THE TASK FORCE ON MEDICAL CARE FOR THE MIT COMMUNITY
FINAL REPORT

October 2005

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1. INTRODUCTION

The Task Force on Medical Care for the MIT Community ("Task Force") was created by former President Charles Vest in September 2004. The members of the Task Force are listed in Appendix 1. The Task Force was charged to perform a comprehensive review of MIT's medical insurance and health care programs available to undergraduate and graduate students, employees, and retirees[1] in terms of access to care, quality of care and costs of providing care. The Task Force's Charge is contained in Appendix 2.

The medical care and health insurance issues identified in the Task Force's Charge are very important to all members of the MIT community. For example, one of the primary conclusions of the recent report by the Committee on Faculty Quality of Life was, "[A]side from housing, the issue the Committee heard the most concern about was the perceived erosion of services at the MIT Medical Center… It was widely recognized that having a full-service medical clinic on campus was a major time saver, for both faculty members and the staff who work for them. Closing or severely curtailing the services of the Medical Center would be considered a major reduction in the quality of life of Institute faculty members."[2] The importance of health care and health insurance to the MIT community is also reflected in the student, employee and faculty retiree surveys that were undertaken on behalf of the Task Force and in the thousands of written comments that we have received. Accordingly, the Task Force has endeavored to examine all aspects of health care and health insurance at MIT.

[1] The Task Force was briefed on and discussed health insurance options and the associated costs available to post-doctoral Associates and Fellows as well.

[2] MIT Faculty Newsletter, March/April 2005, page 7.

Our report covers the services provided by the MIT Medical Department as well as outside health insurance options available to employees and retirees. It includes numerous recommendations for improving health care and health insurance for the MIT community. We believe that some of these recommendations require urgent attention by the MIT Administration. Others are less urgent but should be part of a comprehensive longer term implementation strategy to ensure that our health care and health insurance policies are compatible with the pursuit of MIT's primary goals for excellence in education, research, and service to society.

In light of the importance of medical care and medical insurance to the MIT community and the community concerns that motivated the creation of this Task Force, we believe that it is important for the Administration to provide the MIT community with a prompt response to the Task Force's recommendations. A number of our recommendations were included in an earlier "Blue Ribbon" Task Force Report (1996) that focused on the MIT Medical Department. Little if any effort was made by the Administration to respond to or implement the recommendations made in that Report at the time. We urge the Administration this time to develop a comprehensive strategy and timetable for implementing those recommendations that it agrees to adopt and to provide the community with progress reports.

The Task Force recommends that MIT continue to support our longstanding existing basic model for medical insurance and medical care delivery. It has served the community well. It has been damaged somewhat by arbitrary and excessive budget cuts and imperfections in the way they were managed. The focus should be on improving the quality and cost effectiveness of this model and MIT's ability to put in place more

effective financial management and governance arrangements. We make short-run and long-run recommendations that we believe will have this effect.

We recommend that the MIT Administration express its confidence in and strong support of the basic model for medical care and medical insurance that has served the Institute so well for many decades: The events of the last few years have created enormous uncertainty about the future directions of MIT's medical care and medical insurance programs. There is uncertainty about the future of the Medical Department, the future of the MIT Health Plans, the future of specific services provided by the Medical Department (e.g., the MIT infirmary), the future of the Lincoln Lab satellite facility, and the future of health insurance options available to employees. Especially in light of the coming annual open enrollment period, we urge the Administration quickly to affirm our recommendation that MIT continue to support the basic model of medical care and medical insurance that has served the Institute so well and that it will act promptly to fix problems that have emerged in the last few years. Part of this reaffirmation should include a clear commitment that there are no plans to close the Lincoln Lab satellite facility, the MIT Infirmary, or the MIT pharmacy. The services provided by these components of the Medical Department are very highly regarded by the community. Indeed, our Report recommends further study to determine whether and how to increase utilization of these services.

One challenge that the Administration will have to confront is how to organize itself to implement these recommendations and to sustain continuing performance improvements in the context of a rapidly changing and increasingly costly U.S. health care system. Despite the importance and complexity of MIT's health care and health

insurance programs, and their effects on MIT's primary missions of excellence in education, research, and service to society, nobody in the Administration appears to have comprehensive leadership or oversight responsibility for the structure, evolution or performance of our health care and health insurance programs. *We recommend that the MIT Administration put a highly skilled professional in charge of "Medical Care for the MIT Community" with the responsibility to implement a health care strategy that advances MIT's mission in a comprehensive and sustainable way. This individual would work with a team drawn from the Medical Department, Human Resources, the Dean for Student Life and the Executive Vice President for Finance and Administration to lead the development and implementation of a consistent set of health care policies that advance the goals that we discuss in this report.*

In order to fulfill its charge, the Task Force met approximately monthly since September 2004. The meetings covered a wide range of topics related to the delivery of medical care, the costs of medical care, the perceived quality of medical care, insurance premiums, medical care cost trends in the Boston area, competitive and cost benchmarking of various kinds, and other topics affecting all segments of the MIT community. Detailed analyses were performed by our staff and members of the MIT Administration and the Medical Department administration, with the assistance of members of the Task Force and our advisors.

We have sought input from all members of the MIT community, including the staff of the Medical Department. We have met with representatives of MIT's unionized employees. We reviewed proposals developed by the Strategic Review of Benefits Committee (SRB) for new insurance options and pricing methods. We have conducted

three surveys which solicited the views and concerns of students, employees and faculty retirees. We have reviewed earlier surveys of students and post-docs that contained questions related to our charge. We were assisted by members of the Student Health Advisory Council (SHAC) in preparing the student survey. The surveys had excellent response rates (about 50%) and generated about 15,000 written comments in addition to the answers to the surveys' multiple choice questions. Task Force subcommittees have reviewed and discussed the results of these surveys, consistent with privacy and confidentiality protocols.

Members of the Task Force (individually and in small groups) have interviewed physicians and nurses employed by the Medical Department (present and past). We have received input from the MIT Medical Management Board and the Medical Consumers' Advisory Council. We have received confidential communications from employees, members of their families, and current and former staff of the MIT Medical Department. We have covered a lot of ground, learned a lot, and have a number of suggestions and recommendations. We believe that both the MIT Administration and the Medical Department's administration also learned a lot during this process as well, and we are very pleased that a number of constructive reforms are already underway.

The Task Force has been assisted in its work by a group of advisors who are also listed in Appendix 1. Outstanding staff support was provided to us by Janet Snover, Israel Ruiz, and Marianne Howard. We are also grateful for the generous help that we have received from the Provost's Institutional Research office, especially to Lydia Snover and Mandy Smith, in the design, administration and analysis of three surveys of the MIT community conducted on behalf of the Task Force. We have received full cooperation

from the MIT Administration and from the clinical and administrative staffs of the MIT Medical Department. We are grateful for this cooperation and, in particular, for the willingness of responsible members of the MIT Administration and the Medical Department to review, evaluate, and learn from some controversial decisions made in the past in an open and non-defensive fashion.

Our report proceeds as follows. The next section provides some background about the events and concerns that motivated the Task Force's creation. The section is followed by a detailed discussion of the health care and health insurance programs that are available to students, employees, retirees, and post-docs. We then proceed to articulate a vision for health care and health insurance at MIT in the future. The report then turns to our conclusions and recommendations regarding the care provided by the MIT Medical Department to students, employees, and retirees. We then proceed to review the MIT Administration's budgeting and financial management systems that have been applied to the Medical Department. We offer a number of recommendations for improvements in these processes. The outside health insurance options available to MIT employees are then reviewed, and a number of recommendations are proposed.

