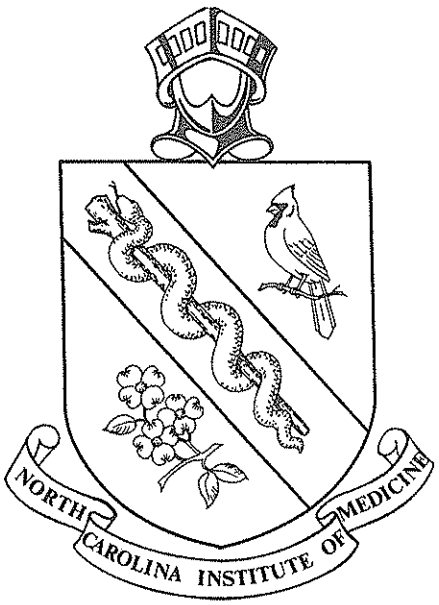
UNIVERSAL ACCESS AT AN AFFORDABLE COST:

ENSURING HEALTH CARE SERVICES FOR ALL NORTH CAROLINIANS

A PROPOSAL OF THE HEALTH ACCESS FORUM

A COMPONENT OF

SECURING HEALTH ACCESS
AT REASONABLE EXPENSE



JANUARY, 1993

CITIZENS DEDICATED
TO IMPROVING THE HEALTH
OF NORTH CAROLINIANS

NORTH CAROLINA INSTITUTE OF MEDICINE

HEALTH ACCESS FORUM

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*Not a Forum member, but resource person.

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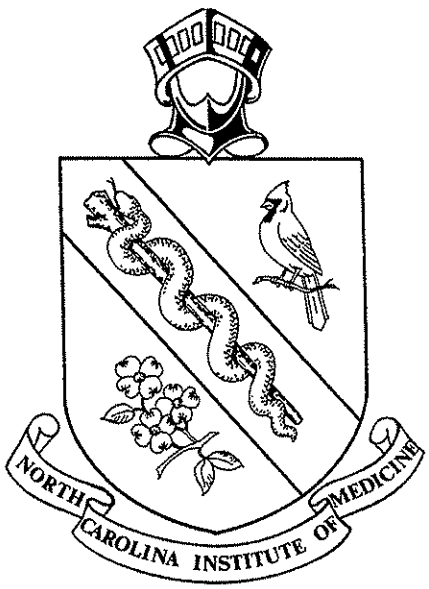

JANUARY, 1993

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January 1993

Ewald Busse, MD
President
North Carolina Institute of Medicine

Dear Dr. Busse:

In 1991, the North Carolina Institute of Medicine convened the Health Access Forum to reach a consensus on how to address the serious problem of inadequate access for two million uninsured and underinsured North Carolinians. Enclosed herewith is the proposal developed by the Forum.

This proposal outlines a fundamental restructuring of the current health delivery system that we believe merits serious public discussion and debate. To agree on this proposal, Forum members have had to make hard choices and compromise strongly held positions. This proposal is not perfect and no Forum member agrees with every detail of this report. However, members who believed that action is critical and further public discussion and debate essential refused to allow their personal vision of how to reform the system get in the way of arriving at a consensus.

We strongly believe that action is needed on this critical issue. Our State's leaders face a fundamental choice: we can continue to delay action and hope that the federal government intervenes before things reach a crisis or we can take the courageous steps needed to reform the system. We hope that the Institute of Medicine can use the Forum proposal as the rallying point for a political consensus on how to achieve universal coverage at an affordable cost.

All of the Forum members felt honored to be selected for this task. We have worked diligently and learned much from the experience. We hope that this report is worthy of the trust you put in us. I think I speak for all Forum members in stating that we are ready and willing to do our part in the months ahead to assist the Institute in forging a public consensus on this issue.

Sincerely,

William C. Friday
Chairman

FOREWORD

The Health Access Forum was convened under the sponsorship of the North Carolina Institute of Medicine. The North Carolina Institute of Medicine is an independent, non-profit corporation chartered in 1983 by the North Carolina General Assembly. Its mission is to seek constructive solutions to statewide problems that impede the improvement of health and the efficient and effective delivery of health care for all citizens of North Carolina. The problem of access to health care is a major health policy concern of the Institute. Consequently, a Health Access Forum was convened in order to build a consensus solution to this problem.

The Forum is a component of a project supported by the Health Care Division of the Kate B. Reynolds Charitable Trust and The Mary Norris Preyer Fund. The project was preceded by a study and the 1989 Task Force report *Strategic Plan to Assist the Medically Indigent of North Carolina.*

The Forum brought together a distinguished group of leaders from across North Carolina, representing business, State government, labor, consumers and the health care industry to develop a proposal that would ensure that all North Carolina citizens have access to a high level of quality health care at an affordable cost to their families. This report presents the Forum's proposal.

The Process

The Forum was appointed early in 1991 and met for a total of 15 meetings of the full Forum between June 1991 and January 1993. At the first meeting, the Forum established an early consensus on two goals: first, that all North Carolinians should have access to some minimum essential level of health coverage and second, that the issue of costs be addressed. Throughout its deliberations, the Forum saw no way to separate the access and cost issues. The early meetings were designed to explore the nature and size of problems in health care access and costs. These meetings also were used to solicit Forum input regarding issues of importance. Subsequent meetings reviewed solutions being debated at the national level and in other states. Subsequently, the Forum broke into subcommittees focussed on benefits, cost containment and structure. These subcommittees held a number of meetings designed to hammer out conclusions that could be debated within the larger group. To reach consensus, the Forum used a process of structured mediation, with the Dispute Settlement Center of Durham providing facilitation services at each meeting. To obtain the information needed to reach consenus, the Forum relied on a combination of technical assistance provided by Duke University Center for Health Policy Research and Education and outside testimony from selected individuals.

The Participants

The Forum is honored that William C. Friday, President Emeritus of the University of North Carolina, agreed to serve as chairman of the Forum. Dr. Friday's skillful leadership, wisdom, humor, and keen sense of political realities were essential ingredients in getting the Forum to reach a consensus.

The Forum includes leaders in health care, business, labor, government and the general public. Apart from the knowledge and experience that many of these members brought to the Forum, all members invested an enormous amount of time and energy in this effort. Cliff Cameron, Duncan Yaggy, Ulysses Bell and Barbara Matula all performed skillfully as chairman of committees designed to obtain Forum suggestions for issues to be addressed. These committees later were superseded by committees focussed on working through the details of the Forum proposal. As chairman of the Structure Committee, Lanty Smith skillfully steered the Committee through some very difficult decisions and was also instrumental in helping to craft what became the core of the Forum's final recommendations regarding system reform. As chairman of the Cost Containment Committee, Alex McMahon used his considerable experience and hard-headed realism to bring that group to closure on a dozen recommendations focussed on a myriad of complicated issues badly in need of attention. As chairman of the Benefits Committee, Frank Daniels and his occasional substitute, Duncan Yaggy, both performed ably in getting the Committee to perform the difficult act of balancing benefits versus costs. Dr. Yaggy also was instrumental in prodding the Forum to consider seriously alternatives to incremental reform.

The Forum benefitted from the testimony of numerous individuals, including Nancy Winter, an uninsured worker who described the plight of being without health coverage; Jim Garrison, Comptroller, Brame Specialty Company and Bob Crumley, Vice President for Personnel, Boddie-Noell, Inc., who both described the coverage offered to their employees. Thomas L. Speros, M.D., Chairman of the Health Care Manpower Task Force, North Carolina Academy of Family Physicians, described the barriers in getting an adequate supply of primary care physicians, particularly in rural areas. Nancy Bres-Martin, Chairman of the Task Force on Access, North Carolina Hospital Association, summarized the Task Force proposal for universal access. Although they were not members, the Forum benefitted from the insights of two representatives of the North Carolina Institute of Medicine who attended nearly every meeting: James Davis, M.D., Chairman of the Board and Ewald W. Busse, M.D., President.

Behind the scenes, the Forum benefitted considerably from the expertise of numerous other individuals. Chief among these were Doug Bray, of Jefferson-Pilot Life Insurance Company, whose knowledge of small group reform legislation, benefits design and other issues was extremely useful in developing the Basic Health Benefits

Package. Tom Rose and Randy Ferguson generously offered the assistance of their actuarial people in developing rates for this Package and the Forum is indebted for many hours of effort provided by a) William W. Blanton, Director of Actuarial Services, Blue Cross and Blue Shield of North Carolina and members of his staff, including Larry Morris and Tom McInteer; b) Edward W. O'Neil at Jefferson-Pilot; and c) Anna Lore, Health Plan Manager, Kaiser Foundation Health Plan and her assistant, Harry Kaplan, who also provided very useful information regarding managed competition proposals in other states.

This project could not have been completed without the help of many individuals in various State agencies. Several members of the Division of Medical Assistance have been very helpful in obtaining accurate estimates of the costs of Medicaid expansions, including Daphne Lyon, Director of Planning, Patsy Slaughter, Teresa Shea and Allen Gambill. Nicole Underwood, Patty Soule and Sharon Wiwel, of the Tax Research Division, North Carolina Department of Revenue, all were very helpful in supplying background information on revenue estimates. L.W. Cannady, Alternative Health Care Administrator, North Carolina Department of Insurance, provided current information on the HMO service areas in North Carolina. In addition, the Forum has benefitted from information supplied by a number of different state agencies and individuals too numerous to mention. These agencies include the Office of State Budget and Management, the State Library, the Office of State Planning, the Office of Rural Health Services, the Department of Environment, Health, and Natural Resources and the Local Government Commission.

Staff support came from numerous quarters, and the Forum was fortunate that meeting logistics and preparation of meeting minutes were in the able hands of Dina Grinstead, Secretary, North Carolina Institute of Medicine. Michael Wendt had a thankless task in trying to build consensus among a very independent-minded group of individuals. He was ably assisted in that effort by several individuals who, at various times, served either as facilitators or recorders for committee meetings. These include Patricia Fischer, Gwendolyn Gardner, Ed Magar, Brenda Merrell, Lena Steinfeld, Janice Williams and Lynn Williamson. The Forum benefitted from research assistance provided through Duke University's Center for Health Policy Research and Education. This effort was directed by Christopher Conover, who received excellent support from Barry Nocks, Marc Dillard, Ted Ebel, Seldon Hardin, Samantha Mackey, and Kevin McGee. Stan Paskoff, assisted by Jane Terrell, did an excellent job in computer programming needed to pull up-to-date estimates of health coverage in North Carolina from Current Population Survey tapes. Janice Holmes provided countless hours of secretarial support for the Center's Forum initiative. Kay Miller has performed an invaluable service in doing public relations work on behalf of the Forum. The final draft of this report also benefitted immensely from the editorial assistance provided by the UNC Press.

EXECUTIVE SUMMARY

OVERVIEW

The Health Access Forum offers for discussion and debate a major restructuring of the State's health care system. The Forum proposal provides for: universal access to basic health services; controlling costs by encouraging competition among organized delivery systems which integrate financing and delivery of care in ways that promote quality and minimize costs; specific reforms and cost reduction measures in such areas as conflict of interests, medical malpractice and defensive medicine; greater equity by using tax-based financing (based on ability to pay) in lieu of premiums. Because the proposal is such a major departure from the current system, the Forum now seeks reactions from the people of the State.

The goal is to create a system which ensures that everyone can obtain medically necessary care in a way that is both efficient and fair. If enacted by the General Assembly in 1993, universal coverage could be established starting January 1, 1996.

PROBLEMS WITH THE CURRENT SYSTEM

Inadequate Access

This year, more than two million North Carolinians will be either uninsured or underinsured, putting them "at risk" of being unable to afford needed health services. The most recent figures, from March 1992, show that North Carolina has more than one million uninsured on an average day (figures derived on p. 4 of *Final Report*). Too often, those "at risk" must defer primary and preventive care. This delay can result in an adverse effect on their health, and it also imposes a tragic and unnecessary financial burden on the rest of society when they seek expensive care for conditions that have gotten worse through delay. Much uncompensated hospital care is medically preventable or avoidable and could have been averted altogether if the medically indigent had received more timely and adequate primary or preventive care.

In 1992, North Carolina's citizens spent at least $3.7 billion on care of the medically indigent. The way in which this huge burden is financed is grossly inequitable (figures derived on p. 5 of *Final Report*).

Currently, those North Carolina employers who provide health care coverage for their employees, the employees themselves, and other insured or self-paying patients are paying on average at least a 27 percent overcharge to compensate hospitals for patients who cannot pay or who underpay. By 1996, this "cost shift" is projected to double if nothing is done to reform the system (figures derived on p. 5 of *Final Report*).

This "cost shift" represents a hidden tax or cross subsidy and is highly regressive and inequitable. In effect, employers who provide health benefits are paying for health care not only for their employees but also for the employees of their competitors who do not provide health care coverage. In reality, because of cost shifting, all insured North Carolinians are paying very large hidden taxes to support health care services for non-paying and underpaying patients, and all too often those services are being delivered in an ineffective or inefficient manner.

Excessive Health Costs

The problem of rising health care costs is equally serious: it is impossible to separate the problem of access from the problem of high and rapidly escalating health care costs. Historically, in comparison with other states, North Carolina has enjoyed lower-than-average health care costs, but it appears to be losing that advantage. If current trends continue unabated, North Carolinians will spend at least 25 percent of their incomes on health care by the year 2030 (figures derived on p. 7 of *Final Report*).

The current system is replete with examples of waste and excess: up to 50 percent of health spending is to cope with problems that are lifestyle-related, and great strides in holding down costs therefore could be made if people were more responsible about the lifestyle choices they make. It has been estimated that 20 to 30 percent of all medical diagnostic and therapeutic procedures performed are unnecessary or inappropriate: they do not improve our health and in some cases actually harm it. Similarly, the General Accounting Office has estimated that at least 10 percent of health spending is accounted for by fraud and abuse, by both providers and consumers. Fraud and abuse include overcharging by providers; fraudulent diagnoses; billing for services not rendered; and fraudulent filing of claims by consumers. A similar share is related to spending in the last year of life: too much is spent on prolonging life in instances where further treatment might reasonably be regarded as futile and perhaps inhumane. Excess administrative costs account for at least 3 percent of health spending, and a similar amount is spent on malpractice premiums and the additional excess cost associated with defensive medicine (figures derived on p. 9 of *Final Report*). No system will eliminate these excessive costs, but the Forum proposal is designed to minimize such waste.

GENERAL PRINCIPLES

The proposal embodies a set of policy goals and general principles. It asserts:

(1) that all North Carolinians should be guaranteed access to high-quality health care at a relatively affordable cost;
(2) that health care reform should embody an emphasis on individual responsibility, consumer cost consciousness, and consumer choice;
(3) that financing should be done directly, based largely on broad-based taxes and ability to pay rather than indirectly with hidden taxes, cross subsidies or health status;

(4) that the system should promote the utilization of cost-effective prevention and early intervention services and should emphasize personal responsibility for maintaining good health; and
(5) that the financing and delivery of care should be integrated so as to maximize the cost-effective delivery of high-quality care.

THE FORUM PROPOSAL

Basic Health Care Package

The Forum recommends the creation of a permanent Health Policy Commission, which: would make recommendations regarding implementation of this proposed plan; administer the plan ultimately provided for by the General Assembly; and be an on-going resource to State government in the area of health care.

The proposal provides for a Basic Health Care Package intended to cover all cost-worthy medical care that can significantly prevent or cure disease, relieve suffering or correct dysfunction. This plan would include a modest deductible ($250 per person/$750 per family) and 20 percent cost-sharing, with reasonable annual out-of-pocket maximums ($1,400 per person/$4,100 per family). Cost-sharing would be income-related so that low income families would not have to pay an excessive share of their incomes on health care. All families, regardless of income, would be guaranteed that cost-sharing and health taxes for essential health benefits would not exceed 10 percent of family income. To facilitate administration, the system would ultimately include "smart cards" for all patients, standardized claims, and electronic claims submission.

Covered services would include inpatient and outpatient hospital care; ambulance services; medical supplies/equipment; therapy services; physician services; 50 percent coverage of prescription drugs; and full coverage (without deductibles or copayments) of age-appropriate preventive services, maternity and well-baby care. Some coverage for chronic/extended care, mental health and substance abuse services also would be provided. The Health Policy Commission would have the authority to update this Basic Health Care Package.

Tax-Financed Universal Coverage With Managed Competition

The Forum found no compelling logic for the current employer-based approach to providing health care other than historical accident and current state and federal tax advantages which have encouraged this development. Organizing coverage around large groups does achieve some economies and avoids adverse selection. All of these advantages can be retained--and, in fact, expanded to the entire population--by organizing coverage through large purchasing pools and relying on tax-deductible sources of financing such as payroll or income taxes.

The only practicable means of ensuring universal access at a reasonable cost is to make health care coverage compulsory. Each year, every North Carolinian would select a

Community Health Plan (CHP) to join. Individuals would choose among competing qualified CHPs in their geographic area. Each CHP would deliver services through a managed care organization (e.g., HMO or PPO), an insurance company, or a group of health care providers, and would offer, as a minimum, the identical standard package of State-guaranteed benefits (the Basic Health Care Package). CHPs also could offer supplemental benefits packages as well (e.g., for dental services).

A Health Insurance Purchasing Corporation (which would be an administrative arm of the Health Policy Commission) would determine which CHPs are qualified to operate in a given area. The HIPC, both directly and through large employers, would manage the enrollment process by providing each family with standardized comparisons of qualified CHPs in terms of premiums for the Basic Health Care Package, service availability, consumer satisfaction and quality of care. The HIPC would provide a fixed financial contribution to the CHP selected by a family. This fixed contribution would be based on the premium charged by the lowest priced CHP(s) in a geographic area, giving plans a strong financial incentive to be the lowest bidder. Families which chose a plan that costs more than the fixed contribution would be required to pay the additional amount out-of-pocket directly to their plan.

The economic discipline imposed by competition among CHPs is critical to the success of this proposal. The suggested package of benefits would be affordable only if care were managed efficiently by CHPs. Plans which failed to tightly manage utilization and/or costs would likely be too expensive for most families to want to join. In isolated rural areas where competition among CHPs did not adequately exist, the HIPC would have the authority to directly negotiate rates with providers.

The Forum also proposes that North Carolina expand Medicaid eligibility to take advantage of additional federal dollars that can be used to help subsidize coverage for the low-income uninsured. However, the State should seek a waiver to allow all Medicaid beneficiaries to enroll in CHPs along with everyone else. The Health Policy Commission should have the authority to make recommendations to the General Assembly regarding any other waivers required to include all citizens in the system. If and when these waivers are obtained, almost all North Carolinians would be covered by one, integrated health care delivery system based on the concepts of universal access and managed competition.

FINANCING

The proposal provides that the current system of premium-based financing be replaced with tax financing. On balance, the Forum believes that roughly a 50:50 split between payroll taxes and individual income taxes should be considered as an appropriate way to finance health care costs in North Carolina. The payroll tax portion ensures that all

employers and employees contribute something to the system (i.e., 5.0 percent), just as they now must do in order to support Social Security.

The proposal calls for a 4 percent tax paid by employers and 1 percent by employees. The portion to be funded through income taxes can be designed to ensure that the remaining burden is based on ability to pay. All tax revenues for health care will be placed in a Health Care Trust Fund, whose funds will be administered by the Health Policy Commission and may not be used for any other purpose than to provide health benefits to North Carolina citizens.

COST CONTAINMENT

The Forum expects that the proposed system of managed competition will produce strong pressures to reduce unnecessary costs and reduce future utilization and cost increases. CHPs will compete fiercely to become the lowest cost, highest quality plan in order to attract members. The combination of consumer choice and a maximum limit on public contributions toward each plan ensures that public costs can be held to manageable levels, while those who desire additional services or amenities can obtain them by paying for them directly. However, the Forum also recommends a series of additional critically important measures that should be taken to contain health spending.

These include steps to encourage health promotion and disease prevention through consumer education and efforts targeted at specific groups such as high-risk pregnant women. The problem of unnecessary medical care would be addressed through actions to: encourage the development and use of medical practice parameters; reform the medical malpractice system; and encourage greater use of living wills. More cost-effective delivery of care would be achieved by steps to expand the availability of primary care and mid-level providers. Additional recommendations have been made to combat fraud and abuse and to eliminate unnecessary administrative costs by encouraging the development of a system of standardized electronic claims submission.

These measures are imperative if unnecessary, wasteful costs are to be taken out of the current system. "Business as usual" must give way to meaningful reform and some sacrifice on the part of everyone. Not to do so risks a spiraling breakdown in the health care delivery system.

POTENTIAL IMPACT OF FORUM RECOMMENDATIONS

Currently, on an average day, there are more than one million uninsured North Carolinians. After January 1, 1996, no citizen in our State would be uninsured. If federal waivers for Medicaid, federal employees, and military personnel are obtained, all citizens would be covered through Community Health Plans or Medicare. Without such waivers, roughly three-fourths of the population would be in CHPs.

The cost to North Carolina State and local governments to expand Medicaid is $195 million a year (figures derived on p. 39 of *Final Report*). Initially, there will be an additional cost to cover those individuals who are currently uninsured (since they do not obtain adequate care in the current system). This additional investment in care for the uninsured is expected to save 200 lives a year. Moreover, the administrative savings afforded by pooling coverage, and (over time), the cost controls resulting from managed competition and the greater use of organized delivery systems should produce savings that nearly equal or exceed the added costs of covering everyone. These savings are likely to exceed $550 million a year. Thus, in 10 years, if saved and invested, the aggregate savings would amount to $7 billion (figures derived on p. 41 of *Final Report*). Of equal importance, this proposal would result in the infusion of $363 million in additional federal dollars into the North Carolina economy, resulting in an estimated $1 billion of new economic activity. On balance, this proposal would pay for itself in terms of better health and an expanded economy.

CONCLUSION

The opportunity costs for failing to change the health care system are enormous. The Forum believes that State government, industry, and all North Carolina citizens have much to gain and little to lose by changing the way in which health care is financed and delivered. If staying with the current system will cost an additional $7 billion of unneeded costs during the next decade, the Forum believes that advocates of the status quo need to justify why it is worth spending those additional amounts and explain what benefits North Carolina citizens will receive from that expenditure. Proponents of the status quo also should be required to justify how the economy of our State--which is already reeling under the weight of medical care costs--will find the additional $7 billion needed to preserve the status quo. The Forum is well aware that changing the system will not be easy, but those difficulties pale in contrast to the difficulties of finding an additional $7 billion during the next decade when we have so many other critical priorities crying out for attention.

The Forum believes that the time for change has come and that North Carolina should be one of the leaders among states in showing a cost-effective path to a better and healthier future for all of its citizens. It offers this proposal to that end, believing that consideration of a forward-looking, universal health care plan, financed by visible and publicly debated taxes, with sensible cost controls and competition to provide quality care, is far preferable to the cross-subsidized, Byzantine and ineffectual system which currently exists. The Forum firmly believes that if we are successful, this progressive plan could be a key ingredient for future economic development in North Carolina as the State enters the twenty-first century.

ACKNOWLEDGEMENTS

The Forum is grateful for the sponsorship provided by the North Carolina Institute of Medicine. The Forum is further indebted to the Health Care Division of the Kate B. Reynolds Charitable Trust and The Mary Norris Preyer Fund, whose generous financial support made this effort possible. The Forum members served without compensation, but many recognize that they could not have undertaken this responsibility without the understanding and support of their employers:

AFL-CIO
Association of County Commissioners
Bennett College
Blue Cross and Blue Shield North Carolina
James L. Dooley & Associates
Duke University Medical Center
East Carolina University
Elizabeth City State University
Fuqua School of Business, Duke University
Jefferson-Pilot Life Insurance Company
The News and Observer
North Carolina Department of Insurance
North Carolina Department of Environment,
Health, and Natural Resources
North Carolina Division of Medical Assistance
North Carolina Legal Services
Precision Fabrics Group, Inc.
Sara Lee Corporation
William R. Kenan, Jr. Fund
University of North Carolina, Greensboro

The views expressed in this report are those of the Forum and do not necessarily reflect those of our advisors and supporters.

GLOSSARY OF TERMS

"At Risk"--the medically indigent "at risk" include the *uninsured* and *underinsured*. The uninsured include those who have no public or private third-party coverage for medical expenses and must pay for all health care out of pocket. The underinsured include the publicly underinsured (Medicare eligibles who have no supplemental coverage) and the privately underinsured (individuals with private group or individual health coverage who have a greater than 5 percent chance of spending more than 10 percent of annual household income on out-of-pocket health expenses).

Basic Health Care Package--a proposed health benefits package that would be available to all State citizens. This proposed package covers primary care services (including age-appropriate preventive care services) and inpatient hospital coverage, along with more limited coverage for therapy services; chronic/extended care; mental health and substance abuse services; and prescription drugs. The Health Policy Commission would have the authority to update this package and to make decisions regarding specific medical procedures which would be excluded from coverage, based on the best available scientific evidence.

Community Health Plans (CHPs)--health care delivery plans which meet qualifications established by the Health Policy Commission. Qualified CHPs must offer the Basic Health Care Package, but may also market supplemental benefits packages. Qualified CHPs could be offered by insurance companies, health maintenance organizations, health care providers, large employers or other organizations which meet qualification criteria established by the Health Policy Commission (e.g., financial solvency, capacity to deliver care to plan members and quality of care).

Cost-worthy Care--includes all care for which marginal benefits equal or exceed marginal costs for people of average incomes in society. In the absence of empirical evidence regarding cost-effectiveness, a simple test of what constitutes cost-worthy care is to ask economically self-sufficient people whether they would consider such care to be fair treatment if they were impoverished and needed such care. This concept is based on Enthoven (1988) and is consistent with other philosophically derived principles of what constitutes a decent minimum (President's Commission, 1983).

ERISA--Employee Retirement Income Security Act. Federal statute governing employee benefits which has protected employers since 1974 from numerous state taxes and regulations.

Federal Poverty Guidelines--the official U.S. Government definition of poverty based on cash income levels for families of different sizes. These income thresholds are updated each year by the Office of Management and Budget, based on the increase in the Consumer Price Index. The 1992 thresholds are as follows: 1 person--$6,810; 2 person--$9,190; 3 person--$11,570; 4 person--$13,950; 5 person--$16,330; 6 person--$18,710; 7 person--$21,090; 8 person--$23,470. Alaska and Hawaii have higher thresholds.

Health Insurance Purchasing Corporation (HIPC)--a proposed administrative body to be governed by the Health Policy Commission, with responsibility for day-to-day management of a tax-financed managed competition system. Under policy guidance established by the Commission, the HIPC would a) determine which plans qualify as Community Health Plans (CHPs); b) collect standardized data from CHPs; c) oversee annual open enrollment process; and d) monitor plan performance and marketing of supplemental packages.

Health Policy Commission--a proposed independent "quasi non-government" state agency whose members would be appointed by the Governor, Senate and House. This Commission would have responsibility for setting policy regarding the on-going management of a tax-financed managed competition system in North Carolina and providing recommendations to the General Assembly regarding annual tax rates required to finance that system and other health matters.

Poor--persons with incomes below federal poverty guidelines (see above).

CONTENTS

APPENDIX TABLES

I. NORTH CAROLINA RESPONSIBILITY TO ENSURE UNIVERSAL ACCESS TO ESSENTIAL HEALTH COVERAGE

OVERVIEW

The problem of access to adequate health care is too large to ignore. The situation affects everyone in our State and imposes a burden that totals billions of dollars. It will not go away and, if ignored, will get worse. Although we recognize that the issue is enormously complex and that there are no easy answers, we believe that it is imperative that State policymakers address the issue now.

The current system is unfair to everyone. The evidence suggests that those with inadequate coverage receive less than the decent minimum which should be available to all citizens, although we recognize that there is legitimate room for debate regarding exactly what constitutes a decent minimum.

The care which medically indigent patients receive typically is obtained through charity or public programs or financed in part or whole through "cost-shifting"--that is, hospitals, physicians and other providers are compensated for this care through higher charges assessed to their charge-paying patients. The resultant distribution of the burden through cost-shifting is unfair in two ways. First, firms with health coverage subsidize firms with no coverage or inadequate coverage. When workers without any coverage leave unpaid bills, firms with coverage (and their employees) pay the consequences through cost-shifting--in some cases subsidizing their own competition. Second, financing of cost-shifting, particularly hospital cost-shifting, is very regressive: on average, even after taking into account Medicaid coverage and other types of subsidized medical care, poor families face a relative burden six times as great as that for high-income families.

