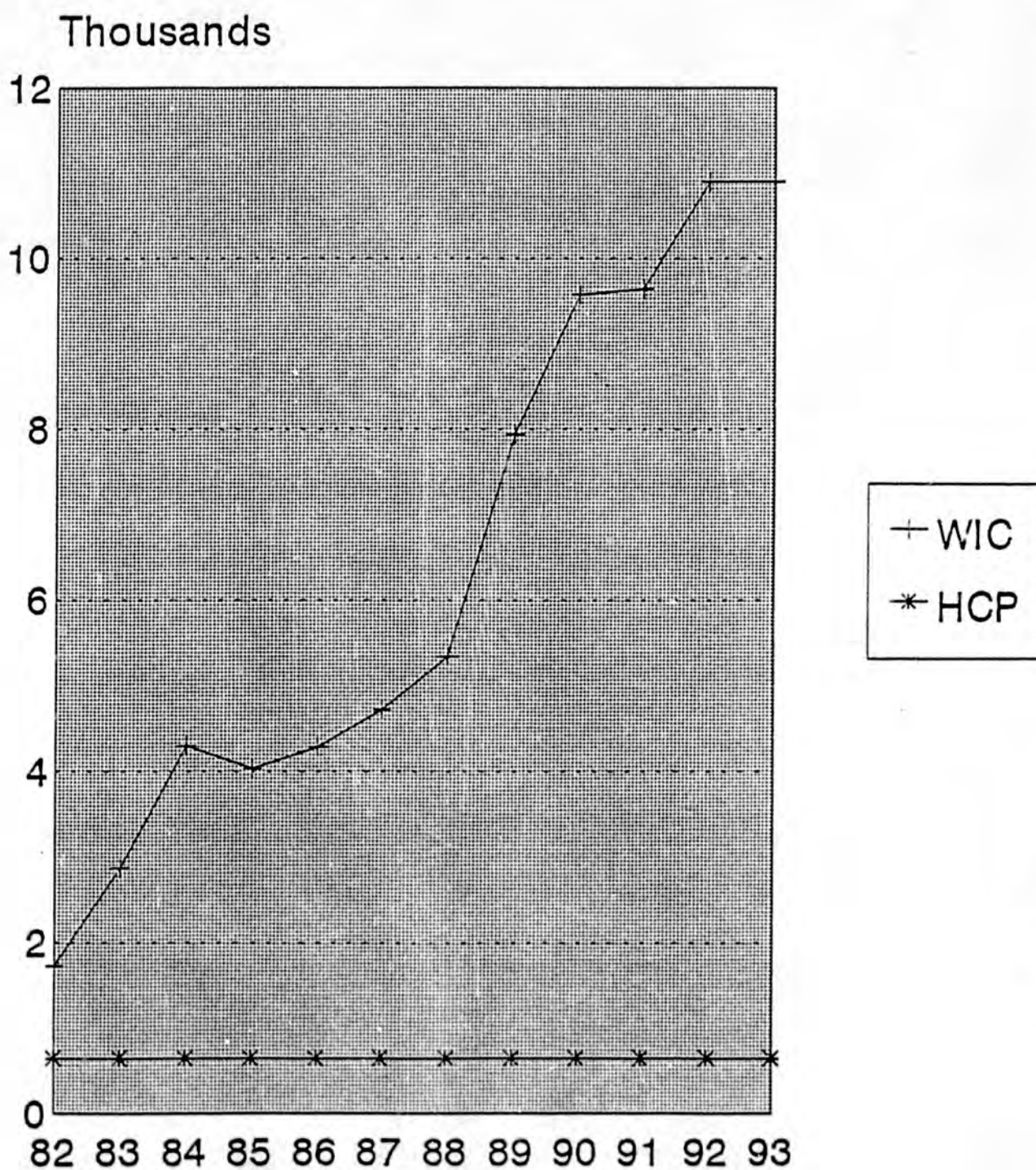
WIC EXPENDITURES

By Funding Sources



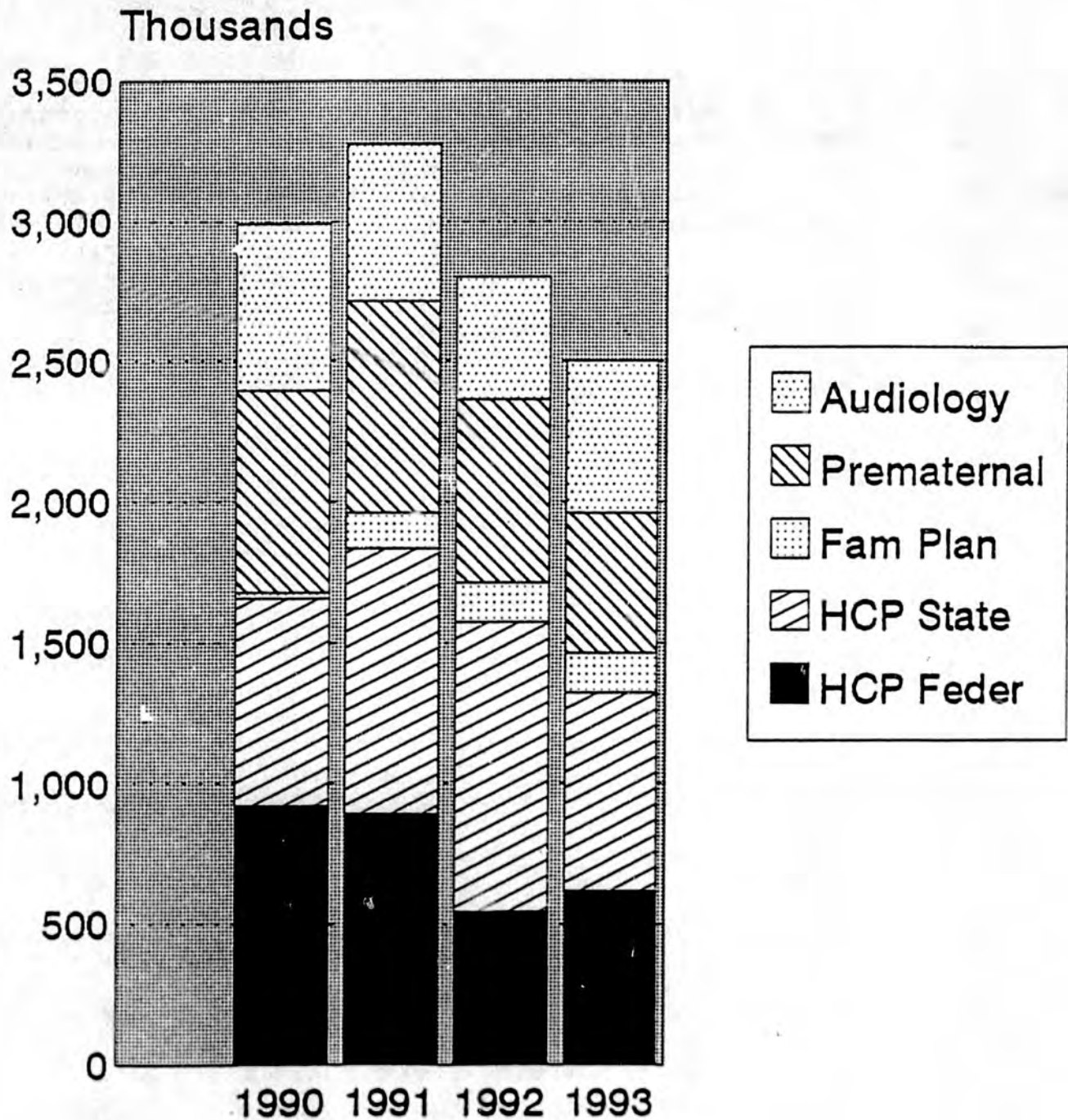
CLIENTS SERVED BY PROGRAM

Maternal, Child & Family Health



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Family Health Program Expenditures



Section of Laboratories

The Section of Public Health Laboratories is one of the primary service arms of the Division. Its three laboratories located in Anchorage, Juneau and Fairbanks have daily interaction with all of the state's health care providers, assisting them with issues regarding infectious disease diagnosis, data interpretation, and technical training.

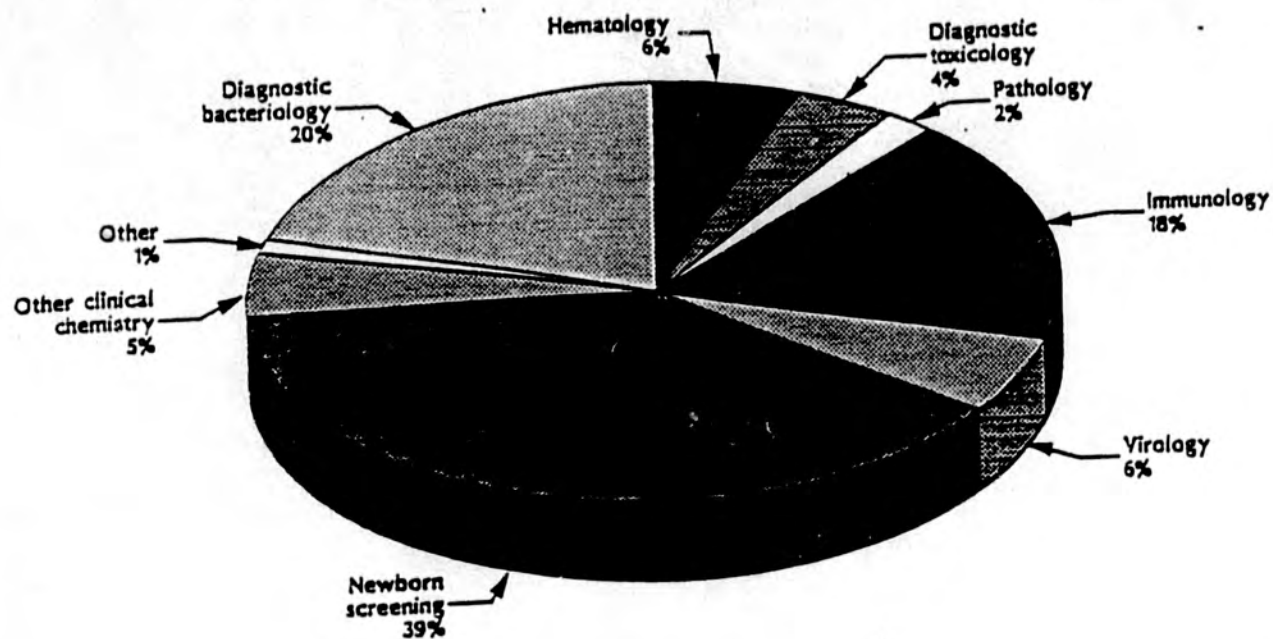
LABS Pie Chart
 Table
 Cartoon
 Appropriations FY 82-93
 Staffing FY 82-93

While it appears that these laboratories function identically to private clinical laboratories, that is not the case. Public Health laboratories, like their private counterparts, do provide testing and reports on individual patients; however, they also aggregate their test results by populations. These data are essential to the assessment of the impact of 1) specific infectious diseases on the population as a whole, i.e. influenza statewide; or on population subsets, i.e. Hepatitis A in Juneau, 2) the success of public health programs such as the childhood immunization program versus outbreaks of vaccine preventable disease; or the improvement of the Angoon water supply and cases of Giardia 3) general improvement of Alaska's health status using comprehensive data sets collected over time. Such data are provided to both the National Centers for Disease Control and the Section of Epidemiology.

Another area of difference between the public and private laboratory is quality assurance. Both types of laboratories have elaborate systems in place to assure that test results are accurate and validated. However, the public laboratory is also concerned about the quality of all laboratory information in the state. To that end, the Section of Laboratories provides consultation, quality assurance information and materials, and training to all laboratories in Alaska. We also serve as a reference to any laboratory which may need verification or identification beyond its technical capability.

During the decade shown on the budget spread sheet, Division of Public Health Appropriations FY82-92, Alaska's Public Health Laboratories have undergone many programmatic and budget changes. These are outlined in Fig 2. Laboratories are primarily funded by the General Fund and have been significantly impacted by each major budget reduction in turn. The overall result has been a significant loss of service and technical capacity in order to stay within the constraints of the budget allocation. Fig 3 shows the model for public health laboratories nationally. Alaska laboratories in FY93 are functioning in only three of the diagnostic areas shown--bacteriology, immunology and virology. Further cuts will cause additional losses of services, data for monitoring, assurance, planning and/or medical evaluation; and of laboratory quality.

FIGURE 4A.
STATE PUBLIC HEALTH LABORATORY DIAGNOSTIC SPECIMENS,
BY CATEGORY, FISCAL YEAR 1988



TOTAL: 23.6 MILLION SPECIMENS

3 labs -

Anchorage
Juneau
Fairbanks

F-75

DIVISION OF PUBLIC HEALTH LABORATORIES

Fiscal Year	Gen Fund	Staff	Workload	Comments
FY82	1,634.5	41	155,172	Included drinking water chem & Bacti, PT program, PSP
FY83	1,907.8	42	173,753	
FY84	2,250.8	42	198,947	DWI Data Communications Grant Rabies Vaccine Project IHS Hepatitis B program
FY85	2,369.8	41	164,392	Drinking water testing moved to DEC, DWI testing begun Premarital testing stopped
FY86	2,240.0	41		Began HIV testing; 930 tests
FY87	2,114.6	40	120,234	Dropped Strep Throat Testing PT program reduced
FY88	2,217.2	38	111,510	DWI Program moved to Public Safety, Drug testing for DOC Fairbanks started
FY89	2,214.8	38	116,792	
FY90	2,173.4	39	110,174	Added Radiologic Health Prgm. Dropped Drug testing
FY91	2,244.2	39	112,326	Increases in HIV, TB, HepA&B
FY92	2,268.6	40	??	HIV tests increased to 17,000 testing.