2. MOTIVATIONS FOR THE TASK FORCE

The Task Force was created in response to concerns raised by many members of the MIT community resulting from at least three sets of events. First, in 2003 (for FY 2004) and again in 2004 (for FY 2005) the MIT Administration imposed significant budget cuts on the MIT Medical Department's recurring "internal budget" as part of its efforts to reduce MIT's budget deficit. These permanent budget cuts followed a

significant previous "one time" budget cut that wiped out the MIT Medical Department's financial reserves.[3] The Medical Department responded to these budget cuts in a variety of ways which are discussed in more detail below. These responses led to concerns about access to and the quality of care provided to students, employees, retirees and their families who depend on the MIT Medical Department for care.[4] It also raised questions about the rationales for the budget cuts and the ways the Medical Department's administration responded to them by reducing and realigning some services. The changes affecting the Ob/Gyn service were particularly controversial and galvanized members of the community to seek a comprehensive review of MIT's medical care and medical insurance policies. These concerns were compounded by (apparently unfounded) rumors that some members of the MIT Administration were seriously

[3] In 2001 the MIT administration also imposed a $2 million "one-time" budget cut on the Medical Department for FY 2002 which it expected would be funded out of the Medical Department's reserves. The MIT Administration also declined to add about $350,000 of ongoing information technology related costs to the Medical Department's budget. The proposed cut in the Medical Department's recurring internal budget for FY2004 was eventually reduced from $3 million to $1.5 million. In total, about $4 million was cut from the Medical Department's recurring internal costs or a cut of about 11%. The effective cut in real resources available to the Medical Department was larger (~$5 million/year) after accounting for underlying medical care inflation in the markets where the Medical Department competes for physicians, nurses and other clinical and support staff, as well as the rapidly rising cost of prescription drugs.

[4]In what follows we will use the phrases "access to care" and "quality of care" generally to refer to various aspects of patient satisfaction with the care they have received. These include how well they believe their medical problems and treatments were explained to them, satisfaction with therapies and outcomes, perceptions of medical errors, availability of appointments, experience with the referral process, reimbursement issues, the time that physicians and other clinical professionals are able to spend with them, the ease or difficulty of getting problems resolved, privacy, and other aspects of care. We have not studied "objective" measures of the quality of medical care provided by the MIT Medical Department as measured by specific care protocols, clinical decisions, medical errors, near misses and outcomes. We believe that the Medical Department takes providing high quality "objective care" seriously. We also note that 78% of the most knowledgeable and in some ways most demanding segment of the community --- the faculty --- have chosen to rely on the MIT Medical Department to manage their health care through their membership in the MIT Health Plans despite the issues that we address in this report. The MIT Health Plans had a zero net loss of members in the last open enrollment period.

considering closing or significantly downsizing the Medical Department and bringing the MIT Health Plan for employees to an end.

Second, in developing the premiums for the Student Extended Insurance Plan (SEIP) for AY 2004, the MIT Administration concluded, based on expert advice from its consultant, that cost trends indicated that a significant premium increase would have to be made to cover the plan's costs. A 72% premium increase was proposed by the consultant retained by MIT. After considerable discussion of the effects on students and their families, a premium increase of 60% for individuals (dollar increase of $540/year) and 60% for families (dollar increase of $2,340/year) was implemented for AY 2004. Between AY2000 and AY2004 SEIP premiums for individuals and families had then increased by about 125% (premium *increases* of $800/year for individuals and $3,450/year for families, respectively). These increases were especially burdensome for graduate students (and some post-docs) with families since a large share of the increase was not covered through increases in RA/TA or graduate fellowship stipends and benefits.[5] To respond to student concerns, the MIT Administration subsequently decided to cover the cost of individual SEIP premiums for RA/TAs through a change in the tuition subsidy charged to grants and contracts.

Finally, the MIT Administration was and is appropriately concerned about the long-term trend of rising health care costs and how these cost increases will affect MIT's

[5] The SEIP rate for individuals has been held constant since AY2004 and the family premium has been reduced by 50%, a level approximately equal to the premium prevailing in AY2001. Other changes in coverage for spouses and dependents went into effect for AY2005-2006. MIT has also accumulated a Catastrophic Claim reserve of about $6.5 million dollars at the end of FY2005 that can be used to mitigate future premium volatility.

finances and the costs of education and research in the future. MIT spends (gross)[6] about $100 million per year on health care costs and these expenses have been growing at about 8% per year over the last several years.[7] Cost concerns were heightened in 2003 by MIT's budget crisis, driven in part by a decline in the market value of MIT's endowment, a costly buy down of MIT tuition charged to grants and contracts, and a costly building construction program, especially in light of forecasts of mid-double digit increase in MIT's health care cost increases for FY2004 and beyond.[8] Changing government health care policies and a turbulent health care sector raise ongoing questions about how MIT can best adapt to them.

Of course, rising health care costs are a national phenomenon that affect all organizations providing health care benefits to their employees and all individuals using the U.S. health care system. These cost trends are not affected by the performance of MIT's endowment or the costs of other new strategic initiatives. Nevertheless, there was clearly a view within the MIT Administration that the provision of care by and through[9] the MIT Medical Department in particular, was "inefficient," "gold plated," and

[6] Before student and employee premiums and recovery of fringe benefit costs through grants and contracts. This number excludes out-of-pocket expenses incurred by those insured under one of MIT's health insurance options. Out-of-pocket costs have also been rising rapidly.

[7] The annual net cost to MIT, excluding provisions for post-retirement health care benefits, after taking employee and student premiums and recovery from grants and contracts through charges for fringe benefits, is about $32 million of which about $10 million is accounted for by the basic student health care benefit included in tuition. An additional $4.1 million is accounted for by subsidies provided by MIT to cover the increase in the SEIP for individuals with TA/RA positions and MIT graduate fellowship support and through increases in financial aid to undergraduates to cover SEIP premium increases.

[8] Actual cost increases --- averaged over all of MIT's "inside" and outside" health insurance and health care plans --- turned out to be significantly lower than forecast for FY 2004 and FY 2005. The FY2005 increase came in at about 5% compared to an average 10% increase for U.S. colleges and universities in that year.

[9] As we shall discuss in more detail presently, a significant fraction of the MIT Medical Department's costs that affect student and employee premiums are for outside services purchased from medical specialists, hospitals, and for diagnostic tests.

excessively costly. The MIT Administration viewed the MIT Medical Department's "internal costs" as an attractive target for cost reductions to help to meet its deficit reduction goals since it appeared to be a significant cost center that they could affect quickly. For MIT's other health insurance plans (Blue Cross/Blue Shield and Tufts) the focus of cost control was on increased co-payments and outsourcing the management of the prescription drug benefit to Express Scripts, Inc (ESI). It appears that much more attention was paid to the MIT Medical Department's costs than to the costs of the outside health insurance options available to employees despite the fact that the costs of the outside health insurance options were rising more rapidly.[10] Thus, despite regional and national medical cost trends, it was assumed that MIT could reduce its internal medical costs and make a significant contribution to reducing MIT's deficit by squeezing costs out of the MIT Medical Department without adversely affecting the quality of care. Moreover, in developing the budget cuts we can find no evidence that any effort was made to value any negative impacts the resulting changes in Medical Department services might have on the convenience or quality of care from the perspective of students, employees and retirees. The implicit assumption was either that there would be no negative impacts on the availability or quality of care provided by the MIT Medical Department or that the cost to MIT of any adverse impacts on, for example, the faculty, was zero.

[10] Between 2001 and 2005, the total (MIT + employee shares) Network Blue family premium increased by 60%, the Tufts family premium by 65% and the MIT Traditional Health Plan family premium by 44%. Between 2001 and 2005, the Faculty/Staff share of the Network Blue family premium increased by 53% (premium of $350/month in 2005), the Tufts family premium by 54% (premium of $465/month in 2005), and the MIT Traditional Health Plan premium by 37% (premium of $302/month in 2005).

The Task Force has evaluated the assumptions upon which MIT's budgetary decisions were based, how they affected the budgetary decisions made by the MIT Administration, and their impacts on access to and the perceived quality of care. While the Task Force's charge is focused on the future rather than on the past, we felt that to make constructive recommendations for the future it was important to understand how the decisions about budget cuts and the increase in premiums for student extended insurance were made, to evaluate their impacts on the MIT community (including the staff of the Medical Department), and to understand what was driving MIT's health care costs, how they were being managed, and how insurance premiums were being determined.