The enormity of the problem and the gross inequities in the current system led the Forum to conclude that it is inappropriate to respond by placing a band-aid on a system that is too often ineffective, inefficient and unfair. The urgency of the task cannot be overstated: if current trends persist for just ten more years, we will spend twice as much as we now do on health care and the number of uninsured will increase by more than 20 percent.[1] Thus, there is an urgent need to get started: we cannot afford to lose precious time by yielding to the temptation to take only modest actions that predictably will fail or to spend years in search of a perfect solution which does not exist.

The proposal that the Forum offers for discussion is not simple, nor will it solve this problem overnight. If there were a simple and obvious solution to this complex problem, it would have been discovered a long time ago. It is precisely because the access problem is so large and so complicated that we believe it is unrealistic to expect that any solution could be simple or that it could solve the problem in a single year. Moreover,

because we can be justifiably proud of much in our medical system, it is appropriate to be cautious about proposing sweeping changes that might jeopardize some of the best features of the current system. For this reason, we have designed a system that avoids government micromanagement of providers and that allows consumers choice of providers.

Our proposal advocates four important improvements in the current system. First, it would establish a minimum level of health care to which all citizens will have access. This alone would be a noteworthy achievement, since it would place North Carolina among only a handful of states which provide such a guarantee.[2] Second, it would establish the principle that everyone in society has a responsibility for securing a certain minimum amount of coverage and cannot avoid that responsibility by opting not to be covered and letting society pick up the tab when their gamble turns out badly. Third, it would ensure that financial barriers would not stand in the way of obtaining timely and adequate preventive and primary care--particularly for those with the lowest incomes. Finally, it would establish that paying for health care should be based in part on ability to pay and that no one should be excessively burdened by health care costs. Thus, in the case of individuals who cannot afford their own coverage or care, this plan follows the principle that for financing indigent care it is preferable to rely on visible and publicly debated taxes rather than on the byzantine system of hidden taxes, subsidies and cost transfers.

While the Forum recognizes that this proposal contains elements that will be controversial to some people, the plan has been crafted in a way that key players in the system will gain something and lose something relative to the current system.

- *Patients* will be given the security of eligibility for comprehensive care at an affordable cost, but they will also be given more responsibility for making choices that entail a balancing of costs, quality and access.

- *Employers* and their employees will no longer have to underwrite shifted costs if the proposal is fully implemented. Employers will largely be free from providing health care insurance, but they are being asked to help finance the plan using a fixed payroll-based tax.

- *Providers* will be assured of payment, regardless of whom they treat and should be subject to less burdensome paperwork and administrative costs. They also will face greater competition based on quality, service and efficiency, which will require changes in how they do business.

- *Third-party payers* will have to bring value (quality, service and lower cost) to the system, but those who do will have opportunities to expand their markets.

- o *Government* will be better able to manage its costs under an integrated system that avoids the fragmentation and confusion of the current system, but with this improved system comes greater responsibility for setting the level of minimum benefits and the rules of the game.

In evaluating this proposal, the issue is not whether this is a *perfect* solution. There is no perfect solution. Indeed, that is why the health care crisis is steadily growing worse. Democratic governments work slowly and painfully when the action required is choosing among unattractive options. Our starting point must be to recognize that all options are flawed but one must be chosen. The status quo is unacceptable.

The key is whether on balance this proposal is likely to be an *improvement* over the current system. The Forum recognizes that there are both transition costs and opportunity costs involved in implementing this proposal. However, we believe that this proposal is a sufficient improvement over the current system that it deserves full discussion and debate.

FEDERAL ROLE

Why should the State of North Carolina take action on this issue when it is both a state and federal responsibility? There are several reasons. The first is that *a federal solution may not appear soon*. Notwithstanding the recent heightened interest in health care issues, there are serious differences of opinion regarding the appropriate approach to deal with this serious problem. There appears to be a growing consensus that universal coverage is a human right, but it appears that there will be a fierce debate about which approach is best. A second reason is that, regardless of what federal policymakers decide, *states are likely to retain a significant responsibility in health care financing and delivery*. This is certainly true of President Clinton's plan as it was outlined during the campaign, but even single-payer proposals contemplate that each state would serve as a single payer for its citizens. States would have major responsibilities for enrollment and negotiation of payment rates with providers. A third reason is that *waiting is very expensive*--because rapid cost escalation is continuing, because cost shifting is continuing to grow, because the problem of inadequate health coverage is steadily getting worse in the absence of intervention and because the current system includes too much back-end care that could have been avoided if individuals had better access to preventive and primary care. A fourth reason is that North Carolinians need an improved system for accessing health care. The unmet human needs are well documented. Finally, a well-conceived and well-managed health care delivery system in North Carolina can be an important advantage for economic development in our State.

The Health Access Forum is concerned that certain federal laws and regulations, such as ERISA (see Glossary), place constraints on states willing to tackle this problem.

Nevertheless, because of federal inaction and in spite of such barriers, State policymakers must take action.

THE ACCESS PROBLEM

Size and Characteristics of the Medically Indigent

The medically indigent are those who cannot fully afford to pay for their own care. Those who are "at risk" of becoming medically indigent include those who are *uninsured* (i.e., have no third party coverage for health expenses) and those who are *underinsured* (i.e., have inadequate third party coverage; see Glossary). In North Carolina, more than one million are uninsured on an average day (EBRI, 1992), and during the past two years, roughly one-fourth of the population has been uninsured at some period of time.[3] There are an additional 865,000 who are underinsured.[4]

Despite an increase in Medicaid eligibles of nearly 90 percent between 1985 and 1991, Medicaid still falls far short of assisting everyone who is medically indigent.[5] Even among the poor (see Glossary), less than half are covered by Medicaid in a typical year, leaving 260,000 poor who are uninsured on an average day.[6] Compared to other states, the North Carolina Medicaid program continues to have among the strictest eligibility standards in the nation.[7]

But the problem of medical indigency is not restricted to the poor: in fact, the chance of being uninsured among the poor in North Carolina has been reduced by Medicaid expansions. The chances of being uninsured among the poor exceeded 40 percent in 1985, but declined to below 30 percent by 1990.[8] In contrast, the problem of lack of coverage is growing fastest among the near-poor and middle class as the number of people covered through employer-based coverage shrinks. In fact, *three-fourths of the uninsured are either workers or dependents of workers.*[9]

Most of the employers that do not provide coverage are small firms, which typically must pay at least 15 percent more than large firms for the identical level of health benefits coverage.[10] As a consequence, small firm workers are twice as likely as those in large firms to be uninsured.[11] Moreover, workers without coverage tend to be disproportionately low-skilled and are therefore paid relatively low wages: fully 80 percent of uninsured workers have only a high school education or less, and more than 60 percent earn less than $10,000 a year.[12] Thus, if their employers do not make a substantial contribution toward coverage, they are not likely to be able to afford to buy coverage on their own.

Barriers to Access

Those "at risk" face significant barriers to obtaining adequate health care at an affordable cost. Even though they are sicker than the general population, those "at risk" receive 30 to 50 percent fewer physician and hospital services than their counterparts

with private third party coverage (U.S. Congress, OTA, 1992). They are particularly likely to defer preventive and primary care. This can have an adverse impact on their health: uninsured babies are 30 percent more likely than those with private coverage to die or have extended hospital stays (Braverman, 1989), and uninsured hospital patients in general are at least 44 percent (and as much as 124 percent) more likely to die in the hospital than those with private coverage (Hadley, 1991).

Apart from the adverse effect of barriers to access on health, decisions to scrimp on needed care can be costly to society: it is well-established that $1 spent on prenatal care provides at least $3 in "back end" savings through lower use of neonatal intensive care and other expensive medical procedures (IOM, 1985). Similarly, a Washington, D.C. study found that fully one fourth of all hospital use by uninsured patients is medically preventable or avoidable (meaning that such patients could have avoided a hospital stay altogether if they had received more timely and adequate primary care; see Billings and Teicholz, 1990).

Financial Burden of the Medically Indigent

The financial burden posed by the medically indigent is staggering: fully one-fourth of all health spending in North Carolina subsidizes care for those who cannot fully afford to pay for their own.[13] In 1992, subsidized care in our State probably amounted to over $3.7 billion (including the amounts we pay for Medicaid, public programs that serve the medically indigent, and uncompensated care losses experienced by hospitals, physicians and other providers; Table E-15).[14]

Roughly half of this subsidized care is paid through public taxes. Over $2 billion is buried in a complicated system of "hidden taxes" such as cost-shifting (Table E-15).[15] Consider, for example, how hospital care is now financed. In North Carolina, a typical privately insured hospital patient who pays full charges now is paying a hidden "tax" or overpayment of at least 27 percent in order to finance care for the many patients who pay less than the cost of their care (including Medicare, Medicaid, and charity patients, and those leaving behind bad debts). In 1991, on average, this hidden tax amounted to more than $2,300 per admission for full-pay patients. By 1996, this "cost shift" is projected to double if nothing is done to reform the system.[16]

This hidden tax or overcharge is inequitable for many reasons. First, this cost-shifting falls on employers who provide health care coverage. They *and their employees* are subsidizing others, even their direct competitors, who do not provide health care coverage. This is becoming increasingly understood by companies looking for a favorable state in which to locate. Second, the cost shift is more regressive than nearly any other kind of public tax now in use (including property taxes and sales taxes). Under the cost shift, the share of income paid by poor families to finance the cost shift is more than six times as large as the burden imposed on families with incomes over 400 percent of poverty (Conover *et al.*, 1992). Third, unlike most taxes, the cost shift is not

the same at every hospital. Facilities with greater indigent patient loads and/or a smaller private patient base onto which to shift costs must impose an add-on to private patient charges that is well in excess of 40 percent. In the long run, as private payers become increasingly price senstitive, these facilities will be at a competitive disadvantage relative to their neighbors, and they will face a painful choice between cutting back on their care of indigent patients (to retain enough private patients) or continuing to sustain indigent care losses (and thereby risk going out of business).[17]

Thus, it is clear that the current system of financing is both inherently inequitable and unstable.

THE COST PROBLEM

The Forum was convened to address the access issue, but it quickly became apparent that it is impossible to separate the problem of access from the problem of high and rapidly escalating health care costs. Public opinion polls suggest that the general public is more concerned about health costs than about access to care (Lundberg, 1991).

Current Health Spending Levels

Despite the highest per capita health care spending in the world, the U.S. lags behind many other industrialized nations in basic measures of health status, such as infant mortality rates and life expectancy (U.S. Congress, CBO, 1992a). Part of our higher costs can be attributed to relatively more severe social problems that have a great impact on health spending. These include higher rates of teenage pregnancies, higher levels of violence, "crack" babies and AIDS--all of which add billions to our health spending (Schwartz, 1991). Likewise, there is no question that higher spending in the U.S. gives insured Americans better access to high-tech services than their counterparts receive in other nations, including open-heart surgery, cardiac catheterization, organ transplants, radiation therapy, MRI machines and lithotripiters (Rublee, 1989). However, the uninsured do not have the same access to these potentially life-saving technologies (Holahan, 1991), and there is ample evidence that many of these technologies are being overutilized in the current system (Greene, 1991).

Part of the cost differential relates to the relatively high compensation of providers in the U.S. compared to other countries. For example, the average U.S. physician earns nearly 5.5 times as much as the average U.S. worker, whereas in Germany physicians earn only 4.3 times as much as other workers, and in Canada, they earn only 3.7 times as much. In Japan and England, physicians earn less than 2.5 times the average annual employee compensation (U.S. Congress, CBO, 1991).

The fundamental question that these comparisons raise is whether we are getting good value for the sums being spent on health care.

North Carolina is a microcosm of these national patterns. We can be proud that we have some of the finest medical care in the entire world in our own State. Indeed, people come from around the world to be treated at major teaching hospitals in our State because of their reputation for delivering high-quality care.

Current Cost Trends

What is of serious concern is that *North Carolina may be losing its margin of advantage.* For example, the largest single component of health care--hospital costs--grew almost 20 percent faster in North Carolina than in the rest of the nation between 1980 and 1990. Thus, whereas the share of North Carolina income devoted to hospital care was slightly *below* the national average in 1980, today that burden is nearly *identical* to the national average (Table E-12). If this same trend has occurred in other elements of health spending, then the relative burden of health spending in our State (compared to our ability to pay for it) will exceed the national average before the end of this decade.

In 1990, North Carolinians spent at least $1800 per person for health care (Families USA, 1990).[18] By the end of the decade--assuming no change in current economic, demographic and utilization trends--per capita spending will rise to $4200. Because health costs are rising much more rapidly than incomes, the share of income spent on health care will rise from 11.3 percent in 1990 to nearly 25 percent in 2030.[19] It is highly questionable whether devoting such a high share of our income to health care is a wise investment of our resources.

Lack of Incentives to be Cost-Conscious

The major reason that health costs are too high and continue to rise too rapidly is market failure. Neither consumers nor providers are cost-conscious because they are often insulated from the consequences of their decisions. The current health care delivery system has been based on having no budget, with inadequate restraints on the provision and consumption of services. As a result, providers define what services are needed, determine their availability, drive their consumption, and set prices for them. The predictable result has been rapidly escalating, out-of-control costs.

Consumers are largely covered by third party payment and therefore have little reason to consider either the real need for care or prices when choosing a provider. In addition, medical care is so complex that the patient must depend on the physician for decisions that account for over 70 percent of medical costs (Enthoven, 1979). But there are few instances in the current system in which a patient is rewarded or even can obtain information about which doctors are relatively more efficient or which offer better quality for a given level of cost. Hence many consumers make their selections in the mistaken belief that the higher the cost, the better the quality.

Third-party payers have competitive incentives to control their claims and administrative costs. Unfortunately, many insurers have found it far more profitable to compete on

product differentiation and risk selection (or avoidance) rather than through efforts to curtail the cost of either health benefits or administration. This situation becomes worse every year as employers become increasingly price-sensitive and more willing to switch carriers in order to find the lowest rates. Some third-party payers are attempting to organize more cost effective networks of providers and/or are trying to manage (directly or indirectly) cost and utilization. Yet the wide variety of products and types of payment arrangements, the complexity of products, and the general lack of comparable data significantly limit what otherwise should be the salutary effects of competition in this area.

Employers have strong incentives to hold down costs, but equally strong anxieties about displeasing employees. Since health benefits are fully tax-deductible, employers are under constant pressure to maximize health coverage (non-taxable compensation to employees) in lieu of higher cash wages (which are fully taxable to employees). Although some employers have pursued limited managed care options, many employers have avoided aggressive cost containment measures which run the risk of antagonizing employees or they simply have not known how to pursue cost containment in the current complex fee-for-service system. Instead, too many employers find it simpler to respond to rising health costs by shifting more of the financial burden of paying for coverage to the employee.

Physicians are concerned primarily with the health of the patient and have little incentive to consider costs because neither they nor their patients directly pay the bill. There is no mechanism in the current fee-for-service system to encourage physicians to balance medical benefits against costs in deciding how to treat a particular patient, and physicians' fears of malpractice claims have caused extensive defensive medicine practices. As a consequence, experts believe that one-fourth to one-third of tests and medical procedures performed on insured patients in the current system are inappropriate or unnecessary, meaning that the medical benefits of such procedures do not exceed the medical risks of doing them (Brook, 1991). Because of physician uncertainty about what works, there is an enormous variation in the amount of treatment that doctors prescribe for patients who have the same disease. Because patients want and expect the best care rather than efficient or economical care, there is little reason for physicians to be conservative in ordering tests or procedures.

Hospitals today are largely paid by third parties and are generally assured of receiving sufficient revenue to cover expenses regardless of how inefficiently services are delivered or how they are priced compared to competitors. As long as they attract doctors (who in turn provide patients) and can shift costs, hospitals incur virtually no risk of going out of business. To attract doctors, hospitals often purchase an excess of the latest equipment, which can result in costly duplication with neighboring facilities. Moreover, having attracted new doctors, hospitals can then expand their bed supplies based on the expected increase in patients brought in by the additional staff, and this further drives

up costs. In the fee-for-service system, the incentive is for physicians and hospitals to do more than is economically prudent, and recent efforts to contain costs by seeking discounts or reducing payments to providers simply shift and exacerbate the problem.

The State, like the federal government in these tight budget times, has a strong incentive to be cost-conscious. Yet in North Carolina, the State still purchases the vast majority of its medical services (via Medicaid and the Teachers and State Employees Health Plan) on a fee-for-service basis, when more cost-effective payment and delivery mechanisms are possible. The State should take the lead in establishing and/or utilizing the most efficient payment and contracting mechanisms in purchasing needed services for its citizens.

Waste and Excess in North Carolina

Some specific examples of waste and excess in our State are worth summarizing (these are elaborated in Section VI). Up to 50 percent of all health care costs are lifestyle-related, and great strides in holding down costs could therefore be made if more people were more responsible about the lifestyle choices they make. Roughly 20 to 30 percent of all medical procedures are unnecessary or inappropriate: they do not improve our health and in some cases actually harm it. It has been estimated that at least 10 percent of health spending is accounted for by fraud and abuse, by both providers and consumers. Excess administrative costs account for at least 3 percent of health spending, and a similar amount is spent on malpractice premiums and the additional excess cost associated with defensive medicine.[20]

There is no single party to blame for this dismal situation: most everyone contributes. The result is a health system that encourages consumers to seek more care than they need without concern about costs; rewards physicians who provide more and more care; in many ways penalizes primary and preventive care; and fails to penalize doctors or hospitals that offer inefficient or excessively costly care. As a consequence, "up to 20 percent of all medical care performed in the United States may be unnecessary or harmful" (Office of the President, 1992). Other estimates put the amount of waste in the current system (including excess administrative costs) at one-fourth or higher (Consumer Reports, 1992). One nationally prominent physician who through the RAND Corporation has conducted numerous studies of unnecessary care concluded that "one-fourth to one-third of care given to insured Americans falls into the inappropriate or equivocal area in which medical benefit does not exceed medical risk" (Brook, 1991). Until these misdirected incentives are rechanneled, the health cost spiral will continue to persist.

In short, there is no single, simple answer to the health cost crisis, but in designing a system to expand access, we need to be sensitive to these issues and take care to ensure that we do not make these already large problems even worse.

II. POLICY GOALS AND GENERAL PRINCIPLES

POLICY GOALS AND OBJECTIVES

All citizens of North Carolina should have access to cost-worthy (see Glossary) high-quality health care at an affordable cost to their families.

The State of North Carolina should define "affordable cost" in terms of the fraction of annual family income devoted to obtaining adequate health care, including family expenditures for health insurance premiums and out-of-pocket medical expenses, but excluding indirect costs such as transportation, child care or other support services used to obtain adequate health care.

GENERAL PRINCIPLES

The following summarizes the basic principles that underlie the Forum proposal regarding the financing of health care coverage.

Access to Essential Health Care

- Because health care is fundamental to the productivity, independence, and well-being of the citizenry, society has a responsibility to ensure that basic health care is available to its members, regardless of economic status.

- Every person should be able to obtain health care on a timely and systematic basis. No one should be denied access to cost-worthy care for financial reasons.

- Individuals who choose to do so and can afford to do so should have an opportunity to purchase health care services more extensive and expensive than those included in the Basic Health Care Package guaranted by the State.

Financing Essential Health Care

- The cost of achieving equitable access to health care ought to be shared fairly. No family should face the risk of being bankrupted because of a catastrophic injury or illness. The healthy should share in the cost of adequate care for the less healthy: health insurance premiums or taxes should be independent of a person's state of health.

- The insurance system should spread the risks for medical expenses across the widest practical base, thus ensuring that no individual or group bears a disproportionate expense. People with greater financial resources should share the cost of care for those with fewer financial resources. No one should be excluded from receiving care because of arbitrary characteristics such as family or welfare status.

Health Care Delivery System

- Proposals for system reform should build on the strengths of a system that provides the highest-quality health care in the world. Such proposals should rely on current structures to a maximum extent consistent with achieving control of costs, access, and quality. It is preferable to rely as much as practicable on the private sector rather than socialize the delivery of health care services.

- Incentives are preferable to regulatory controls as a means to expand access, control costs, and improve quality. The system should promote consumer choice to ensure that the health care system is responsive to the needs and concerns of all citizens.

- Competition in the current health care system often leads to higher costs not lower costs. If the State's health care system is to remain private, changes must be made in it so that competition promotes service, quality and lower costs; the economic signals present within the system must point in that direction, as they normally do in a free market setting.

Individual Responsibility

- Individual consumers should be educated, informed, allowed and then assisted in managing their own health care expenditures.

- Cost discipline must be built into efforts to expand access, and consumers should share in the financial consequences of their choices. However, out of pocket costs should be minimized for those unable to pay.

- The system should promote the utilization of cost-effective prevention and early intervention services and should emphasize personal responsibility for maintaining good health.

Cost Control

- Because of misdirected incentives which encourage waste and excess in our current system, health care services are consuming too much of our nation's wealth and are rising too rapidly in cost. It is imperative for the State's government and taxpayers that growth in State budget expenditures for health care be capped at an affordable rate.

- For purposes of maximizing both the efficiency and cost-effectiveness of the health care delivery system, strong emphasis must be placed on primary care and, more broadly, managed care. The system should discourage the provision and consumption of unnecessary or inappropriate health care services.

- The system should encourage more cost-effective delivery of care when appropriate, including the substitution of primary care for specialty care; greater use of mid-level practitioners (e.g., nurse practitioners, nurse midwives, physicians' assistants); and wider use of alternatives to inpatient care (e.g., freestanding ambulatory surgical centers, birthing centers).

Quality

- Our system for dealing with medical malpractice must be reformed in order to reduce the number of malpractice incidents, ensure reasonable and efficient compensation for injured parties, protect against costly and unfair abusive malpractice claims and reduce the wasteful costs for defensive medicine.

- Better information about the appropriateness of medical care and the comparative performance of health care providers must be generated and disseminated to improve our control over the quality of that care.

The public and private sectors should share in the responsibility for attaining the objective that all individuals have access to cost-worthy health benefits. There is no easy solution or approach to achieve that objective; all options have unattractive aspects. It is an historic anomaly that availability and funding for private health care in the U.S. are obtained largely through employers. There is no more logic for tying health care to employment than for making employers responsible for the provision of food or shelter for their employees. Employers and insurers cannot manage or even greatly influence the total cost of health care services under the fragmented fee-for-service system which exists today in North Carolina and the rest of the nation.

It is important for the business community and others who provide or pay for third party coverage and health care services to understand that, through cost shifting by providers, they are already paying for much of the health care being provided for the poor and for others who are uninsured in North Carolina. This cost shift is an inequitable, hidden tax. In a real sense, through this hidden tax, employers who provide coverage for their employees, and their employees themselves, are also providing coverage for the employees of employers who do not provide coverage.[21] Moreover, uninsured individuals often receive health care belatedly and in a high-cost, inefficient manner. Overall health care costs can be reduced, with economic benefits for society as a whole, by earlier intervention, and by greater emphasis on primary care and providing appropriate levels of care in appropriate settings.

The hidden tax/cost shift cannot be eliminated altogether, but its extensive nature and future rate of growth can and should be reduced through more direct funding and a more efficient, economical system for providing health care services to the uninsured. In designing a plan, there is a need to emphasize (a) system economics, (b) the net cost

to the ultimate payers for the services provided, and (c) providing effective services in a well-organized manner to meet human needs.

Cost containment must be an integral part of overall health care planning in North Carolina. Without cost containment, it will be practically impossible to finance adequate or even minimal additional health care services for poor citizens. In expanding coverage, North Carolina should maximize the use of federal Medicaid dollars.

HEALTH POLICY COMMISSION

The Forum proposal envisions the creation of a permanent Health Policy Commission, that would make recommendations regarding implementation of this proposed plan, administer the plan as ultimately provided for by the General Assembly, and be an on-going resource to State government in the area of health care. A major function of the Commission will be to provide policy guidance to and oversee the Health Insurance Purchasing Corporation (HIPC) for the State. The respective duties of the Health Policy Commission and HIPC are detailed in Section IV. The Commission must be an independent "quasi non-government" State agency comprised of public-minded individuals (e.g., similar to the SEC). This structure ensures that the Commission will be free from day-to-day interference while still accountable to elected political officials.

The Commission should include no more than 7 members, including both public members and those whose backgrounds represent employer payers, public health, hospitals, providers and third-party payers. Public members are defined to be those who do not represent employer payers, public health, hospitals, providers or third-party payers. Employer payers and public members should comprise a preponderance of the Commission's membership. Care should be taken to ensure that Commission members are individuals who understand the direct and indirect costs of poor health and who appreciate the necessity for cost-effective health expenditures. Members would be appointed by the Governor, the Senate and the House; and the Commission would report jointly to the Governor and the General Assembly. Members would be appointed for six-year, staggered terms with one-third of its members rotating off every two years.

The Commission's focus should be North Carolina public interest and public policy related to health care, including, but not limited to, oversight of the access program. Commission members need not initially have extensive expertise in the health care field, but they should be highly qualified individuals who make a commitment to serving at least a full term on the Commission and to developing a broad and deep understanding of health care issues and competing public interests. In order to carry out their responsibilities, the Commission would have a full-time professional staff with technical skills similar to those employed by the federal government to provide technical support to the Physician Payment Review Commission and Prospective Payment Review Commission.

III. BASIC HEALTH CARE PACKAGE

OVERVIEW

The Forum suggests a health insurance benefits plan which contains the cost-worthy health benefits that should be available to all North Carolinians. The Forum believes that all North Carolinians should have access to health care services. This package should include all cost-worthy medical care that can effectively prevent or cure disease, relieve suffering or correct dysfunction. The Forum believes that initially this standard of care could be provided under the benefits provided by an enhanced version of the small group reform law's standard benefit plan (e.g., by adding 50 percent coverage for prescription drugs). In the long run, if we are to have a truly seamless and efficient medical care delivery system, coverage for long-term care would be incorporated as part of the Basic Health Care Package, but that is not proposed here.

The Forum recognizes that there are many alternative approaches to curbing excessive use of health services, including the use of patient cost-sharing, utilization review or alternative financing arrangements with providers. The goal is to allow a diversity in approaches, but to protect those with low incomes from being unduly burdened by out-of-pocket expenses. In the current system, income-related cost-sharing is too administratively cumbersome and costly to be done at the point of service (but it could be done retrospectively through the income tax system so that no family spends more than 10 percent of income on cost-worthy health care in a year). However, within a few years, a system where everyone uses a smart card to obtain care will make it feasible to adjust deductibles, copayments and out-of-pocket expenses by income level at the point of service.

BASIC HEALTH CARE PACKAGE

The following discussion outlines the benefits that should be available to every citizen of North Carolina. The Health Policy Commission should have the authority to update this benefits package and to make decisions regarding specific medical procedures which would be excluded from coverage, based on the best available scientific evidence. The Health Policy Commission would decide which particular services/procedures would be covered and under what circumstances.

The Benefits Plan suggested by the Forum covers primary care services, including age-specific preventive care services recommended by the U.S. Preventive Health Services Task Force (1990). The plan includes inpatient hospital coverage and limited coverage for therapy services, chronic/extended care, mental health and substance abuse services, and prescription drugs.

To hold down the premium cost, the plan includes modest deductibles and 20 percent cost-sharing on most services. However, there would be no lifetime maximum on benefits offered, and annual out-of-pocket expenses would be limited to $1,400 per person and $4,100 per family. Furthermore, for those below poverty, cost-sharing would be limited to the cost-sharing now required in the State's Medicaid program.[22]

Detailed Benefit Provisions
Most covered medical expenses are subject to an annual deductible and coinsurance, unless otherwise noted.

- **Deductibles**--deductibles could not exceed $250 per person and $750 per family.

- **Coinsurance**--patients would be expected to pay no more than 20 percent of allowable charges for most covered expenses, up to the maximum out-of-pocket limit. Flexibility in patient cost-sharing allows plans which wish to do so to use cost-sharing incentives to encourage patients to make greater use of primary care and/or alternative providers.

- **Maximum Out-of-Pocket Limit**--out-of-pocket expenses would be limited to $1,400 per person and $4,100 per family.

Cost-sharing for those below poverty is restricted to Medicaid-allowable amounts (i.e., nominal amounts for prescription drugs and physician visits). For those above 250 percent of poverty, cost-sharing and health taxes may not exceed 10 percent of family income. For those between 100 percent and 250 percent of poverty, cost-sharing would be limited to a sliding scale between 0 and 10 percent of family income.

All essential benefits plans would be offered without a waiting period or exclusions for medical conditions. Plans would be expected to make provision for out-of-area care (including out-of-state care, if needed), based on guidelines developed by the Health Policy Commission. The following medical expenses should be covered. All plans may permit pre-certification of selected benefits as noted.

