Greater Philadelphia's Challenge:

Capitalizing on Change in the Regional Health Care Economy

Executive Summary

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Preface

The health care industry is of tremendous importance to the Greater Philadelphia region.[1] The largest segment of that industry, the health services sector[2] employs over 237,000 people, representing 12.7 percent of the region's total private-sector employment--more than the entire workforce of Bucks County. Between 1982 and 1995, health services added some 82,000 jobs to the region's economy. As health services employment soared, leaders in the Greater Philadelphia region came to point to that sector as one of the region's primary engines of economic growth and as a foundation of assets key to the region's economic competitiveness.

Today, the region's health care economy is undergoing dramatic change, driven by market forces and compounded by impending changes in health care finance and regulation emanating from Washington and Harrisburg. While health services will remain a vital piece of the regional economy, the transformation of the health care system seems inevitable and carries important--and perhaps unprecedented--implications for the region's economic future.

How should Greater Philadelphia's leaders, both public and private, view these changes? Where, how, and why will economic dislocations--particularly in employment--occur? What effect will change have on the region's competitiveness, its ability to attract and retain people and jobs? How will the region's key economic investments in health services be affected? Most important, what public, private, and civic-sector responses could help ease the consequences of this transition and capitalize on the new competitive and economic opportunities that will result? To begin to grapple with these pressing issues, public and private-sector leaders in the region charged the Pennsylvania Economy League--Eastern Division (PEL) in early 1995 with undertaking a timely and practical analysis of the changes sweeping the region's health care economy. The analysis was conducted with a focus on evaluating the health services sector and developing a set of recommendations for creative and decisive public and private-sector action.

The Pennsylvania Economy League is a 60-year old nonprofit public policy research organization, led by a corporate Board of Governors, whose mission is to support private-sector leaders in furthering economic competitiveness and government performance in the region. Over the years, PEL's work has proven valuable to civic and government leaders interested in using thoughtful analysis to understand and seek solutions to challenges facing the region.

This report, *Greater Philadelphia's Challenge: Capitalizing on Change in the Regional Health Care Economy*, represents the collected work of PEL's staff and a private-sector task force composed of key leaders from the business community and the region's health care system. Its purpose is not simply to describe what has occurred in the health services industry, but to consider the likely direction of change over the next three to five years and to identify strategies

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[1] For the purposes of this report, the "region" consists of the Philadelphia Metropolitan Statistical Area (MSA)--including the five Pennsylvania counties of Bucks, Chester, Delaware, Montgomery, and Philadelphia, and the four New Jersey counties of Burlington, Camden, Gloucester, and Salem.

[2] The health services sector comprises all employees of doctors'/dentists' offices, nursing/personal care facilities, hospitals, medical laboratories, and home health care establishments. It does not include employees of insurance/managed care companies, pharmacies, pharmaceutical companies, medical device/equipment companies, or the medical research/teaching components of universities. For a full definition of the health services sector, see Appendix B.

for facilitating change and strengthening the region's economic competitiveness. For this reason, much of the research consisted of interviews with those individuals best-positioned to understand the issues of the day--those who are propelling or analyzing the current wave of change. PEL staff interviewed over 90 industry, civic, and public-sector leaders, and their input is reflected in the substance of the report.[3] Insights gained through this process were augmented by the collection and analysis of existing data on employment, income, health services utilization, and health care finance.

This effort was supported by a broad range of community leaders. Thanks to the efforts of the Greater Philadelphia Chamber of Commerce, a cross-section of private-sector leaders came forward in support of the project. Financial support for the project was provided by:

- Children's Hospital of Philadelphia
- Delaware Valley Hospital Council
- Graduate Health System
- Healthcare Resources Foundation
- IBM Corporation
- Independence Blue Cross
- Mercy Health Plan
- NovaCare, Inc.
- Oxford Health Plan
- Pennsylvania Blue Shield
- Pennsylvania Economy League

This report represents the work of PEL's staff, most notably Senior Associate Steve Brockelman and Associate Kerry Ann Williams, under the guidance of Research Director Steve Wray and Executive Director David Thornburgh. This project would not have been possible, however, without the efforts of a task force of private-sector leaders, who contributed hundreds of hours of guidance and constructive criticism to the project. The members of the task force included:

- Patricia Coyle, Director, Benefits and Workforce Strategies, Rohm and Haas (Task Force Chair and PEL Board Member)
- Sanford M. Barth, Ph.D., HIA, Director of Health Services Analysis, Independence Blue Cross
- Sharon Gallagher, Manager, Healthcare Solutions, IBM North America
- Edward N. Hibberd, Jr., President, Delaware Valley Business Coalition on Health
- Robert McCadden, Partner, Arthur Andersen L.L.P.
- Michael P. Nardone, Associate Executive Vice President for Government Relations, University of Pennsylvania Medical Center
- John F. Smith III, Esq., Reed Smith Shaw & McClay (PEL Board Member)
- Andrew Wigglesworth, President, Delaware Valley Hospital Council

To these individuals, to the Greater Philadelphia Chamber of Commerce, and, most important, to the members of the Pennsylvania Economy League, PEL's staff owes its thanks.

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[3] For a full list of interviewees, see Appendix A. It should be noted that all interviews were conducted with the understanding that comments were **not** for individual attribution.

Executive Summary

"When health care reform was the focus of the big political battles between Republicans and Democrats, it was on the front page and the evening newscast every day. When the Clinton administration declared defeat in 1994 and there were no more battles to be fought, health-care news coverage virtually stopped too--even though the medical system still represented one-seventh of the economy, even though HMOs and corporations and hospitals and pharmaceutical companies were rapidly changing policies in the face of ever-rising costs." James Fallows, "Breaking the News" (1996).

Introduction

Largely under the cover of media darkness, significant *market*-based change in the delivery and financing of health care has been shaping the nation's and the region's health care systems. Increasingly, national and regional media and leaders have begun to recognize the dimensions of the shifts occurring, but the full economic implications of those shifts--the effects on employment, competitiveness, and the prospects for future economic growth--are only now coming to light.

By characterizing the speed, force, and impact of the shifts, this report intends to create a shared sense of urgency and purpose among leaders in the Greater Philadelphia region: to illustrate clearly how a vital sector of the regional economy has experienced and continues to undergo rapid and dramatic change--change that affects every employee, every employer, and every government in the region. This report also offers concrete options for how the region can respond to the challenges it faces. How regional leaders from the public and private sectors rise to the challenges identified herein will demonstrate their creativity and commitment to enhancing an asset important both to regional economic competitiveness and quality of life.

The ever-evolving state of the health care sector poses at once both threats and opportunities. If regional leaders fail to recognize and facilitate necessary change, they will exacerbate the effects of significant employment dislocation, hinder the region's economic competitiveness, and miss significant new economic opportunities. If, instead, they understand and anticipate the challenge, they can position the region to plan for inevitable dislocations, enhance economic competitiveness, and recognize and promote the emerging areas of economic opportunity that the changing marketplace will offer. Consider the following:

- The health care industry is being dramatically reshaped by market forces, driven by cost containment strategies, competition, and a fundamental restructuring of the delivery system.