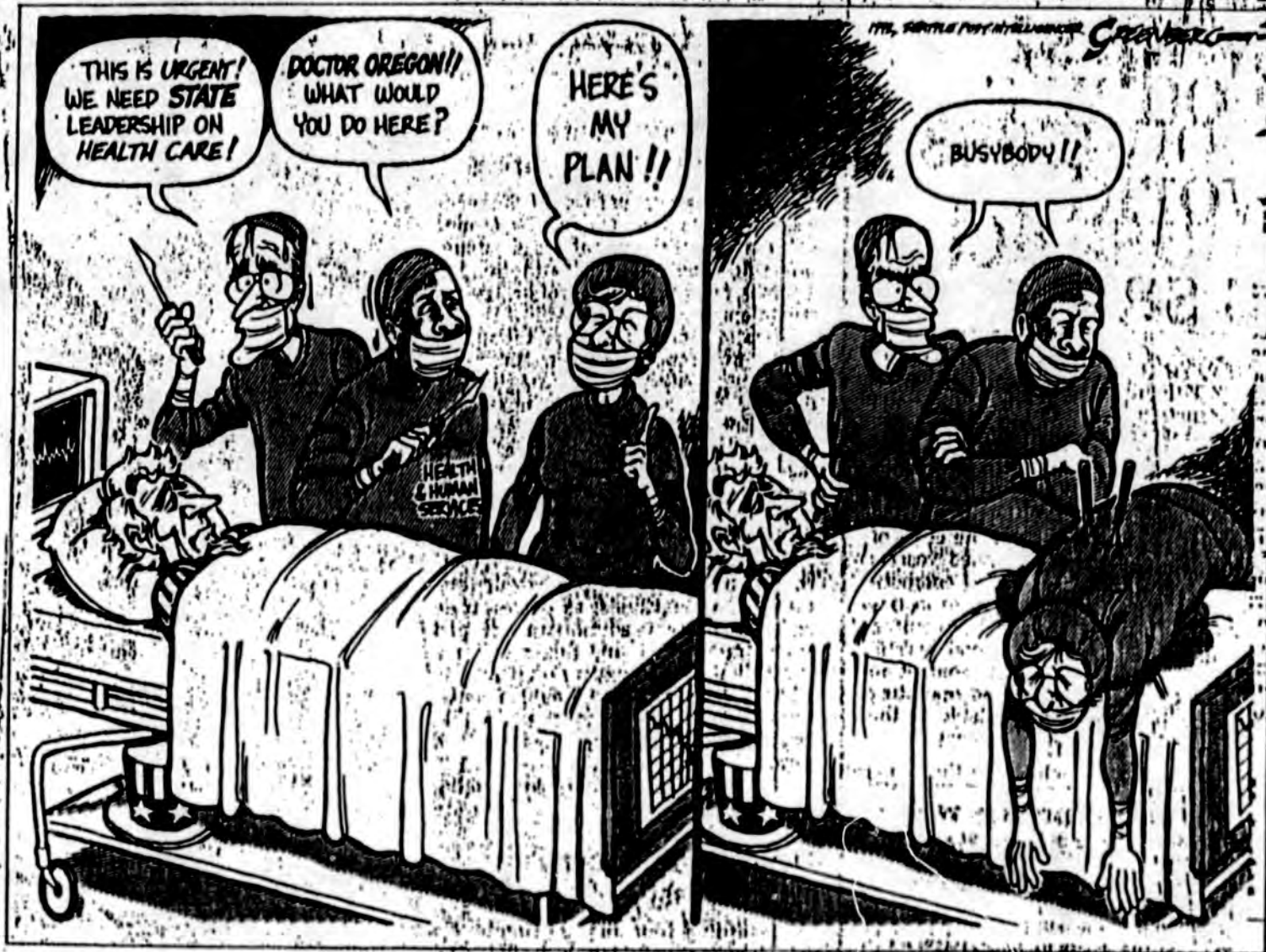
F-76

Seattle Post-Intelligencer

The voice of the Northwest since 1863

Publisher: Virgil Fassio
Executive Editor: J.D. Alexander
Editorial Page Editor: Charles J. Dunsire
Managing Editor: Kerry Slagle
Associate Editor: Thomas A. Read
Business Manager: William R. Cobb

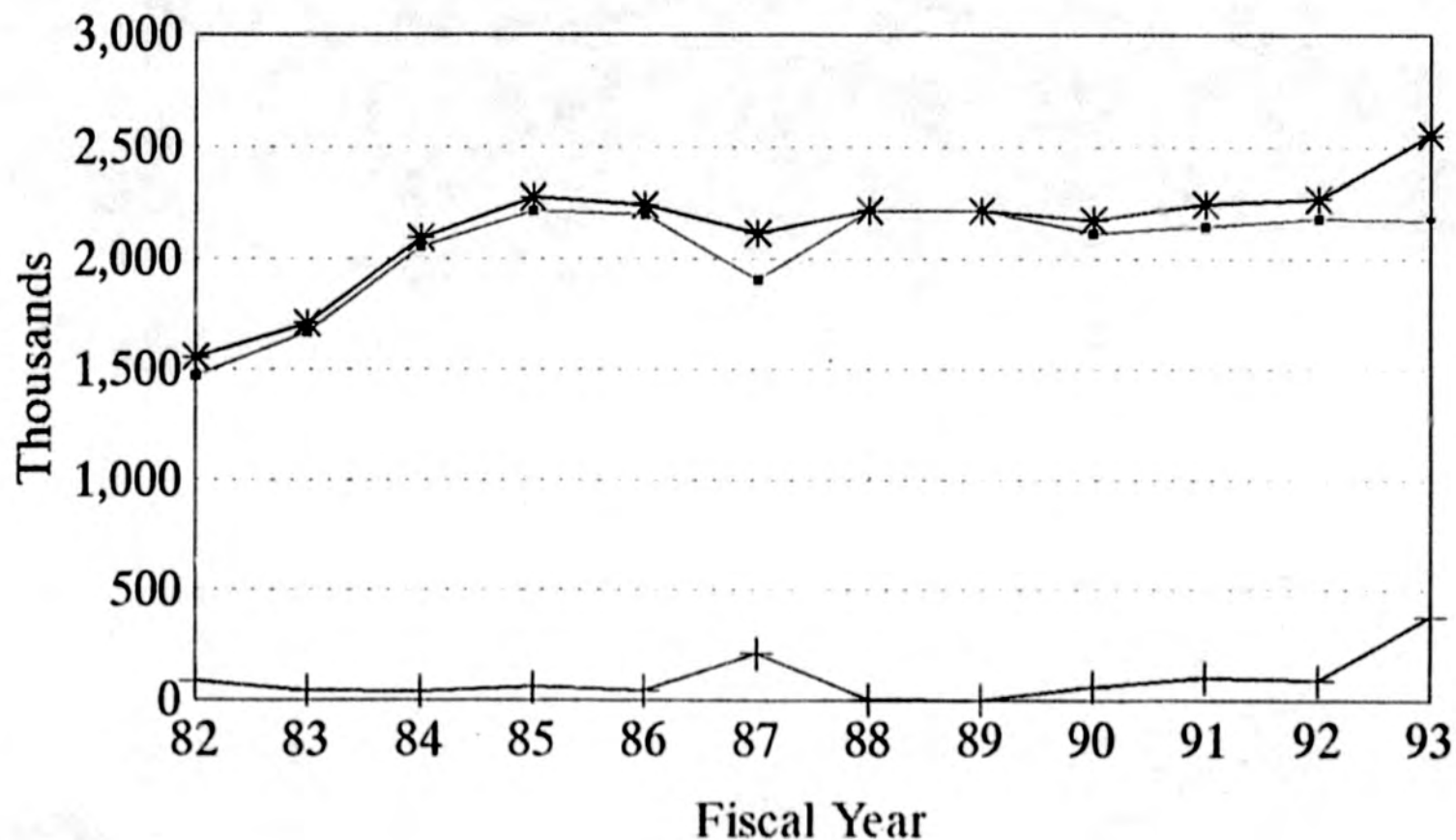
F-77



Laboratory Section

Appropriations FY82-93

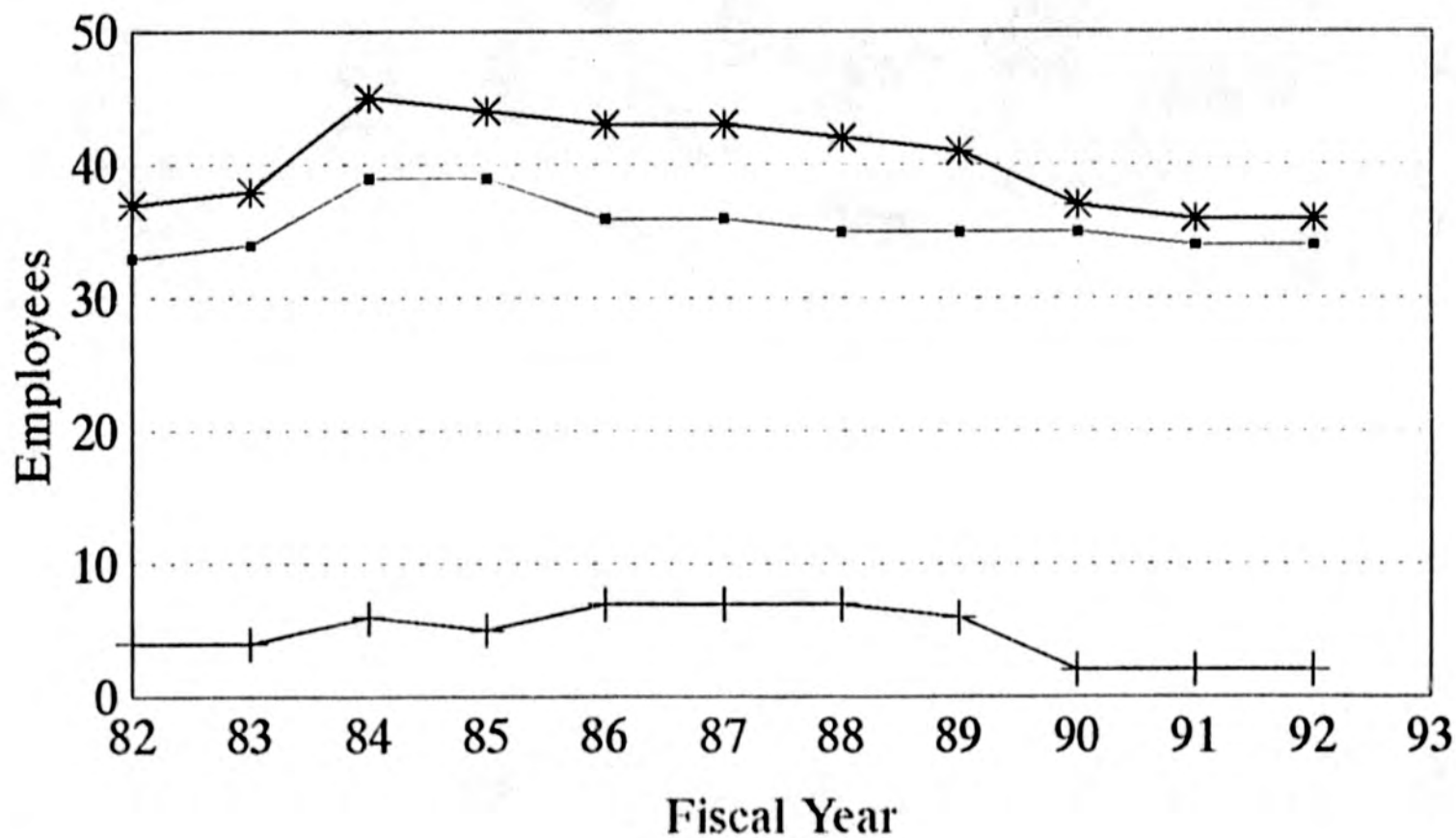
Funding Source
■ GF + Other * TOTAL



Laboratory Section

Staffing FY82-93

Funding Source
■ PFT + PPT * TOTAL



There has been considerable debate regarding the privatization of the public health laboratories in Alaska. While it is true that most individual diagnostic laboratory services could be requested from a private clinical laboratory, there are ramifications which should be considered. As already noted, statistical data regarding the health status of the Alaskan population are lost. This is especially true when out-of-state laboratories are used. Technical expertise which is not duplicated anywhere else in the state is lost during staff reductions. The overall cost of testing increases as workload is redistributed to multiple, for-profit laboratories. Access to diagnostic services is limited to those who can pay or have insurance. Especially with transmittable diseases, lack of early diagnosis and intervention leads to more disease.

There are good and compelling reasons for a state public health laboratory in Alaska and for its continued role in Public Health Care. In FY93, the Section of Laboratories will be moving to become more financially self-sufficient by aggressively seeking federal grant support and by collecting third party reimbursement. It is very important to note that Laboratories will never be 100% self-sufficient. "The poor are always with us" and in Alaska the state has a constitutional obligation to protect their health.

The State Public Health Laboratories have the potential to take on a larger portion of diagnostic Public Health Care. Present constraints are financial and physical. FY93 and beyond should see an improvement in the fiscal picture; only Legislative support can solve the physical problems. Of particular concern is the facility in Anchorage. This laboratory is housed on the top floor of an old and deteriorating office building. There have been numerous electrical, plumbing and ventilation problems. At least two staff have become tuberculosis positive, most likely work-related. The building is situated on the edge of the 4th Avenue fault line. The Department has made the replacement of the laboratory a priority for capitol funding. It is hoped that this funding will become available soon and that a serious disaster will not occur in the interim.

V. TRENDS WITHIN OTHER DIVISIONS OF THE DEPARTMENT OF HEALTH AND SOCIAL SERVICES

In the introduction to this presentation I stated that the Mission of Public Health is the joint responsibility of individuals, communities, the private sector and public agencies. My discussion has focused on the activities within the Division of Public Health for whose direction I have been given the leadership. Those federal, state and local agencies responsible for public safety, housing, education, and environmental conservation, are but examples of public programs having a significant role in bringing about and protecting the public's health. The services provided or not provided by the other divisions within the Department of Health and Social Services must be reviewed in a similar manner to ascertain the full impact of the Department's capabilities in meeting the assessment, policy development and assurance functions of Public Health. The other divisions within the Department are (1) the Division of Mental Health and Development Disabilities, (2)

the Division of Alcohol and Substance Abuse, (3) the Division of Youth and Family Services, (4) the Division of Public Assistance, and, (5) the Division of Medical Assistance.

VI. PUBLIC HEALTH CHALLENGES IN ALASKA

1. Declining resources in the face of escalating health care costs.
2. Increasing prevalence of health care problems resulting from life style practices (smoking, substance abuse, dietary indiscretions, sedentary life, sexual indiscretions, alcohol and substance abuse.
3. The emergence of new challenges for which we have limited technology for treatment (AIDS, DRUG RESISTANT TB).
4. Continued problems relating to access to health care (economic, cultural, geographic).
5. The ability to meet well-intentioned but costly new federal and state mandates. (OSHA bloodborne pathogens regulations, lead screening, CLIA standards, American Disabilities Act).
6. Competition for resources (maternal and infant needs, elderly Alaskans, handicapped and disabled, mentally impaired, rural needs, urban needs, political interests, etc).
7. Toxic and hazardous waste risks.
8. Health manpower recruitment and retention.
9. Safe water and waste disposal
10. Domestic violence, child abuse and neglect and other issues resulting from societal ills.
11. Chronic diseases and our aging population.
12. Suicides (especially among our Alaska youth).