Inpatient Hospital Services--at least 80 percent coverage of semi-private room and board costs; all intensive care unit costs; radiology services; laboratory tests; medical supplies; operating/recovery room for all medically necessary (as determined by peer review), non-experimental surgery and anesthesia; radiation therapy and drugs/medicines (plans may restrict use of such drugs to a formulary if non-formulary drugs can be substituted at the request of the attending physician). Private duty nursing would not be covered. Pre-certification of all inpatient services is permitted.

Outpatient Services--at least 80 percent coverage of preadmission tests; radiology, pathology; outpatient surgery (pre-certification is permitted) and emergency room. A $25

deductible would be charged for emergency room visits, but this would be waived if the patient were admitted to the hospital.

Ambulance Services--at least 80 percent coverage of ambulance/rescue squad services for medical emergencies (including air ambulance) after a $50 deductible per use.

Medical Supplies/Equipment--at least 80 percent coverage in inpatient and outpatient settings of blood/plasma; medical supplies; medications; casts and dressings. Partial (at least 50 percent) coverage of the rental (but not to exceed total cost of purchase) or, at the option of the plan, the purchase of Durable Medical Equipment (DME) when prescribed by a doctor within the scope of license and required for therapeutic use and determined to be medically necessary by the plan. The fact that a doctor may prescribe, order, recommend, or approve a service or supply does not, of itself, make the service covered service or medically necessary, even though it is not specifically listed as an exclusion. Only the patient's (insured) medical condition is considered when deciding which setting is medically necessary. Prosthetic devices would be covered (at least 80 percent) only if internally implantable, and orthotic devices would be covered after a $400 deductible per person.

Therapy Services--at least 80 percent coverage of therapy services is limited to 2 months per year for conditions subject to improvement during that time. Pre-certification is permitted for all therapy services.

Physician Services--at least 80 percent coverage of inpatient visits; all medically necessary (as determined by peer review), non-experimental surgery and anesthesia; organ transplants (limited to procedures approved for Medicare coverage and any additional procedures approved by the Health Policy Commission); office visits; specialty care; X-ray and laboratory services; family nurse practitioners, certified nurse midwives, physician's assistants; 50 percent coverage for spinal skeletal services.

Prescription Drugs--partial (at least 50 percent) coverage of all prescription drugs, at the prevailing generic price where available. Full coverage of prescription drugs would be provided for those below poverty, as is now provided under Medicaid, and sliding scale coverage would be provided for those between 100 percent and 250 percent of poverty. Payment would be limited to the lowest available price and dispensing fee. After initial operating experience is obtained, the Health Policy Commission should explore the potential cost-effectiveness of adopting a prepaid pharmacy program.

Preventive Services--full (100 percent) coverage (with no deductible) of periodic physical examinations and other health screening (e.g., immunization, ear examinations, and vision screening for children), as recommended by the U.S. Preventive Services Task Force *Guide to Clinical Preventive Services*. In instances where there is conflict between

USPSTF recommendations and those of other credible scientific groups, the issue should be resolved by the Health Policy Commission on the basis of cost-effectiveness criteria.

In instances where USPSTF recommendations regarding frequency of services are expressed in terms of a range (e.g., a visit every 1 to 3 years), plans may restrict coverage to the more conservative recommendation (e.g., a visit every 3 years). The essential benefits plan should provide coverage for well-child visits for children between age 2 and 18 no more frequently than once every three years, except where USPSTF guidelines provide for more frequent visits for high-risk children.

Pregnancy-Related Services--full (100 percent) coverage (with no deductible) of maternity care (pre-natal and post-natal), licensed birthing centers and well baby care to age 2 years. Full coverage (100 percent) for sterilization (excluding reverse sterilizations), contraceptives and family planning services.

Chronic/Extended Care--at least 80 percent coverage of up to 100 days/year of skilled nursing facility services (after a $500 deductible which is waived if confinement immediately follows an inpatient hospitalization); home health services and hospice services.

Mental Health--at least 80 percent coverage for up to 5 inpatient days and at least 50 percent coverage for up to 25 additional days per year; at least 50 percent coverage for outpatient visits up to a maximum of 25 visits per year (payment would be based on a maximum charge per visit not to exceed $60).

Substance Abuse--at least 80 percent coverage for medical detoxification services.

Cost Containment

It is expected that most plans will contain certain cost containment provisions, but they are not required to do so. Examples include:

- Case management component, including use of primary care gatekeepers.
- Utilization review, including use of pre-authorization for hospital admissions.
- "State-of-the-art" efforts to detect fraud and abuse, with particular emphasis on preventing provider conflict of interest.
- All cost containment provisions that have been demonstrated to be cost-effective, as determined by the Health Policy Commission.
- Negotiated fee schedules.

- o Practice parameters or protocols.

Because of competition, Community Health Plans (see Glossary and section IV for discussion) would have strong incentives to develop efficiencies while providing high quality care. The Health Policy Commission shall have the authority to allow CHPs to make use of incentives (e.g., rebates) or disincentives (e.g., higher premiums or cost-sharing) to encourage healthier lifestyles. In making this decision, the Commission shall take into account the efficacy, efficiency and equity implications of such incentives.

ASSESSMENT OF BASIC HEALTH CARE PACKAGE

Overview

In developing the Basic Health Care Package, the Forum balanced affordability with comprehensiveness of coverage. Although most consumers might prefer a system in which care was "free" at the point of service, all the evidence suggests that in the absence of tight controls on utilization, the result of "free" care is excessive utilization. Patient cost-sharing is one way to curb excessive use. On the other hand, too much cost-sharing may become a barrier to seeking timely preventive or primary care and/or expose families to too much financial risk. The best scientific evidence suggests that "optimal" health insurance coverage (i.e., coverage which balances the costs of excess care against the costs of too much risk) consists of roughly 20 percent cost- sharing after a modest deductible (Keeler, *et al.*, 1988). The Forum has attempted to structure the proposed Basic Health Care Package in accordance with this insight.

However, because of concerns that financial factors lead too many individuals in our current system to defer preventive and primary care, the Forum also wants to ensure that such services are well covered. Thus, cost-sharing has been waived for preventive services of demonstrated cost-effectiveness. Because the recommended frequency of such services is based on recommended guidelines developed using the latest scientific evidence, the Forum is less concerned about "overuse" of such preventive care, and therefore there is no good rationale for using cost-sharing for such services.

Premium Cost

In order to estimate accurately the current cost of this proposal, the Forum has obtained actuarial estimates of the premium required to offer this benefits plan through a large plan. For a traditional fee-for-service plan, the monthly premium cost for single coverage in calendar year 1993 would be $118 for single coverage and $38 per child (or an average cost per member of $98 per month). Alternatively, in a group model HMO, for a plan with similar coverage but different cost-sharing features, the premium cost per member in 1993 would be roughly $118 per month.[23] The Forum believes that this premium represents a reasonable trade-off between comprehensive benefits and affordability.

One way to evaluate this premium is to relate it to current wage levels. The projected premium cost is *18 percent lower* than the single premium now being paid for State employees.[24] For a typical State worker, the estimated single premium under the Forum proposal amounts to 5.6 percent of payroll, while that for family coverage amounts to 14.1 percent.[25] More than one-third of uninsured workers earn less than 125 percent of the minimum wage. For a full-time minimum wage worker (i.e., an individual earning $8,840 per year), the $118 monthly premium amounts to 16 percent of earnings, while a family premium would equal *40 percent* of that worker's wage. It is precisely to avoid making health care coverage too burdensome on individual families that the Forum proposal provides that the State adopt tax-based financing of the minimum essential benefits plan, to ensure that everyone contributes based on ability to pay.

IV. UNIVERSAL ACCESS TO HEALTH COVERAGE

OVERVIEW

The Forum concluded that the only practicable means of ensuring universal access at a reasonable cost is to make insurance coverage compulsory. This conclusion was based on findings from other states that have attempted to expand coverage through use of tax credits targeted at businesses or individuals.[26]

However, each of the three standard approaches to compulsory coverage is flawed.[27] The Forum has concluded that the only approach that ensures universal access to high-quality care at an affordable cost is one which combines the best features of all three standard approaches but avoids their respective flaws.

The Forum plan is, admittedly, a blueprint. There are many nuts-and-bolts decisions that will need to be made to put such a system in place. It is imperative, however, to have a destination in mind before a road map can be constructed. North Carolina must define where it is trying to go in health care. The Forum has attempted to define a system that holds the promise of being effective, efficient and fair.

It is recognized that the federal government will continue to exert immense influence on health care delivery systems, that federal rules and mandates have changed dramatically in the past and that they may change again in the future. The Forum plan is consistent with trends on the federal level today, but North Carolina must stay abreast of what changes may occur on the federal level and try to ensure that State actions are not jeopardized by federal activities.

Although universal coverage is the ultimate goal, it cannot be implemented overnight. Without specifying an exact timetable for implementation, the Forum recommends that Medicaid expansions be pursued as quickly as practicable and that the remaining components of universal coverage based on managed competition be enacted in 1993 and made effective January 1, 1996.

A 21ST-CENTURY HEALTH SYSTEM FOR NORTH CAROLINA

The Forum proposes a unified health care system which would be managed by a private/public partnership of employers, consumers, providers and government. Health care would be publicly guaranteed but privately delivered. Employers would no longer be responsible for making health insurance coverage available. However, a combination of payroll taxes and income taxes would ensure that the burden of paying for care is spread widely and fairly.

Consumers would select from among competing Community Health Plans (CHP), each of which would provide, the standard package of State-guaranteed benefits, i.e., the Basic Health Care Package. This would allow consumers to make an "apples-to-apples" comparison among different plans.[1] Supplemental benefits packages (e.g., vision and dental care) would be available to those who wished to pay out-of-pocket for such coverage. Unlike the current system, there would be no pre-existing condition exclusions or waiting periods, and consumers would not have to pay higher premiums due to poor health, age, or sex. The delivery of care would remain in private hands, and most consumers would receive care from the same private providers that provide their care today.

This structure will reverse the current perverse incentives in which competitive forces--illustrated by the "medical arms race"--lead to increased costs. Under the new structure, Community Health Plans that are not effective in curbing unnecessary, excess use of technology and/or medical procedures will have higher costs and fewer customers. Unlike the current system, in which providers who do more get paid more, the new structure will reward plans which are effective in matching medical resources to the needs of the population they enroll. In isolated rural areas where competition among plans does not adequately exist, the Health Insurance Purchasing Corporation would have the authority to regulate the acquisition of technology and directly negotiate rates with providers. Currently, in addition to any indemnity plans which may include managed care components, more than 90 percent of the population lives in counties served by two or more HMOs and 75 percent live in counties with 3 or more such plans (see Appendix D). Thus, even ignoring any new plans that are likely to emerge under this managed competition structure, most North Carolinians would be able to select among at least three alternative delivery plans in addition to any fee-for-service plans in their area.

This proposal blends competition and regulation in an ideal way: regulation is used to ensure a level playing field and fair playing rules for competition, so that the current system's misplaced incentives are redirected in favor of keeping costs low and quality high. Normal competitive factors which lead to better quality and lower costs in our free market economy would then better apply in the health care field.

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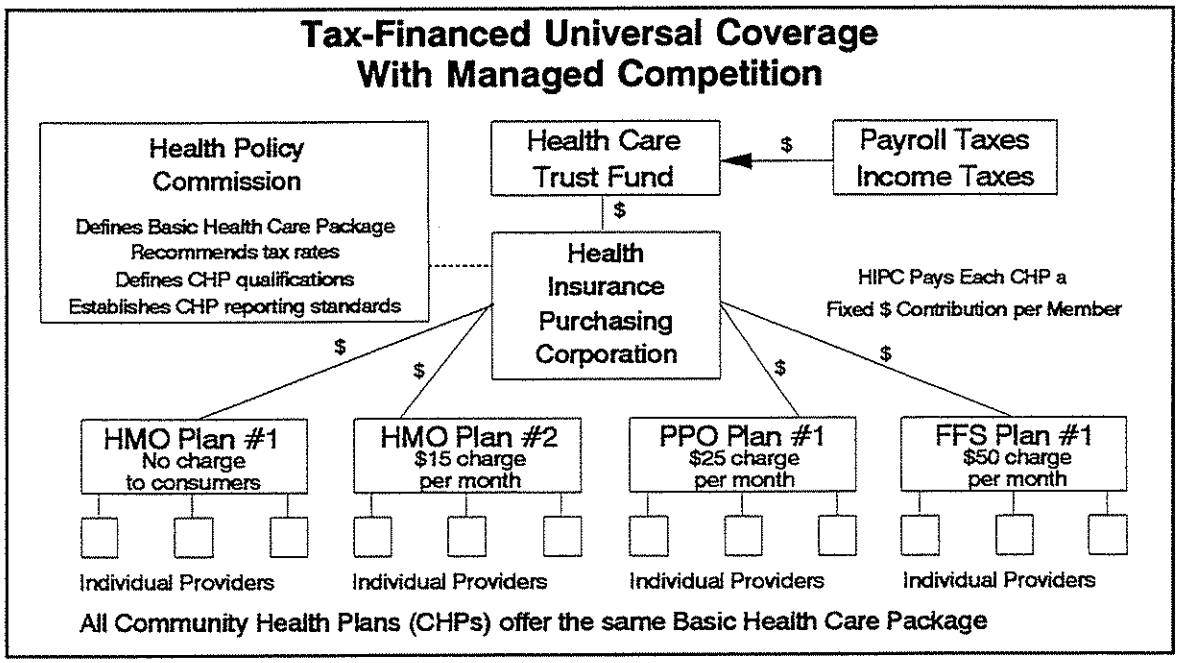
[1] As noted earlier, the Basic Health Care Package offered through HMOs would differ somewhat from the Basic Health Care Package offered through conventional fee-for-service plans. However, the Health Policy Commission would ensure that these two packages are actuarially equivalent in order to allow fair competition between different types of plans.

TAX-FINANCED UNIVERSAL COVERAGE WITH MANAGED COMPETITION

Competition Among Qualified Community Health Plans

Each year, every North Carolinian would select a Community Health Plan (CHP) to join. Individuals would choose among competing qualified CHPs offered by private payers in their geographic area.[28] To qualify, all CHPs must offer the Basic Health Care Package but they may also offer supplemental benefits packages as well (e.g., for vision or dental benefits).[29] The Basic Health Care Package would be similar to an enhanced version of the small group reform law's standard benefit plan.



Qualified CHPs would be selected by a Health Insurance Purchasing Corporation (this HIPC would be an administrative arm of the Health Policy Commission), based on standard criteria established by the Health Policy Commission (e.g., financial solvency, capacity to deliver services to their enrolled population, and quality of care), just as third party carriers now must demonstrate to the Department of Insurance that they meet minimum criteria in order to do business in North Carolina. Qualified CHPs might include traditional fee-for-service plans (such as those now offered by non-profit and commercial carriers) as well as coordinated care plans such as health maintenance organizations (HMOs) and preferred-provider organizations (PPOs). Qualified CHPs could be offered by insurance companies, health maintenance organizations, health care providers, large employers (see below) and other organizations meeting Health Policy Commission requirements.

The HIPC would impose minimal, if any restrictions on how a CHP might be organized or on which providers participate so long as the CHP has the capacity to deliver or

arrange the delivery of covered services or benefits to its enrollees within a specified service area. Each CHP would also have to make provision for out-of-area care. Providers (e.g., physicians) would be free to contract with one or more CHPs to make their services available.

Plans would compete on price, quality and service. Each CHP would receive from the HIPC a fixed contribution per enrollee. The amount of this fixed contribution would be established by the HIPC based on premium bids received from each participating CHP. The fixed contribution would be designed to ensure that in most geographic areas (e.g., a region or metropolitan area) anyone could choose from at least two plans without having to pay any additional out-of-pocket premium.[30] Thus, in difficult-to-serve areas, the fixed contribution may have to be higher in order to induce providers to serve those living in such areas.[31] In addition, to minimize incentives for "cream-skimming" or the risks of adverse selection, these fixed contributions could be adjusted for age, sex, and possibly for known health status.[32] The HIPC would have the authority to determine what adjustments are appropriate, taking into account the administrative feasibility/costs of fine-tuning these fixed contributions.

The HIPC will provide families with standardized comparisons of qualified CHPs whose service area includes that family's county of residence. For each plan, the HIPC would provide summary information on premiums, service availability (e.g., hours of operation), measures of quality (including both outcome information and consumer satisfaction measures), and quality of service measures (e.g., claims turnaround times and accuracy, disposition of grievances).[33] Just as the State Employee Health Plan now does, each CHP would be given a chance to include one page of advertising in this comparison booklet.

However, to avoid risk selection and cream-skimming, the HIPC and large employers (over 100 employees) would be responsible for enrolling each individual into the CHP of their choice. That is, to preserve the economies of scale afforded through an employment-based enrollment process, all employers with 100 or more employees would be required to manage the enrollment on behalf of their respective employees and their dependents and provide the HIPC with a list of enrollments for each plan. Since virtually all such employers already offer health benefits plans and are now performing this enrollment function, this requirement is not expected to be a significant additional burden to such employers. In contrast, it would be relatively more efficient for the HIPC to perform this function on behalf of smaller employers. The HIPC would then notify the CHP of its membership at the end of the open enrollment period, and would remit the fixed contribution for all members directly to the CHP.

If an individual selects a plan that is more expensive than the fixed contribution, that individual will be responsible for paying the additional amount out-of-pocket (and it will be the responsibility of the CHP, not the HIPC, to collect these added premium

amounts[34]). The additional amount paid would be the same for all individuals joining a particular plan, regardless of their age, sex or health status.[35] In order to encourage competitive bids, plans which have made bids for an amount that turns out to be higher than the fixed contribution would *not* be permitted to waive payment of these additional premium amounts in order to attract more plan members.[36]

The Forum recognizes the unique issues related to multi-state employers or very large employers which have developed or may develop innovative health care financing and/or delivery arrangements. It is not the intention of this proposal to stifle such innovations or to introduce unwelcome complications in how employers deal with the health benefits available to their employees. Therefore, any employer--assuming it could meet the same standards applied to other CHPs--would have the option of contracting directly with the HIPC to serve as a CHP or sponsor for its own employees and would be paid the same risk-adjusted amount as any other qualified CHP. An employer which provided its own CHP could, but would not have to, open its plan to other members of the community. An employer which served as a sponsor for its employees (i.e., selected which CHPs to offer to its employees) would be required to offer at least three choices of CHPs to its employees, including at least one HMO.[37] Note that employers taking advantage of this provision still would be expected to pay the same amount of payroll tax, in order to avoid adverse selection.[38]

An employer with an existing health plan has the following options under this system: a) pay taxes and do enrollment only; b) pay taxes, do enrollment and set up a cafeteria plan or tax deductible medical expense account for employees to assist them in paying for supplemental coverage or out-of-pocket expenses; c) pay taxes, do enrollment and pay for supplemental coverage for employees; d) pay taxes, do enrollment, and serve as a sponsor for employees (e.g., evaluating plans on the basis of quality and educating employees about how to make choices); or e) pay taxes, do enrollment and serve as a CHP for employees. In short, the system would provide a wide range of choice regarding the role that an employer could play in providing health benefits.

These provisions ensure that coverage is purchased in the most cost-effective way. If an employer can arrange for care less expensively than the HIPC (either because of how it arranges benefits or holds down administrative costs), it makes sense for that employer to do so. Nevertheless, given the very large membership in the HIPC purchasing pools, it is likely that most employers will find that it is less expensive to let their employees obtain coverage through CHPs qualified by the HIPC. Therefore, very few large employers will likely find it attractive to serve as their own CHP.

Health Insurance Purchasing Corporation

The Health Insurance Purchasing Corporation will be the administrative component of the Health Policy Commission and will carry out the rules established by the Commission under which private carriers would compete fairly over price and quality.

That is, the HIPC may be thought of as an administrative arm of the Health Policy Commission and subject to general policies and procedures established by the Commission. In general, the marketplace--not the Health Policy Commission or HIPC--will dictate how carriers deliver care and how much providers are paid.

The duties of the Health Policy Commission will include:

- Define the Basic Health Care Package and annually review the need for changes.
- Establish general qualifications for CHPs (e.g., financial solvency and quality).
- Establish general standards for the types of information that may be required by the HIPC on utilization, quality, consumer satisfaction and other information needed to facilitate consumer choice, effectively monitor plan performance, and assist in the development of medical practice guidelines.
- Establish the fixed contribution that would be paid by the State on behalf of each citizen, including any needed risk adjustments so that plans are not encouraged to avoid high-risk patients.
- Report annually to the General Assembly about health matters (e.g., cost, quality and access trends), including recommendations regarding State tax revenues needed to fund fixed contributions for each citizen.

The duties of the HIPC will include:

- Determine which plans qualified as CHPs in a given area, based on general criteria established by the Commission and using business judgment in determining the numbers and identities of CHPs.
- Manage the solicitation and evaluation of premium bids from CHPs.
- Obtain standardized data from each CHP to facilitate consumer choice, monitor CHP performance and facilitate the development of medical practice parameters.
- Prepare explanatory materials and plan comparisons (e.g., information on quality, satisfaction) to facilitate meaningful consumer choice of plans.
- Oversee the annual open enrollment process to ensure that large employers (100 or more employees) carry out enrollment responsibilities and that all others in HIPC area have selected a CHP.

- Monitor the marketing of supplemental packages of services which will be available for purchase (e.g., dental, vision, mental health, prescription drugs and long-term care) and make recommendations to the Commission regarding any anti-competitive practices.[39]

STEPS TO ACHIEVING UNIVERSAL COVERAGE

Medicaid Expansion

North Carolina can cover up to 255,000 new eligibles (of which 146,000 are now uninsured) through various Medicaid expansions now permitted under current federal regulations (Table E-4). The Forum recommends that Medicaid eligibility be expanded on a phased-in basis (but as rapidly as possible) to cover everyone below 100 percent of poverty. The priorities should be: (1) aged, blind, disabled below 100 percent of poverty; (2) children under age 18 to 185 percent of poverty; and, thereafter, (3) increased income standards for AFDC (to 75 percent of poverty) and the medically needy (to 100 percent of poverty).

Although it is desirable to expand Medicaid eligibility in order to take advantage of the additional federal dollars that could be used to help subsidize coverage for the newly covered, the ultimate goal should be to eliminate Medicaid as a separate program by giving Medicaid beneficiaries the opportunity to select among the same privately sponsored Community Health Plans being used by the general population. This step would eliminate the many barriers to access faced by Medicaid eligibles who in the current system too often have difficulties finding providers to serve them. However, in order to retain the federal funding which now pays for roughly two-thirds of Medicaid costs, a Medicaid waiver must be obtained. The Forum has been advised that such a waiver can likely be secured if the Forum's overall proposal is implemented.

Medicare Coverage

Likewise, the long-run goal should be to guarantee the same level of coverage to Medicare enrollees as is provided to the non-elderly population. Here again, however, a federal Medicare waiver would be required in order to allow Medicare funds to be funneled into the system and to permit Medicare beneficiaries a choice among competing CHPs. The federal government is likely to grant such a waiver if the State can demonstrate that the federal payment for Medicare beneficiaries will be no higher under the new system than under the current system--a standard which we believe our proposal will meet.

There are, however, many complicated issues that would need to be resolved if State-guaranteed benefits were to be "wrapped around" existing Medicare coverage. These issues relate to primary/secondary liability, benefit design, financing and how to address fairly the question of coverage for retirees who move into or out of the State. The

Health Policy Commission would make recommendations to the General Assembly regarding when and how to integrate Medicare into the new system.

Federal Employees/Military Personnel

Under the current system, nearly 60,000 federal employees and their dependents (through the Federal Employees Health Benefits Program) and roughly 100,000 active-duty military personnel and their dependents (through CHAMPUS) have access to a defined level of benefits. These individuals, along with a number of veterans or their dependents who are eligible for CHAMPVA coverage, could be covered through CHPs only if an arrangement could be worked out with federal officials. The Health Policy Commission would have the authority to negotiate an arrangement with the appropriate federal agencies.

Summary of Coverage

Even assuming no waivers for Medicaid, Medicare, federal employees or military personnel, nearly three-quarters of the population would purchase coverage through the HIPC.[40] Moreover, even in the unlikely event that *all* employers in firms with more than 100 employees elected to act as a sponsor for their employees (i.e., serving as their own HIPC), this would reduce the HIPC pool by 2,000,000 employees, leaving more than 43 percent of the population in the HIPC pool. Even in this worst case scenario, the HIPC would have a high degree of leverage in disciplining the market. For this reason, most employers are likely to find it advantageous to purchase coverage through the HIPC.

V. FINANCING

CURRENT SYSTEM OF FINANCING CARE FOR THE MEDICALLY INDIGENT

How To Improve Current Spending on the Medically Indigent

The share of personal income devoted to paying for care of the medically indigent is roughly 11 percent higher in the rest of the nation than in North Carolina (Table E-2).[41] However, North Carolina's spending is roughly comparable to the average within the region and exceeds that of its immediate neighbors by 10 percent. What is particularly notable, however, is that North Carolina spends one third less than other states on Medicaid but nearly 20 percent *more* than those same states on hospital losses due to Medicaid. Even compared to the region, we spend 11 percent less on Medicaid benefits and 135 percent more on Medicaid hospital losses.

Suppose we decided to reduce our Medicaid hospital losses to the regional average. If we took the same amount of extra dollars that we now pay hospitals through cost-shifting to make up for their Medicaid losses and channeled them into the Medicaid program, we could increase Medicaid spending by 16 percent (i.e., $273 million, of which $183 million would be new federal spending). Thus, *without any increase in State/local spending on indigent care*, we could increase the resources available to assist the medically indigent by $183 million. Such an expansion is nearly *half* of the amount needed to provide for the maximum allowable expansion of Medicaid (short of raising income standards, which would be very expensive)--covering 255,000 new eligibles (of which nearly 146,000 are now uninsured).

Public Support for More Spending to Achieve Universal Access

But maximum expansion of Medicaid would address only 14 percent of the uninsured problem. How can the State obtain funding for the remaining 900,000 uninsured? As a general matter, raising taxes is not a popular idea. Yet public opinion surveys have shown repeatedly that Americans *are* willing to pay higher taxes to assure universal health coverage. Indeed, if one extrapolates from a very recent survey conducted by the Health Insurance Association of America, the results would justify additional taxes of at least $227 million (and perhaps as much as $380 million) in North Carolina (Table E-3). Assuming that the 20 percent of the uninsured with incomes above 300 percent of poverty do not need any subsidy, this amount is enough to subsidize 30 percent of the cost of a very comprehensive managed care plan for every remaining uninsured individual. When added to the subsidies now available to a typical uninsured person in the current system, this would provide enough funds for more than 75 percent of a very comprehensive health benefits plan.

FINANCING THE HEALTH ACCESS FORUM PROPOSAL

Sources of Financing

The decision about how to fund this proposal must recognize the realities of the current federal tax system, which subsidizes employer payroll taxes somewhat more heavily than income taxes. The share of payroll taxes which is shifted outside of North Carolina due to tax deductibility is roughly 34 percent, while for income taxes it is roughly 22 percent (Table E-8). On the other hand, while the efficiency loss from payroll taxes is basically the same as for income taxes (28 percent), equity questions would be raised by a system that was financed entirely from payroll taxes, since it would exempt some very wealthy individuals who rely exclusively on non-wage sources of income.

On balance, the Forum believes that approximately a 50:50 split between payroll taxes and individual income taxes is an appropriate way to finance health care costs in North Carolina. The payroll tax portion ensures that all employers and employees contribute something to the system (e.g., 5 percent), just as they now must do in order to qualify for Social Security. The income tax portion can be designed to ensure that the remaining burden is based on ability to pay.

To fill the gap between revenues raised through a 5 percent payroll tax and the total cost of universal coverage requires that current income tax rates be raised by 4.3 percentage points. Since the top tax rate now is 7.75 percent, this would require a State constitutional amendment to allow income tax rates to exceed 10 percent. If this posed obstacles, an 80:20 split of payroll and income tax funding would be required in order to stay within the current 10 percent ceiling on income taxes (Table E-10).

All tax revenues for health care will then be placed in a Health Care Trust Fund, which may not be used for any other purpose than to provide health benefits to North Carolina citizens.

Annual Tax Amount

Each year, in advance of the open enrollment period, the HIPC would receive bids for the Basic Health Plan from CHPs. Based on these bids, the HIPC would determine the total amount of revenues needed to provide fixed contributions that would cover the full premium for the lowest cost plans. If the required contributions exceeded projected revenues, the Health Policy Commission would have five options: it could a) make use of a "rainy day fund" that was built up each year that revenues exceeded contributions; b) recommend that the General Assembly increase taxes; c) reduce the scope of covered benefits; d) limit the fixed contributions to available revenues, recognizing that each plan enrollee will have to pay some amount out of pocket (even for the lowest cost plans); e) use rate regulation or budget caps. By determining what taxes to impose or not impose, the General Assembly would, in effect, cap the State budgetary amount for annual increases in health care spending.