Two other considerations have affected our response to President Vest's charge. First, the provision of health care and health insurance at MIT under prevailing arrangements is a particularly complex undertaking. The population served is extremely diverse, varying in age from -1 to 100, with widely varying incomes, living in many different communities in and around Boston and Cambridge, and with widely varying health care needs. About 40% of our students are international students who come to MIT without experience with the U.S. health care systems and sometimes with special health care needs. Many graduate students are married and have children. Many of our undergraduates had not previously arranged for their own health care prior to coming to MIT. On the other hand, an important segment of MIT's employee population is very knowledgeable about health care options and changes in technology. They have high expectations for the quality of care they will receive and their access to medical professionals to discuss medical care options.

On the supply side, MIT is a provider of medical care through the MIT Medical Department, (effectively) an insurance company as a result of the decision to self-insure virtually all of our health insurance programs,[11] and a purchaser of health care services from third parties in the Boston area (directly for services provided by the MIT Medical Department and indirectly through Blue Cross and Tufts whose costs we self-insure). Important attributes of the health care sector have changed dramatically over time and are likely to change further in the future, government policies affecting the sector continue to change, medical technologies (broadly defined) for diagnosis and treatment are changing rapidly, as are information technologies to support the management and delivery of care. This is a complex set of "businesses," especially for what is a very small scale operation in the world of U.S. health care institutions.

Accordingly, providing high quality cost effective health care with the traditional MIT model is a challenge. Nevertheless, MIT has not performed a *comprehensive* assessment of its health care and health insurance strategies in a long time.[12] Our policies have evolved bit by bit over time. Our charge reflects President Vest's conclusion that it was time to take a comprehensive look at these strategies.

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[11] MIT has decided to be "self-insured" for all health care costs except for those covered under Medicare. This means that MIT does not purchase insurance from Blue Cross or Tufts, but rather pays them to administer the terms of each plan. They then bill MIT for the costs they incur by services provided to cover members of the MIT community who have chosen each plan. MIT then uses cost experience, actuarial assumptions, and risk pooling protocols to develop premiums for all of the health insurance options (MIT health plans, Blue Cross plans, Tufts plans, SEIP, and Medigap coverage for retirees), not simply for those managed by the MIT Medical Department.

[12] In the Fall of 1993 a "Blue Ribbon Panel" was formed to "determine the options for the MIT community in health care delivery and health care funding" in light of the Clinton Administration's proposal for major health care reforms. The Panel focused primarily on the MIT Medical Department and services that it provided. A Report was issued in November 1996, but interest in the issue faded along with the Clinton administration's proposed reforms and few of the Panel's recommendations began to be implemented until after the controversial developments in the last couple of years.

Second, our work has also been influenced by the issues addressed by other recent MIT task forces and committees which have made recommendations that are related to the provision of health care and health insurance to the MIT community. These include reports by the Blue Ribbon Panel on health care delivery and health care funding (1996), the Mental Health Task Force (2001), the MIT Council on Family and Work (2002), and most recently the Ad Hoc Committee on Faculty Quality of Life (2005). The issues addressed by these groups and their recommendations have some important implications for decisions regarding health care and health insurance as well. For example, the Mental Health Task Force recommended, among other things, increases in staffing, expansion of service time, and expansions of education and outreach programs for mental health services offered to MIT students. Initiatives focused on implementing these recommendations began to kick in just as budget cuts were imposed on the Medical Department.[13] As already noted, one of the conclusions of the most recent report by the Committee on Faculty Quality of Life reflects both the importance of health care services to the faculty and the concerns discussed above:

"Aside from housing, the issue the Committee heard the most concern about was the perceived erosion of services at the MIT Medical Center. Many of these comments focused on recent losses in ob/gyn services, but the broader concerns went well beyond these. It was widely recognized that having a full-service medical clinic on campus was a major time saver, for both faculty members and the staff who work for them. Closing or severely curtailing the services of the Medical Center would be considered a major reduction in the quality of life of Institute faculty members."[14]

[13] $600,000 of additional funds were allocated to the Medical Department to support these initiatives and the Medical Department absorbed about $250,000 of start-up costs. As we shall discuss, the result of this initiative has been a significant change in the availability of and access to mental health services for students and for subscribers to the MIT Health Plans, their families and other employees.

[14] MIT Faculty Newsletter, March/April 2005, page 7.

These and other reports and surveys make it clear that access to high quality health care at a reasonable cost is very important to all segments of the MIT community. The interrelationships between the recommendations made in these MIT task force and committee reports should have been reflected in MIT's health care and health insurance strategies and policies. However, some of the decisions made by the MIT Administration in the recent past are not consistent with these recommendations and raise questions about the Administration's ability to integrate effectively the Institute's health care policies with MIT's broader goals for excellence in education, research, and service to society.

3. MIT'S CURRENT HEALTH CARE AND HEALTH INSURANCE PROGRAMS IN BRIEF

3.1 Medical Insurance Programs[15]

MIT offers a comprehensive package of health insurance and health care services to all segments of the MIT community. This section identifies the primary programs available to each segment of the MIT community here.

a. Students: All students are provided with access to basic student health care services available within the MIT Medical Department, including inpatient services in the MIT Infirmary. This basic student health care benefit does not include prescription drugs, dental care, obstetrics, eye exams, hospitalization, referrals to outside specialists, and some other services. The cost of the basic student benefit is included in MIT's tuition charges; that is, there is no additional student health fee for basic student health care services.

Under Massachusetts law, students must also have insurance covering hospitalizations and related care. Students can meet this requirement if they are covered for hospitalization under another policy, typically their parents' health insurance plan. For students and their families who do not have alternative hospitalization coverage, MIT offers a Student Extended Insurance Plan (SEIP) that provides coverage for hospitalizations, including obstetrics, prescription drugs, and outside specialist care, including outpatient and inpatient mental health care. The premiums MIT charges for SEIP coverage are supposed to be set to cover the full costs of providing the services that

[15] MIT has a health insurance program for "affiliates" defined as visiting professors, visiting scholars, fellows, meeting certain eligibility requirements. We have not reviewed these plans or any issues that may be related to them. The plans are similar to the basic and SEIP plans offered to students and their families and involve care provide by and through the MIT Medical Department.

are covered. About 45% of the undergraduates and 80% of the graduate students are enrolled in either the individual or one of the family versions of the SEIP. The premiums for individual coverage for students with RA/TA positions and, in at least some Departments, those with graduate student fellowships are subsidized by MIT. Students who are not TAs or RAs must pay the SEIP premiums from their own resources. The additional costs of one of the family coverage options (subscriber plus spouse, subscriber plus dependents, family coverage) are the student's financial obligation. The SEIP premium for individual coverage is presently $1,440 per year and for family coverage $3,160 per year.[16] All registered students must also pay for MIT's basic insurance coverage for each covered dependent (about $850/year/dependent). For an international student with a spouse and one child the total additional cost to cover her family is about $4,500/year.

MIT does not offer dental insurance to students, but students may receive and pay for dental care in the MIT Medical Department or through arrangements with the Boston University dental school.

b. Employees: For many years, MIT has provided employees with a "basic benefit" that gives them access to certain primary and some specialist outpatient care services in the MIT Medical Department without charge. About half of the MIT employees who are not members of the MIT Health Plan indicate that they make some use of these services provided by the Medical Department. However, many MIT employees who are not members of the MIT Health Plans did not know about the availability of this benefit.

All active MIT employees can choose from a menu of comprehensive health insurance/delivery plans. About 85% of MIT employees choose one of these options. Other employees are covered through non-MIT plans, typically a spouse or partner's plan.[17] All of MIT's medical insurance plans for employees offer either individual or family coverage only.

The Traditional MIT Health Plan provides coverage for care delivered by the MIT Medical Department, prescription drugs (with a co-payment structure), hospitalizations, diagnostic procedures, referrals to outside specialists, including outside mental health services. There is also a Point of Service (POS) option called the Flexible MIT Health Plan that provides coverage for out-of-network services when the employee or covered family members seek such services. The Flexible MIT Health Plan includes significant deductible and co-payment provisions for out-of-network services. About 55% of the employees on MIT's Cambridge campus, including 78% of the faculty, are members of one of the MIT Health Plans. About 30% of Lincoln Lab employees are members of one of the MIT Health Plans, and the MIT Medical Department operates a small clinic located at Lincoln Lab.[18] Table 1 breaks down the fraction of MIT employees on the Cambridge campus who are subscribers to one of the MIT Health Plans by employee category and at Lincoln Lab.