VII. THE ROLE OF PUBLIC HEALTH IN HEALTH CARE REFORM

Health Care Reform is driven by the need to address issues of access to care and the escalating cost of care. Public Health is an essential tool for addressing those issues.

Assessment is critical to provide the data and information needed to drive public health policy. We must know the issues of concern, the magnitude of these issues, and the human and economic cost.

Public policy based on the assessment function and scientific knowledge will effect the most beneficial use of our resources in attaining public health. Fiscal and Human resources can be

directed to those conditions that contribute most heavily to human distress and monetary expenditures.

The public health profession has experienced a great deal of discomfort at the minimum role it has played in the health care reform debate. It is now a consensus that public health should be at the table to assure that consideration is given to their contributions in any reform discussion. Unfortunately, public health is often equated only to preventive health services such as childhood immunizations, maternal care, or school exams.

I am now convinced that public health should not only be at the table in health care reform deliberations, but a strong public health agenda should be fully implemented even while the discussion is taking place. Public Health, with its emphasis on prevention and health promotion, is only a part of the continuum of any health care system, but is a critical core component. The identified functions of public health are not dependent upon the eventual configuration of the health care payment system nor the way in which clinical care will be provided. Public Health, with its core functions of assessment, policy development, and assurance based on a commitment of prevention, is driven by the principles of cost containment and access to essential services. The eventual reform package may shift the responsibility for these activities to a different delivery system but the critical factor is that they be in place. If public health is placed in the competitive arena with clinical care and its fate left to the less than fully informed or to the politically motivated, there is no assurance that it will survive.

VIII. ISSUES FOR CONSIDERATION

- I. COMMIT THE STATE OF ALASKA TO A PUBLIC HEALTH AGENDA THAT ESTABLISHES PUBLIC HEALTH AS THE FOUNDATION TO ANY HEALTH CARE REFORM PACKAGE.
- II. CHARGE THE DEPARTMENT OF HEALTH AND SOCIAL SERVICES WITH THE RESPONSIBILITY FOR DEVELOPING THE CORE FUNCTIONS OF ASSESSMENT, POLICY DEVELOPMENT, AND ASSURANCE. ASSURED SERVICES ARE TO BE JUSTIFIED BY THEIR IMPACT ON THE QUALITY OF PUBLIC HEALTH AND THEIR INFLUENCE ON COST CONTAINMENT, AND ACCESS TO HEALTH CARE.
- III. ENCOURAGE THE STATE TO GUARANTEE SUPPORT FOR THE FISCAL REQUIREMENTS OF THE PUBLIC HEALTH AGENDA APPROVED AND ENDORSED BY THE CITIZENS OF ALASKA AND THEIR ELECTED PUBLIC OFFICIALS. FUNDING FOR THOSE CORE FUNCTIONS THAT HAVE BEEN DETERMINED TO BE ESSENTIAL SHOULD BE TAKEN OUT OF THE COMPETITIVE ARENA AND PROTECTED AS A NECESSARY FOUNDATION OF ALASKA'S HEALTH CARE SYSTEM.

APPENDIX G

Presentation of the Public Health/Service Delivery Subcommittee
of the Health Resources and Access Task Force on
Problems Facing Rural, Under-Utilized Hospitals and
Alternatives to Closing

By Karen Perdue

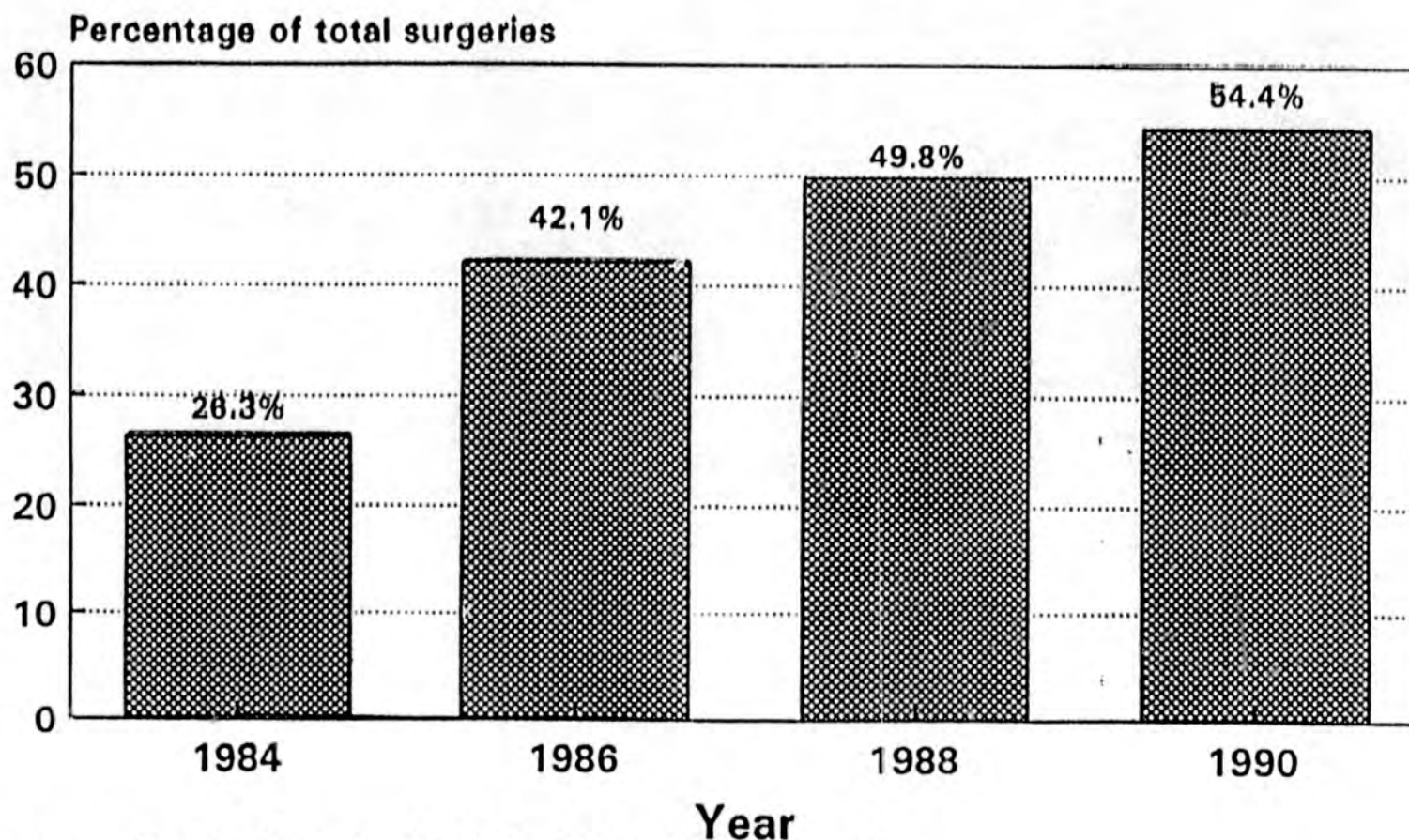
September 25, 1992

Community Hospital Closures

<u>Year</u>	<u>Rural</u>	<u>Urban</u>	<u>Total</u>
1980	15	30	45
1981	11	16	27
1982	15	9	24
1983	7	18	25
1984	18	27	45
1985	20	27	47
1986	36	32	68
1987	40	37	77
1988	46	39	85
1989	44	21	65
1990	28	22	50
1991	29	16	45

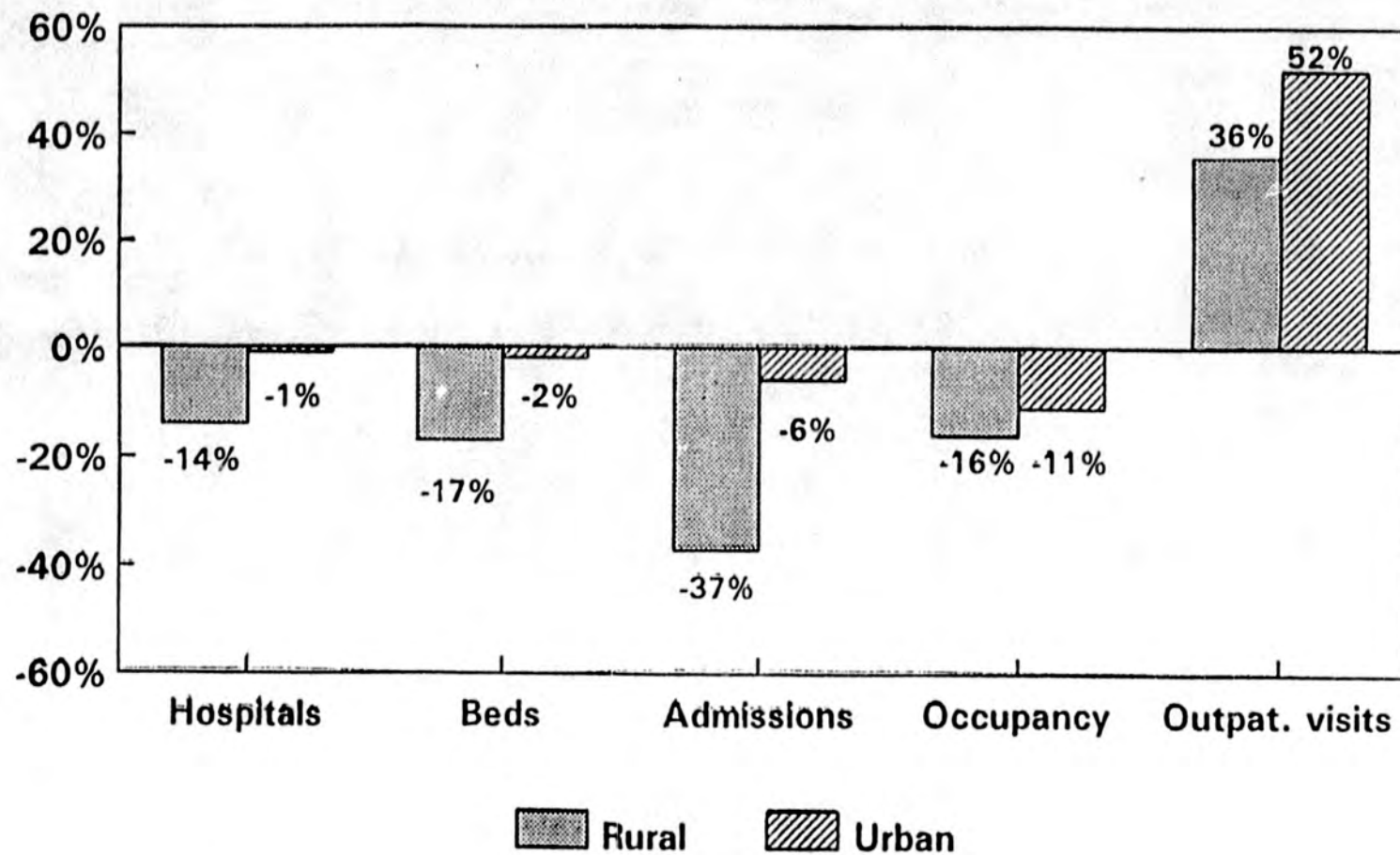
Source: Congressional Budget Office, 1991

Percentage of Total Surgeries Performed On an Outpatient Basis in Rural Community Hospitals



Source: *Hospital Statistics, 1989-90, AHA* and *Environmental Assessment for Rural Hospitals, 1992, AHA*

Changes in Characteristics of Community Hospitals, 1980 and 1990



Source: Hospital Statistics
1991-1992, AHA

Characteristics of Communities That Have Developed Alternative Models

- **Geographically isolated**
- **Population in service area less than 5000**
- **Limited number of hospital beds**
- **Facilities receive tax support from either the county or hospital district**

G-4

KEY PROBLEMS ADDRESSED BY MODELS

- Community in danger of losing access to basic health care services; hospital had closed or on brink of closure
- Hospital is in financial distress
- Low patient census
- Shortage of health care personnel
- Not in compliance with Medicare's conditions of participation and certain state licensure requirements

Examples of Alternative Models

- Models that include acute-care beds
 - Montana Medical Assistance Facility (MAF)
 - California Alternative Rural Hospital
 - Rural Primary Care Hospital
 - Federal EACH/PCH Program grantees include:
California, Colorado, Kansas, New York
North Carolina, South Dakota, West Virginia
- Models that do not include acute-care beds
 - Cle Elum Family Medicine Center,
Cle Elum, Washington
 - Silverheels Health Center, Fairplay, Colorado