- Changes in the health services sector are already causing dislocations in the regional economy, including significant losses of employment in areas--primarily hospitals--which have long functioned as strong drivers of regional employment and wage levels.

- Market-driven change, accentuated by expected changes in government financing of health care, will continue to drive restructuring of the health care sector. Over the next five years, gross employment dislocations in health services--people losing or leaving their jobs--are likely to range from 20,000 to 40,000. Some, though not all, of those people will be re-employed in other sectors of health services, resulting in projected net employment losses of 10,000 to 20,000 employees in health services over the next five years.

- If these changes result in lower-cost, high-quality health care, and if this region can achieve that goal more quickly, more efficiently, and more thoroughly than other regions, the changes can provide the region and its employers with a significant competitive advantage.

- Changes in the health care delivery system will also lead to new opportunities for regional economic growth in the health care sector if private and public-sector leaders have the foresight to recognize and capitalize on those opportunities.

Against this backdrop, *Greater Philadelphia's Challenge: Capitalizing on Change in the Regional Health Care Economy* not only describes what has occurred in the health care industry but also: 1) projects the likely directions and dimensions of change over the next five years; 2) identifies the short- to medium-term effects of those changes on the regional health care economy, particularly its health services employment base; and 3) challenges regional leaders to develop creative strategies for facilitating this economic transition, increasing regional competitiveness for all employers in the area, and supporting new economic opportunities in health services that are emerging from major shifts in the delivery system. To provide a point of reference against which to compare the changes unfolding in the region's health care economy, PEL examined the transition taking place in the Boston region's health care marketplace. This case study can be found in the full text report.

Directions and Dimensions of Change

Any thoughtful response to current and future shifts in the region's health care economy must begin with a solid understanding of the region's health services sector and the direction of change that has affected and continues to affect that sector. To put such changes in context, this report identifies and analyzes three broad trends that function both as key drivers of change and as responses to change elsewhere in the health care system. The trends are:

- cost containment strategies pursued by purchasers, payers, and providers;

- competition in the region's health care delivery and financing systems; and

- consolidation and integration in the health care delivery and financing systems.

Cost Containment and Global Competitiveness

The most important force driving change in the health services sector, in this region as well as in others, is the efforts of private-sector employers to rein in steep annual increases in health care costs. The past two decades have in fact been an era of rapidly increasing health care costs, most

of which have been borne by private-sector employers. As a percentage of U.S. gross domestic product, national expenditures on health care rose from 9.3 percent in 1980 to an estimated 14.2 percent in 1995.[4] In 1985, national medical premiums began to rise at a rate faster than inflation, posting double-digit increases each year between 1988 and 1992.

In an increasingly global economy, where businesses compete not just within regions, states, or nations but with competitors halfway around the world, companies in all industries are under tremendous pressure to control and reduce operating costs. In response to the rapid rise in health care costs, private-sector employers have increasingly embraced managed care plans as a way to contain costs. The rise of managed care, combined with increased competition in the health plan marketplace and the improved ability of some larger employers to track health care costs, have now made it possible for many employers to achieve zero or negative premium growth in their employee health plans.

Federal and state governments are also seeking to contain health care costs. At the federal level, the desire to bring the budget deficit under control and the reluctance to impose higher taxes on citizens are forcing the government to seek savings in much the same fashion as private employers. As a result, the battle over efforts to reduce the growth in Medicare and Medicaid expenditures, and to restructure those programs, has taken center stage in the Washington budget drama.

In order to remain viable and to respond to both public and private purchasers' demands for cost containment, health care providers--including hospitals, doctors, clinics, and other settings--have pushed to reduce costs and boost efficiency. Among the strategies that health care providers have adopted are identifying and reducing administrative inefficiencies; trimming, retraining, and reallocating staff; converting under-utilized inpatient facilities to other uses; and seeking partnerships with other health care providers.

Several key trends, driven by cost containment and the changing nature of competition in the health care delivery system, are likely to continue or emerge in the next three to five years:

- as competition in the health plan market continues, premium increases for privately purchased health plans are likely to remain near or below the rate of inflation;
- managed care penetration will increase as employers decrease the number of coverage options offered and offer incentives that move employees into managed care; and
- the federal and state governments will increasingly look to managed care as an option for controlling spending increases for Medicare and Medicaid.

As cost containment pressures build, the financial viability of some providers, particularly hospitals, will be threatened. The declining utilization of inpatient services and the formation of more exclusive networks will both reduce the need for inpatient acute care capacity and result in potentially dramatic shifts in patient utilization patterns at institutions. As a result, some hospitals will find it increasingly difficult to meet their financial obligations, including debt service payments. At the same time, the ongoing need to access capital for investments in technology and facilities will lead institutions to explore new financial arrangements. For

[4] Hewitt Associates; data from the Health Care Financing Administration (HCFA).

example, because the region's hospitals are overwhelmingly not-for-profit institutions, they may merge with or be acquired by for-profit entities that can provide better access to capital.

As providers strive to reduce capacity in the face of cost pressures, it is important to take note of a long-term trend that will emerge: the aging of a large cohort of the population--the "baby boomers." To the extent that an older population uses a higher level of health services, this trend may mitigate current declines in utilization for some patient services. This factor adds a level of complexity to strategic planning for long-term capacity reduction among providers.

Competition

Competition in the region's health care delivery and financing systems has intensified over the last five years, driven in part by the pressures of cost containment. Hospitals, health plans, and home care agencies are all aggressively seeking to control patient flow in order to maintain or gain market share and geographic scope. As the market evolves and the traditional lines between institutional functions blur, competition is playing out in many forms:

- providers are competing with like providers to secure a stream of patients;
- providers are competing with different types of providers to establish networks or integrated systems of care which provide a "cradle to grave" continuum of services;
- health care providers are competing with health plans for covered lives, risk assumption, and control of primary care physicians; and
- health plans are competing with each other for covered lives.

Several factors contribute to the heightened level of competition in the health care delivery system, including the current oversupply of acute care capacity and specialty physician services in the region,[5] the geographic proximity of many health care facilities, and declining utilization rates for inpatient acute care services.

Competition is pushing the region's hospitals and health systems to convert excess acute care capacity to other uses, and to establish a continuum of services to meet the needs of a patient population over the course of each person's lifetime. The rise of providers who compete directly with hospitals in niche markets has heightened the level of competition. Hospitals which have developed integrated delivery systems are also positioning themselves to assume risk--that is, to manage the needs of a patient population against a preset budget for meeting those needs. On the one hand, hospitals can do this in conjunction with health plans, thereby sharing risk, or they can attempt to contract directly with employer or government purchasers of health care. The latter phenomenon has not emerged in this region; if it does, it will place provider-sponsored plans in direct competition with third-party health plans, which are already engaged in sharp competition with one another.

Over the next three to five years, competition in and among different sectors of the health care industry will be sustained and, in some cases, intensified. The health plan market, in particular,

[5] The Delaware Valley Hospital Council (DVHC) estimates that by the year 2000, assuming a certain level of managed care penetration, the region will have a 30 to 50 percent oversupply of acute care beds and an oversupply of physicians ranging from 6,500 to 9,000.

will become more competitive. In response to the region's overbedded nature and the opportunity to capture a new market segment--the Medicare population--players such as Oxford Health Plans and Health Systems International (HSI) are moving into this market. Ultimately, competition in the health plan market will encourage differentiation among managed care networks, as well as more exclusive contracting with health care providers, as managed care companies try to compete on factors other than cost.