Payroll Taxes

All North Carolina employers and employees will make a payroll tax contribution: 4 percent for employers and 1 percent for employees. Employers which elect to supplement coverage for their employees are free to do so either by a) creating a cafeteria plan (which allows employees to allocate pre-tax dollars toward the purchase of a supplemental benefits package of their choice); b) negotiating directly for a supplemental package (e.g., dental) to be provided to all employees; or c) increasing employee pay.

Income Taxes

Income taxes would be increased by the additional amount needed to fully fund the system. Current estimates suggest that the added income tax rate (above and beyond the current effective income tax rate of 6.4 percent) would need to be 4.3 percent (Table E-10).[42]

VI. COST CONTAINMENT

OVERVIEW

The restructuring of the health financing and delivery system proposed by the Forum will go a long way toward holding down the costs of medical care in North Carolina. However, there are additional steps which should and must be taken to ensure that avoidable and unnecessary costs are kept to a minimum under the restructured system. The following recommendations stand apart from the Forum proposal for tax-financed universal coverage with managed competition insofar as any of these recommendations can (and should) be adopted regardless of whether the state retains the current system, adopts incremental reforms or moves in the direction suggested by the Forum.

HEALTH PROMOTION AND DISEASE PREVENTION

The single greatest problem in our current system is unhealthy lifestyles. Roughly half of all deaths each year are potentially postponable, and better control of just a few lifestyle factors--including exercise, better prenatal care, use of seat belts, better diets, and abuse of tobacco, alcohol and drugs--could prevent between 40 and 70 percent of all premature deaths (Office of the President, 1992).

Unhealthy lifestyles have an enormous impact on costs as well, since up to 50 percent of current health expenditures are attributable to preventable diseases which could be reduced if individuals chose healthier lifestyles.[43] For example, in our State alone, more than $1.1 billion of our health spending in 1993 can be attributed to smoking; injuries add nearly $800 million to medical costs; another $566 million can be attributed to high cholesterol; alcohol abuse accounts for nearly $300 million as well; high blood pressure costs $465 million; AIDS costs over $100 million; and drug abuse accounts for nearly $100 million. In short, better control of these lifestyle factors alone has the potential for influencing more than $3 billion (nearly 20 percent) of the State's health spending in 1993 (all figures derived in Table E-11).

Recommendation #1: All North Carolinians should be informed on personal health care issues such as life-style modifications and preventive care, and also on issues of access and availability of services. We call on public health departments, educational systems, community hospitals, private providers, and all relevant agencies to utilize State and local media sources to promulgate the above.

Recommendation #2: Community Health Plans (CHPs) should initiate measures for the early detection and education of high-risk pregnant women such as the model programs now being offered through certain third-party carriers, self-funded programs, and HMOs. The Governor's Commission on Reduction of

Infant Mortality should redouble its efforts to target women not in employer-based plans for similar efforts so that high-risk women are identified early and given appropriate prenatal and support services.

EXCESS MEDICAL CARE

The current system is enormously wasteful. Experts believe that one-fourth to one-third of all tests and medical procedures performed in the current system are inappropriate or unnecessary, meaning that the medical benefits of such procedures do not exceed the medical risks of doing them (Brook, 1991). Roughly 20 percent of all medical care, which in North Carolina would amount to $3.2 billion in 1993, may be unnecessary or harmful (Office of the President, 1992). There is an enormous effort underway nationally to scientifically assess the efficacy of alternative medical procedures and to develop practice parameters which will guide physicians in providing high-quality care.

A significant part of the problem contributing to this excess care is the medical malpractice system. Notwithstanding the fact that North Carolina enjoys among the lowest medical malpractice insurance rates in the country, in 1993 North Carolina will spend one-half billion dollars for malpractice premiums and for the cost of defensive medicine practices used by providers to avoid the risk of being sued.[44]

Aside from the sheer cost of the current tort system, the evidence suggests that it is very error-prone, bringing suits against many physicians who do not deserve to be sued and failing to compensate 14 out of every 15 patients who are victims of actual negligence (Weiler, Newhouse and Hiatt, 1992).

A related problem concerns medical practices that provide a small amount of benefit, but at an enormous cost. For example, nearly 20 percent of hospital costs are spent on the last year of life, which in North Carolina would amount to more than $1 billion a year.[45] Although the system certainly has improved, too much is still spent on prolonging life in instances where further treatment might reasonably be regarded as both futile and perhaps inhumane.

Recommendation #3: The Health Policy Commission, on the recommendation of the State Health Director, will approve medical practice parameters that have been shown to be successful and cost-effective. The Forum recognizes the value of developing better medical practice parameters to both improve the quality of care and avoid unnecessary expense. The Forum believes that development and refinement of guidelines should be done by medical professionals, but the Health Insurance Purchasing Corporation should have the authority to obtain standardized information on utilization and outcomes to facilitate the development of such guidelines. This information should be collected in such

a way that analyses can be performed based on individual patient characteristics. Confidentiality of such data must be strictly safeguarded.

Recommendation #4: North Carolina tort laws should be amended to provide that adherence to State-approved practice parameters is an absolute defense against allegations that a provider did not comply with accepted standards of practice in the community. The State of North Carolina should adopt the collateral source rule in cases involving medical malpractice, and should also adopt a no-fault medical malpractice tort compensation system based on strict liability (Weiler, Newhouse and Hiatt, 1992).

Recommendation #5: The State of North Carolina should actively promote the use of living wills and other advance directives. The Health Policy Commission should consider ways to promote greater use of such measures (including sending information with tax returns or allowing new Medicare beneficiaries to sign up when first enrolling in Medicare) and how to establish a repository of such directives (e.g., using a microchip on drivers' licenses or each individual's CHP enrollment card).

MORE COST-EFFECTIVE DELIVERY OF CARE

There is a general consensus that the U.S. health care system relies too heavily on specialty care and that shifting the mix of providers to greater reliance on primary care providers would be more effective and efficient than the current system. Likewise, there is extensive evidence that mid-level practitioners can provide equivalent quality care at a lower cost than physicians. For example, physician assistants can handle roughly 80 percent of what a physician can do at a cost per patient that is one-half to two-thirds less expensive. Likewise, nurse practitioners can deliver care at roughly two-thirds to four-fifths of the cost of providing the same services through a physician. Even after accounting for the costs of physician supervision of mid-level practitioners, they are less expensive than physician care (U.S. Congress, CBO, 1979). Similarly, there are many alternatives to inpatient care which offer care that is considerably less expensive without sacrificing quality, including freestanding ambulatory surgical centers, birthing centers, and home health.

Recommendation #6: The Health Policy Commission should recommend to the General Assembly steps to encourage a greater supply of primary care residents and other mid-level practitioners through loan forgiveness or other means.

Recommendation #7: The Health Policy Commission should recommend to the General Assembly measures to reduce legal, regulatory and other barriers to greater use of mid-level practitioners.

FRAUD AND ABUSE

Fraud and abuse are estimated to account for 10 percent of all health spending (GAO, 1992) and therefore will amount to more than $1.6 billion in North Carolina in 1993. Fraud and abuse encompass a number of different practices, including overcharging for services through upcoding or unbundling, billing for services not rendered, improperly acquiring or soliciting drugs, and willfully rendering inappropriate or unnecessary services.

Recommendation #8: The State of North Carolina should adopt HIAA Model Provider Anti-Fraud Legislation (attached).

EXCESS ADMINISTRATIVE COMPLEXITY

Another serious concern is high administrative cost associated with the complex system of financing care through numerous (and sometimes overlapping) third-party payers. Although the vast majority of coverage is provided by the 20 largest firms, North Carolina has a total of 700 different third-party carriers which offer some sort of health insurance plan. The combined costs of health insurance administration and the administrative share of costs for hospitals and physicians amount to nearly $2 billion of our State's health costs.[46] Clearly, not all of this is waste, but most observers agree that these administrative costs could be trimmed by at least one-fourth (i.e., $500 million) through measures such as claims standardization, electronic billing and a less balkanized payment structure. Moreover, a system of standardized, computerized medical records promises to improve quality and to reduce unnecessary care by roughly 5 to 10 percent--or up to $320 million a year in North Carolina (Office of the President, 1992). A national effort is now underway to agree upon standards for electronic billing, which are expected to be developed within the next two years.

Recommendation #9: The State of North Carolina should enact laws providing for coordination of benefits/subrogation to avoid duplicate payments for a single service. Coverage through health benefits plans, workmen's compensation, automobile liability insurance and other types of third-party coverage for health expenses should be better coordinated to avoid double recovery for medical bills.

Recommendation #10: The State of North Carolina should mandate a uniform claim form, the UB82 (soon to be UB92) and the HCFA 1500, for hospital and physician claims.

Recommendation #11: The North Carolina Department of Insurance should position the State so as to implement standards for claims standardization and electronic claims transmission as quickly as feasible once national standards have been established.

IMPROVED REGULATION

The Forum examined a wide range of alternatives for regulation, ranging from controls on physician fees to global budgeting for hospitals. The current evidence on hospital rate-setting suggests that overall health costs are 14 percent lower in states with hospital rate-setting (Lanning, Morrisey and Ohsfeldt, 1991; U.S. Congress, GAO, 1992). Yet though Maryland has one of the oldest and most successful hospital rate-setting systems in the country, North Carolina matched Maryland's record in holding down health costs between 1976 and 1990.[47] For this reason, and because there may be some technical problems in replicating the Maryland experience in our State, the Forum opted to recommend giving managed competition a chance to work before resorting to heavy regulation. If competition is tried and found inadequate, it makes sense to then try regulation.

> **Recommendation #12:** The Certificate of Need (CON) should be reconstituted and strengthened. It should apply to all providers. It should use the State umbrella to encourage provider cooperation instead of competition aimed at escaping antitrust prohibitions and should give attention to manpower utilization, including programs that would encourage physicians to practice in rural areas.

It is vital that these reforms be adopted, which require everyone to give a little in order to improve the system for all. These reforms are needed in the public interest regardless of whether more fundamental changes in the health care financing and delivery system are adopted. Changes are needed in the tort system and other institutions in order both to reduce costs and improve quality. The cost savings from many of these reforms can be significant, but because they are longer term and cannot easily be estimated, they are *not* reflected in the discussion of costs and cost savings which follows. In the long run, implementing these changes should result in cost savings which more than offset the modest incremental costs associated with providing universal coverage.

VII. POTENTIAL IMPACT OF FORUM RECOMMENDATIONS

ESTIMATED COVERAGE OF THE UNINSURED

Of the 1,000,000 uninsured in 1992, more than 200,000 (20 percent) could be covered through the maximum possible expansion of Medicaid. Roughly 146,000 of these could be covered without raising AFDC payments. An additional 71,000 could be covered only if North Carolina were willing to raise AFDC payments by $724 million each year (of which more than $250 million would be paid by State and local government and the remainder by the federal government) and increase Medicaid spending by almost the same amount. Of the 146,000 maximum uninsured who could be covered, most have incomes below federal poverty guidelines, and the remainder have incomes below 185 percent of poverty (Table E-4).

If federal waivers are obtained, all Medicaid eligibles would be allowed to select a Community Health Plan in which to enroll each year. Likewise, federal waivers or approval would be needed to include Medicare beneficiaries, federal employees, and those covered by military plans (CHAMPUS/CHAMPVA). If all these groups are included, the entire population would be enrolled in Community Health Plans. If none of these groups is included, CHPs would cover roughly three-fourths of the population.

ESTIMATED COST OF COVERAGE

The gross new state and local funds that would be required amount to nearly $650 million a year. They consist of the funds needed for Medicaid expansion, new costs for the uninsured and underinsured, and HIPC administrative costs.

Medicaid Expansion

The full cost of the maximum feasible Medicaid expansion is $1.6 billion, of which nearly $557 million would have to be paid by State and local taxes. However, nearly half of this cost is due to the increase in welfare payments to AFDC families. If it were decided that it is not worth paying $724 million in added welfare payments to cover an additional 71,000 uninsured (plus 58,000 insured), then the total cost of the Medicaid expansion would be only $558 million, of which $195 million would be financed through State and local taxes. This latter amount will cover 255,000 new eligibles, of which 146,000 are uninsured.

Universal Coverage for the Uninsured and Underinsured

In 1993, the gross annual cost of coverage for the uninsured is $1.2 billion (1 million uninsured multiplied by the $1,176 annual premium cost). However, the current system now provides $675 million in subsidized care for the uninsured, including more than $300 million through public programs (e.g., local health departments), $164 million in hospital uncompensated care losses and $191 million in losses to physicians and other providers

(Table E-15). Moreover, the uninsured themselves pay for some care out of pocket. Therefore, the *net* cost of covering the uninsured (above and beyond what is being spent currently) is likely to be less than $350 million. For those who are underinsured, the added cost probably would be $88 million.

HIPC Administration

In addition, roughly $25 million in net new costs would be needed for administrative costs of the HIPC to carry out the functions intended for it (all remaining administrative costs for the competing CHPs are already reflected in the $98 monthly premium estimate and any enrollment costs now incurred by employers already are reflected in the current system).

ESTIMATED COST SAVINGS

The preceding costs *overstate* the net amount of new state or local funding that would be required. Cost savings can be grouped into three basic categories: a) administrative savings from pooling the purchase of coverage through the HIPC; b) reduced preventable hospitalizations; and c) managed care savings. All told, these savings amount to $555 million.

Administrative Savings from Pooling

Although exact savings will vary by plan, it is reasonable to expect that average administrative costs for CHPs will not exceed 7 percent.[48] Based on reasonable assumptions regarding current administrative costs for self-employed individuals and firms of varying sizes, the administrative savings from pooling are likely to exceed $200 million (Table E-14).

Reduced Preventable Hospitalizations

Another potential source of savings is through improved primary care access. A study in Washington, D.C. found that one-fourth of all hospital use by the uninsured is medically preventable. Even if the share of preventable hospitalization were only one-half as high, the total savings in North Carolina would amount to $23 million (Table E-13).

Managed Care Savings/Cost Containment

There is no way of stating precisely the magnitude of the savings that would be achieved through a structure of managed competition or the other cost-containment recommendations contained in Section VI. For example, the Congressional Budget Office estimates that if the *entire* population received care through staff- or group-model HMOs, total savings would amount to 10 percent of total spending (U.S. Congress, CBO, 1992). In North Carolina, this would amount to $1.6 billion a year. However, there is no way of predicting what fraction of the population ultimately would be enrolled in such tightly managed health care networks. Currently, the state with the highest HMO

penetration (California) has only one third of its population in HMOs, after more than a decade of strongly encouraging the development and proliferation of such plans. Moreover, enrollment in group and staff model HMOs amounts to less than 20 percent (Marion Merrell Dow, 1992). In North Carolina, only 5 percent of the population is in HMOs, thus leaving much room for growth. However, it is extremely unlikely that HMOs could obtain 100 percent of the market. If group/staff HMO penetration reached California levels, the net savings could amount to 2 or 3 percent of health spending (roughly $240 to $340 million a year in North Carolina).

Net Cost of Forum Proposal

Even taking into account all plausible sources of savings, it is impossible to expand coverage to one million uninsured without spending more money initially. The net cost of the Forum proposal to North Carolinians is estimated at roughly $93 million a year--or less than $100 per uninsured person. The Forum believes that the benefits that this step would bring to the uninsured would alone make it a worthy investment. Based on what we know about the failure of uninsured individuals to obtain adequate preventive services, a universal coverage plan in North Carolina will save at least 200 lives each year among the uninsured.[49] If this proposal has the expected effect of encouraging greater preventive care among the currently insured as well, the number of lives saved would be far greater. If one considers the impact on morbidity--fewer days lost from school and work--the human capital savings from universal access more than justify this modest expenditure.

Even if we consider only the lives saved, the Forum proposal represents a commitment to invest $93 million a year to save 3,800 years of life or $24,000 per added year of life. This is less than the cost of saving lives through many highway safety improvements and is less than one-half of the $57,000 cost per added year of life saved due to State-mandated tire inspections (Table E-16). If we as a State have money to invest in the latter activities, then it is hard to justify not being able to find a way to afford universal access to health coverage.

From another angle, consider just the $555 million in annual savings that adoption of the Forum proposal could achieve in the current health delivery system. In the context of the $18 billion we will spend on health care in 1993, these savings may seem like a small sum, but if this amount were saved and earned just 5 percent interest a year, the aggregate savings in ten years would amount to almost *$7 billion*. An alternative way to look at this is to consider that by failing to restructure the current delivery system so that it delivers care more cost-effectively, we will spend $7 billion more than we need to during the next decade. The Forum does not believe that this is money well spent, since it basically represents a continuation of the waste and inefficiency in the current system. The Forum proposal captures these savings and invests them on behalf of the uninsured (adding to that amount an estimated additional $456 million a year in new health-related spending--of which $363 million is paid by the federal government).

Impact on North Carolina Economy

Overall, the Forum proposal will increase health spending by an estimated $521 million a year (including $363 million in federal matching dollars for Medicaid expansion) and will thereby boost employment in the health sector. Conversely, however, the proposal will impose a 4.0 percent employer payroll tax on 470,000 uninsured workers who currently contribute nothing toward health insurance coverage. In the long run, most of this cost will be absorbed by workers themselves in the form of lower wages.[50] But even assuming a "worst case" scenario in which labor costs rise by 4.0 percent, the most extreme estimate of job losses resulting from this new tax is 5,600 workers (compared to 150,000 who are unemployed on an average day).[51] But at the same time, the Forum proposal reduces the employer payroll contribution for health coverage from a current average level of roughly 8 percent (Garamendi, 1992) to 4 percent. By making labor less expensive, this aspect of the proposal is likely to stimulate the creation of 6,000 to 30,000 new jobs (above and beyond any new jobs created in the health sector).

These figures do not even include the impact on economic development. Under the current system, employers who provide third party coverage typically pay three times for health care: for their own employees, for dependent spouses who often work for firms without health benefits, and for the "cost shift." The Forum proposal substantially lowers the burden of providing health benefits to workers for nearly all employers and therefore should have a very favorable impact on attracting new business to North Carolina.

Thus, if one is to be fair about assessing the potential impact on employment, both the positive and negative employment effects should be considered. On balance, the impact is likely to be very favorable.

Moreover, the preceding figures do not take into account the multiplier effect of $389 million in new federal spending for Medicaid. This infusion of new spending is estimated to produce almost $1 billion in economic output within the State and would generate an additional $100 million in State and local tax revenues (it should be noted that under the Forum proposal, the state would lose roughly $40 million in premium tax revenues).[52] Taking into account this new spending, North Carolinians will be able to provide universal coverage at a *lower* net cost to themselves than they now pay for the current patchwork system that leaves many with inadequate coverage. That is, even after deducting $93 million in new spending borne by citizens of the State, there will be a net addition of more than $900 million in new economic activity coming into North Carolina. Thus, the Forum recognizes that some particular individuals will be worse off under its proposal than in the current system, but for many North Carolinians and employers, this proposal offers health care at a lower cost than they now must pay.

The opportunity costs of failing to change how we do business are enormous. The Forum believes that State government, industry and all North Carolina citizens have much to gain and little to lose by changing the way in which health care is financed and

delivered. If staying with the current system will cost us an additional $7 billion of unneeded costs, the Forum believes that advocates of the status quo need to justify why it is worth spending those additional amounts and what benefits North Carolina citizens will receive from that expenditure. Proponents of the status quo also should be expected to justify how our State--which is already reeling under the weight of medical care costs--will find the additional $7 billion needed to preserve the status quo. The Forum is well aware that changing the system will not be easy, but those difficulties pale in contrast to the difficulties of finding an additional $7 billion during the next decade when we have so many other critical priorities crying out for attention. The Forum believes that the time for change has come and that North Carolina should be one of the leaders among states in showing a cost-effective path to a better and healthier future for all of our citizens.

APPENDIX A

HIAA Anti-Fraud Model Statute

Section 1. Scope

Any person who, with the intent to injure, defraud, or deceive any insurance company:

1. Presents or causes to be presented to any insurer, any written or oral statement including computer-generated documents as part of, or in support of, a claim for payment or other benefit pursuant to an insurance policy, knowing that such statement contains any false, incomplete, or misleading information concerning any fact or thing material to such claim; or

2. Assists, abets, solicits, or conspires with another to prepare or make any written or oral statement that is intended to be presented to any insurance company in connection with, or in support of, any claim for payment or other benefit pursuant to an insurance policy, knowing that such statement contains any false, incomplete, or misleading information concerning any fact or thing material to such claim;

Is guilty of a felony and shall be subjected to a term of imprisonment not to exceed five (5) years, or a fine not to exceed $5,000, or both, on each count. Each claim shall be considered a separate count. Upon conviction, the court shall also order the defendant to pay restitution to the insurance company as well as its reasonable investigative costs and attorneys fees.

In a civil cause of action of recovery based upon a claim for which a defendant has been convicted under this section, the defendant shall be estopped from denying the elements of the violations for which the defendant was convicted. If the insurance company prevails in the civil action, the court may award it the company's damages and its attorneys fees, costs, and reasonable investigative costs. If the insurance company can demonstrate to the court that the defendant has engaged in a pattern of violations of this section, the court may award the insurance company treble damages from the defendant.

Section 2. Definition of Statement

For the purposes of this Act, "statement" includes, but is not limited to, any notice, statement, proof of loss, bill of lading, receipt for payment, invoice, account, estimate of property damages, bill for services, diagnosis, prescription, hospital or doctor records, x-rays, test result or other evidence of loss, injury, or expense.

APPENDIX B

Sample Community Health Plan Comparison Guide for Consumers

COMPARATIVE EVALUATION OF HEALTH INSURANCE CARRIERS OFFERED BY HEALTH INSURANCE PURCHASING COOPERATIVES

I. THE IMPORTANCE OF CONSUMER CHOICE

The quality and cost effectiveness of care can be measured and presented to consumers in a manner that allows for informed decisions within a supportive administrative framework. Consumers can make these decisions only if easy to understand factual information is available to them. We believe that the critical elements of these informed decisions are:

- o A framework for decision making (e.g., the Health Insurance Purchasing Cooperative) that allows the consumer to make informed decisions about who will provide their medical care in an objective and unhurried setting, rather than during an episode of illness.
- o A sufficient number of options (e.g., the carriers) so that the consumer's demand for choices is satisfied, but not so many options that the information is not intelligible.
- o Information about quality and cost that is presented in an understandable format that allows for valid comparisons among carriers.

The following discussion outlines how these Health Insurance Purchasing Cooperatives can work with carriers to allow consumers to make appropriate decisions about their health care.

II. MEASURING THE PERFORMANCE OF HEALTH INSURANCE CARRIERS

A. Components of the Assessment Process

The quality and cost-effectiveness of care can be measured, and such measurements are the key to managing a health care program. The following are those elements important for assessing the performance of carriers.

1. Cost effectiveness
2. Structure and process of its quality improvement system
3. Quality of care measures
   - Member ratings
   - Appropriateness and outcomes measures
4. Quality of service measures

B. Cost Effectiveness

Cost effectiveness of care can be assessed in a straightforward manner by comparing measures 2 through 4 above to the cost to the consumer of the carrier. When presented with intelligible information, consumers will be able to make informed decisions concerning the value of competing health care plans based on their own particular set of preferences.

C. Structure and Process of the Carriers' Quality Improvement System

The provision of high quality medical care requires the carriers to maintain extensive quality improvement activities. In addition, the uniform collection of data that allows the performance of carriers to be compared requires a genuine commitment to a competitive market place. Just as the business community requires independent verification of a company's financial condition, so carriers should allow independent verification of their quality assurance and data collection systems if they are to be offered by the Health Insurance Purchasing Cooperative.

A national review agency that functions in this capacity should have sufficient expertise to conduct vigorous and knowledgeable evaluations. At the same time, it must be independent of the managed care industry and have strong consumer and academic representation. We believe the National Committee for Quality Assurance ("NCQA") is one such organization.

Source: Material provided by Michael Stocker, U.S. Healthcare, before Committee on Labor and Human Resources, U.S. Senate, *Health Insurance Purchasing Cooperative Act*, Hearing, May 7, 1992.

D. Quality of Care Measures

1. Member Ratings

Member ratings involve the composite response of members to questions about access to care and interpersonal aspects of care. Questions concerning access to care reflect the members' estimate of their ability to obtain preventive care at the appropriate time, and to receive necessary care for the treatment of disease in a timely fashion. Questions concerning the interpersonal aspects of care reflect the member's perception of the quality of the interaction among doctors, their staffs and the member. Their responses also reflect member confidence in the skill and ability to communicate of the physician. There is ample evidence that patients who rate the interpersonal aspects of their care highly are more likely to take their medications as instructed and follow the recommendations of the doctor than patients who rate interpersonal aspects of care less favorably.

In the example used here, the scores of U.S. Healthcare are included as a point of reference. The answers to these questions represent the responses to 469,000 questionnaires sent to U.S. Healthcare members. The scores can vary from 0 to 100%. It is possible to weight some questions more highly than others. In the setting of the Health Insurance Purchasing Cooperative, questionnaires would be sent to all households each year. Members are told the results would be made available to them and to all potential members of the carrier.

1. Response to questions concerning access.

Member Question	Excellent 4 points	Very Good 3 points	Good 2 points	Fair 1 points	Poor 0 point	USHC Score	Max Points
1. Ability to make appointments for check ups.	43.1%	31.9%	18.2%	4.9%	1.7%	3.1	4
2. Ability to make appointments for illness	46.1%	30.2%	16.2%	5.2%	2.1%	3.1	4
3. Ability to contact the doctor when office is closed.	31.2%	25.1%	23.6%	11.0%	5.9%	2.7	4
4. Waiting time in doctor's office.	18.9%	25.5%	29.3%	16.0%	6.3%	2.4	4
5. Ability to get referrals to specialists	43.8%	30.3%	17.5%	5.1%	3.0%	3.1	4

2. Response to questions concerning interpersonal aspects of care.

6. Personal concern of Doctor	36.3 %	29.4 %	22.4%	8.7	2.9%	2.9	4
7. Treatment by remainder of office staff	31.7%	33.7%	24.8%	7.4%	2.2%	2.9	4
8. Overall medical care at your doctor's office	36.2%	33.3%	22.0%	6.6%	1.7%	3.0	4
9. Would you recommend your doctor to others.	4 Points Yes 89.0%	0 Points No 10.9%				3.6	4
						TOTAL:	25.8	36
						SCORE:	72%	

The final score is included in section III.

2. Appropriateness and Outcome Measures

Appropriateness and outcomes of care are important aspects of the quality of medical care. Appropriateness of care refers to the degree to which the tests, procedures, and therapies that are employed in the care of patients are consistent with the best available standards of care and performed in the most suitable location. Outcomes are the results of medical care--how the patient functions and how the patient feels. At present there is not enough information to judge carriers on the quality of their outcomes. What can be measured today is the degree to which carriers collect the information that will enable an evaluation of outcomes in the future. It is important that the country proceed to a system of outcomes measurement as soon as possible. The following are examples of appropriateness and outcomes measures and U.S. Healthcare's estimated performance.

- Appropriateness of Care

  Immunizations: Carriers can greatly influence both the present and future health of their enrollees. One area where this is particularly true is childhood immunizations.

Cancer Screening: There is a general consensus among experts concerning the frequency with which examinations and tests should be performed to screen an enrolled population for cancer. Areas of particular importance include screening for cervical cancer through Pap tests and screening for breast cancer with mammography.

Cholesterol testing: The link between elevated cholesterol and heart disease is well established and, therefore, cholesterol screening and treatment is a useful measure of the appropriateness of the care provided by a carrier.

Prenatal Evaluations: The success of a carrier in encouraging pregnant women to obtain recommended prenatal evaluations and follow-up, is an important measure of performance in light of the strong evidence that appropriate prenatal care leads to better outcomes.

As the Agency for Health Care Policy and Research (AHCPR) produces new appropriateness guidelines, its work should be incorporated into measures of carriers' performance.