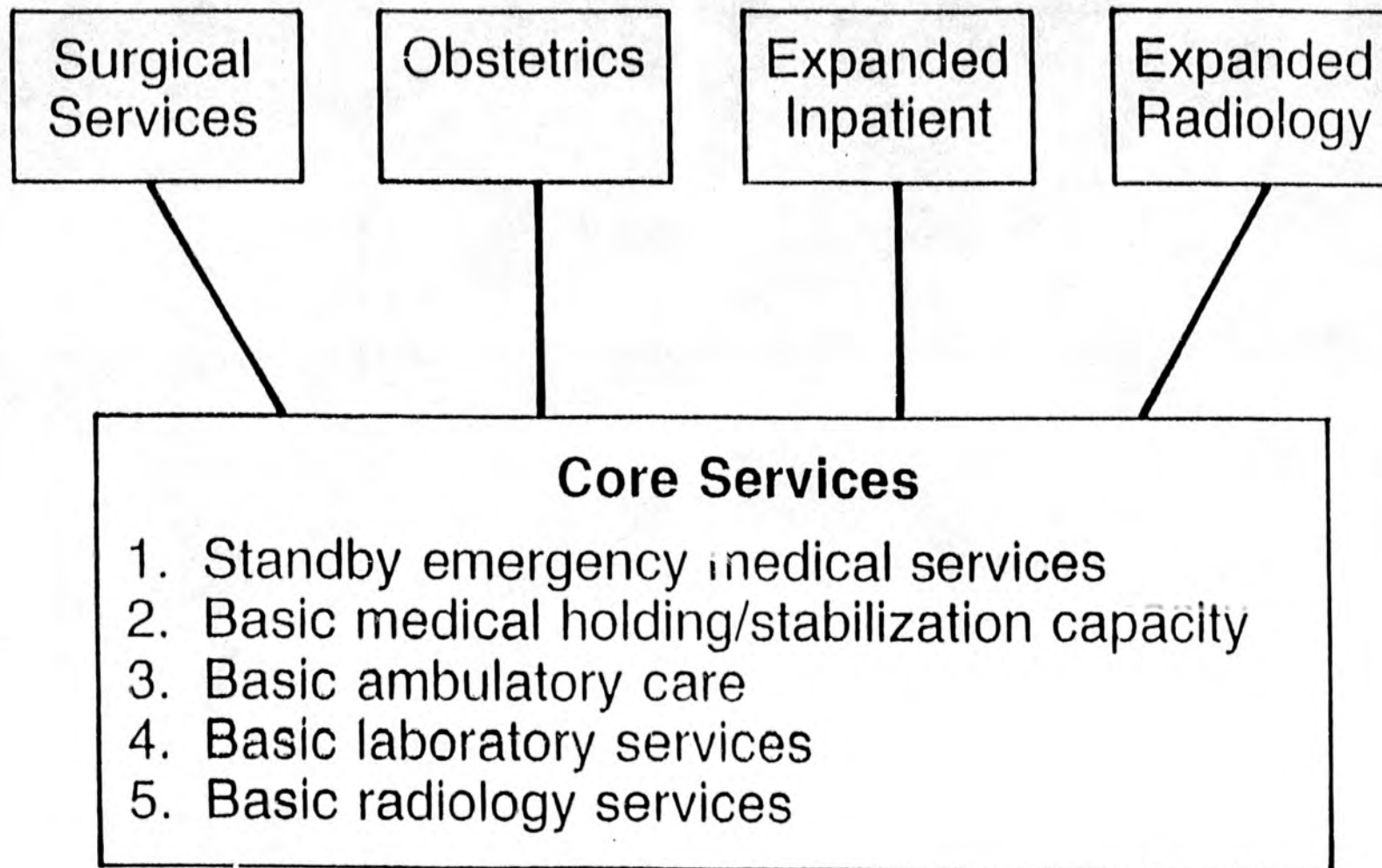
G-6

Approaches for Limiting the Scope of Inpatient Services

- **Limit length of stay**
 - 96 hours -- Montana Medical Assistance Facility
 - 72 hours -- Essential Access Community Hospital Program
- **Modular approach**
 - Certifies hospital to provide a group of core services which may be augmented by various service modules
- **Develop admissions and transfer/referral policies based on DRG approach with 3 day initial evaluation period, concurrent utilization review and exceptions review**

G-7

Modular Approach



G-8

Reimbursement

- Montana MAF project has received a waiver permitting payment on a cost-reimbursement basis from Medicare
- Rural Primary Care Hospitals initially will be paid on a cost-reimbursement basis with the possibility of a prospective payment system developed in the future
- California Pilot projects maintain compliance with Medicare conditions of participation
- Private insurers usually follow Medicare's lead
- Models without acute care beds receive only Part B payments as for a physicians office practice, but no payment for the additional costs of providing emergency room services or for LTC services
- Most facilities require local tax support

Characteristics of Caseload in Small Rural Hospitals (FY 1991)

- Top 10 DRGs account for 41% of total caseload of small rural hospitals.
- Top 20 DRGs account for 57% of total caseload of small rural hospitals.
- For most DRGs, transfer rate to other hospitals is usually less than 10%.
- If there was a 3-day limit on length of stay, small rural hospitals would lose more than half of their current caseload.

Source: HCFA Medpar Data

Most Frequent DRGs in Rural Hospitals With Average Daily Census Less Than 10 (FY 1991)

DRG	Description	# of Cases	% of Total Cases	ALOS
89	simple pneumonia and pleurisy	12,242	8.5	6.2
127	heart failure and shock	11,500	7.9	5.3
140	angina pectoris	6,027	4.2	3.1
14	specific cerebro- vascular disorders	5,581	3.9	6.2
182	esophagitis, gastroenteritis and misc. digestive disorders	5,332	3.7	4.2

Source: HCFA Medpar Data

Findings of Expert Panel on DRGs Appropriate for Limited Service Rural Hospitals

- **Assumptions**

- No inpatient surgery
- No obstetrics
- Only primary care providers admit patients
- No blood banking
- Only basic radiology services available

- **109 DRGs Appropriate for Alternative Models**

- Low intensity medical cases capable of being managed by primary care providers without availability of secondary or tertiary level diagnostic and therapeutic backup services

G-12

Relevance of Alternative Models

- **Options/alternatives when faced with hospital conversion/closure decisions**
- **Models for regionalizing health services to meet community needs**
- **Smaller hospitals could benefit from greater flexibility in licensure requirements**
- **Ambulatory health center could expand to offer inpatient services for stabilization/holding of acute care patients**

Session Overview

Alternative Mechanisms for Financing Rural Health Services

- **Federal Initiatives**

- Rural Health Clinics (RHC)
- Federally Qualified Health Centers (FQHC)
- Special hospital payment categories under medicare
- Physician payment reform

- **State Initiatives**

- Prepayment mechanisms under Medicaid and state programs for the uninsured

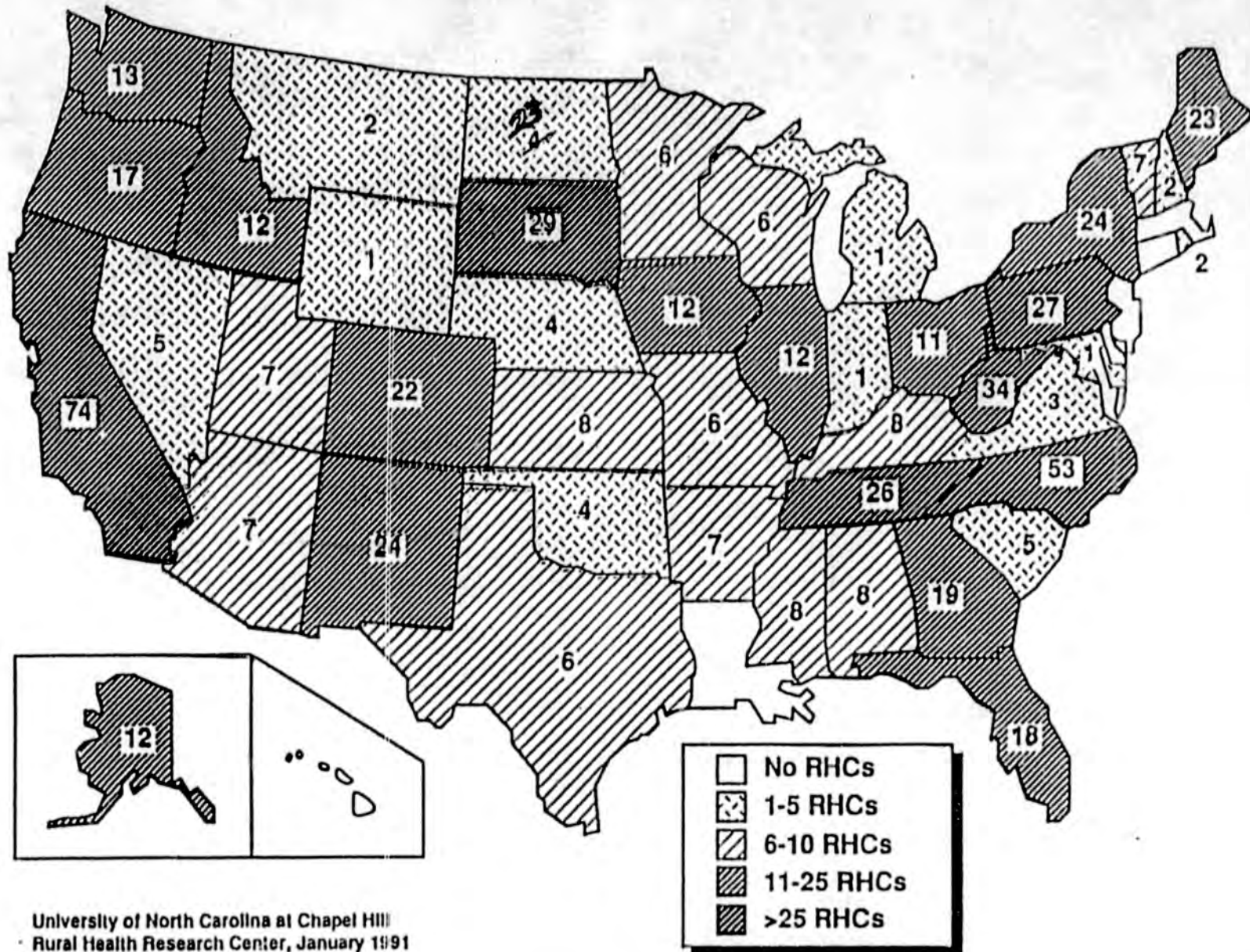
- **Local Options**

- Health service districts

G-14

Number of Rural Health Clinics by State

Designated as of October 16, 1990



Special Designations for Rural Hospitals and Their Effect on PPS Payments

Hospital Category	Hospitals ^a		Percentage Increase in PPS Payments Attributed to Special Payment Provisions (Estimated, 1991) ^b
	Number	Percent	
All Rural Hospitals	2,569	100.0	5.8
Rural Hospitals with Special Designations			
Rural referral	256	10.0	9.3
Sole community	533	20.7	13.3
Medicare-dependent	541	21.1	8.2
Total	1,330	51.8	9.9
Other Rural Hospitals	1,239	48.2	0

SOURCE: Congressional Budget Office

a. Based on hospital classifications in September 1991.

b. Increase in payments to hospitals in each category relative to what payments would be to those hospitals if they did not have special designations. The estimates are based on hospital classifications in January 1991.

G-16

Change in Medicare Payments by Specialty

Specialty	Percent Change
Medical	20
Internal medicine	16
Family practice	37
Surgical	-11
Ophthalmology	-17
General surgery	-9
Orthopedic surgery	-10
Urology	-3
Thoracic surgery	-20
Otolaryngology	7
Obstetrics/gynecology	1
Hospital-based	NA
Radiology	-21
Other physicians	6

SOURCE: Physician Payment Review Commission simulations.

6-17

Change in Medicare Payments by Geographic Area

Area	Percent change by specialty group		
	Medical	Surgical	All physicians
Large metropolitan (more than 3 million)	10	-15	-4
Mid-sized metropolitan (1-3 million)	14	-14	-5
Small metropolitan (fewer than 1 million)	22	-9	1
Large rural county (more than 25,000)	28	-5	12
Small rural county (fewer than 25,000)	34	-8	13

Source: Physician Payment Review Commission simulations with the Part B Medicare Annual Data (BMAD) provider file.

APPENDIX H

Presentation to the Public Health/Service Delivery Subcommittee
of the Health Resources and Access Task Force
on the Alaska Area Native Health Service Delivery System and
Resources/Demographics and Health Status of Alaskan

Natives/Future Trends

by David Mather, Dr.P.H.

April 25, 1992

ALASKA AREA NATIVE HEALTH SERVICE

SUMMARY

The Alaska Area Native Health Service, (AANHS) is a Federal Bureau providing personnel health, community health, and community sanitation services to approximately 90,000 Alaskan Natives. (*The census bureau figure for Alaskan Natives in 1991 is 85,388. The AANHS automated statewide medical record system, RPMS shows 87,368 unduplicated active records in 1991.*) The AANHS provides these services through a combination several funding and delivery mechanisms. It directly operates federal hospitals and clinics, in Anchorage, Ketchikan, and Barrow; it contracts with "tribal organizations" to operate (mostly federally owned) hospital and clinics in other locations; and, it purchased care through the private sector for services which it cannot provide through the above mechanisms. In addition, the sanitation branch has designed and built over 300 million dollar worth of water and sewer systems in Alaskan Native villages, usually through cooperative agreements with the village governments.

INPATIENT CARE

The IHS/tribal system operates inpatient hospitals in Anchorage, Barrow, Nome, Kotzebue, Bethel, Dillingham, and Sitka. Overall the IHS/tribal system provided about 66,000 inpatient bed days to IHS beneficiaries in 1991. This compares to 167,839 bed days which were provided in community hospitals in Alaska in 1991. Overall although the Alaskan Native population is on approximately 16% of the state population, the IHS/ tribal system accounts for 28% of the inpatient bed days produced in the state. Outside of Anchorage, Fairbanks and Juneau Fairbanks their were about 32,000 bed days provided in community hospitals and equal number provide in IHS/tribal facilities.

The increased utilization of IHS beneficiaries of hospital services can be attributed primarily to increased average length of stay in IHS/tribal facilities, although their is also a higher admission rate for Alaskan Natives. Alaskan Natives also do not receive significant amounts of care in facilities located out of the state.

OUTPATIENT CARE

The IHS/tribal system provided 416,000 outpatient visits in their hospitals and health centers in 1991. Ambulatory care health centers, staffed with physicians, are located in each of the hospitals mentioned above as well as in Fairbanks, Ketchikan, Metlakatla, and Kodiak. Smaller health centers staffed with mid-level providers are located in about 15 communities, and Health Aide clinics staffed with Health Aides or Community Health Practitioners are located in 171 Native Villages across the state. An additional 250,000 Health Aide visits were recorded in 1991. Physicians from IHS/tribal facilities itinerant to each Alaskan Native Village one or more times (depending on size) to provide direct acute care, chronic disease management, and health aide training and support.

Dental care is provided throughout the state in each of the major outpatient facilities. Dentists also itinerant to each village to provide comprehensive care to school children and appointment and emergent care to adults.

Comprehensive pharmacy services are also provided from each ambulatory care center. In addition regional pharmacies support the smaller satellite health centers and Community Health Aide clinics as well as providing a mail out auto refill service for rural patients.

COMMUNITY HEALTH AND BEHAVIORAL HEALTH CARE ACTIVITIES

A recent focus of attention, of both state and national Native Health efforts has been on preventative, public health and behavioral health and substance abuse and treatment activities. Recent programs have been developed specifically to treat alcohol/drug abuse among adolescents, and pregnant women. Alcohol treatment programs have been expanded, and FAS/FAE prevention programs have been developed in each regional program.

Large public health campaigns have been successfully undertaken in Hepatitis B immunization and prevention, (as well as a monitoring program for known carriers), and Hib immunization of infants.

SANITATION

IHS engineers located primarily in Anchorage provide design, and construction for locate water and sewer projects in Alaskan Native

Villages across the state. In FY91 \$25,000,000 was spent on village water projects. In addition IHS engineers assist in the design and coordination of State of Alaska village safe water projects which provide a similar service with funding from the State of Alaska.

IHS/tribal sanitarians located in field service units provide institutional services, support and training for village water operators, and support and assistance to village governments in dealing with a variety of environmental issues.