Consolidation and Integration

Consolidation and integration are simultaneously unfolding within different frameworks and across different sectors of the health care delivery and financing systems. Horizontal integration--the partnering or merging of institutions that provide similar services--is occurring as hospitals are forming networks and physicians are joining group practice arrangements. Consolidation in the health plan market is also occurring as larger plans are purchasing smaller ones. At the same time, vertical integration--the partnering or merging of organizations that provide complementary services--is taking place as hospitals acquire physician practices and home health agencies, and as insurers and health plans link with provider networks.

Health care institutions are consolidating and integrating to achieve economies of scale and geographic scope, to reduce duplication of services and excess bed capacity, and to provide a continuum of care. This activity results in a blurring of the traditional lines between components of the delivery system, leading to legal and regulatory "gray" areas as well as a need for new ways to identify, discuss, and regulate emerging health care organizations.

With cost containment pressures unlikely to lessen substantially in the next three to five years, consolidation and integration will evolve to new levels: many hospitals not currently part of a system will seek to join a network; existing networks will strengthen their relationships to improve efficiency; provider networks themselves will merge to produce fewer but larger networks; some acute care hospitals will close outright or be converted to other uses; and small or niche-market health plans will sell out to larger ones.

Impact on the Region

Change of the order and magnitude facing Philadelphia's health care industry will inevitably produce significant impacts on critical components of the region's health care economy, namely, the labor force, exportable services, and the overall competitiveness of the region. There are both threats and opportunities associated with these impacts. The threats--in this case the prospect of near-term employment dislocation and job loss in health services--are often more visible than the opportunities, which include a more competitive environment for business growth, and the opportunity for growth in specific export sectors of the health care economy. Understanding the impacts of change constitutes a necessary first step in the important process of understanding, anticipating, and responding productively to emerging threats and opportunities.

Impact on Regional Health Services Employment

The most visible and most immediate impact of change in the health care system will be on the regional employment base. In fact, cost containment strategies, increased competition, and

increased consolidation and integration of health care delivery systems have already had a significant impact on health care employment throughout the region.

Historically, the health care sector has functioned as one of the Philadelphia region's most important sources of employment and income--approximately one in eight private-sector jobs across the nine-county region is in health services. Health services employment grew an average of nearly 6 percent each year from 1982 to 1989, almost double that of the private sector as a whole. Even during the recessionary years of the early 1990s, when the region's employment base was shrinking at the rate of 1.9 percent per year, health services employment grew 4 percent annually.

Perhaps most important, the health services sector has traditionally provided a range of employment opportunities, from well-paying, high-skilled positions like physicians and registered nurses to lower-paying, lower-skilled jobs like clerical workers, orderlies, and food service workers. Health services also has been one of the few sectors of the region's economy in the last 15 years that has generated large numbers of lower-skilled jobs at decent wages. For many communities--in particular low-income, inner-city neighborhoods--hospitals and other health care facilities are among the few large employers remaining.

Within the last few years, employment trends in this sector have changed considerably--employment growth in health services flattened in 1995. Furthermore, there has been significant job loss in certain sectors of health services, primarily hospitals: from mid-1992 through mid-1994, hospital employment in Southeastern Pennsylvania dropped by 6,522 employees, or 6.1 percent.[6] Likewise, wage trends in the region's health services sector have shown slower rates of increase in recent years, with annual wage increases in hospitals registering between 1 and 3 percent--a significant decline from the 4 to 6 percent increases which had occurred in prior years.

Predicting the exact magnitude of the net employment impact of changes in the health care economy is difficult. The health services sector has never before experienced a significant downturn, nor has it exhibited the cyclical tendencies customary in many other economic sectors. There are no easy comparisons upon which estimates of regional employment impacts could be based. Timing is also an issue--the magnitude of employment shifts over the next five years depends on how quickly market forces play out as well as on the timing and magnitude of reductions in the rate of increase for federal Medicare and Medicaid payments.

Every indicator in the regional economy and in the health services sector points to a continuation and, in some cases, acceleration of the trends of the past few years: private-sector employers and government payers will continue to focus on the bottom line, reducing costs where possible; both purchasers and payers will continue to put pressure on health care providers to become more cost efficient while maintaining high-quality care; and providers will compete for market share, focusing on eliminating excess capacity through continued reconfiguration of the delivery system.

For these reasons, net employment loss in health services over the next five years seems highly likely. The prospect of *any* near-term net employment loss in health services should be cause for concern. Health services has generated 82,000 jobs in the region over the last 13 years, many at a time when few other sectors of the economy were generating significant job growth. In

[6] Pennsylvania Department of Health, Division of Health Statistics and Research, Report 6. The Department specifically disclaims responsibility for any analyses, interpretations, or conclusions drawn from its data.

addition, a good portion of those 82,000 jobs paid wages above the regional average. In that context, the mere fact that health services will no longer be a net job generator for the region but a shrinking sector demands serious attention.

This report has developed a range of estimates for employment loss over the next five years in both the hospital and health services sectors. The upper and lower bounds are broad, reflecting the uncertainty surrounding such a projection, but it is likely that the actual outcome will be in the specified range. Put in annual terms, the region can expect net job losses in health services to average 2,000 to 4,000 per year over the next five years--between 10,000 and 20,000 cumulative jobs lost in that period. The level of employment churn in the region will be even greater. Some 20,000 to 40,000 hospital employees are projected to lose their jobs over the next five years, approximately half of which will be re-employed in other sectors of the health care economy.

Even for those displaced workers able to find new employment in other areas of the health care economy, their transition from one job to another will produce enormous strain on families and communities. It will also pose a significant challenge to local and state governments through increased demands for unemployment compensation and for training and retraining of workers. New employment opportunities in health services will require more and different training, will demand more flexibility on the part of the employee, and may pay less than previously held positions. Coinciding with the downsizing of the inpatient care sector has been and will be an increased emphasis on other types of care, including outpatient, subacute, home health, and long-term care, as well as primary care in ambulatory settings such as doctors offices and clinics.

Over the next three to five years, continued restructuring is likely to have a number of impacts beyond net employment loss in the health services sector:

- demand in many employment settings will be for individuals with significant cross-training rather than a highly specialized set of skills, thus retraining needs will rise;
- opportunities to secure full-time positions with benefits will decline as organizations, in order to maintain flexibility, increase their use of part-time, temporary, or contractual employees;
- the rate of increase in wages and salaries will not improve significantly due to an excess supply of health care workers.

Impact on Regional Competitiveness

As companies become more and more global, regions need to focus more intensely on their relative competitive advantages. The Greater Philadelphia region is already recognized for the excellence of its hospitals, medical education, and medical research institutions. To the extent that the change coursing through the health care delivery system brings down employer costs while maintaining high-quality health care, the region's economic competitiveness will be improved--particularly if this region can accomplish the transition more quickly and more efficiently than other regions.