	Excellent > 95% [4]	Very Good 90% - 95% [3]	Good 85 - 89% [2]	Fair 80% - 84% [1]	Poor < 80% [0]	USHC Score	Maximum Points
Childhood immunization rates		X				3	4

	Excellent > 80% [4]	Very Good 70% - 79% [3]	Good 60 - 69% [2]	Fair 50% - 59% [1]	Poor < 50% [0]	USHC Score	Maximum Points
Mammography rates for age > 50			X			2	4

	Excellent > 85% [4]	Very Good 75% - 85% [3]	Good 65 - 75% [2]	Fair 55% - 65% [1]	Poor < 55% [0]	USHC Score	Maximum Points
Cholesterol screening for age > 40	X					4	4

	Excellent > 85% [4]	Very Good 80% - 85% [3]	Good 75 - 80% [2]	Fair 65% - 70% [1]	Poor < 65% [0]	USHC Score	Maximum Points
Cervical Cancer testing for ages 16 - 50		X				3	4

	Excellent > 85% [4]	Very Good 80% - 85% [3]	Good 75 - 80% [2]	Fair 65% - 70% [1]	Poor < 65% [0]	USHC Score	Maximum Points
Prenatal evaluations	X					4	4

- Outcomes of Care (Completion Rates for Outcome Measures)

It is hoped that outcome measures will be particularly helpful in areas in which there is a lack of consensus concerning optimal treatment. The four areas listed below, which have significant impact on the nation's health, are ones for which there are a variety of competing treatment approaches. The collection of outcomes information should assist in the effort to determine the best methods for treating these and other important conditions.

	Excellent > 75% [4]	Very Good 66% - 75% [3]	Good 56 - 65% [2]	Fair 46% - 55% [1]	Poor < 46% [0]	USHC Score	Maximum Points
Cardiac Disease		X				3	4
Asthma			X			2	4
Depression				X		1	4
Low Back Pain			X			2	4

TOTAL:	24	36
SCORE:	67%	

The final score is included in Section III.

E. Quality of Service Measures

1. Discussion

Quality of service measures reflect the ability of the carrier to respond to member questions and grievances and ensure that bills for medical care are paid in a timely and accurate manner. The data used in this section represents U.S. Healthcare's performance. Service measures used here are:

- Average claims turn around time and claims accuracy. These two measures reflect the average time that the carrier takes to pay its providers, and the accuracy of claims processing. Plans that take an excessive amount of time to pay bills, or pay them incorrectly, have significant member (and provider) satisfaction problems.
- Average speed of answer, and percent resolution of grievance within 30 days. These two measures estimate how long it takes the carrier to answer its telephone when a member calls and how quickly the carrier resolves grievances.

2. Summary of Quality of Service Measures

Criteria	Excellent 4 points	Very Good 3 points	Good 3 points	Fair 1 points	Poor 0 point	USHC Score	Max Points
1. Average claims turn around time	20-30 Days	30-35 Days	35-40 Days	40-45 Days	> 45 Days	3	4
2. Claims accuracy	95-97%	93-95%	91-93%	89-91%	87-89%	4	4
3. Average Speed of Answer to members' questions	< 30 seconds	30-40 seconds	40-50 seconds	50-60 seconds	> 60 seconds	4	4
4. % resolution of grievances within 30 days.	95% or >	90-95%	85-90%	80-85%	75-80%	3	4

TOTAL:	14	16
SCORE:	88%	

The final score is included in Section III.

III. OPEN ENROLLMENT INFORMATION FOR EMPLOYEES

Using the material described above, open enrollment information distributed by the Health Insurance Purchasing Cooperative might appear as follows. Health Insurance Carrier A is an estimate of U.S. Healthcare's performance. Health Insurance Carriers B through D are only for illustration.

XYZ Health Insurance Purchasing Cooperative

Open Enrollment

January 1st through January 10th

	Monthly Payroll Deduction (1)	Findings & Date of Review Organization (2)	QUALITY OF Member Ratings (3)	CARE MEASURES Appropriateness & Outcome Measures (4)	Quality of Service Measures (5)
Health Insurance Carrier A	0	Full Accreditation 1992	74%	67%	88%
Health Insurance Carrier B	$20	Provisional Accreditation 1989	68%	62%	71%
Health Insurance Carrier C	$10	Denied Accreditation 1991	51%	40%	62%
Health Insurance Carrier D	$60	Full Accreditation 1990	74%	57%	76%

(1) Your employer pays the full cost of the least expensive qualified plan. You will have the difference between the least expensive plan, and the plan you choose, deducted from your paycheck.

(2) The review agency evaluates each carrier's quality assurance program every three years. Plans receive either full or provisional accreditation. Plans that fail must be reviewed again within 15 months.

(3) Member ratings refer to members averaged response to questions concerning access and interpersonal aspects of care. Access to care means that ability to see the right doctor when you need to. Interpersonal care means the quality of your interaction with the doctor, and your estimate of his/her skill and ability to communicate.

(4) This indicates the results of the health insurance carriers' appropriateness and outcomes measures. Appropriateness means the degree to which tests, procedures, and therapies are consistent with the best available standards of care and performed in the most suitable location. Outcomes measures look at complication rates for particular conditions and procedures and how well members do after specific procedures.

(5) Quality of service measures reflect how well the carrier responds to questions, concerns and grievances.

APPENDIX C

Phased Implementation of Forum Proposal

The Forum recognizes that it has outlined an ambitious proposal for consideration by North Carolina policymakers. It would be unfortunate if the proposal were automatically rejected or failed to receive serious consideration due to a perception that it is an "all-or-nothing" proposal. There are many ways that the Forum proposal could be put in place in incremental steps. The following outlines one possibility. The chief disadvantage of phasing in coverage is that all the costs involved in expanding access to those who cannot afford it are incurred up front, while the potential savings achieved from squeezing waste out of the current system are delayed. Therefore, *it is more expensive to adopt the Forum proposal on a phased-in basis rather than within a short period of time.*

The steps shown represent a sequence which address those at the greatest risk first and phases in universal coverage for others once policymakers are satisfied that the managed competition framework is sufficiently mature to be extended to all citizens in North Carolina.

EXPANDING ACCESS TO COVERAGE

Step 1: **Medicaid Expansion**--the proposed expansion of Medicaid could be implemented without necessarily adopting the managed competition framework suggested for universal access.

Step 2: **HIPC Coverage of Low-Income Uninsured**--a subsidized pool could be created to provide coverage to the roughly 300,000 uninsured individuals with incomes between 100 percent and 200 percent of poverty. This pool would use the HIPC structure and competition among plans to provide such coverage. Individuals would be charged a sliding scale premium based on income, and those with incomes above 250 percent would be allowed to purchase coverage on a full-premium basis (to avoid adverse selection problems, this requires charging them an experience-rated premium). For many uninsured and possibly many who now purchase individual plans, such a large purchasing pool would provide more affordable coverage than is currently available.

Step 3: **Mandated Individual Coverage**--once the HIPC(s) had been established in Step 2, all individuals could be required to have coverage for essential health benefits. This would put the remaining 350,000 uninsured above 200 percent of poverty into the HIPC pool (although a large number of these might already have purchased coverage voluntarily once the HIPC structure had led to the

development of a number of affordable health plans). Once Step 3 is completed, all North Carolinians would have coverage for essential health care.

DEVELOPING MANAGED COMPETITION TO CONTAIN COSTS

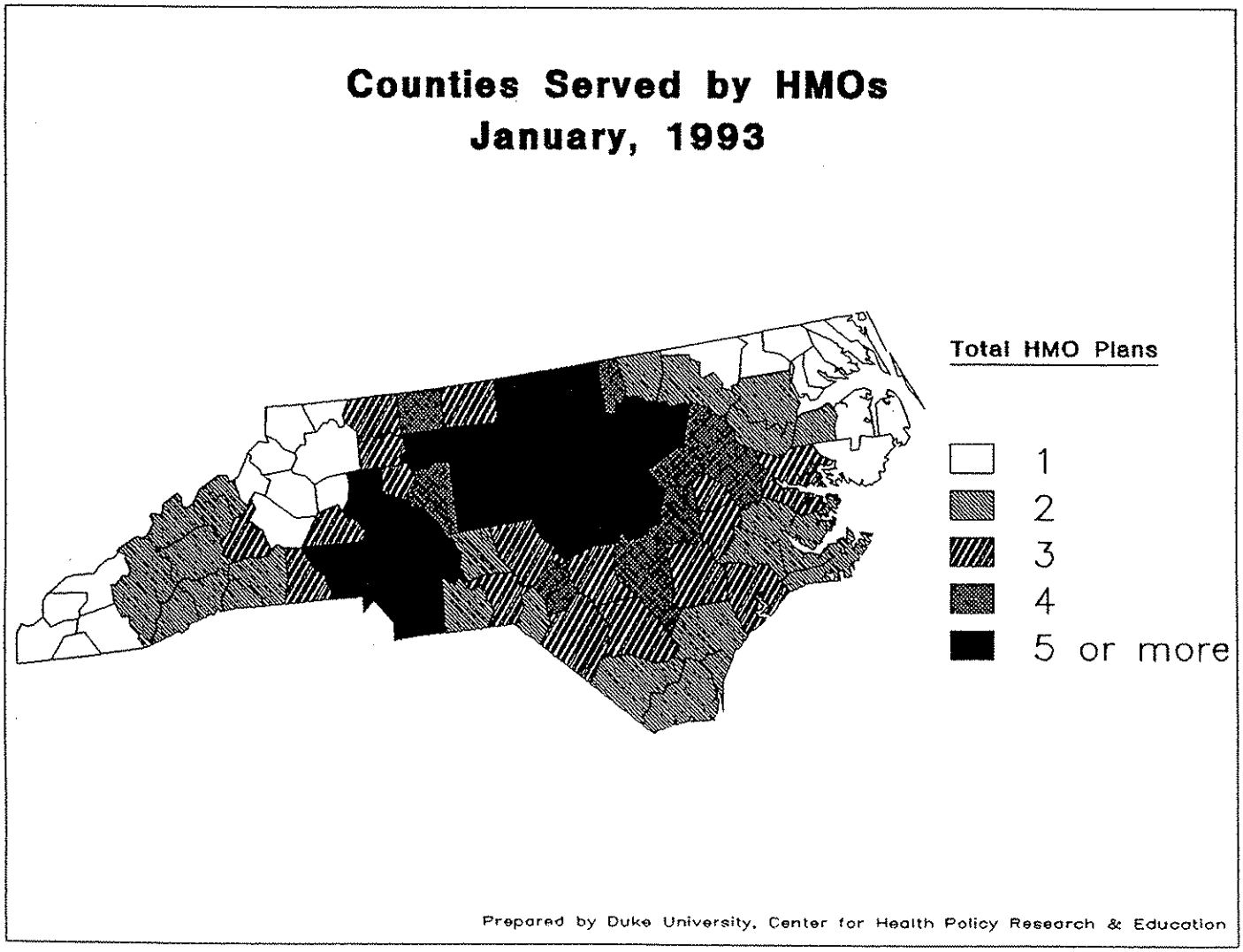
Step 1: **Managed Competition for State Employees**--the State could be enlightened by the experience of California, Minnesota and the federal government in offering fair multiple choice among competing plans (i.e., managed competition) to State employees and their dependents. In any given county, the State would contribute a fixed dollar amount to the lowest cost plan being offered to State employees. The State employee group is the largest single insured group in the State and is therefore big enough to attract CHPs to compete for that business. This step has the additional advantage of providing a workable solution to a serious cost containment problem that concerns State policymakers.

Step 2: **Managed Competition for Medicaid Eligibles**--once managed competition has been shown to work for State employees, the idea can be extended to the Medicaid program by offering Medicaid beneficiaries choice among the same CHPs which serve State employees (Medicaid eligibles would get a more comprehensive set of benefits). Initially, long-term care services probably should continue to be provided as they are today through fee-for-service providers. It is probably wiser to incorporate them as part of the benefits offered through CHPs only after CHPs have had enough experience in delivering preventive, primary acute care services in a managed competition market.

Step 3: **Managed Competition for All Citizens**--once it is clear that the HIPC structure has been successful in providing choice among plans to State employees, Medicaid eligibles and those eligible for subsidized coverage, the State can mandate that all coverage be provided through the pool and adopt tax-based financing.

APPENDIX D

COUNTIES SERVED BY HMOS, JANUARY 1993



APPENDIX E

METHODOLOGY

Table E-1
Employer-Based Health Insurance Coverage by Firm Size and Poverty Status North Carolina, 1993

Characteristics of Employers	Total	Source of Health Insurance Coverage			
		Employer Direct	Employer Indirect	Other Coverage	Uninsured
	Estimated Distribution of Coverage				
BELOW 100% POVERTY	908,332	62,792	68,543	481,656	295,342
Nonworkers	674,999	20,450	56,711	412,008	185,829
Workers	233,334	42,342	11,832	69,647	109,513
Under 25	107,914	10,085	4,526	33,259	60,044
25 to 99	32,957	4,959	425	9,181	18,392
100 to 499	23,005	10,289	1,511	5,887	5,318
500 to 999	11,780	3,331	1,445	2,297	4,708
1000 and over	57,678	13,678	3,925	19,024	21,051
100–199% POVERTY	1,429,969	306,767	302,804	477,463	342,934
Nonworkers	878,814	86,573	250,926	371,380	169,935
Workers	551,156	220,195	51,879	106,083	173,000
Under 25	173,052	33,122	20,535	45,621	73,775
25 to 99	69,603	29,694	5,093	9,410	25,406
100 to 499	82,789	40,517	5,416	10,909	25,948
500 to 999	31,494	19,050	1,590	3,805	7,049
1000 and over	194,217	97,812	19,245	36,339	40,822
200–299% POVERTY	1,397,069	487,218	422,953	290,219	196,679
Nonworkers	702,153	113,076	317,328	189,845	81,904
Workers	694,917	374,143	105,624	100,374	114,776
Under 25	193,325	51,006	47,902	51,826	42,591
25 to 99	84,210	43,561	12,101	9,847	18,700
100 to 499	111,386	76,926	12,626	8,358	13,476
500 to 999	47,854	32,611	4,724	3,816	6,704
1000 and over	258,142	170,039	28,271	26,527	33,305
300–399% POVERTY	1,125,434	485,404	368,507	185,853	85,669
Nonworkers	513,257	103,657	264,017	113,232	32,351
Workers	612,177	381,747	104,490	72,621	53,319
Under 25	158,387	54,575	47,506	35,051	21,255
25 to 99	65,269	36,684	10,036	9,302	9,246
100 to 499	89,286	65,677	10,703	6,470	6,436
500 to 999	35,900	27,900	3,846	746	3,408
1000 and over	263,335	196,911	32,399	21,052	12,974
400% POVERTY AND OVER	2,008,923	1,063,099	597,126	244,254	104,444
Nonworkers	778,207	223,583	385,409	137,598	31,617
Workers	1,230,717	839,516	211,718	106,656	72,827
Under 25	294,989	110,431	91,335	60,374	32,850
25 to 99	138,101	87,652	29,441	12,151	8,857
100 to 499	162,522	125,431	20,727	5,887	10,477
500 to 999	77,636	63,167	6,980	2,482	5,006
1000 and over	557,469	452,835	63,236	25,763	15,637
TOTAL	6,869,728	2,405,281	1,759,934	1,679,445	1,025,069
Nonworkers	3,547,428	547,339	1,274,391	1,224,063	501,635
Workers	3,322,300	1,857,942	485,543	455,382	523,434
Under 25	927,667	259,219	211,803	226,130	230,514
25 to 99	390,139	202,550	57,096	49,891	80,602
100 to 499	468,988	318,840	50,983	37,511	61,655
500 to 999	204,664	146,059	18,584	13,146	26,875
1000 and over	1,330,842	931,274	147,076	128,704	123,788
Notes	[A]	[B]			[C]

Notes:

[A] Figures obtained using matrix of raw data from pooled Current Population Survey data for North Carolina, 1988–1991. Totals for each poverty category were obtained by multiplying 1993 population times the share of population in that category in the pooled data (i.e., this implies no change in poverty status between 1988–1991 period to 1993). Totals for workers were obtained in a similar fashion except that all worker totals have been multiplied by a ratio [PI.4] to adjust the total count of full– and part–time workers in the CPS so that it matches the projected average monthly total for 1993 [PI.3]. Nonworker totals are computed as a residual.

[B] Within each row, figures are obtained by subtracting estimated uninsured population from total and assuming that the distribution of coverage within the remaining insured population is proportional to the distribution of coverage within that row in the matrix of raw data from pooled Current Population Survey data for North Carolina, 1988–1991.

[C] Within each row, figures are obtained by multiplying total population times the uninsured rate obtained from pooled Current Population Survey data for North Carolina, 1988–1991 and then multiplying by an adjustment factor [PI.7]. This adjustment factor equals the known number of uninsured in North Carolina based on the March 1992 Current Population Survey (1,014,000) [S2], inflated by the increase in population between 1992 and 1993 (i.e., this implies no change in the uninsured rate between 1992 and 1993).

Parameters:

[PI.1]	6,869,728	Estimated July 1, 1993 Population, obtained from Office of State Planning (personal communication: Marianne Dale).
[PI.2]	3,956,608	Total workers implied by conversion of raw CPS data to 1993 population.
[PI.3]	3,322,300	Projected NC Employment, 1993 (DRI forecast), obtained from Office of State Budget and Management (personal communication: Mike Kiltie).
[PI.4]	84.0%	Ratio: [PI.3]/[PI.2].
[PI.5]	1,014,000	Total uninsured in North Carolina, March 1992 [S2].
[PI.6]	6,795,546	Estimated July 1, 1992 Population [S1].
[PI.7]	1.11	Uninsured adjustment factor (1,014,000 x 6,869,728/6,795,546)/923,534)

Sources:

[S1] Office of State Planning. "North Carolina: Projected Population, July 1, 1992, By Age, Race, and Sex." Unpublished projections based on modified 1990 Census counts, prepared May 1992.

[S2] Employee Benefits Research Institute. "Number of Uninsured Americans Reached 36.3 Million in 1991, According to EBRI Tabulations." News release, October 30, 1992.

Table E-2
Comparative Expenditures on Medically Indigent from Own Source Revenues North Carolina, Region and U.S.

SOURCE OF CARE	North Carolina	Neighboring States*	South Atlantic Region**	United States
	Expenditures per $10,000 Income			
GRAND TOTAL	$111.97	$101.29	$114.48	$126.52
MEDICAID, FY1990	46.82	50.33	51.60	67.11
Benefits	43.69	47.48	48.75	63.86
Administration	3.13	2.86	2.86	3.24
PUBLIC PROGRAMS	25.93	22.45	28.06	24.34
Personal Health, FY1989	6.01	5.89	9.90	5.37
Mental Health, FY1987	19.92	16.56	18.16	18.98
HOSPITAL FREE CARE, 1989	39.22	28.51	34.82	35.07
Medicaid Losses	11.61	4.10	4.94	9.72
Charity & Bad Debts	27.61	24.41	29.89	25.35
	Index (US = 100)			
GRAND TOTAL	89	80	90	100
MEDICAID, FY1990	70	75	77	100
Benefits	68	74	76	100
Administration	97	88	88	100
PUBLIC PROGRAMS	107	92	115	100
Personal Health, FY1989	112	110	184	100
Mental Health, FY1987	105	87	96	100
HOSPITAL FREE CARE, 1989	112	81	99	100
Medicaid Losses	119	42	51	100
Charity & Bad Debts	109	96	118	100

Note: Figures exclude all federal outlays used to finance Medicaid, public programs or hospital free care. Medicaid and hospital free care figures include local funds, but figures for public programs do not, due to reporting inconsistencies across states.

* Includes Virginia, Tennessee, South Carolina and Georgia.

** Includes Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia.

Sources: 1990 Medicaid figures obtained from Health Care Financing Administration. 1989 personal health figures obtained from Public Health Foundation; 1990 mental health figures obtained from National Association of State Mental Health Program Directors Research Institute; 1989 hospital free care figures obtained from American Hospital Association. Detailed data available upon request.

Table E-3
Public Willingness to Pay (WTP) Higher Taxes to Assure Universal Health Coverage North Carolina, 1993

Willing to Pay at Least	But No More Than	Percent	Average WTP		Notes
			Minimum	Maximum	
$0	NA	31.0%	$0.00	$0.00	[A]
$50	$100	30.0%	$15.00	$29.70	
$100	$200	19.0%	$19.00	$37.81	
$200	$400	9.0%	$18.00	$35.91	
$400	$800	4.0%	$16.00	$31.96	
$800	NA	4.0%	$32.00	$32.00	
Total per U.S. Respondent			$100.00	$167.38	[B]
Estimated Total per N.C. Respondent			$87.21	$145.98	[C]
Total WTP in NC (millions)			$226.82	$379.64	[D]

Note:

[A] Figures shown represent the amount respondents would be willing to pay in additional taxes to assure all Americans health insurance coverage. This is based on a survey of 800 Americans over age 18 conducted in January 1992 for HIAA by Mellman and Lazarus, Inc. (Washington, D.C.) and Public Opinion Strategies, LP (Alexandria, VA), reported in [S1]. Minimum figures obtained by multiplying lower bound willingness to pay figure times the percent of the population willing to pay that amount. Maximum figures obtained by multiplying upper bound WTP minus $1 times percent willing to pay that amount.

[B] Figures shown are a weighted average, which reflects the average amount an American would pay to provide universal access if each of the subgroups shown paid the amount that they have stated they are willing to pay.

[C] Figures shown obtained by multiplying U.S. figures times the ratio of NC per capita income to U.S. per capita income (see Parameters).

[D] Figures shown obtained by multiplying estimated total per N.C. resident times total households in N.C. (see Parameters).

Parameters:

87.2% Ratio of NC per capita income to US per capita income, 1991 [S2]

2,517,026 Total households in North Carolina, 1990 [S3], excluding those in group quarters.

2,600,706 Projected households in North Carolina, 1993 based on population growth, 1990 [S3] to 1993 [S4].

Sources:

[S1] Business and Health, March 1992.

[S2] Preliminary state estimates of per capita personal income are reported in Survey of Current Business, April 1992.

[S3] Profile 3--Household and Family Characteristics. 1990 Census of Population and Housing--Summary Tape File 1." Unpublished data provided by North Carolina Office of State Planning and State Library of North Carolina.

Table E–4

Estimated Cost to Expand Medicaid
North Carolina, SFY1995

Expansion Option	New Eligibles			Total Costs (millions)				Notes
	Total	Uninsured	Insured	Total Costs	Federal	State	Local	
Expand Coverage for Aged, Blind, Disabled	116,444	7,478	108,966	319.9	208.4	94.8	16.7	[A]
Expand Coverage for Dependent Children	138,772	138,772	0	237.9	155.0	70.5	12.4	[B]
Increase Medically Needy Income to 100% Poverty	130,000	71,406	58,594	1,040.7	677.9	308.4	54.4	[C]
Medicaid Cost for AFDC Eligibles	65,000	35,703	29,297	105.6	68.8	31.3	5.5	[D]
Medicaid Cost for Spenddown	65,000	35,703	29,297	211.1	137.5	62.6	11.0	[E]
AFDC Cost				724.0	471.6	214.5	37.9	[F]
Grand Total	385,216	217,656	167,560	1,598.6	1,041.3	473.7	83.6	Computed
Without AFDC Increase	255,216	146,250	108,966	557.9	363.4	165.3	29.2	Computed
Difference	130,000	71,406	58,594	1,040.7	677.9	308.4	54.4	Computed

Note:

[A] Total eligibles covered and state share obtained from Division of Medical Assistance (personal communication: Daphne Lyon). Number of uninsured estimated based on Current Population Survey data for North Carolina. Federal and local shares derived based on matching rates (see Parameters).

[B] Total eligibles covered and state share obtained from Division of Medical Assistance (personal communication: Daphne Lyon). CPS data for 1990 show a total of 137,907 uninsured children age 1–18 who have incomes below 185% of poverty. Therefore, all new eligibles are assumed to be uninsured. Federal and local shares derived based on matching rates (see Parameters).

[C] Figures shown are the sum of Medicaid costs for AFDC eligibles, spenddown costs and AFDC costs.

[D] Total eligibles covered obtained from Division of Medical Assistance, but is nearly identical to total single parents, dependent children 19–21 and unemployed parents who currently are not covered and have incomes below poverty in 1990, inflated to 1994. The total cost is based on an average cost per eligible of $1,624, obtained from Division of Medical Assistance (personal communication: Daphne Lyon). Federal, state, and local shares derived based on matching rates (see Parameters).

[E] Determination of medically needy eligibles is very uncertain and no satisfactory method has been devised for estimating the impact of large changes in medically needy standards (personal communication with Patrick Purcell, Congressional Budget Office). Since expansions to 100 percent of poverty will have covered a large number of aged, blind and disabled (who make up nearly 90% of the medically needy population), it was assumed that in the worst case, the additional medically needy eligibles would not exceed the number who qualified through AFDC expansion and that the average cost per case would be double that for AFDC cases.

[F] Total cost figure obtained from Division of Social Services (personal communication: Quentin Uppercue).

Parameters:

65.14% Federal match rate, FY94

29.63% State share, FY94

5.23% Local share, FY94

1,624 Cost per AFDC eligible, obtained from Division of Medical Assistance (personal communication: Daphne Lyon).

3,248 Assumed cost per medically needy spenddown

Table E-5
Projected Costs of Universal Health Coverage
North Carolina, 1993

	COSTS	NOTES
ESTIMATED NC POPULATION (1993)	6,869,728	[A]
Less Actual FY1992 Medicaid (<65)	755,837	[B]
Less Projected New Medicaid (<65)	162,061	[C]
Less Estimated 1993 Medicare	968,960	[D]
Plus Medicare/Medicaid Overlap	(28,283)	[E]
Net Total Covered	4,954,587	Computed
Per Person Monthly Cost of Benefits Package	$98.18	[F]
Annual Cost of Universal Coverage (millions)	$5,837	Computed
Persons Below 200% Poverty not in Medicaid	1,420,403	[G]
Additional Monthly Cost for Low Income Individuals	$28.05	[H]
Additional Cost for Low Income Individuals (millions)	$478	Computed
Administrative Costs for HIPC ($5/person)	$25	[I]
State and Local Costs for Medicaid Expansion	$195	[J]
TOTAL SYSTEM COSTS (millions)	$6,535	Computed
Wages and Salaries		
Projected 1993 Wages/Salaries (millions)	$71,452	[K]
Total Wages/Salaries Exempted (millions)	$8,508	[L]
Net Wages/Salaries Subject to Contribution (millions)	$62,944	Computed
Employer Payroll Contribution Rate	7.13%	See Parameters
Total Employer–Paid Premiums (millions)	$4,486	Computed
Employee Contribution		
Total Wages/Salaries Exempted (millions)	$20,016	[M]
Net Wages/Salaries Subject to Contribution (millions)	$51,437	Computed
Employee Payroll Contribution Rate	1.31%	See Parameters
Total Employee–Paid Premiums (millions)	$675	Computed
Self–Employed Contribution		
Projected 1993 Wages/Salaries (millions)	$6,058	[K]
Total Wages/Salaries Exempted (millions)	$1,479	[M]
Net Wages/Salaries Subject to Contribution (millions)	$4,579	Computed
Payroll Tax Rate	8.44%	See Parameters
Total Self–Employed Premiums (millions)	$386	Computed
Total System Revenues		
Option 1: Using California Payroll Tax Exemptions	5,548	Computed
Option 2: Assuming No Payroll Tax Exemptions	6,542	Computed
Surplus/(Deficit)		
Option 1: Using California Payroll Tax Exemptions	(987)	
Option 2: Assuming No Payroll Tax Exemptions	7	7,763

Notes:

[A] Figure reported in [S1].

[B] Figures shown computed based on data reported in [S4].

[C] Figure reported in [S4], assuming that 80% of aged, blind and disabled who would be covered under the proposed expansions are elderly (this 80% figure is similar to the elderly share of aged, blind and disabled who are covered through MCCA expansions, as reported in [S3]. The figure shown assumes Medicaid expansion with no AFDC increase, since AFDC increase adds $330 million in added state and local costs and is unlikely to be politically feasible.

[D] Figures shown computed on data reported in [S5], [S6], [S7], and [S8]. Estimates for aged and disabled computed separately and combined: e.g., (Disabled Enrollment) x (July 1, 1991 Enrollment/July 1, 1990 Enrollment) ^2

[E] Based on total disabled Medicaid eligibles with Medicare Part B Premiums in FY1990 [S2] as share of total aged [S5] and disabled [S6] Medicare eligibles on July 1, 1990 times estimated 1992 Medicare eligibles.

[F] Blended (adult/child) premium for Basic Health Care Package, assuming that children = 25% of uninsured and that children cost 38% as much as adults. Data provided by Jefferson Pilot Insurance Company.

[G] Figures on below 200% Poverty reported in [S10]. All Medicaid eligibles subtracted from this total to obtain figure shown.