FEDERAL FUNDING

The Indian Health Service is funded as a discretionary program at the federal level. In 1991 the AANHS received approximately two hundred million dollars in direct federal operational appropriations to support the activities of the AANHS and tribal contractors.

Recent support for the IHS has been comparatively strong with increases nationally averaging about 6% a year. Several special initiatives have brought additional resources to Alaska including special support of the Community Health Aide Program, special support of tribal contractors operating IHS programs and special initiatives in public health.

OTHER RESOURCES

The IHS/tribal system has come to rely increasingly on alternate resources to supplement the direct IHS appropriation which has not kept up with medical inflation and population growth.

In 1977, Congress passed the Indian Health Care Improvement Act with allowed IHS/tribal facilities to collect Medicare and Medicaid for services provided to Natives eligible for these programs. Congress also provided that this Medicaid funding would be in a special category and would not be subject to a state match. By law the funds collected from these sources were to be used to expand the services available to IHS beneficiaries.

In the past ten years collections from Medicaid and Medicare have increased from insignificant to approximately \$22,000,000 in 1991. In addition Medicaid provides additional support to the system by paying directly for such items as patient travel, eyeglasses, long term care and for care in private facilities on referral when the

patient is eligible for this care. Eligibility for Medicare and Medicaid is highly variable across the state, however statewide approximately 35% of Alaskan Natives are currently eligible (with much higher percentages potentially eligible).

IHS and tribal facilities also can collect from other insurance companies for care provided to IHS beneficiaries. State wide 15% to 20% of the IHS beneficiary population is covered by some type of private coverage. Current estimates are that approximately 6 million dollars a year are collected from this source although exact figures are not available.

Tribally operated health programs also participate in the mental health and public health grant programs offered by the State of Alaska. Especially in many of the more remote communities the tribal contractors are the only organizations with the organizational capacity and professional staff to support mental health, alcohol treatment, infant learning, and rural health clinic programs offered by the State. Funding for these programs has remained relatively static over the past five years with decreases in public health programs being offset by increases in mental health mandated by the Mental Health trust suit.

Overall the IHS/tribal health care system has become very dependent on alternate resources for support of the basic health care delivery system.

DEMOGRAPHICS/HEALTH STATUS ALASKA NATIVES-FUTURE TRENDS

The Alaska Native population is the youngest and fastest growing population in the state. With a average age of 22 years and growth rate double the non-native population.

This high rate of young people in the population has dramatized the high rates of diseases traditionally associated with young populations. Alaskan HIV infection rates are highest in the Native population, suicide and homicide rates continue 3 to 4 times the national average. Problems from substance abuse, including FAS/FAE and brain damage associated with inhalant abuse in young children are still on the rise.

The age structure however has tended to mask other chronic and acute problems traditionally associated with older populations.

Many of these problems have not been seen in the Alaskan Native population and are the result of recent life style changes. Alaskan Natives now have one of the highest (age adjusted) mortality rates from malignant neoplasm's in the United States. Most of this can be attributed to increase rates of lung cancer due to widespread introduction and use of cigarettes in the 1950's and 1960's. In addition diabetes rates are increasing to increase to levels which will soon required substantial additional medical resources to deal with the complications of kidney failure and blindness.

As the age structure changes the increased crude rates of the above conditions due to aging alone will rapidly tax the existing IHS/tribal health care system creating additional demands for tertiary care, chronic care, home care and long term care.

FUTURE ISSUES TRENDS IN THE DELIVERY SYSTEM

There are several organizational issues revolving around Tribal self determination issues. Expectations are that the trend for contracting will continue with the contracting of the remaining IHS directly operated facilities. Both economic and political incentives will push in this direction.

There has been additional pressure to splinter the current delivery system with smaller and smaller delivery units. The number of small tribal contractors is rapidly increasing. New federal initiatives in self governance will provide additional pressures which could break up the existing delivery system.

There is also every indication that the IHS/tribal service providers will rely increasingly on "alternate resources". This has been the fastest growing revenue segment for the providers and there is a consensus among providers that it will continue to grow faster than direct federal appropriation in the foreseeable future.

Briefing paper of the
Health Resources and Access Task force
August, 1992

DEMOGRAPHICS

1. Alaska Native Population 90,000.
2. Average Age 22 years.
3. < 5 years most numerous age group.
4. 30% of the population < 18 years.
5. 66% rural, 34% urban.
6. Population is increasing 3% yearly.
7. Fastest growing population segments are < 18 years, > 60 years.
8. Life expectancy for Alaska Native men is 63 years.
Life expectancy for Alaska Native women is 71 years.
9. 46% of Alaska Native > 25 years have completed high school.

HISTORICAL HEALTH PROBLEMS

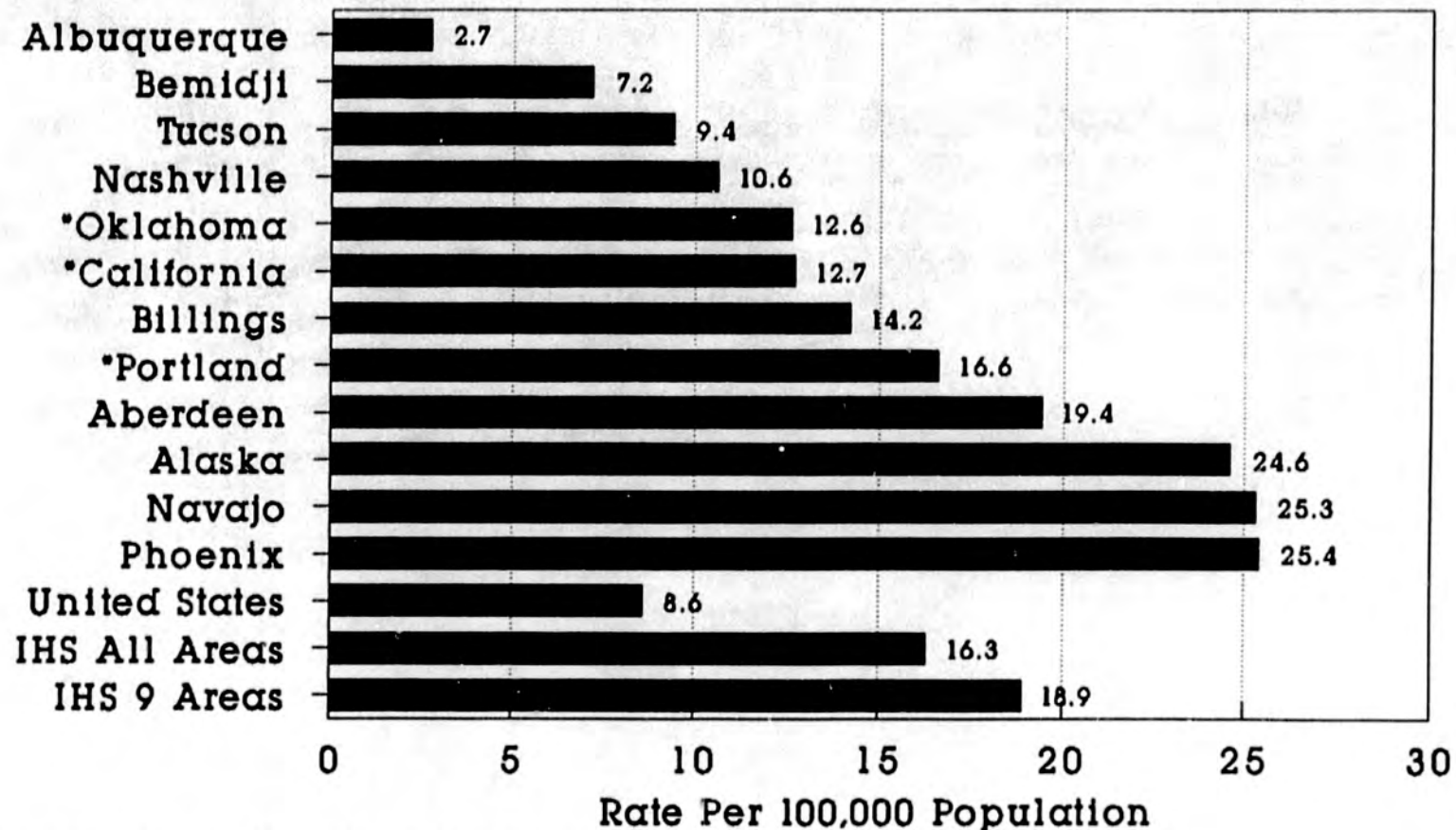
CAUSES OF DEATH, 1950, 1988 BY PERCENT

<u>CAUSES</u>	<u>1950</u>	<u>1988</u>
Infection	45.8%	1.3%
Respiratory	13.2%	7.2%
* Unintentional Injury	9.6%	21.7%
* Heart Disease	5.3%	16.2%
Congenital Causes	3.0%	6.0%
* Cancer	2.4%	15.7%
* Intentional Injury	1.7%	11.1%
Stroke	1.4%	3.6%
Other Causes	17.6%	17.2%

FUTURE HEALTH TRENDS

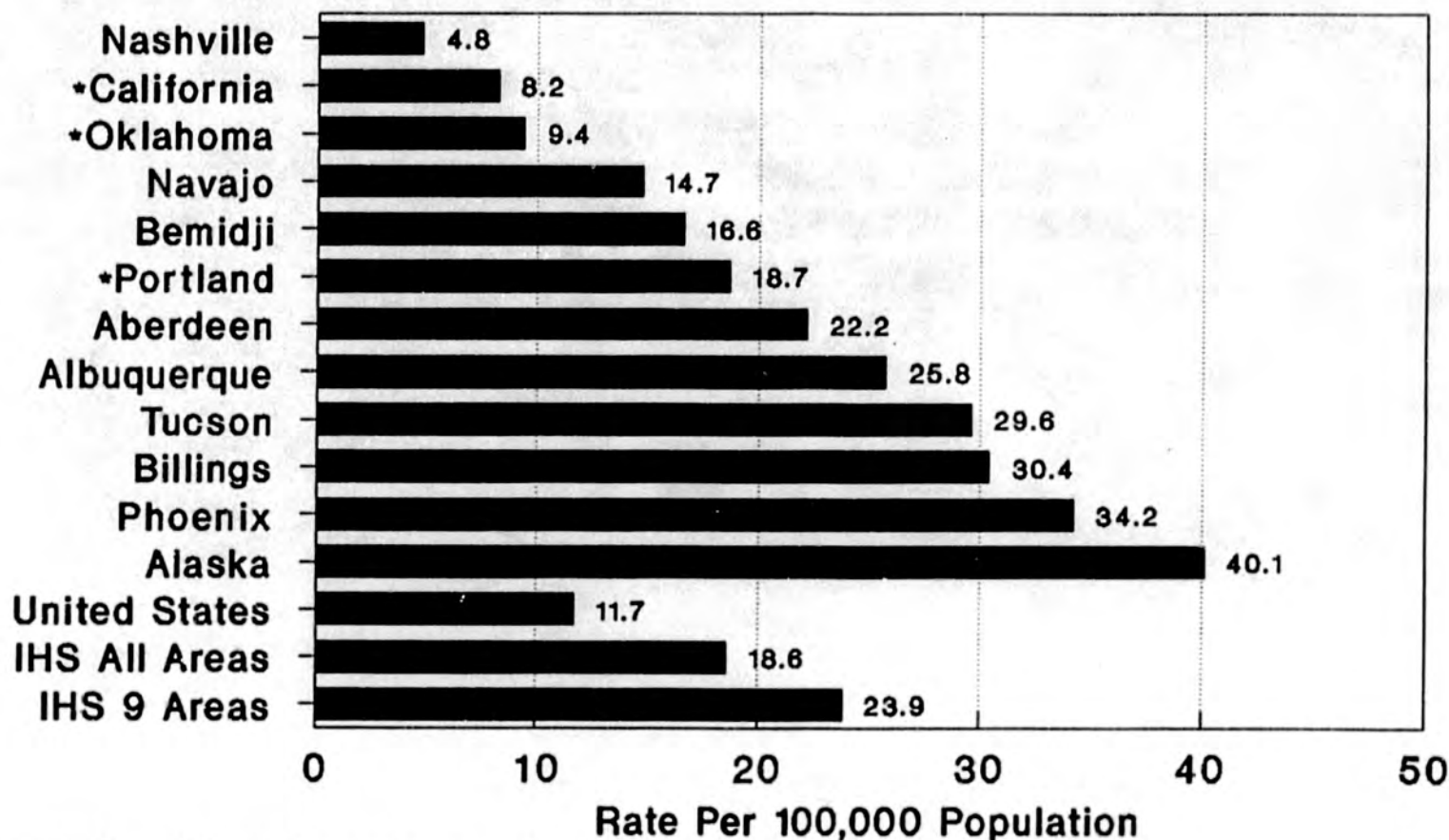
- * Economic conditions in villages will cause dislocation of young people to regional and urban centers.**
- * High (and rising) rates of cancer, and heart disease will severely stress tertiary care facilities, and create a need for home care of the chronically ill, as well as skilled nursing home beds.**
- * The number of disabling conditions secondary to FAS/FAE, and inhalant abuse, will rise steadily, creating a need for solutions.**
- * The high rate of obesity in Alaska Native children and the rising rate of gestational diabetes predict a rising rate of adult onset diabetes with blindness and renal complications requiring hospital care and the need for dialysis centers.**