It is important to recognize that the cost of health care to employers, at 6 to 10 percent of total labor costs, is a significant component of overall business costs. Reducing health care costs, without sacrificing quality in the delivery system, will produce real competitive advantages. At

a national level, for example, one research effort determined that in labor-intensive industries, significant premium reductions can expand operating margins by 10 to 30 percent.[7] Likewise, absolute reductions in premiums could lead to reduced labor costs of as much as 3 percent, allowing the United States to improve its cost position vis-à-vis competitor nations such as Germany and Japan.[8]

The extent to which health care costs constitute a concern for regional employers was documented in a 1995 Towers Perrin survey of human resource professionals from a broad range of businesses in Pennsylvania, New Jersey, and Delaware. The survey revealed that 85 percent of respondents consider medical costs to be of "great" concern. That level of concern was further reflected in the finding that at least 50 percent of respondents indicated they had taken or would soon take action to control costs.[9]

Given that the Philadelphia region remains one of the nation's highest-cost health care markets--an A. Foster Higgins survey revealed that, in 1994, spending on health benefits per employee in this region was 14.5 percent above the national average[10]--the potential benefits of reducing these costs are substantial. Consider the following:

- To the extent that reducing health care costs contributes to improving the region's business climate, more businesses may consider locating in the region, while existing businesses will have one less reason to consider locating elsewhere.

- According to one study, reductions in a business's health care costs as modest as 5 to 15 percent can lead to significant savings on labor costs, thereby allowing the businesses to enhance profitability and/or invest more money in operations.[11] Some of the ways in which businesses might reinvest savings, such as capital purchases and hiring new employees, clearly benefit the region.

- Health care cost containment can also translate into higher wages, as needed to keep pace with inflation and productivity gains. In some local union negotiations, the promise to reinvest savings in wages has been the key to winning concessions for health care cost reductions. Increased wage activity, in turn, has positive economic implications for the region--higher consumer income leads to higher levels of consumer spending, which returns substantial regional economic benefits through the multiplier effect.

- The public sector realizes benefits through increased wage tax and state income tax revenues when wages rise, jobs are retained, and new jobs are created in the region through business attraction or expansion.

While private-sector organizations can make health plan choices and management decisions that result in health care cost savings, the most favorable cost impacts can only accrue through the development and support of an efficient and high-quality health care delivery system. The move toward such a system is currently compromised by several factors, including the costs to the

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[7] The Advisory Board Company, Corporate Leadership Council, *The Third Wave of Health Care Cost Savings; "Big Hit" Discounts from Capitated Providers*, 1995, p. x.

[8] The Advisory Board Company, p. 11.

[9] Towers Perrin, *The Tri-State Health Care Check-Up: Results of Health Care Benefits Survey*, 1995, pp. 1-2.

[10] John George, "Foster Higgins Study Shows Cost of Health Benefits Declined," *Philadelphia Business Journal*, February 17-23, 1995.

[11] The Advisory Board Company, p. 12.

region of caring for the uninsured, outstanding debt as an obstacle to consolidation in the provider community, and a regulatory environment that is not adapting quickly enough to the emerging realities of the health care marketplace.

Providing care to the uninsured is an issue with economic as well as humanitarian and public health implications. In Southeastern Pennsylvania to date, many who would otherwise go without health coverage or without care either have been covered through programs run by the state and by Independence Blue Cross, or have received free or undercompensated care in the region's hospitals and public health clinics. With the likelihood that proposed changes in the federal Medicaid program will eliminate eligibility for some number of current recipients, the region will be faced with a larger population of uninsured and therefore higher costs associated with their care. Among hospitals, cost pressures could be exacerbated by proposed decreases in Medicare support for treatment of the uninsured or underinsured.

While there are no easy answers to the problem of providing care to the uninsured, it is an issue that, if left unaddressed, will dampen the competitiveness of the health care and regional economies. The current patchwork-like manner of caring for the uninsured establishes an uneven playing field in the payer and provider markets. On the payer side, Independence Blue Cross bears uncompensated costs that other payers avoid, while on the provider side, hospitals treating a high number of the uninsured are placed at a competitive disadvantage. To the extent that providers have maintained a social mission in part by shifting the cost burden of treating the uninsured to insured patients, the region has experienced higher premium costs. As the rise of managed care reduces the level of cost shifting that can take place, hospitals and other providers will offer such care at the expense of their bottom lines. Unless a system is put in place that identifies a broader base of support for providing care to the uninsured, the ability of hospitals and others to support activities beneficial to the region's economic competitiveness, such as health-related research,[12] will be adversely affected.

Consolidation in the provider community is one strategy designed to improve the efficiency and cost competitiveness of the health care delivery system. Efforts to promote consolidation, however, are complicated at times by the level of outstanding debt in the hospital community and by the current regulatory environment. High levels of debt often make an institution an unattractive acquisition/merger partner and can hamper the institution's ability to reconfigure its service mix or convert its facility to other uses. In such cases, outstanding debt can reduce regional competitiveness by impeding the transition to a more efficient health care delivery system.

The regulatory environment that has evolved over the years at state and federal levels was designed to regulate a health care delivery system in which the reimbursement scheme did not guard against potential overutilization of services, in which hospitals were the primary employment and training grounds for many types of health care workers, and in which hospitals provided a less diverse array of services than they do today. These fundamental assumptions are now changing--in ways that should ultimately improve the delivery of health care--yet the regulatory environment is not adapting quickly enough to facilitate the transition. As a result, the ability of the region's health care institutions to restructure is, at best, made overly complex and, at worst, seriously compromised. Among the regulatory issues that have been targeted as inhibiting the efficient delivery of care are:

[12] Stacey Burling, "Health-Insurance Issue a Sleeping Giant," *The Philadelphia Inquirer*, December 20, 1995.

- antitrust laws;
- state licensing and certificate-of-need requirements for facilities;
- state licensing requirements for health care personnel;
- fraud and abuse laws designed for a health care delivery system dominated by fee-for-service reimbursements;
- risk assumption requirements for health care providers;
- reimbursement mechanisms which function as disincentives for the provision of appropriate long-term care options;
- defining an appropriate role for the public sector in the development of health care policy, including whether or not government should mandate levels of service such as minimum lengths of stay for particular patient populations; and
- appropriate monitoring of HMOs.

Yet another area in which the public sector might seek action to improve regional competitiveness is workers' compensation costs. In a survey for Greater Philadelphia First, SRI International compared the per-capita workers' compensation costs of 30 regions, based on population, and found that the Philadelphia region ranked in the bottom half.[13] It has been suggested that reforming the medical component of workers' compensation to allow businesses to place workers' compensation health care within a managed care system may lead to cost savings. Governor Ridge has identified workers' compensation reform as a priority issue for 1996, a priority shared by many members of the General Assembly.

Impact on Exportable Health Services

Although health services are generally thought of as local goods delivered to consumers within the region, reality is quite different from perception. The Wharton School's *Philadelphia Economic Monitoring Project* shows that the region's health services sector exports 44 percent of its output (this includes Medicare and Medicaid payments to health care providers in the region), ranking tenth out of 57 industry sectors.[14] Thus, in addition to serving the needs of the local population, health services generates significant streams of new revenue from outside the region.