[17] The fraction of employees who are covered by MIT plans is probably greater than 85% since MIT's data do not take account of "two-MIT employee families" who choose a single family plan to cover both employees.

[18] Employees of the Whitehead Institute for Biomedical Research and Draper Laboratories are also eligible to subscribe to the MIT Health Plans. They account for about 155 of the MIT Health Plans' 4,500 subscribers (about 8,300 individuals including covered spouses, partners and dependents).

The two other primary health insurance/delivery options are Network Blue administered by Blue Cross and Blue Shield of Massachusetts (BC/BS) and the Tufts Plan administered by the Tufts Health Plan. These plans cover outpatient care, hospitalization, specialist care, including mental health care, etc. The prescription drug benefit for these plans is administered through Express Scripts, Inc. (ESI).[19] Employees and covered family members who participate in these health plans have prescription drug coverage through ESI. Subscribers receive from Express Scripts a separate ID card that is required for prescription purchases. They may receive prescribed drugs through the mail if they choose to do so. MIT contracted with Express Scripts to help to reduce the costs of prescription drugs, the most rapidly rising component of U.S. health care costs.

The basic menu of services covered in the BC/BS and Tufts plans are similar to each other and to those covered by the MIT Health Plan. Network Blue and Tufts give employees more choices in the selection of their primary care physician and the locations at which care will be delivered than does the MIT Health Plan. While both Network Blue and the Tufts Health Plan evolved as "managed care" HMO plans, these plans are not the same as the HMOs that we grew to know and love during the 1980s. Subscribers have significantly more choices of physicians and delivery locations and their physicians have more freedom to authorize care than was the case with the HMOs of old.[20] Moreover, we

[19] Express Scripts, Inc. is what is known as a "Pharmacy Benefit Manager" (PBM). Express Scripts is one of the three largest PBMs in the U.S. (Medco and Caremark are the other two large PBMs). There are also several smaller PBMs, some owned by insurance companies. PBMs have complex contracts with pharmaceutical manufacturers. Some own mail-order pharmacies. There have been allegations that these vertical relationships create potential conflicts of interest that may increase drug prices. A recent Federal Trade Commission study did not find evidence to support these allegations. "Pharmacy Benefit Managers: Ownership of Mail Order Pharmacies," U.S. Federal Trade Commission, August 2005.

[20] A recent article in the *Boston Globe* indicates that Tufts is reverting to more aggressive care management to reduce costs and stem the loss of subscribers. August 26, 2005.

are informed that over 95% of the physicians in the Boston area provide services under both plans. MIT also offers a BC/BS sponsored Point-of-Service (POS) plan called Blue Choice that gives subscribers more freedom to select their physicians and delivery locations. This plan includes significant deductible and co-payment provisions. Finally, there is an out-of-state BC/BS plan that can be chosen by MIT employees who do not live in the Boston area (e.g., Washington, D.C.) and faculty members on sabbatical leaves.

MIT has decided to "self-insure" for the costs associated with each of these plans. In the case of the MIT Health Plans, internal and external costs associated with care provided to Health Plan members are used to establish premiums for the two plans. Since the MIT Medical Department provides a variety of services to the MIT community, a significant component of the internal costs are joint costs that must be allocated across the Medical Department's multiple lines of business. This necessarily involves considerable judgment, but MIT has now developed and applied a reasonable set of cost allocation protocols, and these protocols have improved considerably in the last couple of years. In the cases of the Blue Cross and Tufts plans, the specific features of the plans are designed and administered by Blue Cross and Tufts for a fee. Blue Cross and Tufts then pass along the charges they incur for the care provided to MIT subscribers to MIT which then reimburses BC/BS and Tufts for the costs of care they claim they have incurred to provide care to MIT subscribers. These costs are then used by MIT and its consultants to develop premiums for individual and family coverage for each plan. The premiums for the next year are based on the costs experience in each plan and assumptions about health care cost inflation for the following year.

MIT shares the costs/premiums associated with each of these plans with employees. For many years MIT has shared the annual weighted average increase (or decrease) in health insurance costs 50/50 with employees. As a result, the average employee share of the total costs of health insurance is now about 40% and, if the current formula continues, it will gradually rise to 50%. The employee share of the more costly plans is much higher. Table 2a displays the CY2005 total premium and faculty/administrative staff shares of these premiums for individual and family plans for the five plans discussed here. Support staff payments are slightly lower and are displayed in Table 2b. Employees pay their share of employee premiums on a "before tax" basis and benefit from the associated "tax subsidy."[21] The average premium paid by employees for health insurance has risen by about 13% per year compounded over the last 5 years. In addition, increases in co-payments, especially for prescription drugs, have further increased the cost of health care borne by MIT employees. This is broadly

[21]These payments are exempt from Social Security (FICA) taxes, Medicare taxes, federal income taxes, and state income taxes. The total tax subsidy varies across households and depends on the sum of the marginal tax rates that apply under each of these taxes. Neither the Medicare tax, which is levied at a rate of 1.45 percent on both employers and employees for a combined rate of 2.9 percent, nor the Massachusetts state income tax of 5.3 percent on earned income, vary with a household's earnings. The FICA tax, a combined 12.4 percent rate tax on employers and employees, applies in 2005 to the first $90,000 of wage income for each earner. The marginal federal income tax on each dollar of earnings rises with a household's total taxable income. For example, for married joint filers in 2005, the marginal tax rate was 15 percent for a broad range of incomes up to $59,400, 25 percent for those with taxable income between $59,400 and $119,950, 28 percent for taxable incomes between $119,950 and $182,820, 33 percent for taxable incomes between $182,820 and $326,450, and 35 percent for higher incomes. Given this configuration of tax rates, the employees with the greatest tax benefit from employer-provided health insurance may be those with earnings near, but below, the $90,000 cap on FICA taxes. Many such employees are likely to face the 25 or 28 percent federal income tax rates, which, when combined with the other applicable taxes, leads to a total marginal tax rate of 45.7 or 48.7 percent. When earnings exceeds $90,000, the combined marginal tax rate drops by 12.4 percent, so employees with earnings just above this threshold could face combined marginal tax rates of 33.3 or 36.3 percent. Even the very highest earners, who may face the 35 percent federal marginal income tax rate, only face a combined marginal tax rate of 43.2 percent. This rate is lower than the rate faced by some earners who are just below the Social Security payroll tax cap. Moreover, the tax consequences depend on total family income when spouses file joint returns.

consistent with national trends,[22] though MIT's health insurance premiums (MIT + employee share) have grown at a somewhat slower rate than the regional average.

MIT offers a dental insurance plan administered by Delta Dental Plan and shares the associated costs with employees.

MIT offers a long-term care insurance plan, though its existence is not widely known or its provisions understood by the employee community.[23] The insurance plan is provided by John Hancock Insurance Company. The long-term care insurance plan covers certain expenses to care for the participant who is unable to care for him or herself and needs assistance with the most personal daily activities, like bathing or dressing. In addition to conventional nursing home coverage, the plan covers services received in your own home, in a qualified adult day care facility, or in an alternate care facility.

MIT offers a Health Care Reimbursement Plan[24] that allows employees to make before-tax contributions to an account that can then be used to pay for eligible medical and dental care expenses that are not covered by their health insurance plan. This includes deductibles and co-payments and other covered medical expenses as defined by the Internal Revenue Code.

MIT does not presently offer a stand-alone "catastrophic" insurance plan with a high deductible and co-payments or offer a Health Savings Account (HSA) program option that was authorized relatively recently by the federal government.

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[22] "Healthcare premiums to leap again," *Boston Globe*, August 2, 2005, page 1.