Age-Adjusted Homicide Mortality Rates 1987



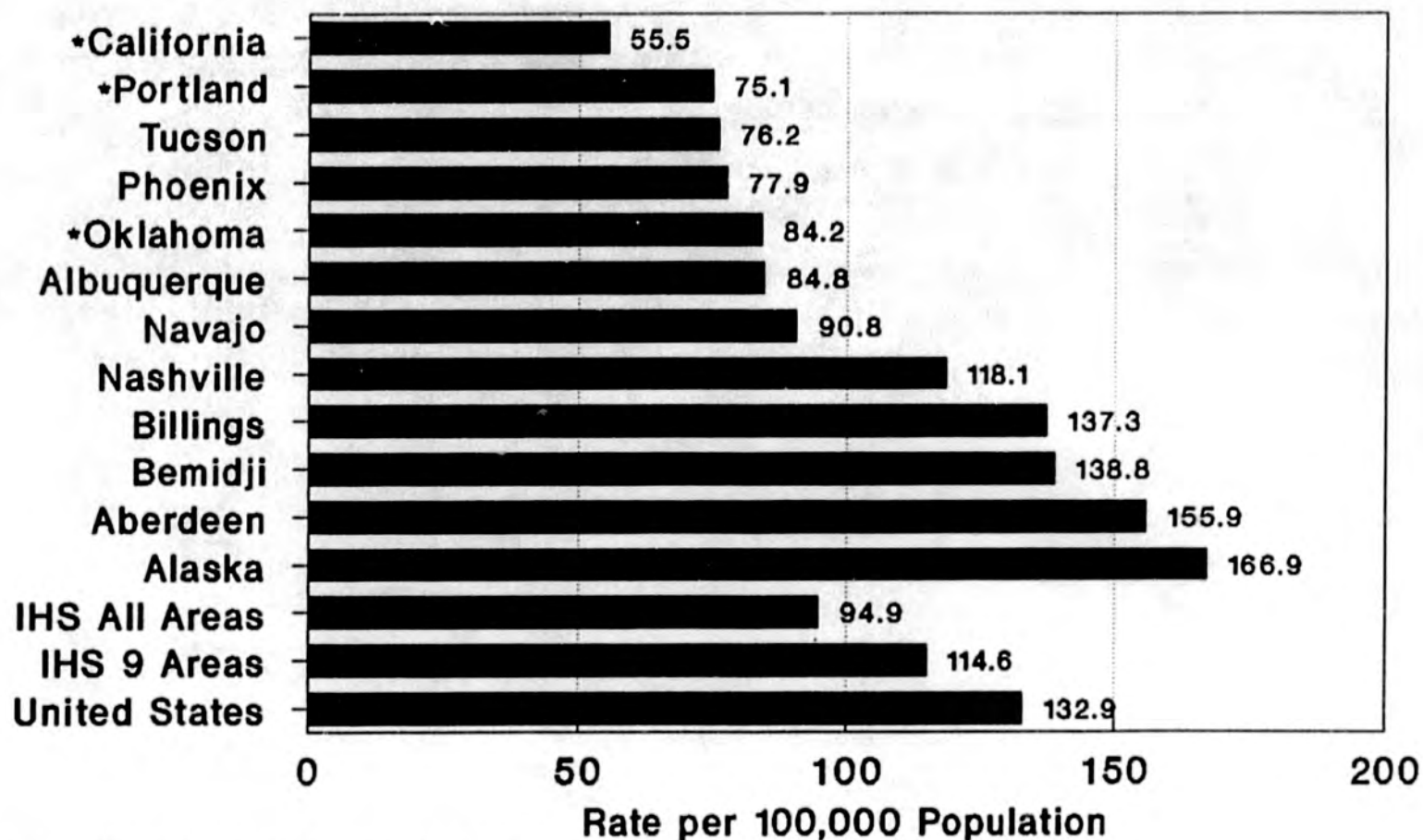
* Apparent problems in underreporting
of Indian race on death certificates

Age-Adjusted Suicide Mortality Rates 1987



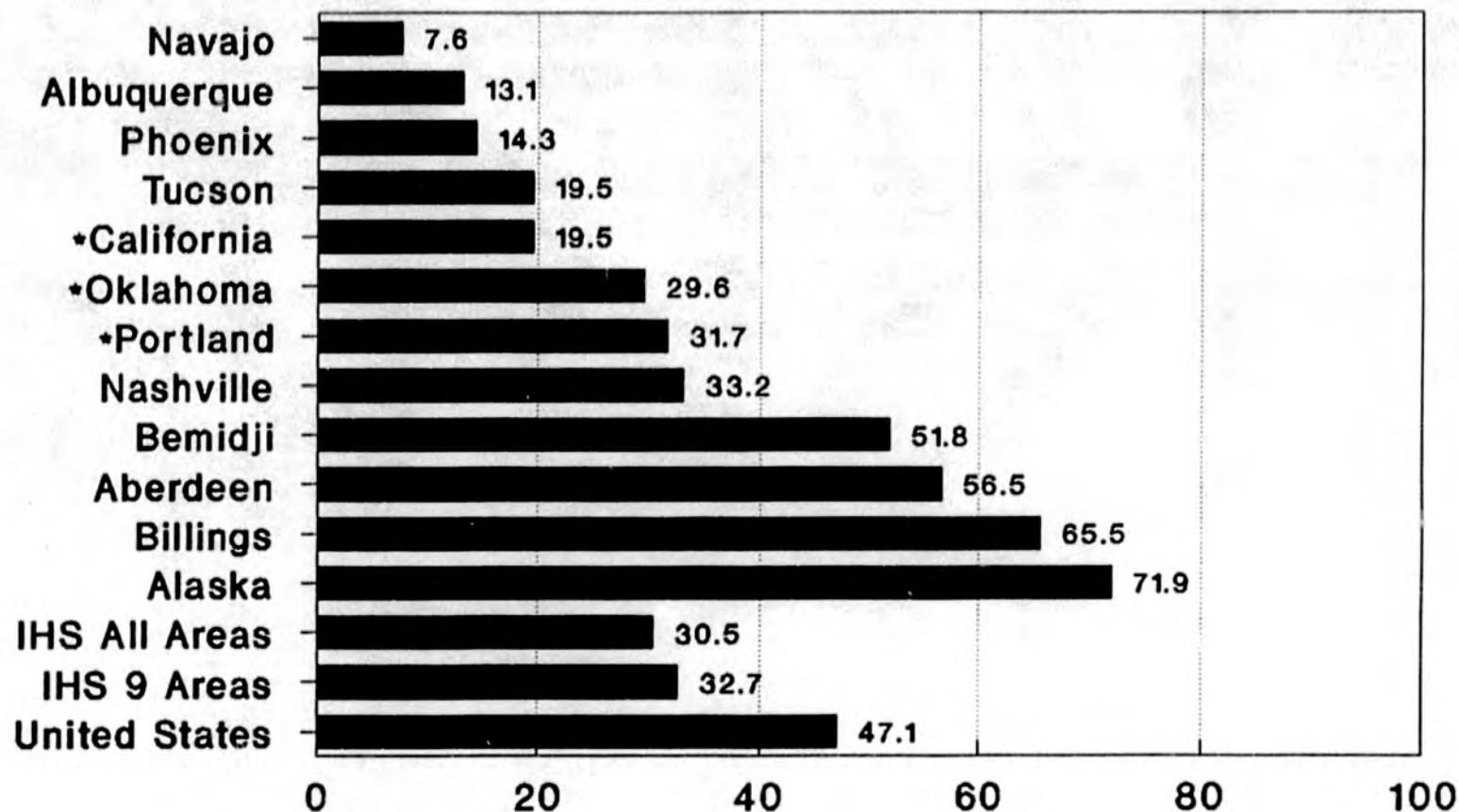
• Apparent problems in underreporting
of Indian race on death certificates

Age-Adjusted Malignant Neoplasm Mortality Rates 1987



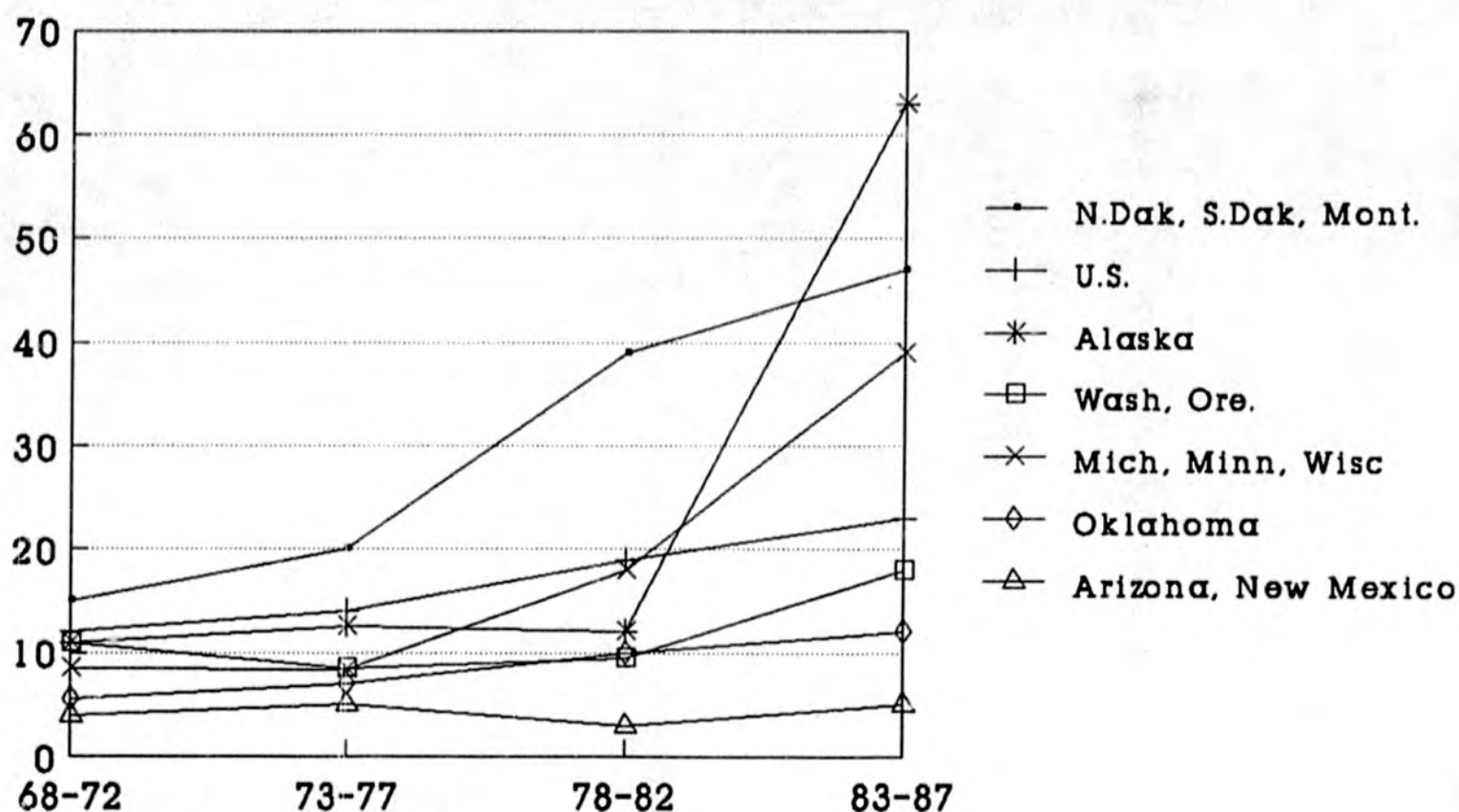
*Apparent problems in underreporting of Indian race on death certificates

Age-Adjusted Lung Cancer Mortality Rates, 1984-1988



•Apparent problems in underreporting Indian race on death certificates

Trends in Lung Cancer Mortality, 1968-1987. Native Americans in Selected States Compared to All U.S.



Rates Age-adjusted to the 1970 U.S. Pop.

**FEDERAL CAPITAL PROJECTS
ALASKA AREA NATIVE HEALTH SERVICE**

ANCHORAGE NATIVE MEDICAL CENTER

\$180M

- o FINAL BID PACKAGES BEING PREPARED
- o BID OPENING LATE OCTOBER
- o 3.5 YEAR CONSTRUCTION PERIOD

BARROW QUARTERS

\$18M

- o CONSTRUCTION CONTRACT AWARDED DECEMBER 91
- o FOUNDATION COMPLETE, MODULES ON BARGE
- o OCCUPANCY DECEMBER 92

KOTZEBUE HOSPITAL

\$63M

- o ORIGINAL BID JANUARY 91
- o REDESIGNED AND REPACKAGED INTO TWO PHASES
 - FOUNDATION
 - BUILDING
- o FOUNDATION CONTRACT AWARDED SUMMER 91 TO VECO
- o BUILDING CONTRACT AWARDED APRIL 92 TO HOFFMAN
- o FOUNDATION CONSTRUCTION UNDERWAY
- o BUILDING MATERIALS ON BARGE
- o 3 YEAR CONSTRUCTION PERIOD
- o OCCUPANCY LATE 94

KOTZEBUE QUARTERS

\$25M

- o NANA DESIGN/BUILD/LEASE PROPOSAL WITHDRAWN
- o LAND PURCHASED WINTER OF 92
- o GOVT. A/E SELECTION UNDERWAY
- o OCCUPANCY PROJECTED LATE 94

ADVANCED PLANNING

PROGRAM DOCUMENTS BEING PREPARED

- o BETHEL QUARTERS
- o ST. PAUL QUARTERS
- o METLAKATLA QUARTERS

EARLY PLANNING

PHASE II PRIORITY SYSTEM APPLICATIONS COMPLETED

- o NEW ST. PAUL CLINIC
- o NEW METLAKATLA CLINIC
- o FAIRBANKS CLINIC EXPANSION
- o NOME HOSPITAL EXPANSION
- o NEW BARROW HOSPITAL

APPENDIX I

"Memo to the Health Resources and Access Task Force" from
Bradley J. Whistler, Planning Section,
Alaska Department of Health and Social Services
October 21, 1991

STATE OF ALASKA

DEPT. OF HEALTH AND SOCIAL SERVICES

DIVISION OF ADMINISTRATIVE SERVICES

WALTER J. HICKEL, GOVERNOR

THEODORE A. MALA, COMMISSIONER

P.O. BOX 110650

JUNEAU, ALASKA 99811-0650

PHONE: (907) 465-3082

MEMORANDUM

DATE: October 21, 1991

TO: Health Resources and Access Task Force
The Honorable Jim Duncan, Co-Chair
The Honorable Johnny Ellis, Co-Chair

THRU: Larry J. Streuber, Planning Section Chief
Division of Admin. Services - Planning

FROM: Bradley J. Whistler, Health Planner
Division of Admin. Services - Planning

SUBJECT: High-Tech Equipment and Hospital Procedures

Per your request, attached is a listing of some of the costs and charges of high-tech medical equipment and services. Also, I have included a short explanation of each type of equipment/service.

Introduction

Literally, medical technology is the application of medical knowledge for practical purposes. High-tech is generally considered to be more advanced or sophisticated technology. Many of the medical services we consider as high-tech are medical applications of instruments developed for the physical sciences (such as Magnetic Resonance Imaging-MRIs and lasers). Other equipment, such as respirators and heart/lung machines, were developed for surgical applications.

Much of what we associate as the quality of care we receive in the United States is exemplified by high-tech medical services. Computerized tomography (CT) scans have reduced the need for exploratory surgery. MRI systems have reduced the need for the injection of contrast media, often necessary with CT scans and other radiology procedures. Technological advancements in medicine have often reduced or replaced more invasive procedures and improved the quality of care.

However, there is little doubt that high-tech medical services contribute to the increasing cost of health care. One study, published in the January 1989 issue of Business and Health, estimated the contribution of new technology (equipment and procedures) to total health care cost increases at 11%.