[H] Figure computed by multiplying monthly benefit cost x 30/105 based on figures used in [S11] (in Garamendi plan, baseline package costs $105/month and cost-sharing/deductibles waived/reduced for those below 200% poverty).

[I] Based on administrative costs for Calpers managed competition system of $5 per person [S13] times total number enrolled through HIPCs (enrollment figures include 2,000,000 workers who would be enrolled through employers with 100 or more employees since they would have enrollment responsibilities analogous to employment units in the Calpers system.

[J] Figure reported in [S4].

[K] Total wages and salaries for 1993 (excludes farm income) are estimated from projected wages and salaries for 1992 assuming that growth in wages and salaries (5.6% from 1992 to 1993) is the same as for personal income. All figures based on DRI projections for North Carolina obtained from Office of State Budget and Management (personal communication: Mike Kittle and Paul Zipin). The portion for non-self-employed workers was obtained based on the estimated non-self-employed share of wages and salaries in 1990, derived from figures reported in [S12].

[L] Exempt share derived from figures reported in [S11] and applied to total wages and salarires. Under Garamendi plan, the first $10,000 per firm is exempt and there is a $150,000 cap on wages per employee.

[M] Exempt share derived from [S11] and applied to total wages and salaries. Under Garamendi plan, the first $5,000 per employee is exempt and there is a $150,000 cap on wages per employee.

Parameters

255,216 Newly covered Medicaid total [S14]

7,478 Total uninsured aged, blind and disabled newly covered by Medicaid [S14].

108,966 Total insured aged, blind and disabled newly covered by Medicaid [S14].

80.0% Elderly share of aged, blind and disabled newly covered by Medicaid [S3].

$5.00 Administrative cost per enrollee through HIPC [S13].

8.44% Baseline Payroll Tax Rate

7.13% Assumed employer contribution rate (7.6% used in Garamendi plan [S11])

1.31% Assumed employee contribution rate (1.4% under Garamendi plan [S11])

8.44% Assumed self-employed contribution rate (9.0% under Garamendi plan [S11])

Sources:

[S1] Office of State Planning. "North Carolina: Projected Population, July 1, 1992, By Age, Race, and Sex." Unpublished projections based on modified 1990 Census counts, prepared May 1992.

[S2] State of North Carolina, Division of Medical Assistance. HCFA 2082 Report, Federal FY1990.

[S3] State of North Carolina, Division of Medical Assistance. HCFA 2082 Report, Federal FY1991.

[S4] State of North Carolina, Division of Medical Assistance. HCFA 2082 Report, Federal FY1992.

[S5] HCFA. Table 2.16. Enrollment Summarized by State and County, Persons 65 Years and Over Enrolled July 1, 1990. Unpublished data provided by Health Care Financing Administration.

[S6] HCFA. Table 2.21. Disabled Beneficiaries Enrolled as of July 1, 1990, by Type of Coverage, State, Puerto Rico, Virgin Islands, Metropolitan-Nonmetropolitan Residence and County. Unpublished data provided by Health Care Financing Administration.

[S7] HCFA. Table 2.16. Enrollment Summarized by State and County, Persons 65 Years and Over Enrolled July 1, 1991. Unpublished data provided by Health Care Financing Administration.

[S8] HCFA. Table 2.21. Disabled Beneficiaries Enrolled as of July 1, 1991, by Type of Coverage, State, Puerto Rico, Virgin Islands, Metropolitan-Nonmetropolitan Residence and County. Unpublished data provided by Health Care Financing Administration.

[S9] CHPRE. Estimated Cost of Alternative Plans, North Carolina, 1992. Background data provided to Health Access Forum, September 14, 1992.

[S10] Table E-1. Employer-Based Health Insurance Coverage, by Firm Size and Poverty Status, North Carolina, 1993.

[S11] John Garamendi. California Health Care in the 21st Century: A Vision for Reform. State of California, Department of Insurance, February 1992.

[S12] CHPRE. Potential Revenues from Alternative Tax Sources, NC SFY1990. Background data provided to Health Access Forum, July 14, 1992.

[S13] Testimony of Alain Enthoven before the Committee on Labor and Human Resources, U.S. Senate, Hearing on Health Insurance Purchasing Act, May 7, 1992.

[S14] Table E-4. Estimated Cost to Expand Medicaid, North Carolina, SFY1995

Table E–6

Baseline Financing Data
North Carolina, 1993

Family Poverty Status	1993 Total Individuals	Average Household Size	1993 Estimated Households	1993 Personal Income	1993 Taxable Income	1993 Earned Income	1993 General Sales	1993 Property Taxes	Estimated 1993 Taxes to Generate $6.5 Billion				
									Income Tax	Payroll Tax	Sales Tax	Property Tax	$1200 Head Tax
				Amount per Household					Amount per Capita				
Total	6,869,728	2.5	2,697,842	$48,952	$22,754	$28,731	$18,004	$1,067	$951	$951	$951	$951	$1,319
Below 100% Poverty	908,333	2.5	363,333	10,957	0	2,922	10,160	$424	$0	$99	$547	$385	$1,319
100–199% Poverty	1,429,969	2.4	596,679	21,195	10,158	8,890	12,794	$659	$451	$313	$718	$624	$1,319
200–299% Poverty	1,397,069	2.7	517,433	36,982	17,725	20,792	16,903	$903	$699	$649	$842	$759	$1,319
300–399% Poverty	1,125,434	2.7	416,827	52,537	25,180	32,227	19,594	$1,144	$993	$1,006	$976	$962	$1,319
Above 400% Poverty	2,008,923	2.5	803,569	92,590	44,377	58,430	25,302	$1,728	$1,890	$1,971	$1,362	$1,568	$1,319
	Aggregate Amount (millions)												
Total				$132,064.7	$61,387.9	$77,510.4	$48,570.8	$2,879.8	$6,535.0	$6,535.0	$6,535.0	$6,535.0	$9,061.0
Below 100% Poverty				3,981.1	0	1,061.6	3,691.5	153.9	0.0	89.5	496.7	349.3	1198.1
100–199% Poverty				12,646.4	6,061.1	5,304.3	7,633.7	393.3	645.2	447.2	1027.1	892.5	1886.1
200–299% Poverty				19,135.6	9,171.3	10,758.5	8,746.3	467.3	976.3	907.1	1176.8	1060.5	1842.7
300–399% Poverty				21,899.1	10,495.8	13,433.2	8,167.2	477.0	1117.3	1132.6	1098.9	1082.3	1484.4
Above 400% Poverty				74,402.6	35,659.7	46,952.8	20,332.1	1,388.3	3796.1	3958.6	2735.6	3150.3	2649.7
	Percent Distribution												
Total	100.0%		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Below 100% Poverty	13.2%		13.5%	3.0%	0.0%	1.4%	7.6%	5.3%	0.0%	1.4%	7.6%	5.3%	13.2%
100–199% Poverty	20.8%		22.1%	9.6%	9.9%	6.8%	15.7%	13.7%	9.9%	6.8%	15.7%	13.7%	20.8%
200–299% Poverty	20.3%		19.2%	14.5%	14.9%	13.9%	18.0%	16.2%	14.9%	13.9%	18.0%	16.2%	20.3%
300–399% Poverty	16.4%		15.5%	16.6%	17.1%	17.3%	16.8%	16.6%	17.1%	17.3%	16.8%	16.6%	16.4%
Above 400% Poverty	29.2%		29.8%	56.3%	58.1%	60.6%	41.9%	48.2%	58.1%	60.6%	41.9%	48.2%	29.2%
Notes	[A]	[B]	Computed	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]

Notes:

[A] Figures reported in [S1].

[B] Figures are national estimates of average size per consumer unit, by poverty status, derived from special tabulation of 1987 Consumer Expenditure Survey [S3]. See Parameters section.

[C] Figures per household estimated using Total Income from 1987 CES (see Parameters) x (1 + [PA.1]) x [PA.2] x [PA.4]. Aggregate figures derived by multiplying per household amounts times estimated number of households.

[D] Total aggregate taxable income derived by dividing projected net income tax collections in FY1993 by the effective income tax rate in CY1990 (see Parameters). It was assumed that those with incomes below poverty pay no tax and that the share of taxes paid for the remaining income groups is directly proportional to estimated total income. NOTE THAT THIS IS VERY CRUDE SINCE TAXABLE INCOME AS A SHARE OF TOTAL INCOME MAY VARY WIDELY BY INCOME GROUP. Amount per household is estimated by dividing aggregate totals by estimated number of households.

[E] Figures per household estimated using Earned Income from 1987 CES (see Parameters) x (1 + [PA.1]) x [PA.2] x [PA.6]. Aggregate figures derived by multiplying per household amounts times estimated number of households.

[F] Figures per household estimated using summed adjusted expenditures subject to sales tax (e.g., food, clothing, household goods, etc.). For each expenditure item, adjustments were made to match CES–reported totals with more accurate national estimates of totals reported in the Personal Consumption Expenditure series of the National Income and Product Accounts. Estimated Sales from 1987 CES (see Parameters) x (1 + [PA.1]) x [PA.2]. The resultant figures were then adjusted by multiplying by [PA.15]. Aggregate figures derived by multiplying per household amounts times estimated number of households.

[G] Aggregate amount of property taxes estimated in Parameters section [PA.19]. The distribution by poverty status is based on the distribution of estimated property taxes required to generate $6.5 billion and per household amounts are estimated by dividing these aggregate amounts by total households.

[H] Per capita figures estimated by multiplying per household taxable income times [PA.9] and dividing by average household size.

[I] Per capita figures estimated by multiplying per household earned income times [PA.10] and dividing by average household size.

[J] Per capita figures estimated by multiplying per household sales times [PA.11] and dividing by average household size.

[K] Per capita figures estimated from 1990 South Carolina property tax collections per capita, by poverty status (using raw data reported in Parameters). This per capita estimate was multiplied by [PA.12] to ensure that aggregate revenues summed to $6.5 billion.

[L] Per capita figure obtained from [PA.13] (see Parameters). Note that aggregate figure does not equal $6.535 billion since per capita amount is applied to entire population instead of just the 4.964 million who would be covered by the universal coverage plan (i.e., the total population excluding Medicaid and Medicare eligibles).

NOTES: BASELINE FINANCING DATA, NORTH CAROLINA, 1992

Parameters:

1987 Consumer Expenditure Survey Data [S3]				1990 NC Population	1990 SC Estimates [S8]		Family Poverty Status
Average Size of Consumer Unit	Average Amount per Consumer Unit				Local Property Taxes (m)	Total Population	
	Total Income	Earned Income	General Sales				
2.5	53,879	51,174	21,080	1,899,233	432.237	940,589	Above 400% Poverty
2.7	30,572	28,225	16,324	1,021,287	142.54	505,789	300–399% Poverty
2.7	21,520	18,210	14,089	1,317,367	145.13	652,422	200–299% Poverty
2.5	14,781	10,281	11,492	676,088	72.078	352,700	150–199% Poverty
2.3	10,049	5,457	9,881	666,492	67.313	409,400	100–149% Poverty
2.5	6,376	2,559	8,465	1,048,174	66.259	587,900	Below 100% Poverty
2.4	12,333	7,786	10,659	1,342,580	139.391	762,100	100–199% Poverty (computed)*

NOTE: SC property tax figures also are derived from 1987 CES data and include prperty taxes borne by landowners, owners/renters, and non-residential (consumers), taking into account exporting, as reported in [S8].

*Weighted average computed from 100–149% and 150–199% and using 1990 NC Population as weights.

[PA.1]	39.9%	Six-year increase in NC per capita income, 1992/1986, derived from figures reported in [S4] and [S5].
[PA.2]	85.9%	NC per capita income as percent of US, 1987, derived from figures reported in [S4].
[PA.3]	126,298	Projected 1993 NC personal income, in millons (1992 total, inflated by 5.6%), obtained from Office of State Budget and Management [S7].
[PA.4]	1.43	Personal income underreporting adjustment (figure computed so that estimated aggregate personal income derived from per household figures matches [PA.3]).
[PA.5]	77,510	Total projected wages and salaries for 1993 (millions), based on DRI forecasts [S6].
[PA.6]	0.95	Earned income adjustment (figure computed so that estimated aggregate earned income derived from per household figures matches [PA.5]).
[PA.7]	3,928,828	Projected net individual income tax collections, CY1993 (based on $3,810,000,000 projected for SFY1993 [S7] versus $3,583,017 actual net collections in SFY1992 [S12], inflated forward to yield a calendar year total).
[PA.8]	6.4%	Net individual income tax effective tax rate, CY1990 (1992 figure unavailable until late 1993) [S7]
[PA.9]	10.65%	Required income tax rate to generate cost of universal coverage plan ([PA.21]/1993 Taxable Income)
[PA.10]	8.43%	Required payroll tax rate to generate cost of universal coverage plan ([PA.21]/1993 Earned Income)
[PA.11]	13.45%	Required sales tax rate to generate cost of universal coverage plan ([PA.21]/1993 General Sales)
[PA.12]	3.41	Property tax adjustment to generate cost of universal coverage plan ([PA.21/)
[PA.13]	$1,318.98	Estimated annual amount per enrollee for universal coverage [S6]
[PA.14]	$1,942,833	Projected collections from state 4% sales tax, CY1993 (based on $1,868,800,000 projected for SFY1993 [S13] versus $1,729,000,000 estimated collections in SFY1992, inflated forward to yield a calendar year total). The SFY1992 estimate is obtained by multiplying actual SFY1992 state general sales and gross receipts tax collections [S12] times the ratio of 4%–only to total projected collections in SFY1993 (1,868.8/2,336.0) [S13].
[PA.15]	1.00	Average sales income adjustment (figure computed so that estimated aggregate sales derived from per household figures matches [PA.14]/[.04]).
[PA.16]	2,222,860,133	Total local property tax levy, 1990 [S9]
[PA.17]	2,237,426,000	Actual local property tax collections, 1990 [S10]
[PA.18]	2,651,324,870	Total local property tax levy, 1992 [S9]
[PA.19]	2,879,816,515	Estimated local property taxes collected, 1993 [PA.18] x ([PA.18]/[PA.22]) X ([PA.17]/[PA.16]).
[PA.20]	293,064,039,413	Estimated local property tax valuation, 1993 (excludes intangibles) [PA.24] x [PA.24]/[PA.23].
[PA.21]	6,535	Amount needed to finance universal coverage plan [S6]
[PA.22]	2,456,933,533	Total local property tax levy, 1991 [S9]
[PA.23]	246,238,838,936	Estimated local property tax valuation, 1991 (excludes intangibles) [S9].
[PA.24]	269,721,850,946	Estimated local property tax valuation, 1992 (excludes intangibles) [S9].

Sources:

[S1]	Table E–1. Employer–Based Health Insurance Coverage by Firm Size and Poverty Status, North Carolina, 1993.
[S2]	Office of State Planning. "North Carolina: Projected Population, July 1, 1992, By Age, Race, and Sex." Unpublished projections based on modified 1990 Census counts, prepared May 15, 1992.
[S3]	U.S. Department of Labor, Bureau of Labor Statistics, 1987 Consumer Expenditure Survey, unpublished analysis performed by Iowa State University under contract to Center for Health Policy Research and Education, Duke University, 1991.
[S4]	Regional Economic Measurement Division, "State Per Capita Personal Income, 1985–90, and State Personal Income, 1988–90: Revised Estimates," Survey of Current Business, August 1991.
[S5]	Regional Economic Measurement Division, state personal income estimates reported in Survey of Current Business, August 1991.
[S6]	Table E–5. Projected Costs of Universal Health Coverage, North Carolina, 1993.
[S7]	Personal communication with Paul Zipin, Office of State Budget and Management.
[S8]	Christopher J. Conover, Kenneth E. Thorpe, Jane Pitcher, Barry C. Nocks. Health Care for the Medically Indigent of South Carolina: 1990 Health Access Update. Final Report. May 1992.
[S9]	Personal communication with Sharon Wiwel, Tax Research Division, North Carolina Department of Revenue.
[S10]	Bureau of the Census. Government Finances: 1989–90. Washington, D.C.: U.S. Department of Commerce, Bureau of the Census GF/90–5. December 1991.
[S11]	Bureau of the Census. State Government Tax Collections: 1990. Washington, D.C.: U.S. Department of Commerce, Bureau of the Census GF–90–1. August 1991.
[S12]	Personal communication with Patty Soule, Tax Research Division, North Carolina Department of Revenue.
[S13]	Personal communication with Mike Kittle, Office of State Budget and Management.

Table E-7
Estimated Tax Rates Required to Finance Universal Health Coverage
North Carolina, 1993

	Type of Tax			
	Individual Income Tax	Payroll Tax	General Sales Tax	Local Property Tax
	CY1993 North Carolina Baseline			
Current Effective Tax Rate [A]	6.40%	13.77%	6.00%	0.90%
Current Tax Yield (millions) [B]	$3,928.8	$10,608.4	$2,914.3	$2,879.8
Monthly Per Capita Plan Cost	Added Tax Rate Required [C]			
Health Access Forum Plan ($98.18)	10.65%	8.43%	13.45%	2.04%
$80	8.09%	6.41%	10.23%	1.55%
$90	9.11%	7.21%	11.51%	1.75%
$100	10.12%	8.01%	12.79%	1.94%
$110	11.13%	8.81%	14.07%	2.13%
$120	12.14%	9.62%	15.35%	2.33%
$130	13.15%	10.42%	16.62%	2.52%
State Employee Plan ($140.74)	15.26%	12.09%	19.29%	2.93%

NOTES FOR ESTIMATED TAX RATES REQUIRED TO FINANCE UNIVERSAL HEALTH COVERAGE

Notes:

[A] Income tax rate = [PA.8] from [S6]; payroll tax rate = current tax yield/[PA.5], reported in [S6]; general sales tax rate = 4% state rate plus 2% local rate; local property tax rate = [PA.18]/[PA.20], reported in [S6].

[B] Income tax yield = [PA.7] from [S6]; payroll tax yield = [PC.8] + [PC.11] + [PC.15]; general sales tax yield = current tax rate x 1993 General Sales from [S8]; local property tax yield = [PA.19], reported in [S6].

[C] Figures are estimated assuming that each type of tax shown is the sole source of revenue for a universal health coverage plan (i.e., no mixing of different tax sources). The rates shown represent the increase in tax rates required to finance universal health coverage (i.e., these rates are in addition to current tax rates for each tax type).

Parameters:

[PC.1]	98.18	Monthly premium per person for Health Access Forum proposal [S9].
[PC.2]	140.74	Monthly premium per person for State Employee Health Plan, 1992.
[PC.3]	7,006.0	Total FICA contributions for OASDHI, North Carolina, 1988 (millions) [S1].
[PC.4]	251,814	Total FICA contributions for OASDI, U.S., CY1988 (millions), reported in Table II.F.12 [S2].
[PC.5]	328,807	Projected FICA contributions for OASDI, U.S., CY1993 (millions), using intermediate assumptions, as reported in Table II.F.12 of [S2].
[PC.6]	62,449	Total FICA contributions for HI, U.S., CY1988 (millions), reported in Table 2 of [S3].
[PC.7]	85,914	Projected FICA contributions for HI, U.S., CY1993 (millions), using intermediate assumptions, as reported in Table 2 of [S3].
[PC.8]	9,245.6	Projected FICA contributions for OASDHI, North Carolina, CY1992 (millions), computed as follows: [PC.3] x ([PC.6] + [PC.7])/([PC.4 + PC.3]).
[PC.9]	254.7	Total payroll contributions for Unemployment Insurance Fund, North Carolina, CY1990 (millions) [S4].
[PC.10]	262.7	Total payroll contributions for Unemployment Insurance Fund, North Carolina, CY1991 (millions) [S5].
[PC.11]	279.4	Projected payroll contributions for Unemployment Insurance Fund, North Carolina, CY1993 (millions), computed as follows: [PC.10] x ([PC.10]/[PC.9]) ^2.
[PC.12]	554,990,039	Written premiums for worker's compensation, 1990 (excludes self-insured) [S7].
[PC.13]	620,094,014	Written premiums for worker's compensation, 1991 (excludes self-insured) [S7].
[PC.14]	4,518,108	Premium taxes billed in 1990 for self-insured worker's compensation plans (2.5% tax rate) [S8].
[PC.15]	6,642,902	Premium taxes billed in 1991 for self-insured worker's compensation plans--including regulatory charges of $405,416 (2.5% tax rate) [S8].
[PC.16]	1,083,513,219	Projected payroll contributions for workers compensation, North Carolina, CY1992 (millions), computed as follows: [PC.13] x ([PC.13]/[PC.12]) + ([PC.15] x ([PC.15]/[PC.14])/.025

Sources:

[S1] Social Security Bulletin, Annual Statistical Supplement, 1991.

[S2] Board of Trustees, Federal Old-Age and Survivors Insurance and Disability Insurance Trust Fund. 1992 Annual Report of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Fund. 102d Cong., 2nd Sess., House Document 102-279. Washington, D.C.: U.S. Government Printing Office, April 3, 1992.

[S3] Board of Trustees, Federal Hospital Insurance Trust Fund. 1992 Annual Report of the Federal Hospital Insurance Trust Fund. 102d Cong., 2nd Sess., House Document 102-280. Washington, D.C.: U.S. Government Printing Office, April 3, 1992.

[S4] Employment Security Commission of North Carolina. Employment and Wages in North Carolina, 1990. Raleigh: Employment Security Commission of North Carolina, Labor Market Information Division, 1991.

[S5] Unpublished information obtained from Employment Security Commission of North Carolina, Labor Market Information Division.

[S6] Table E-6. Baseline Financing Data, North Carolina, 1993.

[S7] Personal communication with Jerry Hamrick, North Carolina Rating Bureau.

[S8] Personal communication with Sam Watson, North Carolina Department of Insurance.

[S9] Table E-5. Projected Cost of Universal Health Coverage, North Carolina, 1993.

Table E-8
Comparative Efficiency of Alternative Mechanisms for Tax Financing of Universal Health Coverage, 1993

	Type of Tax					
	Personal Income Tax	Payroll Tax	General Sales Tax	Local Property Tax	Flat Head Tax	Notes
Efficiency Losses	−28.0%	−28.3%	−12.9%	−35.8%	−0.8%	Computed
Collection Costs	−0.9%	−0.9%	−0.2%	−0.4%	−0.4%	[A]
Compliance Costs	−3.2%	−3.2%	−1.2%	−3.2%	−0.4%	[B]
Excess Burden	−23.9%	−24.1%	−11.5%	−32.2%	0.0%	[C]
Exporting	21.7%	33.5%	10.0%	34.4%	0.0%	Computed
Federal Exporting	21.7%	30.5%	0.0%	24.0%	0.0%	[D]
Other Exporting	0.0%	3.0%	10.0%	10.4%	0.0%	[E]
Net Loss/Gain	−6.3%	5.2%	−2.9%	−1.4%	−0.8%	[F]
Net Yield per $1 Taxed	$0.94	$1.05	$0.97	$0.99	$0.99	[G]

Notes:

[A] Collection Costs = cost to state government to collect tax. Figures shown are intended to reflect the marginal cost of higher tax rates, which are assumed to equal one third of the average collections costs reported in empirical studies.

Personal Income Tax--figure shown is an average of two estimates: one study measured collection costs for state income taxes at 5.0% of revenues raised [S1], while a study of federal income taxes estimated that the share of federal taxes absorbed by the budgets for IRS and units of Departments of Justice and Treasury which assist in tax collection amounts to .0.64% [S2].

Payroll Tax--figure assumed to be the same as for income taxes.

General Sales Tax--figure shown is computed based on the reported administrative cost of collecting the one percent local government sales/use tax and the one-half percent Article 40 sales and use tax in 1988 [S3].

Local Property Tax--figure shown is based on the average collections cost 1.0% to 1.5% based on local property tax collections in California [S4].

Flat Head Tax--figure assumed to be the same as for local property tax.

[B] Compliance Costs = cost to consumers or business to comply with tax (e.g., time costs, etc.). Figures shown are intended to reflect the marginal cost of higher tax rates, which are assumed to equal one third of the average compliance costs reported in empirical studies.

Individual Income Tax--figure shown equals one half of the average figure from 4 studies plus other indirect compliance costs such as tax evasion, as reported in [S2]. A 1992 study by GAO cites estimates of the cost to file individual income taxes at $30 billion (based on 3 billion hours) [S5]; total individual income tax revenues in 1991 were $467.8 billion [S6], implying a pure compliance cost of 6.4%. A 1983 study of Minnesota taxpayers by Joel Slemrod and Nikki Sorum measured tax-compliance labor and expenses as 7% of federal and state income-tax revenue. 1964 study of Montana taxpayers by John Wicks measured tax-compliance labor and expenses as 11.5% of federal income-tax revenue. A 1985 study of U.S. taxpayers by Arthur Anderson using hourly employee cost figures recommended by James L. Payne measured individual and business tax-compliance costs as 24.43% of total federal taxes [S2]. To each of these estimates, a figure of 6.78% has been added to account for the private costs of tax enforcement (e.g., audits), forced collections, litigation, tax avoidance and tax evasion [S2].

Payroll Tax--figure assumed to be the same as for income taxes.

General Sales Tax--figure shown is an average of figures from two sources. Until 1987, 3% was paid to NC corporations to offset their costs for collecting sales taxes [S7]. The second figure (3.93%) is the average estimated compliance cost from a study of a representative sample of retail firms in Ohio in 1960-61 [S8].

Local Property Tax--figure assumed to be the same as for income taxes.

Flat Head Tax--figure assumed to be one third as large as for general sales taxes.

[C] Excess Burden = loss of value due to behavioral changes induced by a tax (e.g., tax on consumption lowers consumption; tax on labor lowers use of labor). Most empirical studies estimate the marginal excess burden (MEB) associated with small changes in a tax.

Personal Income Tax--figure shown is an average of MEB estimates from a general equilibrium study using 1973 data, based on a range of plausible values for saving elasticity (0 to .4) and labor supply elasticity (0 to .15); the results are MEB estimates ranging from 16.3% to 31.4% [S9].

Payroll Tax--figure shown is an average of estimates from 3 studies. A general equilibrium study for 1976 estimated a baseline MEB for labor of 20.7% for all federal, state and local taxes [S10]. A 1981 study by Jerry Hausman (cited in [S2]) estimated the MEB for labor at 28.7%. A general equilibrium study for 1973 estimates the MEB for labor taxes at the industry level at 23.0%, using the most plausible estimates of savings and labor supply elasticity [S9].

General Sales Tax-- figure shown is the MEB for sales taxes on commodities other than alcohol, tobacco and gasoline, using a general equilibrium study for 1973, using the most plausible estimates of savings and labor supply elasticity [S9].

Local Property Tax--figure shown is the MEB estimate for capital taxes at the industry level from a general equilibrium study for 1973, based on a range of plausible values for saving and labor supply elasticity. This study treats property taxes as ad valorem taxes on the use of capital services by industry [S9].

Flat Head Tax--by definition, a flat head tax has no excess burden, since no change in behavior can reduce its impact.

[D] Federal Exporting = amount of tax which is indirectly paid by federal government due to tax deductibility rules.

[E] Other Exporting = share of taxes levied in North Carolina which are paid by consumers and/or business owners outside of North Carolina.

Sources:

[S1] Clara Penniman. State Income Taxation. Baltimore: Johns Hopkins University Press, 1980.

[S2] James L. Payne. "Unhappy Returns: The $600–Billion Tax Ripoff." Policy Review (Winter 1992): 18–24.

[S3] State of North Carolina, Department of Revenue, Tax Research Division, Statistics of Taxation, 1988. Raleigh, NC: Department of Revenue, March 1990.

[S4] George F. Break. Agenda for Local Tax Reform. Berkeley, CA: Institute of Governmental Studies, University of California, 1970.

[S5] General Accounting Office. Internal Revenue Service: Opportunities to Reduce Taxpayer Burden Through Return–Free Filing. Washington, D.C.: GAO GGD–92–88BR May 1992.

[S6] Congressional Budget Office. The Economic and Budget Outlook: Fiscal Years 1993–1997. Washington, D.C.: CBO, January 1992.

[S7] Van Denton. "New Year to Mean Higher Taxes for N.C. Firms." Raleigh News and Observer. December 30, 1987.

[S8] J.C. Yokum. Retailers' Cost of Sales Tax Collections in Ohio. Columbus, OH: Bureau of Business Research, Ohio State University, 1961.

[S9] Charles L. Ballard, John B. Shoven, John Whalley. "General Equilibrium Computations of the Marginal Welfare Costs of Taxes in the United States." American Economic Review 75, No. 1 (March 1985): 128–138.