[23] http://web.mit.edu/hr/benefits/long_care.html

[24] http://web.mit.edu/hr/benefits/reim_health.html

The Task Force has examined the attributes of MIT employees who choose different health insurance options (MIT Health Plans, Network Blue, or Tufts). Those who choose one of the MIT Health Plans are more likely to live in Cambridge, Boston, and the nearby suburbs. They are more likely to be members of the faculty, other academic staff, or research staff. They are more likely to be either relatively young or relatively old and less likely to have children at home. They are more likely to view proximity of health care delivery to where they work as being very important. We are informed that those who choose the POS plans are "the worried well" who want to pay for the option of insured coverage for out-of-network services but rarely exercise this option. This raises the question of why, if this is the case, the premiums for the POS plans are so high?

c. Medicare-eligible Retirees: MIT retirees who have reached the age of 65 are covered by Medicare.[25] MIT offers various "Medigap" or "Medicare Supplement" insurance policies that cover a significant fraction of health care costs that are not covered by Medicare Part A and Part B. About 80% of Medicare-eligible retirees choose the BC/BS Medex plan. Most of the rest choose an enhanced Medigap plan offered by BC/BS or Tufts.

Medicare-eligible retirees are responsible for paying a share of the costs of the Medigap plans based on a formula that depends on the number of years an employee has worked at MIT.[26] This share varies from 30% to 50% of the Medex group costs for non-

[25]Retirees between 55 and 65 years of age are covered under the regular employee plans if they meet certain eligibility criteria. Employees who are at least 65 years old become eligible for Medicare when they formally retire. Until then they are covered by the MIT employee health benefits discussed above.

[26]There is a large grandfathered group of older retirees who pay no charges for Medex coverage. If they choose a more costly Medicare supplement plan they are required to pay for any costs that exceed the

grandfathered retirees. Medicare-eligible retirees who choose the Tufts Medicare Complement or the Managed Blue for Seniors plan pay an additional charge for these plans since their costs are higher than the Medex group plan. MIT makes provisions for continued coverage of retiree spouses or partners depending on whether they have reached age 65 or not.

The federal government is in the process of implementing significant changes in the Medicare program in conjunction with the introduction of a new Medicare prescription drug benefit (Medicare Part D).[27] The MIT benefits office has gotten out front quickly in analyzing what this program will mean for MIT and in providing information to our retirees about it. The new Medicare drug benefit program is complicated and its introduction will be accompanied by a considerable amount of potentially confusing advertising from providers.[28] Our retirees are likely to have many questions about the program options. The benefits office is preparing to meet these challenges to support our retirees.

The MIT Medical Department does not offer a designated "MIT Health Plan for Seniors" insurance option. However, the Medical Department provides health care services to Medicare-eligible retirees and bills Medicare and the Medex plan for covered services. About 30% of the Medicare-eligible retirees (1200 – 1500) receive medical care through the MIT Medical Department. The fraction is much higher for the faculty

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Medex group premium. Currently, there are about 4,600 "grandfathered" retirees who pay no charges for Medex and 348 non-grandfathered retirees that pay a portion of the Medex premium.

[27] http://www.medicare.gov/medicarereform/drugbenefit.asp ; "Medicare's Big Experiment," *Business Week*, October 10, 2005, pages 101-02.

[28] "To Promote a New Drug Benefit, Marketers Are Using Some Old Scripts," *The New York Times*, October 3, 2005, pages C1 and C5; "How to Choose a Medicare Drug Plan," *The Wall Street Journal*. October 4, 2005, page D1.

retiree population. About 80% of faculty retirees who responded to our survey rely on the MIT Medical Department for care.

It should be noted that the retirement profiles of faculty members are different from those of most other MIT employees. Unlike other employees, faculty members generally do not retire when they reach the age of 65 (or before) and typically stay on until at least the age of 70. This means that MIT continues to provide health insurance coverage for faculty members beyond the age when they are eligible for Medicare since Medicare becomes an individual's primary health insurance option only after the individual has retired. Health care costs increase rapidly with age in this portion of the age distribution. Since nearly 80% of the faculty subscribe to one of the MIT Health Plans, this places an unusual cost burden on these plans compared to the BC/BS and Tufts plans and makes meaningful comparisons with health care costs incurred by other organizations difficult.

Even after they retire, many faculty members continue to engage in professional activities at MIT and maintain office and/or lab space on campus. Our survey of retired faculty members indicates that about 40% are still doing some teaching and over 60% are on campus at least once each week. Since over 80% of faculty retirees were subscribers to one of the MIT Health Plans prior to retirement, and a majority of faculty retirees' have ongoing relationships with MIT, it should not be surprising that they value highly the opportunity to continue to receive their medical service from the MIT Medical Department. This explains why about 80% of faculty retirees who responded to our survey rely on the MIT Medical Department as their primary provider of health care services.

d. Post-Doctoral Associates and Fellows: There are over 850 Post-Doctoral Associates and Fellows at MIT in any given year. Their health insurance options depend upon the source of their Post-Doc financing. Post-Docs who are paid through MIT grants or contracts are called "Post-Doctoral Associates" and they account for about 70% of the total Post-Doctoral population. They are eligible for the same health insurance options as are available to MIT employees and the associated costs are shared between MIT and the Post-Doc in essentially the same way as for regular MIT employees. Post-Docs who are compensated directly from outside sponsors are called "Post-Doctoral Fellows." Post-Doctoral Fellows who were previously Post-Doctoral Associates, but due to a change in their funding source are no longer compensated through an MIT grant or contract, continue to be eligible to subscribe to the MIT employee insurance plans. Prior to 2005, the Institute made no contribution to the cost of the insurance once the Post-Doc's status changes from "Associate" to "Fellow."[29] However, beginning in 2005, the Institute adopted a policy to encourages the Post-Doc's advisor and department to make such a transition cost-neutral to the Fellow. Post-Doctoral Fellows who have never been paid through MIT grants or contracts generally apply for the MIT Affiliate Basic and Extended Insurance options, which are effectively the same as the insurance available to MIT students. Again, cost-sharing would need to come from the Post-Doc's advisor or academic unit. (Beginning in 2005, Fellows meeting certain criteria became eligible for Dental Insurance as well).[30] As a result, absent additional support from the Post-Doc's advisor or academic unit, Post-Docs doing

[29] Some fellowships also carry a health care allowance.

[30]The recent changes in health insurance financing for Post-Docs are contained in a January 2005 memo from Professor Alice Gast. http://web.mit.edu/mitpostdocs/documents/gast_postdoc_memo.pdf

the same work and with the same family attributes could be responsible for widely varying health insurance costs. Moreover, until recently, if a Post-Doc's status changed from Associate to Fellow her insurance options changed and the costs to the Post-Doc could increase significantly. We do not know how many advisors and/or departments have provided the additional subsidies to Post-Doctoral Fellows specified in the policy statement issued in January 2005. Finally, for Post-Doctoral Fellows with families the cost of the insurance borne by the Fellow can be quite steep since there is no cost-sharing with MIT, and Post-Doc stipends are low compared to, for example, Assistant Professors.

3.2 The MIT Medical Department

The stated goals of the MIT Medical Department are (a) to provide high quality, low barrier, convenient care to the MIT community, (b) to improve and maintain the health and wellness of the MIT community, and (c) to effectively utilize the resources available to provide individual and community care. An important component of the philosophy that has guided the Medical Department's evolution was expressed very clearly by Dr. J. Howard Means (then Director of MIT Medical Department and former chief of medicine at MGH) in 1954. He argued that on-site care for the MIT community not only made good medical sense, it also made good financial sense. In his view the value of time lost from the work of the Institute -- at any level or job -- was at great cost, a cost that could be minimized by the provision of on-site care.