It is important to clarify the distinction between exports and local goods. In terms of generating local economic growth, exports (also known as "tradable" goods) are optimal because their sale brings out-of-region money into the region, to be spent and re-spent locally. This generates

[13] SRI International, Center for Economic Competitiveness, *Gaining the Lead in the Global Economy; An Economic Development Strategy for the Greater Philadelphia Region*, Volume II: Comparative Regional Data, prepared for Greater Philadelphia First, May 1995, p. 63.

[14] Janice Fanning Madden and William J. Stull, *Post-Industrial Philadelphia: Structural Changes in the Metropolitan Economy*, University of Pennsylvania Press, 1990, pp. 119-123. Export share calculated as the ratio of net exports (exports minus imports) to the total industry output in the region (sum of local outputs and imports). Figures are derived from the 1986 input-output table for the Philadelphia PMSA.

employment, wages, and tax revenues through the multiplier effect. Conversely, goods that are produced and sold locally ("non-tradable" goods) do not generate the same level of economic benefits because their sale merely recirculates money already in the local economy. From an economic development perspective, export sectors provide the best opportunities for overall growth in the regional economy. For that reason, those pieces of the health services sector that can be considered exportable are critical to sustaining regional economic growth.

Probably the most important exporters of health services are the academic health centers (AHCs) and research institutes located here. These institutions, whether by winning federal research grants, treating patients from outside the region, or attracting medical students from around the world, bring significant export dollars to the health services sector and to the local economy.

The research activities at the region's AHCs are of particular economic importance in that they contribute to the attraction and development of industries such as biotechnology, medical device and equipment manufacturing, chemicals, and pharmaceuticals, which provide high-skill, high-wage jobs. This correlation is documented in an *American Economic Review* study, which concluded that "university research causes industry R&D and not vice versa. Thus, a state that improves its university research system will increase local innovation both by attracting industrial R&D and augmenting its productivity."[15] Consequently, a variety of industries in the Philadelphia region derive substantial benefits from the presence of AHCs.

The scope, orientation, and financing of medical research and education will, however, be affected by the evolution of the health care marketplace. The education and training of doctors has long been treated as a public good, supported by the federal government through Medicare financing mechanisms. Research for medical advancements has evolved in a similar manner, through direct grants from the federal government or, in the case of unfunded clinical research, through cross-subsidization with hospital revenues.

There is concern that the threat of reduced spending on health care generally, and cuts in federal support for academic health centers particularly, could have implications for those sectors of the economy that derive spin-off benefits from health-related research in the region. As hospital revenues decline, support for some of the currently unfunded clinical research being conducted at hospitals will be threatened. These pressures, as well as pressure from the private sector--which under cost constraints of its own has looked to universities to play a greater role in technology transfer--could ultimately play out in decreased technological advances and loss of business and jobs in sectors like biotechnology, pharmaceuticals, and chemicals. Under this scenario, the potential for future benefits in these sectors, including research and development advances and start-up businesses, will also be reduced.

Responding to Change: A Challenge to Regional Leadership

It should be clear by now that the Philadelphia region and its health care sector are in the midst of sweeping change--the result of forces acting on and reshaping a vital piece of the regional economy and a service system that impacts every member of the regional community. Five years from now, the landscape of both health care delivery and the regional health care economy

[15] Adam B. Jaffe, "Real Effects of Academic Research," *American Economic Review*, March 1991, pp. 957-970, referenced in *Health Care System Change and its Employment Impacts in Southwestern Pennsylvania*, Margaret A. Potter, J.D., and Allison G. Leak, R.N., M.S., Health Policy Institute, University of Pittsburgh, p. 32.

will be substantially altered. In such a time of change, public officials and private-sector leaders have a fundamental choice to make: to let change run its course and attempt to deal with the effects of change without understanding their source or having anticipated them; or to understand and anticipate the nature of change and to meet the challenge head on, looking for areas in which creative and energetic leadership can positively influence ultimate economic outcomes.

This analysis strongly urges the latter approach. To adopt a "wait and see" attitude, or to be caught in a reactive mode of "putting out fires" as one crisis follows another is to set a course for failure. In this case, failure translates into an inefficient health care delivery system and economic distress in what has been one of the region's largest and most vibrant sectors of employment. With an economy that has few bright lights at present, the region cannot afford to fail.

Many organizations have already begun to examine the issues of change in the health care industry. For example, the Delaware Valley Hospital Council has been developing plans to help facilitate the transition to a newly configured health care delivery system. The Delaware Valley Business Coalition on Health, sponsored by the Greater Philadelphia Chamber of Commerce, has been supporting efforts to lower employer health care costs. Greater Philadelphia First has identified health services as a key focus of its economic development strategy. The Pew Charitable Trusts has sponsored research of the national health care system that has implications for the region.

While individual efforts have been initiated, there is no regional strategy with broad-based support that seeks to ease the harsh economic dislocations being brought on by change in the health care system and to identify and take advantage of new economic opportunities that will arise as a result of change. Steps must be taken by both public and private-sector leaders to:

- reduce economic dislocations likely to be experienced by thousands of employees now working in health services, who will be challenged to find new and different employment opportunities in health care, or who will look for employment in other sectors of the economy;

- improve regional competitiveness by facilitating reconfiguration of the health care delivery system; this will include clearing away regulatory and financial barriers that inhibit the region's efforts to improve efficiency in the health care delivery system; and

- protect and develop those businesses and institutions which deal in exportable health services.

Reducing Employment Dislocations

- *A Regional Strategy for Retraining Displaced Health Care Workers*

In two years, from mid-1992 to mid-1994, hospitals in Southeastern Pennsylvania reduced their workforces by 6,522 employees--equivalent to 75 percent of the workers let go by the Philadelphia Naval Shipyard over the *five* years preceding its closure. As the transition in the health services sector plays out over the next three to five years, substantially fewer people will be employed in traditional hospital settings, and there will be an overall decrease in the size of the health services sector. The result will be significant demand for retraining from those

workers who want to make the transition to a growing number of alternative care settings, and a need to retrain some health care workers for employment in other sectors of the economy. Just as the region responded to the Shipyard closing with the creation of the innovative Shipyard Community College, now the region must look for similar innovative options to meet the training needs of a larger, more geographically dispersed workforce.

The region's health care transition will have profound impacts on individual health care professionals and health care workers. The shift in emphasis from inpatient care to alternative settings and the growing importance of primary and preventive care mean that certain occupations and skill sets will be declining in demand while others become more valuable. As a result, the community colleges and vocational/technical schools that provide training to health care workers must have flexible curricula and training programs.

A coordinated, regional approach for retraining and re-employment of displaced health care workers must be established. Such an approach should ideally include a single point-of-contact information resource center that can help displaced workers identify new employment opportunities, identify training programs to develop new skills, and seek information about employment outside the health services fields. The region has an opportunity to develop a unique, flexible program that can be a model for assisting workers displaced during a major economic transition. Ideas such as training vouchers or individual training accounts, on-line training and resources, and community-based training centers should be considered for application in this transition.

- *Health Care Sector Employment Monitoring Project*

Perhaps the most difficult aspect of understanding and reacting to the changes in the health care industry is the fact that there has never been a change of this dimension in this economic sector. The Philadelphia region is moving from an era of steady growth in health services employment to an era where health care institutions are being fundamentally restructured with the resulting loss of tens of thousands of jobs, primarily from hospitals. Some of that employment will be absorbed into related health services sectors, but history provides little in the way of predictive information concerning this dynamic.