What high-tech equipment/procedures are provided in Alaska?

The first page of the handout (see attached) lists some information on selected hi-tech procedures in Alaska. Definitions of the equipment and services is provided on the next page. There are four points to be made from this chart:

1 - The equipment is expensive. Of the equipment listed, costs run from 1 to several million dollars. Remodeling, construction, and installation costs can increase the cost of the service by another 30-50%.

2- The useful life of hi-tech equipment is pretty short. I have listed the American Hospital Association's estimated useful life periods for the equipment. This is because maintenance costs and upgrades for the equipment escalate quickly and after five years it is usually less expensive to replace the equipment.

3- The table illustrates that most of Alaska's high-tech medical services are located in Anchorage. This is not surprising because of the population distribution in the State. Further, because of the cost of hi-tech equipment it is usually only available at larger medical facilities.

4 - Utilization patterns for the equipment pretty much parallel the population size of the communities served.

We have little information on procedure charges as the Department has little involvement with the monitoring of fees. Medicaid or commercial insurance companies would likely be a better source for this information.

What new high-tech medicine can we expect in Alaska?

The next step in diagnostic imaging seems to be positron emission tomography (PET) scanners. These scanners offer advantages in the diagnosis of diseases of cardiovascular and central nervous systems. Currently, these scanners are located at research hospitals in the United States.

As for other procedures, we do not have a lot of information for the Task Force. The Planning Section's contact with new procedures is usually through "letters of intent" filed by the facilities when they are considering a project or through literature, as other state programs deal with these issues. The hospital and medical associations are likely a better source for this information.

Good news/bad news for Alaska:

Given the desire to control medical costs, the public must decide on the proper balance of access, quality of care and cost of services. What is good news from the perspective of reduced medical costs is likely bad news for access to the services. Further, especially with high-tech procedures increased access can reduce the quality of care. I will approach the good news/bad news scheme from the point of our goal being to reduce medical costs.

Good news for Alaska:

There is not a lot of high tech medical procedures in the State, although this may change. Given the population density in the state and the size of the municipalities, few hospitals have purchased high-tech equipment. Patients usually travel to Anchorage or the lower 48 for these services.

Alaska has a young population, with a median age of 28.5 years. Traditionally, the high birth rate and immigration of young adults have kept Alaska's median age one of the lowest in the nation. Older adults usually have emigrated from Alaska and this trend could be seen as early as the 40-45 age group. Although, Alaska's age adjusted rates are always good, deaths due to heart disease, cancer, cerebrovascular and chronic obstructive pulmonary disease are well below national averages. Since many high tech services are used for the detection and treatment of these diseases, Alaska's demand for high-tech services is reduced.

Bad news for Alaska:

Alaska's population is aging. Like the national trend Alaska's population age 65 and above is increasing. Although the number of elderly in Alaska, 4.1% is one of the lowest in the nation, the rate of increase, 94.5% from 1980-1990, is one of the highest in the nation. This rate of growth is expected to continue as adults in lower age brackets are remaining in the State.

Facilities which have been largely subsidized by state-funding, through capital appropriations and Medicaid, will have to look for alternative revenue sources if these programs are reduced. Lower hospital occupancy rates, nationwide, have put pressure on facilities to evaluate services for potential revenue. Although, expensive to implement, high tech procedures often bring in revenue as medical fees for the procedures are expensive and more patients remain in the community for treatment. Once referred out for diagnosis, it is likely the patients will remain in the referral area for treatment of the diagnosed problem. Further, in many states the high-tech procedures are reimbursed at higher Medicaid rates than primary care medical services. As an example of revenue from high tech procedures, in the Certificate of Need application for a new MRI at Humana Hospital, the facility estimated a yearly average net income from the service of \$570,000 for the first three years of operation.

High tech procedures are also attractive to facilities and the communities for a number of other reasons:

- It helps the facility to compete with other facilities for patients as there are fewer referrals and it raises the perceived quality of care;
- it aids in attracting physicians, especially specialists into the community;
- it provides training and career opportunities for staff and makes retaining staff easier;

Health Resources and Access Task Force

Page 4

- physicians in the community are very supportive, and may pressure facilities to purchase equipment, as more patients will remain in the community for treatment; and
- many of the hospitals in Alaska are owned by the municipalities, further, they are some of the largest private employers in their communities, generally what is in the best financial interest of the facility is also in the best financial interest of the community.

However, there are several problems with the addition of high-tech procedures to smaller communities. These problems include:

- Duplication of expensive services in the state
- Overuse of equipment - once purchased, physicians are more likely to refer patients for hi-tech services. This is for a variety of reasons including: intrinsic reasons - the availability of the equipment creates a need to use it, malpractice/liability reasons, and in some part to justify the purchase of the equipment.
- Adequate training on the services are usually not available in the communities. Recruitment of experienced personnel may be a problem.
- Most important - Quality of care: Medical research has demonstrated, specifically with many high tech services, that quantity correlates with patient outcomes. Practice with the equipment and volume of procedures make it more likely pathology in early stages will be detected. For surgical procedures, like open heart surgery, the volume of procedures performed makes the surgeons better and patient outcomes are improved.

The distances between communities and between the communities and tertiary care hospitals in Alaska, has often helped justify expanded medical services in these communities. It is no different with high tech services. The problem is compounded by the fact that transportation and lodging costs for medical procedures, when a patient is referred outside the community, are often at the patients expense and are often not reimbursed by third party payers.

What Alaska is doing to contain high-tech costs?

The major regulatory control of high tech services in Alaska is through the State's Certificate of Need program. Larry Streuber, Planning Section Chief, discussed many of the points on the Certificate of Need Program with the Task Force. To summarize:

The addition of new services is subject to Certificate of Need review only if expenditures are \$1 million or greater.

Of states which regulate the medical services, Alaska is at the high end of the spectrum at the \$1 million threshold for new services.

Only medical services offered at hospitals are subject to review. Non-facility providers, such as physicians groups, may offer the service without Certificate of Need review. This has occurred to a greater degree in other states, but it has happened in Alaska.

Cost of the equipment generally decreases with time, to the point that it no longer meets the CON threshold. For example, the purchase of CT Scanners is generally no longer subject to review, unless there are substantial construction and installation costs. Another example is the purchase of used equipment, like Bartlett and Ketchikan General Hospitals are considering with the purchased of "second hand" MRIs.

The Department decision making process is hindered by a lack of guidelines and standards. Many of the standards in the State Health Plan, prepared in 1984, are out of date. Some new services, such as the MRI, were not addressed in the health plan. There is a need to develop standards, specific to the distribution of the population, for Alaska.

What are other states doing?

Other states have implemented additional measures to place controls on high-tech services. Besides population and utilization standards for the addition of new services, states have implemented:

- controls to monitor the appropriate use of equipment and procedures;
- state review of fees and fee increases to be sure the fees are reasonable; and
- some states are considering expanding state review to non-facility providers including group and private physician practices.

These controls have often been coupled with mandatory fee and utilization reporting mechanisms. The reporting requirements give the regulatory agencies access to information which allow trend and comparative analysis of the data.

The Department has not been involved in rate setting other than for the State Medicaid program. Further, utilization review has been sporadic. Last year, the Department began collecting utilization information for selected medical services in the Hospital Survey. This survey was last done in 1983. Although, response from the facilities has been very good, there still are problems in collecting the information through a voluntary process. Not all facilities are supplying all of the requested information and response times are slow.

Further, the Department has not seen any information from other sources to determine how Alaska's utilization rates for these services relate to other states or national averages. Nor have we seen a method, to determine if any of these procedures were inappropriate. Without this additional analysis, it is hard to determine if additional regulation of these services in Alaska is warranted.

Summary:

I believe high tech medical procedures are a factor in increasing health care costs, but these procedures are not a major influence on health care costs in Alaska, at this time. However, analysis of fees and utilization should be done to determine the appropriateness of current high tech costs. Demographic and economic pressures will likely increase the future amount of high tech services in the State, therefore now is the appropriate time to determine what actions the State should take assure adequate access to the services, establish guidelines as to where and when the services should be made available, and determine the extent to which the State regulation of these services is appropriate. Further, these guidelines need to take into account the distribution of the population in Alaska and remoteness of many of the municipalities in the State. Lastly, if access to high-tech services is reduced as a cost management strategy, evaluation of increased funding/coverage for transportation for these services should be considered.

Attachment

HIGH TECH EQUIPMENT AND UNITS

Type of Equipment/Services	Equipment Cost*	AHA Estimated Useful Life	Hospital	Hospital Location	**Utilization	Average Price Per Procedure	Other
CT Scanners		5 years	Bartlett Memorial Ketchikan General AK Area Native Med Humana Providence Valley Fairbanks Memorial	Juneau Ketchikan Anchorage Anchorage Anchorage Palmer Fairbanks	548 574 1943 3449 7932 1188 2827		
MRI Systems	\$2.5 \$2.0 \$0.3-0.6 \$0.3-0.6	5 years	Humana Providence Fairbanks Memorial Bartlett Ketchikan General	Anchorage Anchorage Fairbanks Juneau Ketchikan	3135 3205 1400 550 proj.	\$800 (range: \$336-1280) \$847 (range: \$700-1243) (range: \$750-850)	1.5 Tesla MRI 1.5 Tesla MRI 1.5 Tesla MRI - Projected first year utilization Bartlett Hospital Board is moving towards the purchase of a used/new 0.5 Tesla MRI. Ketchikan General is considering the purchase of a 0.5 Tesla MRI.
PET Scans	\$2.0-5.0	5 years	NONE		—		Cost varies between units with or without cyclotrons.
Cardiac Catheterization Labs	\$2.2	7-8 years	Humana Providence	Anchorage Anchorage	375 1135	Approximately \$2,500 - \$8,800	Costs vary: Diagnostic v. Therapeutic
Extracorporeal Shock Wave Lithotriptors	\$1.0-2.0	5 years	Providence	Anchorage	39		Began operating in August 1990. Equipment was not purchased, rather it is operated in a fee for service arrangement.
Neonatal ICU	—	—	Humana Providence Fairbanks Memorial	Anchorage Anchorage Fairbanks	1:19 301 108		
Open Heart Surgery Unit	—	—	Providence	Anchorage	292		
Organ Transplant Unit	—	—	NONE		—		

NOTE: The equipment cost, listed above, does not include construction and installation costs. Construction and installation of the equipment often increases the overall cost of the project by another 30-50%.

* Equipment cost in millions of dollars.

** Equipment utilization is reported by number of procedures and service utilization is reported by inpatient discharges.

CT Scanner: Computerized tomography (CT) or computer axial tomography (CAT) is a diagnostic technique which combines the use of x-ray equipment and computers to produce images of tissue structures at predetermined depths. The images are in the form cross sections.

MRI System: Magnetic Resonance Imaging (MRI) is a diagnostic technique in which the patient's body is subjected to a strong magnetic field which causes hydrogen ions to align within the magnetic field. A sequence of radiofrequency pulses are briefly applied to the area to be imaged. The hydrogen nuclei absorb energy from the radiofrequency pulses and when the pulse is terminated the tissue emits a weak radiofrequency signal which is received by an antenna within the MRI device. A series of computerized operations are performed to convert the signal into a visual image. MRI procedures reduce the need for contrast materials to visual tissues and hard tissues of the body do not obscure the image from the MRI. This often makes the MRI the diagnostic procedure of choice for imaging the brain, spinal cords and joints. The MRI can be used to visualize single or multiple tissue slices in the sagittal, axial or coronal planes.

PET Scanner: Positron Emission Tomography (PET) is a diagnostic technique based on the detection of positrons. Labeled substances (carbon 11, nitrogen 13, or oxygen 15) are introduced into the body. These isotopes are taken up by tissues in relation to the metabolic activity of the tissue. In the tissue these substances emit positrons which ultimately emit photons. Detectors surrounding the patient are linked to a computer which constructs an image built upon the distribution of the radioisotopes within body tissues. The PET scan is valuable for images of the brain and heart since the images produced provide information on the structure and metabolic activity of these tissues.

Cardiac Catheterization Lab: A cardiovascular imaging system consists of a generator, specialized x-ray equipment, a film changer, high speed movie film, and video cameras. Cardiac imaging is used in three types of procedures:

- **Cardiac Catheterization:** In this procedure a catheter and imaging equipment is used to determine the function and extent of pathology of the heart and coronary arteries.
- **Percutaneous Transluminal Coronary Angioplasty:** In this procedure a catheter, imaging equipment and a balloon are used to dilate narrowed coronary arteries. Once the balloon is in the area of the constriction it is inflated several times to widen the lumen of the blood vessel. This procedure is also known as "balloon angioplasty" and reduces the need for coronary bypass surgery.
- **Vascular Studies:** This procedure is similar to cardiac catheterization and is used to look for blockages of blood vessels other than those of the heart.

Extracorporeal Shock Wave (ESW) Lithotripter: This equipment in which shock waves are focused upon renal or gall stones to shatter the stones. The fragments are then passed through the ducts and eliminated from the body. The ESW lithotripters are generally used on stones less than 2 cm and eliminates the need for more invasive procedures.

Neonatal ICU: A neonatal intensive care unit is a unit within a hospital which contains a variety of sophisticated mechanical devices and special equipment for the management and care of premature and seriously ill newborn infants. The unit is staffed by specially trained nurses and neonatologists who are highly trained in the pathophysiology of newborns.

Open Heart Surgery: Open heart surgery is a surgery on the heart in which the heart chambers are fully open and visible. A heart/lung machine is used to divert blood around the heart during the procedure. Open heart surgery is often used to correct congenital or acquired pathologies of the heart wall(s), septum or valves.

Organ Transplant: Organ or tissue transplantation is a surgical procedure in which a diseased organ is replaced with a healthy, living substitute. The donor organ is usually taken from a person who has just died, however up to one third of transplanted kidneys are taken from living relatives of the patient. The following transplants are performed in the United States (in descending order of frequency): cornea, kidney, heart, liver, pancreas, and heart-lung.

APPENDIX J

Letter from J. S. Johnston, NORCAL
to Maureen Weeks, Legislative Research Agency

March 11, 1992

Alaska Office

4000 Old Seward Highway, Suite 203
Anchorage, Alaska 99503-0008

(907) 563-3111
(907) 562-7800 (TOLL FREE)

March 11, 1992

Ms. Maureen Weeks, Analyst
Alaska State Legislature
Legislative Research Agency
P. O. Box Y
Juneau, Alaska 99611-3100

RE: Your Informational Request of January 20, 1992

Dear Ms. Weeks:

This is in response to yours of January 20, 1992. I have attempted to answer those of your questions which can be answered, per our previous agreement, on the basis of readily accessible data and without time consuming research. I am responding only to Sections I. and II. of your inquiry. NORCAL's underwriting department is responding to the other sections under separate cover. This information is being provided to you on a confidential basis and this letter is not intended for republication.