MIT has had a campus medical department for over 100 years, and the services that it provides to the MIT community have increased significantly since then. It has provided health care for students and basic outpatient care to employees for many

decades. The availability of health care services from the MIT Medical Department was expanded to include employees' families in 1974 on a limited (1000 subscribers) experimental basis. The experiment was so popular that the MIT Health Plans were made available to all employees the following year. The Medical Department now provides health care services to all segments of the MIT community --- undergraduates, graduate students, employees and their families, post-docs, affiliates, retirees and their families. It provides primary and specialist care, diagnostic services, and maintains an inpatient unit which is a licensed hospital on campus, and manages referrals for outside hospital care, therapy, diagnostics, and specialist referrals for students, employee members of the MIT Health Plans, and retirees. It provides a 24-hour Urgent Care service staffed by nurses and physicians. It operates a pharmacy and has affiliations with several Boston hospitals. It has a dental service that is used by both employees and students. The Department provides support for MIT environmental, health and safety activities. Through the Center for Health Promotion and Wellness, the Medical Department offers programs, classes and workshops related to the promotion of improved health for the entire MIT community and is the home for the MedLinks[31] program for students. The Department collaborates with and provides support for the activities of the Office of the Dean for Student Life. Members of the Department have provided other educational and community service support, including teaching and pre-med advising.

[31] MedLinks is a residentially based peer advocacy program composed of trained student representatives, each one called a "MedLinks." Most living groups, dorms, and fraternities have at least one resident MedLinks who offers private, accessible, one-on-one peer support, as well as information and referrals, for a range of student concerns, including nutrition and fitness, food and body-image issues, sexual health, sexual and relationship violence, substance use and abuse, mental health, stress and sleep issues, and physical ailments. Many MedLinks have also completed CPR training, which allows them to respond to incidents of chest pain, choking, difficulty with breathing, and other emergencies.

The MIT Medical Department has an extremely dedicated staff of physicians, nurses, other health care professionals, administrators and support staff[32] who have a broader and deeper set of relationships with the members of the MIT community than do most other groups of MIT employees. Many of them have been working in the Medical Department for many years and have long-standing relationships with MIT employees and their families. We have received many comments with examples of how the clinical, technical, administrative, and supports staffs of the Medical Department have gone to extraordinary lengths to help students, employees and retirees in need of medical care. These individuals are highly valued members of our community.

All segments of the MIT community express generally high levels of satisfaction with the services provided by the Medical Department. About 95% of the subscribers to the MIT Health Plans rate the overall quality as being good to excellent. Over 95% of the faculty retirees rate the Medical Department as being good to excellent. However, employees, and especially the faculty, feel that the overall quality of the services provided by the Medical Department, especially the access to and availability of care on a timely basis, has declined in the last few years as the Department has responded to the budget cuts discussed earlier. About 35% of the faculty who responded to a question regarding their views about whether the quality of care (broadly defined) had gotten better, worse or stayed the same, indicated that it had gotten worse. Other employee groups expressed a similar, though less intense, view of recent trends,[33] while faculty retirees are more likely to view the services they receive from the Medical Department as

[32] About 270 employees (about 240 FTEs) and 130 individuals who provide services under contracts and are not MIT employees.
[33] We note that neither students nor subscribers to the Blue Cross and Tufts plans exhibited similar asymmetric responses to this question.

having improved. The morale of the Medical Department's staff, especially its physicians, has also suffered as a consequence of the impacts of the budget cuts on their ability to do their jobs well and to maintain their relationships with the MIT community. Turnover of physicians and other clinical staff has increased, and MIT employees are concerned about this turnover. We will discuss several specific concerns brought to our attention further below.

We have reviewed various analyses of the Medical Department's finances and costs prepared at the request of the Task Force, including various benchmarking studies and MIT's budgeting and financing management processes. (Section 6 discuss the budgeting and financial management processes applied by the MIT Administration to the Medical Department and we make recommendations for reforms in that section as well.) These analyses lead us to the following conclusions.

Contrary to assumptions made by some in the MIT Administration, the costs of providing medical care in and through the MIT Medical Department are not "highly inefficient" or "gold plated" at the present time. The analyses performed at the request of the Task Force suggest that on a risk-adjusted basis, the care provided by the MIT Medical Department is no more expensive, and may be less expensive, than care provided under the BC/BS and Tufts plans. The Department has realized significant real cost savings in the last few years. While there are areas where further efficiencies may be realized, and we discuss some of these areas further below, the overall impact of the budget cuts imposed on the Medical Department, combined with the impacts of the mental health care initiatives focused on students, has been to reduce the access to and perceived quality of care provided to members of the MIT Health Plans, especially as

perceived by the active members of the faculty. Moreover, the budget-cutting process appears to have taken no account of the impact of reduced services on the faculty and other employees, the value of their time, or associated losses in productivity.

Most importantly, no more than half of the budget cuts were likely to have accrued to reduce MIT's deficit, due in part to deficiencies in the MIT Administration's budgeting and financial management protocols for the Medical Department (discussed in more detail in Section 6) and the failure to integrate effectively these processes with the Medical Department's responses to the budget cuts. At the time, neither the MIT Administration nor the Medical Department's administration had the information or analytical tools necessary to evaluate what the ultimate financial consequences of the budget cuts would be or to take into account the differential impacts of cuts in different Medical Department services on MIT's net contribution to the costs of medical care delivered by the Medical Department.[34] To put the ultimate saving resulting from the budget cuts that flowed through to MIT's bottom line in perspective, it is equivalent to no more than about an $11.00/month increase in the after-tax premiums paid by MIT's 10,000 employees.

The Task Force is cognizant of the fact that MIT has a model for providing medical care to the MIT community that, while not unique, is not typical of our peer institutions. Among the research universities whose health care insurance and delivery programs we have reviewed, only Harvard and Yale have adopted similar models. Other universities do not provide the kinds of employee medical services that are available at

[34] Very significant improvements in MIT's information and analytical capabilities have been made since then. However, fully integrating these capabilities with the Medical Department's decision-making processes is still a work in progress.

MIT under the basic employee benefit or to members of the MIT Health Plans. Nor do students at most other universities receive the level of care provided to them by the MIT Medical Department. To the contrary, the trend at many other universities and colleges has been to reduce the availability of urgent care services, to close infirmaries, and to ask students to fend more for themselves with outside providers. Moreover, the general "outside world" economics of operating what amounts to a small HMO are not favorable. In theory, the MIT model for providing health insurance and medical care services should not work very well. In practice it has been a jewel. The MIT Medical Department deserves considerable credit for making a medical service of this scale work so well and so cost-effectively for so long during a tumultuous period in the U.S. health care sector. Nevertheless, a review of whether the MIT model for providing care continues to make sense and, if it does, how to ensure that it provides high quality care in a cost effective manner is indeed justified, and we now proceed to offer our views on this subject.

4. VISION FOR MEDICAL CARE AND MEDICAL INSURANCE AT MIT

The first item of the Task Force's Charge is to "Review and articulate the goals of MIT's programs to provide health care and health insurance to our undergraduates and graduate students, employees, and retirees in terms of access to care, quality of care, and costs of providing care." To respond to this aspect of our Charge it is appropriate to begin with MIT's basic mission and goals and the challenges that it faces to achieve these goals. MIT's primary goals are to provide outstanding educations for undergraduate and graduate students, to perform and disseminate outstanding research, and by doing so to enhance the welfare of society. To achieve these goals MIT seeks to attract and retain the world's most outstanding faculty, students, and research staffs and to provide the human

and physical support they need to achieve excellence in education and research. MIT faces intense competition from other universities to attract and retain an outstanding faculty, to attract the very best undergraduate and graduate students and to meet their expectations. Moreover, the findings of other recent MIT task forces make it clear that life at MIT is very intense, stressful, and creates challenges for faculty members and students to maintain a healthy balance between their work, their families, and the overall quality of their lives. The availability of high quality and convenient medical care available at a reasonable cost is highly valued by all segments of the MIT community, especially by the faculty. Accordingly, making high quality and convenient medical care available at a reasonable cost should be the primary goals of MIT's health insurance and health care programs in order to support our efforts to attract and retain an outstanding faculty, research staff, and students to pursue successfully our educational, research, and societal service goals.