The labor force information that is currently collected may not match the realities of a reconfigured health care system. There is a need for information that is more timely and reflective of the new roles of health care workers. Such information will be essential to policymakers and officials who are in the position of having to react to changes over which they have little control.

Regional philanthropic foundations should consider funding an in-depth employment monitoring project that will track and report on changes in the health care sector, focusing on the shifts affecting health care workers. It will also be important to show how those shifts are affecting communities at various levels--by city or county, by neighborhood, and by income level. Change will not affect groups or neighborhoods evenly--some will be devastated while others might strengthen and grow as a result of change. Understanding these changes will help policymakers better allocate resources in response to the health services transition.

Improving Regional Competitiveness

- *A Regional Public-Private Task Force to Aid in Reconfiguration Efforts*

The need to reduce excess capacity in the region's health care delivery system is being addressed, in many cases, by individual health care institutions themselves or by the provider networks to which they belong. Yet there remains a pressing concern that some institutions--primarily within the region's hospital community--will be unable to make a successful transition and may become financially insolvent. Experience demonstrates that in such cases, institutions often seek public-sector support or simply close with little or no warning, causing significant economic dislocation in the communities they serve.

A crucial first step in reconfiguration efforts would be to convene the leaders of organizations already developing strategies and responses--for example, the Delaware Valley Hospital Council, Greater Philadelphia First's Health Services Economic Development Cluster, and the Greater Philadelphia Chamber of Commerce's Delaware Valley Business Coalition on Health--to facilitate cooperation in establishing broad-based support for decisive regional action. The Governor of Pennsylvania could take the lead by convening a regional task force comprised of these leaders and others to design responses to the ongoing transition within the region's health services sector. Any such regional effort should include participation from appropriate New Jersey officials. The mission of this task force would be to build a proactive rather than reactive response to change by: developing recommendations on how to reduce health care capacity across the region; developing recommendations for maintaining financial stability within the reconfigured provider community; and developing options for ensuring access to health care.

Among those initiatives in which the task force could play a role are reconfiguration of an institution's service mix and the potential closure of facilities. In order to achieve a desired result, the task force must be able to identify incentives to facilitate change. Such incentives might include facilitation of relationships with other health care institutions or private-sector players to assist in reconfiguration of service mix; assistance in developing site reuse strategies; assistance in retraining/redeploying personnel who would be dislocated; and assistance with outstanding debt issues.

The level of outstanding debt in this region should be of particular concern to public-sector and civic leaders for three reasons: capital projects at hospitals have often been financed with tax-exempt public bonds as opposed to private capital; high levels of outstanding debt could impede necessary change in the provider systems, contributing to the inefficiency and the high cost of health care delivery in the region; and defaults could have negative implications for access to the bond market, not just for the affected institutions, but for the region as a whole. The implications of default and what to do about it are serious issues that are neither fully understood nor much discussed. While the need for debt retirement strategies is perhaps greatest at present in the Philadelphia market, with its estimated $3 billion in outstanding debt,[16] it will likely become a state-wide issue in both Pennsylvania and New Jersey as market-based change in the health care delivery system becomes more widespread.

In response to this potential problem, the task force should be charged with examining the dimensions of the potential debt default issue, assessing the likely impacts of defaults on future

[16] Dan Grauman Associates, Inc., *Delaware Valley Hospital Council Strategic Plan*, 1995, Appendix D, p. 3.

access to the bond market and on other institutions' bond ratings, and developing strategies to address debt concerns. The task force should study institution-specific options such as buying back bonds at a discounted rate and restructuring bond covenants to allow mergers or reconfigurations that will lead to increased financial stability. Careful consideration should also be made of debt retirement strategies adopted by other states, such as Maine and Maryland.

- *Regulatory Reform*

As regulators of the health care delivery system, government agencies are reviewing current policies in light of new developments in the health care marketplace. The federal government, for example, is considering policy changes that would allow physician-hospital groups to contract directly for the care of Medicare recipients. At the state level, government agencies are beginning to turn their attention to regulatory areas such as antitrust violations, certificate-of-need and facilities licensing processes, risk assumption guidelines, and personnel licensing requirements.

To the extent that state regulatory environments were structured to guard against abuses in a fee-for-service system, some legislative reform is needed to implement policies that both facilitate necessary reorganization in the health care delivery system and provide appropriate oversight of health care institutions. To maintain the current system only impedes and makes more costly the very reforms needed to achieve a more efficient, less expensive health care delivery system. Granting waivers to particular institutions or regions and implementing sunset provisions on new regulations are strategies that should be considered for testing the impacts of a change in regulation and for ensuring that the regulatory environment will continue to evolve with changes in the health care system.

- *Develop Comparative Information on Health Plans*

Just as purchasers and payers in Pennsylvania benefit from the publication of comparative information on hospital services and finances by an independent state agency--the Pennsylvania Health Care Cost Containment Council (HC4)--employers in other states benefit from the publication of comparative information on health plans. The Massachusetts Health Care Purchasers' Group (MHCPG), for example, is an employer organization that analyzes cost and quality information from the health plans operating in the state and publishes the data to help employers of all sizes make informed choices about coverage options. MHCPG also helps establish purchasers' standards for the quality and cost performance of health plans. Such efforts not only provide some quality oversight on health plans but contribute to the competitiveness of the region's health care costs and business environment.

Data on the quality and cost performance of health plans in this region should be collected, analyzed, and disseminated widely to help employers make informed choices in purchasing coverage, to provide some oversight of the health plan industry, and to contribute to a more competitive business climate.

This could be accomplished in one of two ways. HC4 already collects some limited health plan data and is involved in a task force examining the issue of how best to meet the growing demand for more comprehensive information on health plans. In the past, legislation was introduced to place responsibility for gathering such data with HC4, but this effort faltered. If, with the

support of the business community, such legislation could be passed, one or more of the region's large information-based companies, such as IBM or Unisys, should work with HC4 to develop an appropriate database and systems that ensure timely collection and release of information. If state action on this initiative appears unlikely, the region's business advocacy groups and large employers should perform this function, as MHCPG does. Because change in the health care delivery system is being driven largely by employers, the combined leverage of regional employers represented by such an effort would provide incentives for health plans to meet defined quality and cost expectations.

Protecting and Developing Exportable Health Services

- *Identify New Ways to Finance Medical Education*

The region's academic health centers (AHCs) have long enjoyed a national reputation for excellence in the education and training of physicians. It is estimated that one-quarter of the nation's physicians have received some portion of their education and/or training in the Philadelphia region. This reputation enables the region, at a time when national organizations are calling for a downsizing of medical education and training programs, to position itself as a premier provider and exporter of these services and to reap the resulting economic benefits. Yet to do so, it will be necessary to counter declining support for medical training resulting from private payers' reluctance to fund the added costs of medical education, and the likelihood of reductions in government support for medical education.

Regional business leaders should work with the local providers of medical education to present a strong case for national funding of medical education. Federal legislation implementing a source of support for medical education across a national base would help sustain the region's investment in medical education and enable the region to maintain its position as a primary exporter of medical education services.