I. Claims

1. I am aware of several limited studies accomplished through MICA. One is Joyce Wainscott's study which I recall you saying that you have. Another study was a limited one prepared by MICA's Chief Executive Officer Mary Pierce in the spring of 1989 in response to a request for information relative to then House Bill 350 introduced by Representatives Donley and Gruenberg and specific to the issue of subsidizing premiums for rural physicians practicing obstetrics (copy attached). Ms. Pierce also responded in the fall of 1989 to an informational request from OMB's Jetta Whittaker (copy attached). In addition I believe that information was submitted in 1990 to various state agencies and probably to the Legislature relative to the planned acquisition of MICA by NORCAL. Some of that information may have included information about claims. I did not participate in preparing it and don't have access to it so I'm not sure about that.
2. I cannot respond intelligently to this question because our numbers are so small as to be statistically insignificant. NORCAL insures only a percentage of the physicians in Alaska. There are several other major carriers and there is a relatively large uninsured physician population.

Therefore I don't have access to information about claims filed against the majority of Alaskan physicians. When dealing with a population base as small as the number of physicians in Alaska and with access to information about only a minority percentage of that pool, information is so limited as to prevent any comments on trending.

3. I don't believe there was a number three on your original letter.
4. I am not sure how you are defining "providers." We insure both physicians and hospitals. Four (4) of our insured hospitals currently have lawsuits outstanding against them. Twenty three (23) of our insured physicians have lawsuits currently outstanding against them. As I have already explained we insure less than 50% of the physicians in the state. The hospitals that we insure are among the smallest in the state and so, even though we insure over 50% of Alaska hospitals, we do not insure the ones that would be likely, simply due to their size and patient population, to be generating the most claims. So again, you need to realize that this information is statistically not going to be helpful.
5. Again, referencing all of the caveats enumerated in number 4 above, two of our insured hospitals have two suits each pending and two of our physicians each have two pending suits.
6. I cannot give you specific answers to this. Your first question references the time taken to resolve a medical malpractice claim and I would refer you to the problems presented by different definitions and our computer data base enumerated above in number 4. There are somewhat different problems in providing the answer to your second question involving the time taken to resolve lawsuits. Under MICA's administration we tracked information about the date on which a matter was reported to MICA. Frequently that report was made by our insured soon after the incident in question or at the time medical records were requested. Often suit was not filed for many months or several years after that date of report. I could give you the date of the report and I could give you an approximate date on which payment, if any, was made but those numbers would be relatively meaningless since the period of time might span five years, two of which occurred between the time our insured reported the matter to us and the time suit was filed. I have no way of accessing, via the computer, information that would target the actual date on which a claim was presented or a lawsuit was filed in comparison to the actual date on which definitive resolution and/or payment was accomplished.

I certainly have, as I'm sure every claims person has, anecdotal stories about claims that have taken a very short time or very long time to resolve. One that is fresh in my memory is a formal claim presented on

11/27/91 which was resolved with payment of \$225,000 on 2/18/92, a period of less than twelve weeks. Some of the cases that take a long time to conclude judging from the date of report do so because suit is not filed until the end of the statute of limitations. Others take a long time to work through the court system for one reason or another. We are going to trial the end of this calendar year in a matter that occurred in February 1987 and which was scheduled to go to trial last year. The trial was put over because an unanticipated change in the patient's medical condition occurred and it was deemed in everyone's best interest to further define that before proceeding to trial. I find that the time needed to get a case to trial varies in different judicial districts given the work load of the various judges. These are but a few of the various factors that impact the time it takes to resolve a lawsuit.

II. Payments (Settlements and Awards)

1. Again, the studies I have already referenced in I.1. are the only ones that I am aware of accomplished through this office. I would expect that the Division of Insurance or the Alaska State Medical Society might have further information.
2. In 1991 the average payment for meritorious claims against providers was \$89,093.43. This is the average of 11 payments. Ten of those were settlements and the average settlement award was \$82,964.09. The other one was a jury award which was \$150,386.78. The highest payment was \$200,000 and the lowest was \$12,500.
3. Again, I think that our figures are so small as to be insignificant and misleading for trending purposes. For example, if I were to use the year 1991 as outlined above and gave you the "average jury verdict" it would be a sample of one case. To say that the average jury verdict for 1991 is \$150,386.78 is very misleading. If that particular case had resulted in a jury verdict of \$25,000 or \$10,000,000 the information would appear far better or worse than it presently does.
3. (Here is another number 3. Perhaps it should be a 4.) Because they were cases in which MICA was involved, I am personally aware of 4 settlements or verdicts in excess of \$1,000,000. All of these were made during or prior to 1988 and I believe they have been covered in reports previously submitted and referenced above. Nevertheless I will repeat them. \$2.2 million was paid in 1987 on behalf of an insured obstetrician alleged to have been negligent in his care of a pregnant woman resulting in damage to her infant at the time of delivery in 1985. Approximately \$2.7 million was paid in 1987 on behalf of an insured hospital for alleged negligence in the treatment of a young child with

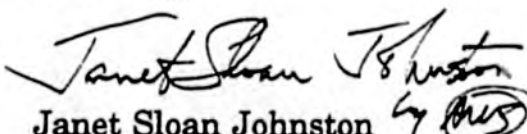
Maureen Weeks
March 11, 1992
Page 4

resultant brain damage. \$1.75 million was paid in June of 1988 as a result of a jury verdict against an Alaskan hospital held responsible for the allegedly negligent treatment rendered by physicians in the emergency room. And finally, approximately \$1.9 million was paid in 1988 on behalf of an emergency room physician allegedly negligent in his treatment of a patient who presented to the emergency room in 1984. As indicated, only one of these suits was settled by jury verdict and no appeal was taken. The rest were settlements. Geographically the cases came from Anchorage, Fairbanks, a community in Southeast Alaska, and a community in Northwestern Alaska.

5. The figures quoted above in number II.2. for the year 1991 reveal a sample high payment of \$200,000 and a sample low payment of \$12,500.
6. A claimant is a patient, guardian or heir of a patient who asserts that injury resulted from the negligence of our insureds. Approximately 41 percent of claims result in payment to claimants in an average amount of \$65,000 since inception of the company.
7. Average defense costs are around \$16,000. Average costs of defending a case through trial are around \$60,000.
8. I have no knowledge of this and cannot respond.

I hope this information is helpful and extend my appreciation for your patience in waiting to receive it.

Sincerely,


Janet Sloan Johnston
Branch Unit Manager
Claims

J-4

APPENDIX K

Current Rates for Professional Liability Insurance in Alaska

Provided by Loreen Killian

Medical Indemnity Exchange of California

October 1992,

and

1992 Rate Chart,

NORCAL Mutual Insurance Company

MEDICAL INDEMNITY EXCHANGE OF CALIFORNIA

Current Rates
for Professional Liability Insurance in Alaska
(mature rates, i.e. 5th year of practice onward)

\$1/\$3 million
(most commonly purchased)

OB Neurosurgery Orthopedics with Spinal Surgery \$79,948	For \$2/4 million + 20% non-surgery + 27% surgery specialty For \$5/7 million + 45% non-surgery + 62% surgery
General Surgery Orthopedics without Spinal Surgery ENT with > 5% Plastic Surgery \$42,328	Tail, on leaving practice is approximately 170% of mature annual rate paid 1 time.
ENT with > 5% PS Ophthalmology Internal Medicine Pediatrics Family Practice (No Surgery) Psychiatry \$26,456 \$13,524 \$11,760 \$10,584 \$ 6,468	Discounts on starting practice 1st year 75% 2nd year 40% 3rd year 20% 4th year 10% MIEC expects a 5% decrease in rate in February 1993

Source: Loreen Killian, October 1992, (800-227-4527).

**TO DETERMINE YOUR
ANNUAL RATE:**

1 Identify your class.

SPECIALTY CLASS

Administrative Medicine	2
Allergy	2
Anesthesiology	6
Cardiac Surgery	8
Cardiology	4
Colon & Rectal Surgery	7
Dermatology (No Cosmetic Surgery)	2
Dermatology (Including Cosmetic Surgery)	8
Diagnostic Radiology	2
Emergency Room Practice	5
Endocrinology	2
F.P. / G.P. (No Surgery)*	2
F.P. / G.P. (Assist Surgery-Own Patients)	3
F.P. / G.P. (Minor Surgery** or Assist)	4
F.P. / G.P. (Prenatal Only-No Delivery)	4
F.P. / G.P. (Including Obstetrics)***	7
F.P. / G.P. (Major Surgery)	7
Gastroenterology	2
General Medicine	2
General Preventive Medicine	2
General Surgery	7
Gynecology Only	7
Hematology	2
Internal Medicine (Excluding Left-Heart Cath.)	2
Internal Medicine (Including Left-Heart Cath.)	4
Neonatology	4
Nephrology	2
Neurology	2
Neurosurgery	9
Nuclear Medicine	4
Obstetrics and Gynecology	8
Oncology	2
Ophthalmology (Excluding R.K.)	3
Oral and Maxillofacial Surgery	7
Orthopedic Surgery	8
Orthopedic Surgery (Including Total Joints, Spinal Surgery, Insertion Prosthetic)	9
Otolaryngology	7
Otolaryngology (Including Plastic Surgery)	8
Pathology	1
Pediatrics	2
Perinatology	4
Physical Medicine and Rehabilitation	2
Plastic Surgery	8
Psychiatry	1
Pulmonary Disease	2
Rheumatology	2
Surgical Assistant	4
Therapeutic Radiology	5
Thoracic Surgery	7
Urology	6
Vascular Surgery	8

* No Surgery includes minor office procedures.

** Minor Surgery includes vasectomy, tonsillectomy, adenoidectomy, dilation and curettage (except for abortion), biopsy, circumcision, hemorrhoidectomy, myringotomy, other minor office procedures and assisting in surgery.

*** Includes all procedures classified as Minor Surgery plus obstetrics (with regional anesthesia therein, but excluding Caesarean sections) and abortion.

Alaska

1992 Rates

NORCAL
Mutual
Insurance
Company

Professional
Liability
Insurance

Alaska Office
4000 Old Seward Highway
Suite 203
Anchorage, Alaska 99503
(907) 563-3414

 **NORCAL**
Mutual Insurance Company

 **NORCAL**
Mutual Insurance Company

2 Select Your Limits of Liability.

Refer to the limits column in the table at right. The first amount is the "Each Claim" limit. The second amount is the "Aggregate per Calendar Year" limit.

3 Find Your Annual Rate.

Select your inception date from the table at right.

A. Refer to 1-1-92 unless you are transferring from another claims-made program and wish to apply for Prior Acts Coverage.

B. If you are applying for Prior Acts Coverage, refer to the date you would want Prior Acts Coverage to begin. (Prior Acts Coverage protects you for claims resulting from occurrences and accidents that happened while you were insured with another company.)

C. If your requested inception date falls between those listed or after 1-1-92, your premium will be prorated accordingly.

4 Discounts & Savings.

These rates do not include any premium reductions, such as discounts and dividends.

Since 1979 NORCAL has returned more policyholder premium (approximately \$130 million) than any other doctor-owned company in the country.

Loss Prevention discounts are available if you participate in our Risk Management Program.

New-to-practice physicians are eligible for a 75% discount the first year, 50% the second year and further discounts for the next five years. Part-time discounts of 50% are also available to eligible insureds.

Class	Limits of Liability [†] (Millions of Dollars)	I N C E P T I O N D A T E				
		1-1-92	1-1-91	1-1-90	1-1-89	1-1-88 or earlier
1	200k/600k	\$ 2,237	\$ 2,879	\$ 3,917	\$ 4,570	\$ 4,520
	500k/1M	2,644	3,503	4,891	5,496	5,697
	1M/2M	3,232	4,403	6,297	7,124	7,396
	1M/3M	3,327	4,550	6,526	7,388	7,673
2	200k/600k	\$ 3,041	\$ 4,112	\$ 5,841	\$ 6,597	\$ 6,846
	500k/1M	3,720	5,151	7,464	8,474	8,808
	1M/2M	4,700	6,651	9,809	11,186	11,641
	1M/3M	4,859	6,896	10,190	11,627	12,102
3	200k/600k	\$ 3,732	\$ 5,169	\$ 7,494	\$ 8,508	\$ 8,843
	500k/1M	4,643	6,566	9,674	11,030	11,478
	1M/2M	5,960	8,583	12,823	14,673	15,284
	1M/3M	6,174	8,910	13,335	15,266	15,904
4	200k/600k	\$ 4,459	\$ 6,284	\$ 9,233	\$ 10,521	\$ 10,946
	500k/1M	5,615	8,056	12,001	13,722	14,291
	1M/2M	7,286	10,615	15,997	18,346	19,122
	1M/3M	7,558	11,032	16,648	19,098	19,908
5	200k/600k	\$ 6,080	\$ 8,767	\$ 13,111	\$ 15,007	\$ 15,633
	500k/1M	7,783	11,376	17,185	19,720	20,558
	1M/2M	10,243	15,145	23,070	26,529	27,672
	1M/3M	10,643	15,758	24,029	27,637	28,830
6	200k/600k	\$ 7,182	\$ 10,455	\$ 15,747	\$ 18,057	\$ 18,820
	500k/1M	9,257	13,633	20,710	23,799	24,819
	1M/2M	12,253	18,225	27,881	32,093	33,485
	1M/3M	12,741	18,972	29,048	33,443	34,896
7	200k/600k	\$ 7,700	\$ 11,249	\$ 16,988	\$ 19,491	\$ 20,319
	500k/1M	9,949	14,696	22,369	25,718	26,824
	1M/2M	13,199	19,675	30,144	34,711	36,221
	1M/3M	13,728	20,485	31,409	36,175	37,751
8	200k/600k	\$ 12,562	\$ 18,699	\$ 28,620	\$ 32,949	\$ 34,385
	500k/1M	16,452	24,657	37,925	43,714	45,627
	1M/2M	22,069	33,265	51,365	59,263	61,873
	1M/3M	22,984	34,666	53,554	61,795	64,519
9	200k/600k	\$ 17,221	\$ 25,837	\$ 39,767	\$ 45,845	\$ 47,855
	500k/1M	22,682	34,203	52,831	60,959	63,645
	1M/2M	30,571	46,288	71,702	82,790	86,455
	1M/3M	31,854	48,256	74,775	86,345	90,169