Does the unusual MIT model, which combines an on-campus medical department providing health care for students, and a large fraction of employees and retirees, along with the availability of other competing third-party insurance options for employees and retirees, continue to be the best way to achieve these goals? We believe that this model continues to be in MIT's best interests as long as MIT can devote the financial and managerial resources necessary to ensure that it continues to deliver high quality and cost-effective care through the MIT Medical Department. It can best meet the needs of our students for health care and provides a menu of options for employees that reflect their diverse preferences for choice of providers and locations for the delivery of care. The level of satisfaction with the Medical Department is generally quite high. As already

noted, about 95% of the subscribers to the Health Plan rate the overall quality as being good to excellent. Unfortunately, there is a widespread perception, expressed most intensely by the faculty, that the overall quality of the Medical Department has declined, with concerns about a decline in quality focused on a few specialty service areas. The levels of satisfaction by employees who have chosen the BC/BS or Tufts plans are also quite high. Students are less satisfied overall, but the general level of satisfaction has improved over time.

In arriving at our conclusion that MIT should retain the present basic model but work hard to manage it better we have considered potential alternative models. One alternative would be to adopt the model used by most universities. This would involve reducing the role of the Medical Department to that of a student health service that perhaps provides limited outpatient service to employees. Adopting this approach would mean ending the MIT Health Plans, ending the provision of health care to retirees, reducing access to urgent care services, and either closing or limiting access to the MIT infirmary to students. MIT employees would then shift to one of the BC/BS plans or to the Tufts plan (or another insurance plan that MIT might add to the menu). *If MIT adopted this model it is unlikely that MIT would save a significant amount of money as a consequence of employees shifting to Network Blue or Tufts or other third-party insurers.* Moreover, this decision would make a lot of employees, especially the faculty, very unhappy and reduce the productivity of employees who now use the Medical Department.

In order to reduce significantly the total medical care costs ultimately borne by MIT, it would be necessary for MIT to cut back significantly on the services provided to

students through the MIT Medical Department. This is the case because closing the Health Plans and eliminating the provision of health care to employees would otherwise lead to an increase in the average cost of providing the current level of student health care due to a loss of economies of scale and economies of scope. While other universities and colleges have reduced medical care services available to their students, adopting this strategy would be contrary to the policies that MIT has initiated in the last few years. Accordingly, if the goal of MIT's medical care strategy is to reduce MIT's health care costs significantly by abandoning the current model, this goal will only be achieved by reducing the value of medical care provided to the large segments of the MIT community who now rely on the Medical Department for care.

We have also considered whether MIT could significantly reduce costs by "outsourcing" the management and provision of care by the MIT Medical Department while continuing to support student health, the MIT Health Plans and retiree services on campus and at Lincoln Lab, and while maintaining satisfactory levels of access to and quality of care. We are not optimistic that such an arrangement could simultaneously support MIT's service and performance goals for the Medical Department and yield a significant reduction in costs.

It is not clear exactly what those who have suggested "outsourcing" the Medical Department have in mind. We suppose that it would involve contracting with a hospital management organization or a managed care organization like Harvard Pilgrim or Tufts effectively to acquire the Medical Department and to operate it pursuant to terms and conditions specified in a contract with MIT. (Like the outsourcing of MIT's food services to Aramark.) We note first that a significant fraction of the costs incurred by the Medical

Department are already "outsourced." The Medical Department brings outside specialists to campus under contracts, relies on referrals to outside physicians for certain specialty and subspecialty care, utilizes third parties for specialty imaging (CT, MRI, PET scans) and other diagnostics, and utilizes area hospitals for most hospital care, except that provided by the infirmary. A large fraction of the Medical Department's budget is composed of these "outside" costs.

Second, the record of the hospitals in the Boston area who have taken over group medical practices is not particularly good. Moreover, Harvard Community Health Plan (which was eventually merged with Pilgrim and then reorganized) almost collapsed several years ago and it appears that the Tufts Health Plan is in trouble and presently produces premium levels for MIT that exceed those of the MIT Health Plan by a significant margin. As we will discuss, patient satisfaction with MIT's latest outsourcing initiatives --- Value Options and Express Scripts --- is less than fully satisfactory. Finally, and perhaps most importantly, it would be extremely difficult to negotiate a credible long-term contract that would both significantly reduce costs and provide MIT with the control over the availability of medical services and the flexibility to adapt to changing needs of our diverse community that it will continue to want to have, especially given the current state of MIT's information regarding costs and utilization by this very diverse population.

The bottom line is that the Task Force recommends that MIT continue to support our longstanding existing basic model for medical insurance and medical care delivery. It has served the community well. It has been damaged somewhat by arbitrary and excessive budget cuts and imperfections in the way they were managed. The focus

should be on improving the quality and cost effectiveness of this model and MIT's ability to put in place more effective financial management and governance arrangements. We make short-run and long-run recommendations that we believe will have this effect.

5. THE MIT MEDICAL DEPARTMENT: CONCLUSIONS AND RECOMMENDATIONS

a. The MIT Administration should express its confidence in and strong support of the MIT Medical Department and its goals: The clinical, technical, administrative, and support staffs of the MIT Medical Department are highly valued members of our community who play an important and very positive role in the life of the Institute. As we will discuss further below, the process of budget cutting imposed by the MIT Administration had significant deficiencies. The process also generated unfortunate rumors about the Medical Department's future. The nature of the budget cutting process also suggests to us that there was a failure by some in the Administration to appreciate the value that the Medical Department brings to the MIT community, its importance to students, faculty, other employees and retirees, and the professionalism and dedication of the Medical Department's staff. The persistent references to inefficiencies and gold plating, assertions that were based on little analysis, were not received well by the Department's hard-working staff. In our view the Medical Department has and should continue to play a central role in supporting MIT's mission. We need to restore the morale of the staff of the Medical Department and help to return to an era when the MIT Medical Department was viewed as an especially attractive place to work <u>because</u> it was an important and integral part of our community.

b. There is an urgent need to add resources to the Medical Department's budget quickly to improve access to care and to provide the time and resources required by caregivers to deliver high quality care: There is an urgent need to provide additional resources to respond to the deterioration in the access to and quality of care available to

the MIT community through the MIT Medical Department. The budget cuts have led to improvements in productivity, but they have also led to unacceptable reductions in access to and the perceived quality of care, especially care available to the faculty and other employees who subscribe to the MIT Health plans and pay a significant fraction of the associated costs. Waiting times for appointments with primary care physicians and referrals to specialists are too long. The amount of time allocated for individual patient contacts has been reduced too much and has not reflected the increased time required to answer emails and use some of the new information technologies that have been made available in the last few years. Physician turnover has been excessive, and the morale of the physicians and other clinical staff needs to be improved. Our surveys and associated written comments reflect the widespread view by employees who use the Medical Department that physicians are less available, rushed, and increasingly unhappy about the constraints that have been placed on them.

There have been significant changes in the availability and utilization of "inside" services by the Medical Department that have followed from the responses to the budget cuts. For example, in the last few years the effective number of internists available to treat patients has declined from 25% to 40% (depending on how administrative and other time commitments are counted), while the number of primary care contacts has been stable. Real pediatric care resources have declined while utilization of pediatrics has increased (nearly a 10% increase in utilization for children of MIT employees). Mental health care contacts within the Medical Department have grown significantly. Resources have been added for mental health care. However, this increase in "inside" mental health care contacts must be disaggregated between students and employees to fully appreciate

the changes that have taken place in the availability of mental health care. The result of the student mental health care initiative has been accompanied by a large increase in student contacts[35] and a large decrease in employee contacts within the Medical Department. Employee (MIT Health Plan) contacts have been shifted to outside providers with the primary benefit managed by Value Options, which limits access to providers on its network. A secondary benefit available to MIT Health Plan subscribers has a high co-payment rate and for many subscribers is inferior to the benefit provided by the other insurance options.[36] The effect has been to reduce the mental health benefit for MIT Health Plan subscribers. In house contact hours in Dermatology and Ob/Gyn have also declined with more patients being treated by off-site providers with which the Medical Department has contracts.[37]

Our recommendations should not be interpreted to mean that the MIT Administration should restore all of the money that was taken from the Medical Department or that changes that have been made to staffing and service protocols should all be reversed. Efforts to increase efficiency and to assess the costs and benefits of alternative delivery options must continue, and careful review of the performance of those changes that have been made should continue as well. However, the budget cuts

[35] There was also a change in the SEIP benefit for outpatient mental care which reduced the unlimited benefit to 24 visit per year. The unlimited benefit was abused. The 24 visit per year benefit conforms to the benefit in the BC/BS and Tufts plans available to employees.