Barring national action, the feasibility of a new state-based funding vehicle for medical education should be evaluated. Such a plan would likely establish a system through which all health care payers in the state would share equitably the costs of supporting this asset. A new funding source would give AHCs, both in this region and in other parts of the state, a competitive advantage over those in other states, as traditional funding sources decline nationwide. Such a plan, however, should be careful to consider the competitive implications of imposing a funding program on Pennsylvania-based payers and their customers, and not on payers and customers in other states.

- *Protect and Enhance the Research and Spin-Off Benefits of Academic Health Centers*

Few other regions have the concentration of world-class AHCs--and the economic benefits they generate--that the Philadelphia region possesses. While service sectors of the regional economy are not usually considered export generators, AHCs export a considerable level of services. For AHCs, export revenues come from out-of-region medical student and resident tuition, from out-of-region patients coming to Philadelphia for services performed at the tertiary care centers of AHCs, and from research funding received from out-of-region sources. The strong presence of health care-related research at several of the Philadelphia region's AHCs contributes to the attraction and development of related industries such as biotechnology, medical device and

equipment manufacturing, chemicals, and pharmaceuticals. These industries provide high-wage, high-skilled jobs in the region.

AHC-based research is threatened, however, by a combination of federal funding cuts and decreased cross-subsidization from dwindling clinical revenues. If the level of health care-related research drops significantly at the region's AHCs, jobs in these spin-off industries could be affected.[17] There is a need to protect and enhance this economic asset by pursuing one or more of the following initiatives:

- Existing regional and state programs that encourage technology transfer of health-related research developments from AHCs to commercial venues should be evaluated for their effectiveness, and appropriate strategies should be adopted to maximize their visibility and commercial impact.

- Pennsylvania and New Jersey should establish state-level economic development strategies that build upon or support research at academic medical centers. Support of initiatives such the Research and Development Tax Credit, now pending in the Pennsylvania Senate, is an example of this approach. Further efforts, perhaps targeted to develop or leverage additional "bridge" or second-stage capital for emerging growth businesses in this area, should be explored.

- A "site-finder" service should be developed for biotech and pharmaceutical companies looking to relocate to the Greater Philadelphia region. Technology-based, interactive programs should be developed that provide world-wide, single point-of-contact access to the resources of the region.

- Additional "Centers of Excellence" (several exist in the Philadelphia region), which encourage collaboration between the area's major universities and private-sector businesses, should be developed. One such Center of Excellence might focus on assistance technology for people with disabilities, based on the region's strengths in rehabilitative services and medical equipment.

- *Capitalize on Emerging Market Opportunities*

Traditional sources of employment growth in the regional health care sector--namely hospitals--are likely to see significant declines in employment in the future. At the same time, new opportunities will be created. One such opportunity will likely be in the area of health information services.

Providers, payers, and purchasers here and across the nation are trying to build and merge their information capabilities as the managed care environment demands. In 1994, the health care industry nationwide spent $8.5 billion on automated information systems, and this figure is predicted to rise 53 percent by 1997.[18] The U.S. Department of Commerce recently awarded $63 million in research grants to vendors and health care providers for the research and development

[17] Margaret A. Potter, J.D., and Allison G. Leak, R.N., M.S., *Health Care System Change and its Employment Impacts in Southwestern Pennsylvania*, Health Policy Institute, University of Pittsburgh, p. 23.

[18] AMNEWS, "Information Please--Info Technology Nudges Out Other Health care Capital Spending," November 16, 1995.

of health care information systems.[19] Such systems include those that protect the confidentiality of institutional data while providing critical comparative information; systems that track patient records over a lifetime and link these records across provider networks; and systems that are population-based to perform outcomes measurement.

There is clearly an opportunity for the region to become a leading exporter of the development, implementation, and management of health information systems. Given the size of the local health care market, a number of health information service companies have already formed here. These characteristics, combined with the fact that regional providers and health plans are already transforming themselves through technology and the use of information, create a synergy that could fuel the development of the Greater Philadelphia region as a national center for health care technology and information services. The technology developed could be used both to meet regional needs and to export to markets around the country which are only beginning to grapple with changes in their health care delivery systems.

While individual institutions and businesses are the key actors in the race to capitalize on new economic growth, regional economic development organizations can help. At the very least, economic development leaders need to understand and support the possibilities for new economic growth in the health care industry, particularly in the health information services sector. On the business attraction side, well-focused marketing strategies to position the region nationally as a center of health information technology, coordinated and creative incentives to induce companies and entrepreneurs to relocate to the region, and targeted assistance to start-up companies can help. On the retention side, economic development leaders can facilitate collaborative relationships among the information, technology, and prominent health services companies in the region as well as between these companies and potential health care customers in and out of the region.

Conclusion

This report represents an effort to understand the changes evolving in the region's health care sector, how those changes are affecting the regional economy, and what actions public and private-sector leaders can take to assist in the transition. In this sense, the report is a starting point from which to develop a coordinated regional response to change. The importance of such a coordinated response is underscored by the fact that the region is venturing into uncharted territory--an economic sector that has long been a driver of growth is undergoing fundamental restructuring. That restructuring has implications not only for health care providers but for private employers, governmental and civic leaders, and individuals in the Greater Philadelphia community.

The Philadelphia region is not alone in making this transition. Perhaps the most significant lesson to be drawn from the comparison to Boston is that the Boston region is not currently "ahead" of Philadelphia in developing proactive responses to change. This finding supports what many leaders in the Greater Philadelphia region are coming to grips with now: that the outcomes of changes in the health care sector are uncertain, the challenges are many, and there are no easy answers. This finding also surfaces an important opportunity for Greater Philadelphia: if this

[19] PR Newswire, "Clinton Administration Awards 10 Research Grants to Study Changes in Health Care Markets," November 13, 1995.

region can develop a proactive and coordinated response to the challenges it faces, it will gain a competitive economic advantage.

The time to act is now. All too often, studies and the recommendations they put forth end up gathering dust on a shelf. Through its identification of organizations that have begun to examine change in the region's health care sector, other key stakeholders, and a structured set of potential responses, this report has established a framework for action. It is the hope of this report's sponsors that the region's public and private-sector leadership will take on the challenge.

Appendix A: Interview List

L. Robert Achenbach
Acting Dep. Secretary of Quality Assurance & Health Planning
Pennsylvania Dept. of Health

Kenneth B. Allen
Director, Bureau of Licensing & Financial Analysis
Pennsylvania Dept. of Insurance

Edward L. Anderson, MD
Executive Medical Director
Bell Atlantic

Lowell Arye
Associate Director
Center for Health Policy
Leonard Davis Institute

Richard L. Averbuch
Senior Director, Policy
Massachusetts Hospital Association

Donald J. Balaban, MD, MPH
Chairman and CEO
Best Health Care Inc.