[S10] Charles Stuart. "Welfare Costs per Dollar of Additional Tax Revenue in the United States." American Economic Review 74 No. 3 (June 1984): 352–361.

Table E-9
Comparative Equity of Alternative Mechanisms for Tax Financing of Universal Health Coverage North Carolina, 1993

Family Poverty Status	Type of Tax				
	Personal Income Tax	Payroll Tax	General Sales Tax	Local Property Tax	Flat Head Tax*
Added Tax Rate Required*	**10.6%**	**8.4%**	**13.5%**	**2.0%**	
	Tax Amount per Capita				
Total	951	951	951	951	1,319
Below 100% Poverty	0	99	547	385	1,319
100–199% Poverty	451	313	718	624	1,319
200–299% Poverty	699	649	842	759	1,319
300–399% Poverty	993	1,006	976	962	1,319
Above 400% Poverty	1,890	1,971	1,362	1,568	1,319
	Tax Amount per Household				
Total	2,422	2,422	2,422	2,422	3,359
Below 100% Poverty	0	246	1,367	961	3,297
100–199% Poverty	1,081	750	1,721	1,496	3,161
200–299% Poverty	1,887	1,753	2,274	2,050	3,561
300–399% Poverty	2,681	2,717	2,636	2,597	3,561
Above 400% Poverty	4,724	4,926	3,404	3,920	3,297
	Percent of Family Income				
Total	4.9%	4.9%	4.9%	4.9%	6.9%
Below 100% Poverty	0.0%	2.2%	12.5%	8.8%	30.1%
100–199% Poverty	5.1%	3.5%	8.1%	7.1%	14.9%
200–299% Poverty	5.1%	4.7%	6.1%	5.5%	9.6%
300–399% Poverty	5.1%	5.2%	5.0%	4.9%	6.8%
Above 400% Poverty	5.1%	5.3%	3.7%	4.2%	3.6%
	Percent Distribution				
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Below 100% Poverty	0.0%	1.4%	7.6%	5.3%	13.2%
100–199% Poverty	9.9%	6.8%	15.7%	13.7%	20.8%
200–299% Poverty	14.9%	13.9%	18.0%	16.2%	20.3%
300–399% Poverty	17.1%	17.3%	16.8%	16.6%	16.4%
Above 400% Poverty	58.1%	60.6%	41.9%	48.2%	29.2%

* Figures show the additional tax rate required to pay for a universal health coverage plan requiring $6,535,000,000 in revenues, as reported in [S2].

Note: Per capita and per household figures for flat tax are higher than for other taxes shown because only 5.0 million out of 6.9 million North Carolinians are covered by universal plan (remainder are Medicare/Medicaid eligibles who may not initially be covered and therefore would not be subject to head tax; see [S2]). Remaining taxes are allocated across all households for comparative purposes.

Sources:

[S1] Table E–6. Baseline Financing Data, North Carolina, 1993.

[S2] Table E–7. Estimated Tax Rates Required to Finance Universal Health Coverage, North Carolina, 1993.

Table E-10
Alternative Tax Mixes to Finance Universal Health Coverage
North Carolina, 1993

Description of Tax Mix	Required Tax Rate		Expected Tax Mix	
	Income	Payroll	Income	Payroll
Alternative Tax Mixes [A]				
90% Income Tax/10% Payroll Tax	9.6%	0.8%	90.0%	10.0%
75% Income Tax/25% Payroll Tax	8.0%	2.1%	75.0%	25.0%
50% Income Tax/50% Payroll Tax	5.3%	4.2%	50.0%	50.0%
25% Income Tax/75% Payroll Tax	2.7%	6.3%	25.0%	75.0%
10% Income Tax/90% Payroll Tax	1.1%	7.6%	10.0%	90.0%
Alternative Income Tax Rates [B]				
1% Income/Remainder Payroll Tax	1.0%	7.6%	9.4%	90.6%
2% Income/Remainder Payroll Tax	2.0%	6.8%	18.8%	81.2%
2.25% Income/Remainder Payroll Tax	2.3%	6.6%	21.1%	78.9%
3% Income/Remainder Payroll Tax	3.0%	6.1%	28.2%	71.8%
4% Income/Remainder Payroll Tax	4.0%	5.3%	37.6%	62.4%
Alternative Payroll Tax Rates [C]				
1% Payroll/Remainder Income Tax	9.4%	1.0%	88.1%	11.9%
3% Payroll/Remainder Income Tax	6.9%	3.0%	64.4%	35.6%
5% Payroll/Remainder Income Tax	4.3%	5.0%	40.7%	59.3%
7% Payroll/Remainder Income Tax	1.8%	7.0%	17.0%	83.0%

Note: All figures assume that universal health coverage plan costs $98.18/person/month.

[A] All figures computed as follows: the expected tax mix percentage is multiplied by the respective added tax rate required to fully finance universal health coverage [S1], e.g., 90% x 10.65% = 9.6%.

[B] All figures computed as follows: [(1 – Income Tax Rate/(Added Income Tax Rate Required to Fully Finance Coverage)] x Added Payroll Tax Rate Required to Fully Finance Coverage. Added tax rates required to fully finance coverage are reported in [S1].

[C] All figures computed using the same logic described in Note [B].

Source:

[S1] Table E–7. Estimated Tax Rates Required to Finance Universal Health Coverage, North Carolina, 1993.

Table E-11
Preventable Health Costs
U.S. and North Carolina, 1993

Health Problem	Direct Health Costs Due to Problem		Share of Personal Health Spending		NOTES
	United States	North Carolina	United States	North Carolina	
TOTAL	178.3	3,434.5	21.5%	21.9%	
Smoking	53.1	1,103.9	6.4%	6.8%	[A]
Injuries	40.6	793.5	4.9%	4.9%	[B]
High Cholesterol	29.0	566.4	3.5%	3.5%	[B]
Alcohol Abuse	15.3	299.0	1.8%	1.8%	[B]
High Blood Pressure	23.8	465.3	2.9%	2.9%	[B]
AIDS	11.8	114.9	1.4%	1.4%	[C]
Drug Abuse	4.7	91.4	0.6%	0.6%	[B]

Notes:

[A] U.S. costs assume share of health spending due to smoking is same in 1993 as it was in 1985. North Carolina costs are based on reported smoking-attributable health costs in 1985, inflated by the national increase in aggregate smoking-attributable health costs between 1985 and 1993.

[B] U.S. costs assume share of health spending due to a given health problem is same in 1993 as it was in 1985. This share is assumed to be the same in North Carolina and is applied against estimated personal health spending to obtain the dollar figure shown.

[C] U.S. costs based on most recent forecast of AIDS costs [S4]. North Carolina figure based on 1988 projection that AIDS costs would reach $100 million [S7]. This figure is inflated by the national rise in AIDS costs from 1992 to 1993 (see Parameters).

Parameters:

U.S. Costs (millions)	Year of Estimate	U.S. Personal Health Costs*	Health Problem	Source
23,654	1985	369.7	Smoking	[S1]
23,600	1989	482.8	Injuries**	[S9]
7,655	1980	219.4	High Cholesterol	[S2]
6,810	1985	369.7	Alcohol Abuse	[S3]
6,289	1980	219.4	High Blood Pressure	[S2]
11,840	1993	830.2	AIDS	[S4]
2,082	1985	369.7	Drug Abuse	[S3]

* All figures reported in [S8], except for 1993 figure [S9].

** Figure shown is medical costs of accidents at work and home, including motor vehicle accidents.

830.2 Personal health spending, US, 1993 (billions) [S5].

16.2 Personal health spending, NC, 1993 (billions) [S6].

491.6 North Carolina smoking-attributable medical costs, 1985 (millions).

491.6 North Carolina smoking-attributable medical costs, 1985 (millions).

10.301 U.S. AIDS Cost, 1992 [S4]

Sources:

[S1] U.S. Department of Health and Human Services. Smoking and Health: A National Status Report, 2nd Edition. A Report to Congress. DHHS Publication No. (CDC) 87-8396 (Revised 2/90).

[S2] Office of the President. The President's Comprehensive Health Reform Program. Washington, D.C.: Office of the President, 1992.

[S3] Dorothy P. Rice, Sander Kelman, Leonard S. Miller, Sarah Dunmeyer. The Economic Costs of Alcohol and Drug Abuse and Mental Illness: 1985.

[S4] Fred Hellinger. "Forecasts of the Costs of Medical Care for Persons with HIV: 1992-1995." Inquiry (Fall, 1992), cited in Medical Benefits 9(22): 4.

[S5] U.S. Department of Commerce, U.S. Industrial Outlook, 1993. Washington, D.C.: U.S. Government Printing Office, 1993.

[S6] CHPRE. "Estimated Per Capita Health Costs, North Carolina and U.S., Selected Years, 1990-2000." Durham: Duke University, Center for Health Policy Research and Education, unpublished.

[S7] Donna Alvarado, "'89 N.C. AIDS-care Cost Forecast At $20 Million," News and Observer, August 30, 1988.

[S8] Katharine R. Levit, Helen C. Lazenby, Cathy A. Cowan and Suzanne W. Letsch. "National Health Expenditures, 1990," Health Care Financing Review 13(1): 29-54.

[S9] HIAA. Source Book of Health Insurance Data, 1991. Washington, D.C.: HIAA, 1992.

Table E-12
Rate of Increase in Hospital Revenues
Short-Term Community Hospitals, 1979-1990

State or Division	Net Hospital Revenue Per Capita						Net Hospital Revenue Per $10,000 Income		Net Hospital Revenue Per $10,000 Income (100 = US)	
	1975	1979	1980	1985	1989	1990	1980	1990	1980	1990
U.S. Total	$182	$306	$352	$582	$771	$851	$355	$454	100	100
All CON States	$185	$310	$356	$594	$799	$885	$365	$467	103	103
Loose Capital Thresholds*	$193	$353	$399	$678	$869	$965	$401	$514	113	113
Tennessee**	$164	$301	$353	$619	$855	$955	$440	$589	124	130
CON More Strict Than NC***	$186	$300	$347	$575	$781	$864	$352	$449	99	99
States Without CON**	$174	$292	$339	$548	$698	$763	$327	$418	92	92
High HMO Penetration*****	$191	$314	$366	$581	$723	$771	$332	$397	94	88
All Other	$148	$258	$300	$500	$659	$751	$319	$458	90	101
Mandatory Ratesetting	$220	$335	$380	$616	$862	$943	$347	$422	98	93
Connecticut	$190	$302	$341	$590	$854	$910	$282	$360	79	79
Maryland	$165	$279	$324	$498	$661	$710	$300	$328	85	72
Massachusetts	$274	$429	$487	$789	$1,046	$1,101	$459	$497	129	110
New Jersey	$173	$268	$306	$522	$762	$873	$264	$347	74	77
New York	$255	$382	$426	$669	$966	$1,064	$397	$486	112	107
Washington	$141	$208	$256	$478	$604	$662	$239	$360	67	79
Non-Ratesetting States	$173	$299	$346	$574	$751	$830	$357	$462	101	102
High HMO Penetration******	$185	$306	$355	$566	$712	$763	$330	$399	93	88
Hawaii	$110	$208	$236	$415	$565	$672	$223	$325	63	72
All Other	$169	$296	$343	$577	$765	$854	$367	$486	103	107
South Atlantic Division	$174	$306	$347	$567	$760	$836	$495	$581	140	128
Excluding Maryland	$174	$309	$349	$573	$769	$848	$525	$619	148	137
Excluding North Carolina	$180	$318	$360	$590	$775	$851	$524	$603	148	133
North Carolina	$129	$220	$253	$400	$649	$724	$316	$442	89	98

Note: All hospital revenue figures reported in [S1]. Revenue per $10,000 income computed based on personal income data reported in [S2].

* Includes states which have capital thresholds higher than NC (Hawaii and Nevada) or equal to NC (Illinois, Ohio, Pennsylvania, Tennessee).

** Tennessee has the same capital and equipment thresholds as NC, but only regulates new services if they require new beds.

*** Includes 31 other states with CON regulations more strict than North Carolina's.

**** Includes 11 states which do not review capital expenditures (Arizona, California, Colorado, Idaho, Kansas, Louisiana, Minnesota, New Mexico, South Dakota, Texas, Utah and Wyoming).

***** Includes 5 states which do not review capital expenditures and had more than 20% of population in HMOs in 1991 (Arizona, California, Colorado, Minnesota and Utah).

****** Includes 9 states without mandatory state rate-setting and which had more than 20% of population in HMOs in 1991 (Arizona, California, Colorado, Hawaii, Minnesota, Oregon, Rhode Island, Utah and Wisconsin).

Sources:

[A] American Hospital Association, Annual Survey data, selected years, reported in Hospital Statistics.

[B] Regional Economic Measurement Division. "State Per Capita Personal Income, 1985-1990, and State Personal Income, 1988-90: Revised Estimates." Survey of Current Business, August 1991: 30.

Table E-13
Estimated Net New Health Spending
Under Universal Health Coverage
North Carolina, 1993

	TOTAL (millions)	NEW SPENDING		NOTES
		Federal	State	
Added Costs	**1,012.1**	**363.4**	**648.7**	
Medicaid Expansion	557.9	363.4	194.5	[A]
Net New Cost for Uninsured	341.2	0	341.2	[B]
Net New Cost for Underinsured	88.2	0	88.2	[C]
HIPC Administration	24.8	0	24.8	[D]
Potential Savings	**555.5**	**0.0**	**555.5**	
Administrative Savings from Pooling	205.7	0	205.7	[E]
Reduced Preventable Hospitalization	23.1	0	23.1	[F]
Managed Care Savings	326.8	0	326.8	[G]
Net Change in Spending	**456.5**	**363.4**	**93.1**	

Notes:

[A] Figures includes cost of covering all elderly to 100% of poverty and children to 185% of poverty (i.e., excludes raising AFDC/medically needy income standards) [S1].

[B] Figure shown computed: (1,025,069 daily uninsured in 1993) x ($380 net new cost/U.S. uninsured, 1991) x (1.093) ^2 x (Ratio of NC to US per capita spending)/1000000. See Parameters for sources.

[C] 563,000 privately underinsured x (1990–1993 population growth) x net new cost for uninsured x (Underinsured per capita spending as percent of uninsured per capita spending). THIS IS A VERY ROUGH FIGURE.

[D] $5 per person x 4,954,587 covered through Health Insurance Purchasing Corporation, based on Calpers multiple choice experience [S6].

[E] Total figure reported in [S9].

[F] Figure computed: Total uncompensated hospital care provided to uninsured in North Carolina, 1993 x medically preventable/avoidable hospitalization rate (assumed to be 12.5% or 1/2 of preventable hospitalization rate among uninsured in Washington DC; see [S8]).

[G] Assumes additional 17% of population shifts into group/staff HMOs (above current baseline of 2.3%). Figure computed as follows: (1993 Per Capita Spending x 1993 Population) x (Implied Savings in NC from Shifting Entire Population to Group/Staff Model HMOs) x (1993 Projected Share of California Population in Group/Staff HMOs).

Table E-14
Estimated Administrative Cost Savings Through Pooling of Coverage Through Health Insurance Purchasing Corporation North Carolina, 1993

	Employees With Group Coverage		1989 Cost/Worker for Group Coverage		1989 Workers With Family Coverage	1993 Average Premium	Administration Share of Premium	Estimated Savings (millions)
	Direct	Indirect	Single	Family				
TOTAL	780,609	319,881						205.7
Self Employed	82,217	72,429	1,400	3,110	20.9%	$2,063	28.6%	36.6
Under 25 Employees	177,002	139,373	1,400	3,110	20.9%	$2,063	23.1%	58.7
25–99 Employees	202,550	57,096	1,330	3,100	28.6%	$2,252	15.3%	37.7
100–499 Employees	318,840	50,983	1,310	3,280	37.4%	$2,623	13.8%	56.8
500–999 Employees	146,059	18,584	1,420	3,300	44.2%	$2,936	10.7%	15.9
Notes	[A]		[B]		[C]	[D]	[E]	[F]

Notes:

[A] All figures by firm size are reported in [S1]. Within each group coverage category, the count of workers who are self–employed is based on the share of all workers who are self–employed (incorporated or unincorporated firms), work without pay or are self–reported workers who never work, based on pooled Current Population Survey data for North Carolina, 1988–1991. As a rough approximation, all such workers are assumed to report themselves as working in firms with fewer than 25 employees. The estimated total number of self–employed workers is subtracted from total estimated workers in firms below 25 workers to obtain the totals shown.

[B] Figures shown are average premiums, by firm size, in the South, as estimated using a microsimulation model and Current Population Survey data for 1989 [S2]. The premium for self–employed workers was assumed to be the same as for those in firms with under 25 employees.

[C] Figures shown are the fraction of workers in 1988 with family coverage provided through their own employer [S3].

[D] Figures shown are computed: Single Premium x (1 – Share of Workers with Family Coverage) + Family Premium x Share of Workers with Family Coverage. The result is then inflated by the annual rate of increase in premiums (1 + [PG.1]) ^ 4.

[E] Figures shown are computed based on reported administrative costs as a share of benefits paid in a national survey performed in 1988 (see Parameters): (Administrative Costs As Percent of Benefits)/(1 + Administrative Costs As Percent of Benefits).

[F] Figures shown are computed: Savings = Total Employees with Direct Coverage x 1993 Average Premium x (Administration Share of Premium – Administrative Cost per Community Health Plan). Assumed CHP administrative cost is reported in Parameters.

Parameters:

10.1% Assumed annual increase in employer premiums, 1989–1993 (average of estimated annual private insurance premium increases for 1990

7.0% Assumed administrative costs per Community Health Plan (data for employers with 10,000 or more members shows average administrative

Average Administrative Costs As Percent of Benefits Paid [S5]	
40.0%	Self Employed
30.0%	Under 25 Employees
18.0%	25–99 Employees
16.0%	100–499 Employees
12.0%	500–999 Employees

Sources:

[S1] Table E–1. Employer–Based Health Insurance Coverage, by Firm Size and Poverty Status, North Carolina, 1992.

[S2] Zedlewski, Sheila, Acs, Gregory P., Wheaton, Laura, and Winterbottom, Colin W. Pay or Play Employer Mandates: Effects on Insurance Coverage and Costs. Washington, D.C.: Urban Institute, January 20, 1992.

[S3] Zedlowski, Sheila. Expanding the Employer–Provided Health Insurance System: Effects on Workers and Their Employers. Washington, D.C.: Urban Institute, October 1990.

[S4] U.S. Congress, Congressional Budget Office. Projections of National Health Expenditures. Washington, D.C.: U.S. Government Printing Office, October 1992.

[S5] Hay–Huggins survey, reported in U.S. Congress, Library of Congress, Costs and Effects of Extending Health Insurance Coverage. Washington, D.C.: U.S. Government Printing Office, October 1988.

Table E–15

Current Levels of Subsidized Health Care
North Carolina, 1992

SOURCE OF CARE	TOTAL	FAMILY POVERTY STATUS				INSURANCE STATUS		
		Below Poverty	101–150%	151–200%	Over 200%	Total Uninsured	Uninsured Poor	Insured Poor
Current Level of Subsidized Care (millions)								
TOTAL	$3,727.6	$1,874.4	$702.3	$426.2	$724.6	$674.6	$472.4	$1,402.1
Medicaid	1,387.2	864.8	234.5	161.4	126.6	0.0	0.0	864.8
Public Programs	833.5	398.9	200.1	100.9	133.7	318.6	250.5	148.4
Hospital Medicare Losses	182.6	48.6	40.4	27.5	66.2	0.0	0.0	48.6
Hospital Medicaid Losses	150.7	102.8	23.8	11.9	12.2	0.0	0.0	102.8
Hospital Private Losses	278.1	153.3	48.7	18.9	57.0	164.1	110.7	42.6
Non–Hospital Free Care	895.6	306.1	154.9	105.7	328.9	191.9	111.2	195.0
State/Local Share of Subsidized Care								
TOTAL	$2,363.6	$1,085.3	$442.9	$266.2	$569.1	$514.8	$347.5	$737.9
Medicaid	449.1	280.0	75.9	52.3	41.0	0.0	0.0	280.0
Public Programs	433.3	207.4	104.0	52.4	69.5	165.6	130.2	77.1
Hospital Medicare Losses	175.0	46.5	38.7	26.3	63.4	0.0	0.0	46.5
Hospital Medicaid Losses	144.3	98.4	22.8	11.4	11.7	0.0	0.0	98.4
Hospital Private Losses	266.2	146.9	46.6	18.1	54.6	157.2	106.1	40.8
Non–Hospital Free Care	895.6	306.1	154.9	105.7	328.9	191.9	111.2	195.0

Note: Figures shown are based on detailed analysis of spending for each source of care listed. Details available upon request. Figures exclude long term care. If long term care is included, the state probably will spend at least $4.7 billion on subsidized care in 1993.

Table E–16

Estimated Cost of Saving Lives
For Selected Medical and Non–Medical Procedures
U.S. 1993

Type of Life–Saving Activity	Year of Estimate	Net Cost Per:		Average Years Saved		Net Cost Per Year of Life	Implied Value of Life	Inflation Adjust–ment	1992 Cost Per Year of Life	Implied Value of Life
		Life Saved	20 Years of Life	Estimated Total	Discounted at 5%				$25,705	$500,999
Medical Procedures*										
Colon cancer screening––fecal blood	1975	$10,000	$10,000	20.0	12.5	$802	$15,639	4.12	3,304	$64,401
Cervical cancer screening	1975	$25,000	$13,000	38.5	16.9	$1,476	$28,767	4.12	6,078	$118,461
Multiple screening	1975	$26,000	$20,000	28.0	14.4	$1,809	$35,251	4.12	7,448	$145,160
Colon cancer screening––proctoscopy	1975	$30,000	$30,000	20.0	12.5	$2,407	$46,918	4.12	9,913	$193,202
Mobile ICUs	1975	$30,000	$75,000	8.0	6.5	$4,642	$90,466	4.12	19,114	$372,528
Breast cancer screening	1975	$60,000	$60,000	26.7	14.6	$5,496	$107,123	4.12	22,633	$441,122
Lung cancer	1975	$70,000	$70,000	20.0	12.5	$5,617	$109,475	4.12	23,130	$450,806
Hypertension control	1975	$75,000	$75,000	20.0	12.5	$6,018	$117,294	4.12	24,782	$483,006
Kidney dialysis	1975	$200,000	$440,000	9.1	7.2	$27,914	$544,042	4.12	114,947	$2,240,308
Other Activities Affecting Health*										
Immunization in Indonesia	1975	$100	$50	40.0	17.2	$6	$114	2.64	15	$300
Medical X–ray equipment	1975	$3,600	$3,600	20.0	12.5	$289	$5,630	2.64	762	$14,850
Overseas food relief	1975	$5,300	$2,500	42.4	17.5	$303	$5,912	2.64	800	$15,593
Highway construction/maint.	1975	$20,000	$10,000	40.0	17.2	$1,166	$22,717	2.64	3,074	$59,917
Guardrail improvements	1975	$34,000	$17,000	40.0	17.2	$1,981	$38,619	2.64	5,226	$101,858
Regulatory/warning signs	1975	$34,000	$17,000	40.0	17.2	$1,981	$38,619	2.64	5,226	$101,858
Skid resistance	1975	$42,000	$21,000	40.0	17.2	$2,448	$47,705	2.64	6,456	$125,825
Bridge rails/parapets	1975	$46,000	$23,000	40.0	17.2	$2,681	$52,249	2.64	7,071	$137,808
Wrong way entry avoidance	1975	$50,000	$25,000	40.0	17.2	$2,914	$56,792	2.64	7,686	$149,791
Rescue helicopters	1975	$65,000	$32,500	40.0	17.2	$3,788	$73,830	2.64	9,991	$194,729
Driver education	1975	$90,000	$45,000	40.0	17.2	$5,245	$102,226	2.64	13,834	$269,625
Steering column	1975	$100,000	$50,000	40.0	17.2	$5,828	$113,584	2.64	15,371	$299,583
Impact absorbing devices	1975	$106,000	$54,000	40.0	17.2	$6,294	$122,671	2.64	16,601	$323,550
Passive torso–belt knee bar	1975	$110,000	$55,000	40.0	17.2	$6,411	$124,942	2.64	16,908	$329,541
Breakaway sign/lighting posts	1975	$116,000	$58,000	40.0	17.2	$6,760	$131,757	2.64	17,831	$347,516
Auto safety equip.	1975	$130,000	$65,000	40.0	17.2	$7,576	$147,659	2.64	19,982	$389,458
Median barrier improve.	1975	$226,000	$114,000	40.0	17.2	$13,287	$258,971	2.64	35,046	$683,049
Passive 3–point harness	1975	$250,000	$125,000	40.0	17.2	$14,570	$283,960	2.64	38,426	$748,957
Higher pay for risky jobs	1975	$260,000	$150,000	34.7	16.3	$15,937	$310,602	2.64	42,033	$819,227
Smoke alarms in homes	1975	$250,000	$170,000	29.4	15.2	$16,407	$319,765	2.64	43,273	$843,396
Clear roadside recovery area	1975	$284,000	$142,000	40.0	17.2	$16,551	$322,578	2.64	43,654	$850,816
Air bags	1975	$320,000	$160,000	40.0	17.2	$18,649	$363,469	2.64	49,188	$958,666
Tire inspection	1975	$400,000	$200,000	40.0	17.2	$23,311	$454,336	2.64	61,485	$1,198,332
ICRP recommendations	1975	$320,000	$320,000	20.0	12.5	$25,678	$500,456	2.64	67,726	$1,319,977
Sulfur scrubbers: power plants	1975	$500,000	$1,000,000	10.0	7.7	$64,752	$1,262,020	2.64	170,767	$3,328,637
Civilian aircraft (France)	1975	$1,200,000	$600,000	40.0	17.2	$69,934	$1,363,008	2.64	184,454	$3,594,996
Air Force pilot safety	1975	$2,000,000	$1,000,000	40.0	17.2	$116,556	$2,271,679	2.64	307,423	$5,991,660
Radium in drinking water	1975	$2,500,000	$2,500,000	20.0	12.5	$200,606	$3,909,814	2.64	529,109	$10,312,317
Coke fume standards	1975	$4,500,000	$2,500,000	38.0	16.5	$271,955	$5,300,396	2.64	717,294	$13,980,041
OMB guidelines	1975	$7,000,000	$7,000,000	20.0	12.5	$561,698	$10,947,480	2.64	1,481,505	$28,874,487
Radwaste practice–general	1975	$10,000,000	$10,000,000	20.0	12.5	$802,426	$15,639,257	2.64	2,116,436	$41,249,267
Coal mine safety	1975	$22,000,000	$13,000,000	33.8	16.2	$1,361,031	$26,526,450	2.64	3,589,782	$69,964,744
Civilian high level waste	1975	$18,000,000	$18,000,000	20.0	12.5	$1,444,367	$28,150,683	2.64	3,809,584	$74,248,681
Other mine safety	1975	$34,000,000	$20,000,000	34.0	16.2	$2,099,685	$40,922,803	2.64	5,538,017	$107,935,795
Radwaste practice–I	1975	$100,000,000	$100,000,000	20.0	12.5	$8,024,259	$156,392,571	2.64	21,164,355	$412,492,674
Defense high level waste	1975	$200,000,000	$200,000,000	20.0	12.5	$16,048,517	$312,785,143	2.64	42,328,710	$824,985,348
Civilian high level waste	1975	$1,000,000,000	$1,000,000,000	20.0	12.5	$80,242,587	$1,563,925,713	2.64	211,643,552	$4,124,926,741
NOTES	[A]	[B]		[C]	[D]	[E]	[F]	[G]	[H]	[I]

* Figures shown are unweighted averages of the figures within each group.

Notes:

[A] All figures reported in Cohen are in 1975 dollars.

[B] All figures reported in [S1].

[C] All figures computed: 20/[(Cost per 20 Years of Life)/(Cost per Life Saved)].

[D] All figures computed: Net Present Value of Average Life Expectancy, using [PA.1] as discount rate.

[E] All figures computed: Cost per Life Saved/Discounted Life Years Saved.

[F] All figures computed: Net Present Value of the lifetime expenditures that would result by spending Net Cost per Year of Life for every year of life, discounting future year expenditures to obtain the present value of that lifetime stream (using [PA.2] as life expectancy and [PA.1] as discount rate).

[G] Figure reflects increase in Consumer Price Index between year of original estimates and 1992. Medical procedures are inflated by medical CPI, while non-medical activities are inflated by general CPI.

[H] All figures computed: Net Cost per Year of Life times Inflation Factor.

[I] All figures computed: Implied Value of Life times Inflation Factor.

Parameters:

[PA.1] 5.0% Discount rate

[PA.2] 75.2 Average Life Expectancy at birth [S2].