Mark Bateman
President and CEO
Episcopal Hospital

Tom Beauregard
Hewitt Associates

Melia Belonus
Health Care Policy Analyst
Office of the Governor (PA)

Harris Berman, MD
President and CEO
Tufts Associated Health Plans

Walter E. Binkley
ABG
President, Local #88

David Blumenthal, MD
Medical Practice Eval. Center
Massachusetts General Hospital

Alan Brody
Camden County Job Center
N.J. Dept. of Employment

Paul Brucker, MD
President
Thomas Jefferson University

Robert Burg
Exec. Vice President, East Coast
FPA Medical Management

Janet Burnham
Assoc. Vice President for Health Services Planning
Thomas Jefferson Univ. Hospital

Michael F. Carter
Senior Vice President
Hay/Huggins Company

George Chatyrka, MD
Family Practitioner

Mary Clark
Hewitt Associates

John Claypool
Executive Director
Greater Philadelphia First

Jennifer Closs
Program Training Coordinator
Job Training Resource Center

Richard J. Cohen
President and CEO
Philadelphia Health Management Corporation

Bryan A. Costantino
Principal, Health Care Services
Coopers & Lybrand, L.L.P.

Patricia Coyle
Director of Benefits and Workforce Strategies
Rohm and Haas

Harold Cramer, Esq.
Chairman Emeritus, Graduate Health System.
Chairman CEO, HSI Mgmt Co., Inc.

Donald Cramp
President
Hosp. and Higher Ed. Facilities Authority of Philadelphia

G. Fred DiBona, Jr., Esq.
President and CEO
Independence Blue Cross

Edward A. Dulik
Senior Vice President
U.S. Healthcare

Robert Fogg
Director of Licensing
N.J. Dept. of Health

Sharon Gallagher, RN
Manager, Healthcare Solutions
IBM

Thomas E. Getzen, PhD
Prof. of Health Administration
Temple University

Martin Goldsmith
President and CEO
Albert Einstein Healthcare Network

Jerry Green, MD
Pediatrician

Robert Haigh
Special Asst. to the Secretary
Penna. Dept. of Public Welfare

Ken Hanover
President
Bryn Mawr & Lankenau Hospitals

Sue Henrie-Strup
Director, Career Dev. Center
College of Allied Health Sci.
Thomas Jefferson University

Daniel J. Hilferty
Senior Vice President
Corporate & Govt. Affairs
Mercy Health Corporation

Stephen W. Holt
President and CEO
Visiting Nurse Association of Greater Philadelphia

Joan M. Jenks
Assoc. Professor/Director
Baccalaureate Division
Department of Nursing
Thomas Jefferson University

Robert J. Jones, Esq.
Partner
Saul Ewing Remick & Saul

Dennis J. Kain
CEO
Lower Bucks Hospital

Donald Kaye, MD
President and CEO
Medical College of Penna. & Hahnemann Univ. Hospital Syst.

William N. Kelley, MD
Chief Executive Officer
Univ. of Pennsylvania Medical Center and Health System

Ann Koelling
Deputy Manager
Camden County Job Center
N.J. Dept. of Employment

Steven Kowal
Asst. Commissioner of Health
Health Facilities, Eval., & Licensing Dept.
N.J. Dept. of Health

Laurence F. Lane
V. P. for Regulatory Affairs
NovaCare, Inc.

Arthur Leibowitz
Corporate Medical Director
U.S. Healthcare

Cary F. Leptuck
President and CEO
Chestnut Hill Hospital

Samuel Lizerbram, MD
Family Practitioner

John G. Loeb
Senior Vice President
Philadelphia Health Management Corporation

Leon S. Malmud, MD
President
Temple University Health System

Martha Marsh
Vice President of Managed Care
Univ. of Penna. Health System

Greg Mazol
Principal
Towers Perrin

Timothy M. McCrystal
Ropes & Gray

Loretta M. McLaughlin
Executive Vice President
Magee Rehabilitation

John C. McMeekin
President and CEO
Crozer-Keystone Health System

Dave Meyers
Vice President for Health Care Finance and Research
Hospitals Association of Pennsylvania

Martha Minniti
President and CEO
SNI, Inc.

Maria Morgan
Assistant Commissioner
Div. of Health Care Syst. Anal.
N.J. Dept. of Health

David B. Nash, MD, MBA
Director, Office of Health Policy and Clinical Outcomes
Thomas Jefferson University

Mary Naylor, PhD
Associate Dean and Director of Undergraduate Nursing
University of Pennsylvania

Edmond F. Notebaert
President and CEO
Children's Hospital of Philadelphia

R. Thomas Padden
Business Administrator
Norristown Area School District

Elizabeth Parker
Manager
Norristown Job Center

Mark Pauly, PhD
Vice Dean & Dir. of PhD Prog.
The Wharton School

H.L. Perry Pepper
President
Chester County Hospital

Charles P. Pizzi
President
Greater Philadelphia Chamber of Commerce

Barbara Plager
President and CEO
Health Partners

H. David Prior, Esq.
Ballard Spahr Andrews & Ingersoll

Joe Reilly
Benefits Consulting Director
Pennsylvania Blue Shield

Estelle Richman
Commissioner of Health
Philadelphia Department of
Public Health

Lynn T. Rinke, MS, RN
Executive V.P. and COO
Visiting Nurse Association of
Greater Philadelphia

Julie Rosen
Executive Director
Conference of Boston Teaching
Hospitals

John F. Salveson
Vice President, Director of
Client Services
Right Associates

Sanford J. Schwartz, MD
Executive Director
Leonard Davis Institute of
Health Economics

Rick Senicola
Database Director
Massachusetts Health Data
Consortium

Glenn Shively
Partner and Chairman, Health
Care Industry
Coopers and Lybrand, L.L.P.

Howard Shivers, MD
Family Practitioner and
President
Primecare, Inc.

Bob Sigmond
Analyst/Consultant

Donald Snell
Executive Director
Hospital of the University of
Pennsylvania and Presbyterian
Medical Center

Samuel H. Steinberg
President
The Graduate Hospital

John V. Touey
Senior Consultant
Right Associates

Richard Vernick, MD
President
Allied Community Health Syst.

Marc Volavka
Director of Program Admin.
Pennsylvania Health Care Cost
Containment Council

Pamela Watson
Chair, Department of Nursing
Thomas Jefferson University

Andrew Wigglesworth
President
Delaware Valley Hospital
Council

Robin Wilcox
Analyst/Consultant

Kevin Winston
Hewitt Associates

Thomas D. Zoidis
President
Wheat First Butcher Singer

Alan Zuckerman
CHI Systems, Inc.

Appendix B: Definition of Health Services Sector

Offices and Clinics of
- Doctors of medicine
- Dentists
- Doctors of osteopathy
- Other health practitioners, including chiropractors, optometrists, podiatrists, others

Nursing and Personal Care Facilities
- Skilled nursing care facilities
- Intermediate care facilities
- Other facilities, including convalescent homes and rest homes with health care

Hospitals
- General medical and surgical hospitals
- Psychiatric hospitals
- Specialty hospitals, including drug rehabilitation, cancer, children's, maternity, orthopedic

Medical and Dental Laboratories
- Bacteriological and biological (not manufacturing)
- Blood analysis
- Pathological
- Medical testing laboratories: analytic or diagnostic
- X-ray
- Dental crowns, dentures and orthodontic appliances made to order for the profession

Home Health Care Services
- Home health care services
- Visiting nurse associations

Miscellaneous Health and Allied Services
- Kidney dialysis centers
- Specialty outpatient facilities
- Blood banks
- Health screening services