[PA.3] 4.12 Increased in Medical CPI, 1975 to December, 1992 [S3].

[PA.4] 2.64 Increased in All Items CPI, 1975 to December, 1992 [S3].

Source:

[S1] Bernard L. Cohen, "Society's Valuation of Life Saving in Radiation Protection and Other Contexts." Health Physics 38 (January 1980): 33-51.

[S2] U.S. Department of Health and Human Services. Health United States: 1990. DHHS Publication No. (PHS) 91-1232. Hyattsville, MD: Public Health Service, March 1991.

[S3] Social Security Bulletin.

FOOTNOTES

1. The Congressional Budget Office estimates that by the year 2000, the national number of uninsured under age 65 will increase to almost 40 million, compared to 33 million in 1990--a 21% increase (U.S. Congress, CBO, 1992c). Between 1980 and 1990, North Carolina's uninsured rate rose faster than the national average (Families USA, 1990), so the national growth rate in the uninsured is likely to be a lower bound estimate of how quickly things would get worse in North Carolina.

2. Florida (December, 1994), Massachusetts (1995) and Vermont (July, 1994) are the only two states which have statutes providing for universal coverage for the entire state population, but actual implementation will not be completed for several years (deadlines shown in parentheses; see Alpha Center, 1992). To date, programs adopted by other states such as Hawaii, Minnesota, Oregon and Washington fall short of universal coverage.

3. National data show that 28% of the population lacked health insurance for at least one month during a 28-month period (U.S. Bureau of the Census, 1990). North Carolina's uninsured rate is nearly identical to the national average (EBRI, 1992), so it is likely that these results can be safely extrapolated to our state. Assuming no change in uninsured rates, there are 1,025,000 uninsured in North Carolina on an average day in 1993 (Table E-1).

4. The underinsured include 271,000 who are covered exclusively by Medicare (estimated based on pooled CPS data for North Carolina). These individuals are considered underinsured since most have low incomes and since Medicare covers less than half of the typical medical bills of the elderly (Waldo, et al., 1989). The underinsured also include 564,000 privately underinsured, defined as privately insured individuals who have greater than a 5 percent chance of spending more than 10 percent of annual household income on out-of-pocket health expenses (exclusive of amounts they might pay out of pocket for health insurance premiums). This figure was obtained by using 1977 estimates of the underinsured rate among those with private coverage, by poverty status (Farley, 1985) and applying these rates to North Carolina estimates of the privately insured in each poverty group. Assuming that the underinsured population has grown as fast as the general population, there are 865,000 underinsured in 1993 (Table E-13).

5. The Medicaid figures are derived from HCFA-2082 reports showing 758,310 annual eligibles in FY1991 compared to 403,152 in FY1985.

6. Figures are based on an analysis of Current Population Survey data for North Carolina for 1988-1990, applied to a 1990 population baseline.

7. A recent analysis shows that based on 1989 eligibility rules, 44% of the poor would be eligible for Medicaid in North Carolina compared to 52% for the U.S. Among the 8 states in the South Atlantic region, the share of poor eligible for Medicaid was lower in North Carolina than in any other state except Florida (Holahan, Zedlewski and Winterbottom, 1990).

8. Figures based on analysis of CPS data for North Carolina, 1988-1990.

9. Figures based on analysis of CPS data for North Carolina, 1988-1990.

10. There are no North Carolina data on the fraction of employers offering health coverage. A 1988 Hay-Huggins survey showed that nationally, 33% of firms with under 10 employees offered health plans, along with 72% of firms with 10-24 workers and 94% of firms with 25 to 99. Nearly all employers with 100 or more employees offer plans (U.S. Congress, CRS, 1988).

11. Figures based on analysis of CPS data for North Carolina, 1988-1990.

12. Figures based on analysis of CPS data for North Carolina, 1988-1990.

13. This figure includes long term care. Exclusive of long-term care, the subsidized total in 1992 is estimated to be $3.7 billion (Table E-15). Figures are based on CHPRE analysis of health spending for 1990, using a) data on Medicaid expenditures reported in the HCFA-2082 report; b) detailed public program spending data compiled from various agencies; c) estimated hospital uncompensated care losses obtained from an analysis of 1989 AHA data performed by the North Carolina Hospital Association; and d) physician and other uncompensated care losses, based on a synthetic estimate derived from state and national studies, as applied to North Carolina. State health spending for 1990 is estimated based on actual U.S. spending in 1990 (CHPRE, 1992a).

14. The 1992 estimate assumes 27.9% annual growth in Medicaid (based on the annual increase from 1990 to 1991), 9.9% growth in public programs and 16.5% growth in non-hospital free care (based on average annual rates of increase in these components between 1985 to 1990) and 13.3% annual growth in hospital free care (Table E-15).

15. Figures are based on CHPRE analysis of health spending for 1990 (footnote 13).

16. An analysis of 1989 data for all North Carolina hospitals, using AHA Annual Survey data and taking into accounting offsetting revenues such as state and county tax appropriations and Hill-Burton funds, found that a typical full-pay patient was charged 27 percent above the actual cost of their care to cover the cost of uncompensated care costs attributable to bad debts, charity and contractual allowances (chiefly write-offs for Medicaid and Medicare paitents). Full-pay patients were charged 40 percent above the cost of their care to cover indigent care losses and provide a positive profit margin for hospitals (unpublished analysis performed by NCHA for CHPRE). More recently, a Blue Cross Blue Shield of North Carolina projection shows that uncompensated revenue losses as a percent of total hospital charges will rise from 32 percent in 1991 ($2,372 out of average charges per admission of $7,412) to 50 percent in 1996 ($7,454 out of average charges of $14,908; see Tinker Ready, "Hospital 'arms race' drives up costs,' Raleigh News and Observer, September 13, 1992). The difference between the 27 percent and 32 percent figures is as follows. The 27 percent figure represents total economic losses (estimated patient costs minus actual patient revenues) for public patients and bad debt/charity care patients) as a percent of full-pay patient costs. The 32% figure represents total revenue losses (gross patient charges minus actual patient revenues for the same set of public/charity/bad debt patients) as a percent of total patient charges. The 27 percent figure is a more accurate way of measuring the burden of hospital economic losses: the 32% and 50% figures are cited simply to show how quickly the problem is growing.

17. Evidence from a national study shows that typically, hospitals in financial trouble cut back on their free care in order to cut costs and improve their bottom line (Feder, Hadley, and Mullner, 1984).

18.These 1990 place-of-residence figures developed by Lewin and Associates, using a "top-down" methodology are not as accurate as the more detailed "bottom up" place-of-service figures developed by HCFA and reported by state for 1982.

19. Figures are based on unpublished CHPRE projections of health spending. State projections of per capita health spending to the year 2030 are based on Bureau of Economic Analysis projections of per capita personal income to the year 2040 (BEA, 1990). The ratio of growth in medical spending to growth in per capita income was estimated for three periods for which data are available (1966-1976, 1976-1982, and 1980-1990) and a weighted average derived using weights of 10%, 25% and 65% for each respective time period. In North Carolina, this weighted average was 1.27, while the U.S. figure was 1.37. It was assumed that the 7 percent differential in these ratios narrowed uniformly, disappearing for the 2020-2030 time period. Individual state projections were adjusted so that the summed total for each projection year matched the actual national projected health spending total for that year (CHPRE, 1992d).

20. The AMA estimates that the cost of professional liability, including professional liability premiums and the costs of "defensive medicine," amount to 17.6 percent of physician spending (Moser and Musacchio, 1991). Physician expenditures account for 18.9 percent of all health spending, so the estimated share due to malpractice costs is 3.3 percent (17.6% x 18.9% = 3.3%).

21. One study found that more than half of all workers covered as dependents through health plans provided by firms with 1,000 or more employees are employed in firms with under 100 workers. Nationally, in 1991, an estimated $11.5 billion is shifted from small employers (under 25 employees) and $20.3 billion in shifted costs is absorbed by large firms (over 1,000 employees). See National Association of Manufacturers, 1991.

22. There may need to be some provision for the truly destitute (e.g., the homeless) who have no funds to pay any out-of-pocket costs. However, there are relatively few such individuals and the Medicaid cost-sharing requirements are so low (e.g., $1 per physician visit) that most providers should be able to waive cost-sharing on the basis of need without absorbing significant losses (particularly compared to the amounts of free care provided in the current system).

23. It is not efficient for HMOs to use a standard front end deductible coupled with an 80% payment structure, since this places an administrative burden on HMOs to keep track of spending towards a deductible and to set a price for different types of services and to collect varying amounts of cost-sharing from patients, depending upon the complexity of a visit. For this reason, HMO plans typically eliminate front-end deductibles for outpatient care and require a flat payment per visit. The price quoted is based on 100% coverage for most services, with the following cost-sharing requirements: a) a $10 copayment per office visit; b) $100 per day inpatient deductible for the first 5 days; c) $400 deductible for durable medical equipment; and d) a $50 emergency room deductible (waivable upon admission). For a typical patient, therefore, the average amount of cost sharing would be lower than for the fee-for-service plan (one reason for the price difference). Another reason that the HMO premium is higher is that it is based on utilization patterns of urban areas in North Carolina, which typically are higher than in rural areas (based on personal communication with Anna Lore, Kaiser Foundation Health Plan).

24. In 1992, the premium for single coverage under the state employee plan was $144.60, obtained from Office of State Personnel.

25. Figures are based on an average annual salary of $25,155 for permanent, full-time state employees (as of August 1992), obtained from Office of State Personnel. Family rate is assumed to equal 2.5 times the single rate.

26. The experiences of these other states demonstrates that even very deep subsidies cannot succeed in covering even one-half of the uninsured (Thorpe, et al., 1992; Blendon, et al., 1992). Therefore, such subsidies would either have to be unaffordably large or the Forum would have to abandon its goal of achieving universal access. Neither choice is appealing, so the Forum has opted to make insurance coverage compulsory for all citizens.

27. The most common single-payer approach being discussed among various states (e.g., Vermont) entails a high degree of centralized state regulation in the delivery of health care and, as such, has administrative and political liabilities that cannot be ignored. Likewise, an employer mandate ("pay-or-play") has inherent instabilities that could result in its quickly unravelling into a single-payer (i.e., government) pool, or which--even if stability could be preserved--raises potential problems of inequitable financing and a lack of built-in cost containment. Similarly, an individual mandate on the state rather than the federal level raises potential equity problems and, unless accompanied by a significant restructuring of the health insurance and service delivery systems, would be unlikely to stem rising health costs.

28. Although actual enrollment might be carried out by employers, the Health Insurance Purchasing Corporation is responsible for managing the enrollment process to ensure that no individual enrolls in more than one CHP at any one time.

29. As part of its general authority to ensure that competition among plans is fair, the HIPC would have the authority to monitor supplemental benefit offerings to ensure that they were not being used to attract good risks and/or discourage poor risks. If necessary, the HIPC could take steps (e.g., standardization of supplemental offerings) to address problems if they emerge.

30. Where a sufficient number of plans are competing, the HIPC would set the fixed contribution at the premium of the 2nd lowest cost plan (the lowest cost plan would be permitted to retain the difference between the fixed contribution and its bid as profit, thus preserving the incentive for all plans to seek to be the lowest cost plan). However, in areas with only 2 or 3 plans, the fixed contribution would have to be based on the lowest cost plan. The HIPC would determine the appropriate level of geographic aggregation, depending on information regarding how plan costs vary by county. If the HIPC paid a fixed contribution based on the lowest cost 2 plans in the State, some ~~county~~ residents might have to pay an amount out-of-pocket to join a plan in their area (even if they selected the lowest cost plan within their area) and might regard this as unfair. Conversely, if the HIPC paid a fixed contribution based on the lowest cost 2 plans in an area, residents of neighboring counties may get very different fixed contributions and the county receiving the lower fixed contribution may regard this as unfair. To balance these extremes, the HIPC might opt to set the fixed contribution based on the lowest cost plan(s) in a region. But whether this made sense would depend on how much variation in plan costs arises across counties and regions within the state.

31. An alternative approach is to require that CHPs cover an entire geographic region (e.g., such as a Health Service Area). Advocates of this approach say that it will prevent geographic redlining. Others say that such a rule would put tightly organized plans--e.g., federally qualified HMOs--at a competitive disadvantage since they have to comply with federal rules regarding the maximum distance that members must drive to reach a clinic and it would not be cost-effective to build such clinics in remote areas to comply with these rules. The Health Policy Commission would have the authority to take steps to address this issue.

32. A great deal of work has been done on how to overcome the potential for biased selection in multiple choice arrangements. A recent method developed for employers showed excellent results, particularly for large groups of 1,000 or more (Robinson, et al., 1991).

33. Appendix B contains a sample booklet describing the types of quality of care and quality of service measures that could be used to compare CHPs. The state of the art in outcomes measurement is still in its infancy, but the Federal government is investing enormous amounts to improve on current methods. It is expected that over time, the types of quality measures used by the HIPC to compare plans will improve significantly, thereby enhancing the ability of consumers to make a wise choice of plan.

34. To avoid excess administrative costs associated with the collection of premiums on an individual family basis, the Health Policy Commission would establish guidelines authorizing the HIPC to work out arrangements with CHPs to collect these added premium amounts through the payroll tax system and remit (electronically) the appropriate amount to each CHP on a monthly basis, based on their certified enrollment.

35. That is, each plan would submit a monthly premium bid for a standardized risk (e.g., males age 45) and the HIPC payment to each CHP would be tied to either the lowest bid or lowest two bids (depending upon how many plans were operating in an area). If a particular plan had a monthly premium bid that was $10 per month higher for the standardized risk, then all members joining that plan would pay $10 per month more even if the expected cost of their care was, for example, $25 per month more. In this case, the fixed contribution paid to the CHP would be $15 above the "standard risk" contribution (to reflect an individual's higher age and/or worse health). Thus, each plan would be paid in accordance with its unique mix of members, but members themselves would not have to pay the higher cost associated with their higher risk.

36. Without such a rule, there is a danger that many CHPs would be tempted to submit inflated bids knowing that they could retrospectively adjust their bids downward once they learned of the amount of the fixed contribution. With such a rule, all CHPs would have a strong motivation to submit honest bids knowing that they are jeopardizing their enrollment prospects by bidding too high.

37. This permits an employer to be more selective about the plans being offered, but would still ensure some choice among plans for employees.

38. Without this provision, there is a danger that all firms with payroll tax liabilities that exceed the value of the risk-adjusted contributions available to their employees will leave the HIPC, leaving the HIPC pool with insufficient revenues to cover the disproportionately unhealthy members left in the pool.

39. Under policy guidance provided by the Commission, the HIPC would have the authority to regulate supplemental benefits if it appeared that CHPs were using them to skim good risks and/or if consumers were too confused by the lack of standardization in this market.

40. Total population in 1992 (6,795,546) minus 755,837 non-elderly covered by Medicaid in FY1992 minus 942,795 covered by Medicare minus 60,000 federal employees and dependents minus 100,000 active duty military personnel and dependents equals 4,936,914, or 73% of the population.

41. Nationally, states spend $126 per $10,000 income on Medicaid, public programs and hospital free care (excluding federal revenues for such activities), while North Carolina spends $112 per $10,000 (Table E-3).

42. The effective tax rate is an average of the 6.0% rate paid on most income, 7% paid certain portions of income, and 7.75% paid by those with the highest incomes. The additional 4.3% could either be levied as a flat additional rate paid by all income groups (e.g., with most people paying an 10.3% income tax rate and those in the highest bracket paying 12.05%) or as a 67% surcharge on existing taxes (e.g., with most people paying 11.4% and those

in the highest bracket paying 13.0%). The Health Policy Commission might make recommendations regarding which approach to take, but the General Assembly alone would have the authority to determine which approach is best.

43. Dever (1976) estimates that 43 percent of health spending is lifestyle-related. Larson and Kristen, 1982 estimate that nearly 50 percent of costs in a typical employed population may be attributable to smoking, high blood pressure, high cholesterol, cardiovascular disease and cancer.

44. This figure is based on estimated personal health spending of $16.2 billion in 1993 (CHPRE, 1992a) times the estimated 3.3% of health spending attributable to malpractice premiums and the costs of defensive medicine.

45. This is based on a Minnesota Medical Association analysis of hospital spending in Minnesota in 1983, which found that 14 percent of all hospital costs were in the last six months of life (HealthWeek, June 11, 1990). Within the Medicare program, 21.5% of all spending is in the last six months of life and 28.2% is in the last year of life (Lubitz and Prihoda, 1978). Assuming that the same relationship holds for hospital services, this implies that 18.4% of hospital spending is in the last year of life, which in North Carolina would be $1.3 billion (see CHPRE, 1992a for breakdown of 1993 health spending, by type of service).

46. There are widely varying estimates of the administrative cost share of health spending. Even the most conservative estimates show that the combined costs of insurance administration, hospital billing costs, physician billing costs and billing costs for other providers amount to 12.2 percent of personal health spending (Office of the President, 1992), or nearly $2 billion in North Carolina in 1993.

47. Maryland's per capita costs matched the national average in 1976 and 1990, while North Carolina's per capita costs were 24 percent below the national average in both years (CHPRE, 1992b).

48. This is based on testimony provided by Kenneth Thorpe to the Legislative Study Commission on Health Insurance.

49. This is based on the estimated annual lives that could be saved from breast cancer (52), cervical cancer (84), infant mortality (50) and hypertension (at least 20), assuming that screening and prenatal care use rates among the newly covered uninsured rise to the levels now observed among those with insurance (see U.S. Congress, OTA, 1992 for a synthesis of recent literature which relates lack of insurance coverage with poor health outcomes).

50. Conversely, however, this reduction in wages among currently uninsured workers would be more than offset by the savings to employers with plans (since their payroll tax contribution will drop from 8% today to only 4% under the Forum proposal).

51. Minimum wage studies show that a 10 percent increase in the minimum wage produces a .5% to 3% decline in employment (Brown, 1988). This implies that at most, for low-wage workers, the demand elasticity is roughly .3. There are 523,000 uninsured workers in North Carolina (Table E-1), not all of whom are low wage. These figures suggest that job losses would not exceed 6,300 (523,000 x .04 x .3).

52. These figures are based on a multiplier of 2.715 derived from an input-output study performed in Georgia (Allen, Floyd and Schaffer, undated). This study estimated the impact on overall economic growth of exogenous spending on hospitals (i.e., new federal spending). A Pennsylvania study found a similar regional trade multiplier of 2.69 for externally-originating hospital revenues (Erickson, Gavin and Cordes, 1986). The estimate of tax revenues is based on 1990 state and local tax revenues per $10,000 personal income (U.S. Bureau of the Census, 1991).

BIBLIOGRAPHY

Allen, M.T., Floyd, F., Schaffer, W.A., "The Impact of the Hospital Industry on Georgia's Economy," University of Georgia, College of Business Administrtion, undated.

Alpha Center, "States Developing Broad Spectrum of Plans to Increase Access and Control Costs," *State Initiatives in Health Care Reform*, Number 1 (October 1992).

Billings, J., and Teicholz, N., "Uninsured Patients in District of Columbia Hospitals," *Health Affairs* 9(4):158-65, 1990.

Blendon, R.J., Donelan, K., Lakas, C.V., *et al.*, The Uninsured and the Debate over the Repeal of the Massachusetts Universal Health Care Law." *Journal of the American Medical Association* 267(8): 1113-1117, 1992.

Braverman, P., Oliva, G., Grisham Miller, M., et. al., "Adverse Outcomes and Lack of Health Insurance Among Newborns in an Eight-County Area of California, 1982-1986." *New England Journal of Medicine* 321(8):508-12, 1989.

Brook, Robert H., "Health, Health Insurance, and the Uninsured." *Journal of the American Medical Association* 265(22): 2998-3002, 1991.

Brown, C.. "Minimum Wage Laws: Are They Overrated?" *Journal of Economic Perspectives* 2(3):133-46, 1988.

Center for Health Policy Research and Education (CHPRE, 1992a). Estimated Per Capita Health Costs, North Carolina and U.S., Selected Years, 1990-2000. Durham: Duke University, unpublished.

Center for Health Policy Research and Education (CHPRE, 1992b). "Impact of Maryland All-Payer System on Hospital and Health Costs," in Maryland Hospital Rate-Setting System. Unpublished background paper prepared for Health Access Forum, June 1992.

Center for Health Policy Research and Education (CHPRE, 1992c). Per Capita Personal Health Expenditures, By State, 1966 to 2030. Durham: Duke University, unpublished.

Conover, C.J., Thorpe, K.E., Pitcher, J., and Nocks, B.C. *Health Care for the Medically Indigent of South Carolina: 1990 Health Access Update. Final Report.* Columbia: South Carolina Hospital Association, May 1992.

Consumer Reports, "Wasted Health Care Dollars." July 1992: 435-448.

Dever, G.E.A., "An Epidemiological Model for Health Policy Analysis." *Social Indicators Research* 2: 453-466, 1976.

U.S. Department of Health and Human Services (DHHS). *Smoking and Health: A National Status Report, 2nd Edition. A Report to Congress*. DHHS Publication No. (CDC) 87-8396 (Revised 2/90).

Employee Benefits Research Institute (EBRI). "Number of Uninsured Americans Reached 36.3 Million in 1991, According to EBRI Tabulations." News release, October 30, 1992.

Enthoven, Alain, "Consumer-Centered vs. Job-Centered Health Insurance." *Harvard Business Review*. January-February, 1979: 141-152.

Enthoven, Alain. *Theory and Practice of Managed Competition in Health Care Finance.* Amsterdam: North-Holland, 1988.

Erickson, R.A., Gavin, N.I., Cordes, S.M., "The Economic Impacts of the Hospital Sector." *Growth and Change* 17(1): 17-27, 1986.

Families, USA. *Emergency! Rising Health Costs in America 1980-1990-2000.* Washington, D.C.: October 1990.

Families, USA. *Health Spending: The Growing Threat to the Family Budget.* Washington, D.C.: December 1991.

Farley, P.J., "Who Are the Underinsured?" *Milbank Memorial Fund Quarterly/Health and Society* 63(3): 476-503, 1985.

Garamendi, J. *California Health Care in the 21st Century*. Sacramento: Office of the Insurance Commissioner, February 1992.

Greene, Sandra B. *North Carolina Health Care Trends*. Chapel Hill: Blue Cross and Blue Shield of North Carolina, Health Economics Research, October 1991.

Feder, J., Hadley, J. and Mullner, R. *Falling Through the Cracks: Poverty, Insurance Coverage, and Hospitals' Care to the Poor, 1980 and 1982*. Washington, D.C.: Urban Institute, Working Paper 3179-08, June 1984.

Hadley, J., Steinberg, E.P., and Feder, J., "Comparison of Uninsured and Privately Insured Hospital Patients: Condition on Admission, Resource Use and Outcome," *Journal of the American Medical Association* 265(3):374-79, 1991.

Holahan, J. and Zedlewski, S. and Winterbottom, C. *Estimating the Cost of Medicaid Eligibility and Benefit Uniformity*. Washington, D.C.: Urban Institute, Working Paper 3836-04, July 1990.

Institute of Medicine (IOM). *Preventing Low Birthweight*. Washington, D.C.: National Academy of Sciences, Institute of Medicine, 1985.

Keeler, E.B., Buchanan, J.L., Rolph, J.E., *et al. The Demand for Episodes of Medical Treatment in the Health Insurance Experiment*. Santa Monica, CA: Rand Corporation, R-3454-HHS, March 1988.

Lanning, J.A., Morrisey, M.A., and Ohlsfeldt, R.L., "Endogenous Hospital Regulation and its Effects on Hospital and Non-hospital Expenditures," *Journal of Regulatory Economics* 3 (June 1991): 137-54.

Larson, K.P. and Kristein, M., "A Cost-Benefit Analysis Using Comparative Projections of Outcomes with Natural Controls for the American Health Foundation Promotion System at Blue Cross/Blue Shield of Indiana," Unpublished paper, 1982.

Lubitz, J. and Prihoda, R., "Use and Costs of Medicare Services in the Last Years of Life." HCFA, unpublished manuscript, June 29, 1982.

Lundberg, G.D., "National Health Care Reform: An Aura of Inevitability is Upon Us." *Journal of the American Medical Association* 265(19): 2566-67, 1991.

Marion Merrell Dow. *Managed Care Digest, Update Edition, 1991*. Kansas City, MO: Marion Merrell Dow, 1991.

Moser, J. and Mussachio, R.A., "The Cost of Medical Professional Liability in the 1980s." *Medical Practice Management*. Summer 1991, cited in *Medical Benefits* 8(20): 4.

National Association of Manufacturers, Report on Emplyer Cost-Shifting Expendiures. Prepared by Donald Moran and John Sheils, Lewin-ICF. Washington DC: NAM, December 1991.

Office of the President. *The President's Comprehensive Health Reform Program*. Washington, D.C.: The White House, February 6, 1992.

President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research. *Securing Access to Health Care. Volume One: Report.* Washington, D.C.: U.S. Government Printing Office, March 1983.

Robinson, J.C., Luft, H.S., Gardner, L.B., Morrison, E.M., "A Method for Risk-Adjusting Employer Contributions to Competing Health Insurance Plans." *Inquiry* 28: 107-116, 1991.

Rublee, D., "Medical Technology in Canada, Germany, and the United States." *Health Affairs* 8(4):178-81, 1989.

Schwartz, Leroy L., "The Medical Costs of America's Social Ills." *Wall Street Journal.* June 24, 1991.

Thorpe, K., Hendricks, A., Garnick, D., *et al.*, "Reducing the Number of Uninsured by Subsidizing Employment-Based Health Insurance." *Journal of the American Medical Association* 267 (February 19, 1992).

U.S. Department of Commerce, Bureau of Economic Analysis. *BEA Regional Projections to 2040, Vol. 1.* Washington, D.C.: U.S. Government Printing Office, 1990.

U.S. Bureau of the Census. *Government Finances: 1989-90.* Government Finances, GF/90-5. Washington, D.C.: U.S. Government Printing Office, December 1991.

U.S. Bureau of the Census. *Health Insurance Coverage, 1986-88.* Current Population Reports, Series P-70, No. 17. Washington, D.C.: U.S. Government Printing Office, March 1990.

U.S. Congress, Congressional Budget Office (CBO) 1992a. *Economic Implications of Rising Health Care Costs.* Washington, D.C.: U.S. Government Printing Office, October 1992.

U.S. Congress, Congressional Budget Office (CBO) 1992b. *The Potential Impact of Certain Forms of Managed Care on Health Expenditures*, CBO Staff Memorandum. Washington, D.C.: U.S. Government Printing Office, August 1992.

U.S. Congress, Congressional Budget Office (CBO) 1992c. *Projections of National Health Expenditures.* Washington, D.C.: U.S. Government Printing Office, October 1992.

U.S. Congress, Congressional Budget Office (CBO). *Rising Health Care Costs: Causes, Implications, and Strategies.* Washington, D.C.: U.S. Government Printing Office, April 1991.

U.S. Congress, Congressional Budget Office (CBO). *Physician Extenders: Their Current and Future Role in Medical Care Delivery*. Washington, D.C.: U.S. Government Printing Office, April 1979.

U.S. Congress, General Accounting Office (GAO) 1992. *Health Insurance: Vulnerable Payers Lose Billions to Fraud and Abuse*, GAO/HRD-92-69. Washington, D.C.: U.S. Government Printing Office, May 1992.

U.S. Congress, General Accounting Office (GAO) 1991. *U.S. Health Care Spending: Trends, Contributing Factors, and Proposals for Reform*, GAO/HRD-91-102. Washington, D.C.: U.S. Government Printing Office, June 1991.

U.S. Congress, Library of Congress, Congressional Research Service. *Costs and Effects of Extending Health Insurance Coverage*. Prepared for the Subcommittee on Labor-Management Relations and the Subcommittee on Labor Standards of the Committee on Education and Labor and the Subcommittee on Health and the Environment of the Committee on Energy and Commerce, U.S. House of Representatives, Education and Labor Serial No. 100-EE, October 1988.

U.S. Congress, Office of Technology Assessment (OTA). *Does Health Insurance Make a Difference?--Background Paper*, OTA-BP-H-99. Washington, D.C.: U.S. Government Printing Office, September, 1992.

U.S. Preventive Services Task Force. *Guide to Clinical Preventive Services: An Assessment of the Effectiveness of 169 Interventions*. Baltimore, MD: Williams and Wilkins, 1989.

Weiler, P.C., Newhouse, J.P. and Hiatt, H.H., "Proposal for Medical Liability Reform." *Journal of the American Medical Association* 267 (17): 2355-2358.

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