[36] The MIT Health Plan provides that patients make a 25% co-payment for psychiatric care from providers in the Value Options network up to 50 visits per year. For out-of-network psychiatric care MIT will reimburse 50% of the customary and usual charge up to a maximum of $60/visit for up to 50 visits per year. We are told that this typically means an effective co-payment of up to $80/visit, assuming that the reimbursement claim is processed successfully.

[37] There are fragments of evidence to suggest that this has discouraged employee subscribers to the Health Plans from seeking care in these and other areas and may help to explain the dissatisfaction with queues for specialist referrals.

and reallocations of resources to meet various initiatives focused on improving student care have had adverse effects on the availability of care in the Medical Department that need to be addressed quickly.

We recommend that within 60 days the Medical Department present the MIT Administration with a plan to add clinical and support resources to respond to the community's concerns about reductions in the access to and timely availability of care and to begin to address staff morale problems. The plan should include justifications for the additional resources along with an analysis of how the associated costs will ultimately be covered from premium increase, recovery through grants and contracts, and the net effect on MIT's bottom line. We are reluctant to micromanage how the Medical Department responds to this recommendation. However, we offer a few suggestions based on all of the information that we reviewed.

1. *Internal medicine:* There is a need for at least one and perhaps two additional internists. Depending on how one counts, the effective supply of services from internists has declined by 25% to 40% over the last few years. This has contributed to the delays in getting appointments, dissatisfaction with inadequate contact time from patients, and has undermined staff morale. In light of staff losses in the last few years, and the preferences some women have to be treated by a female physician, it would be desirable if one of these positions could be filled by a woman. Sub-specialties that are no longer represented by the Department's internists (e.g., endocrinology) should be a factor in this search as well.

2. *Dermatology:* There is a perceived need to expand the availability of dermatologists on campus in the Medical Department. This service had the highest level of patient dissatisfaction in our employee survey. We recognize that efforts are underway to increase access to dermatology services on campus and that an arrangement to bring a dermatologist to the Medical Department one day

per week has now been made. We urge the Department to continue its efforts to expand access to this service in the Medical Department.

3. *Ob/Gyn:* There have been significant changes in the Ob/Gyn service and where this care is delivered. The Medical Department's administration made a compelling case that the number of deliveries by Medical Department clinicians for MIT students and employees enrolled in the Health Plans was too small to justify the existing arrangements. The Medical Department administration also acknowledged that the process for making and communicating the significant changes that were made in the Ob/Gyn service had significant deficiencies and that lessons have been learned from it. In light of the controversies surrounding the changes in the Ob/Gyn service, it is important that they be subject to careful ongoing evaluation.

The patient satisfaction ratings for gynecology service in our survey are lower for MIT Health Plan subscribers than for subscribers to the other employee insurance plans. About 24% of Health Plan subscribers (35% of the faculty) who are familiar with the service responded that it had gotten worse while 15% (12% of the faculty) responded that it had gotten better. For obstetrics, 30% of the employees who are familiar with the service responded that the service had gotten worse (43% of the faculty) and 17% (4% of the faculty) responded that it has gotten better, though the number of responses for obstetrics is relatively small. Concerns have been expressed to us about moving deliveries from Brigham and Women's hospital to Mt. Auburn hospital since the latter does not have a neonatal intensive care unit. These concerns persist despite the Medical Department's commitment to arrange for high risk patients to have their deliveries scheduled at alternative hospitals with such facilities.

These perceptions of the quality of Ob/Gyn services are of concern and a deeper investigation and appropriate follow-up are necessary. Now that there has been time to adapt to the changes made in the last couple of years, we recommend that the effects of these changes be evaluated more intensively from a cost, patient satisfaction, and objective quality of care perspective and, if necessary, to make adjustments to improve patient satisfaction levels.

4. *Pediatrics:* Recent changes in leadership and staffing in pediatrics and a reduction in real pediatric resources should be evaluated to determine whether additional resources are needed to meet pediatric care needs. Our surveys indicate high levels of satisfaction with pediatrics with 86% of Health Plan members (91% of the faculty) who are familiar with the service indicating that they are satisfied or very satisfied with pediatrics. About 85% of the Health Plan members responded that the quality of the service had stayed the same or gotten better over time, while 13% expressed the view that it has gotten worse and 15% that it had gotten better. However, we have received a number of comments expressing concerns about the future of pediatrics. The leadership and staff changes are recent, and continued evaluation of the availability and quality of care is important to determine if additional resources are needed. This is a fine service that should receive careful attention and continuing support.

5. *Urgent Care:* The 24-Hour Urgent Care service is viewed extremely favorably by MIT employees, with 94% responding that the quality of care has stayed the same or gotten better. Student responses are somewhat less favorable, especially among undergraduates who are much more likely to rely on Urgent Care rather than their Primary Care Physician (who the vast majority of students have never seen). It appears that the increased difficulty of getting timely appointments with primary care physicians may have driven more people to the Urgent Care service, which in turn has increased queues at certain times. Urgent Care is an extremely valuable service with a hard working team of nurses and support staff who make it work well under sometimes difficult conditions. We recommend that the Medical Department evaluate whether adding additional nurse, physician, and other support resources to Urgent Care can help to alleviate this problem in the short run. We also recommend that the Medical Department continue to evaluate whether there are more effective ways to allow students to adjust their arrival time to variations in queue lengths.[38]

[38] We recognize that queue lengths at Urgent Care are necessarily uncertain and depend on the nature of the medical problems that appear on Urgent Care's door. 24-hour Urgent Care is not like a bakery where the

6. *Clinical Staff Support:* Consider restoring benefits that have been taken away from physicians and other clinical staff to meet budget constraints. These include physician stipends for visiting patients in the hospital,[39] support for continuing education, including medical conferences and clinical lunches.

7. *Mental Health Services*: We discuss this specialty area separately below because of the complex nature of the changes that have taken place in this service.

c. The mechanisms through which mental health care services are provided to MIT Health Plan subscribers and their families' need to be reevaluated immediately: MIT has responded aggressively to the recommendations of the Mental Health Task Force. New leadership has been added and the service has been reorganized. Many more students are being served in the MIT Medical Department and coordination with other counseling and student support services on campus has improved significantly. However, as the Medical Department has expanded mental health services provided to students, the mental health services available to employees and their families who are members of the MIT Health Plans have changed and the perceived quality has declined significantly. The provision of mental health services to employees and their families has been pushed to outside providers through the Value Options network. Alternative providers can be accessed with a very significant co-payment. The decision to move more of the mental health care provided to MIT Health Plan members to outside providers reflected both concerns about the ability of the Medical Department to provide high quality care in a cost-effective manner to this population and the desire to provide an

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triage nurses can just give out numbers! The triage nurses are aware of and trying to respond to the concerns about queue lengths expressed by students.

[39] We understand that these stipends were recently restored.

affordable alternative to employees. However, the change in strategy to "outsource" mental health services for Health Plan subscribers and their families and to change the benefit structure was not communicated or discussed adequately with those affected. In the employee survey 32% of the employees (44% of the faculty) who have sought mental health care responded that they viewed the care as having gotten worse, while 12% of the employees (12% of the faculty as well) responded that it had gotten better. Only 13% of the employees in the other plans perceived their mental health service as having gotten worse.

There is significant dissatisfaction with almost every aspect of the Value Options network. We have also received numerous complaints about delays and confusion with reimbursements for out-of-network services as provided for by the terms of the MIT Health Plan insurance option.

We recommend that the Medical Department review its strategy for providing mental health care to MIT Health Plan subscribers and their families. If it is determined to limit access to internal resources the Department should consider replacing the current outpatient benefit with a benefit that better meets the needs of MIT Health Plan subscribers. One option would be to give subscribers a choice between the Value Options network and a benefit comparable to that available with BC/BS Network Blue.[40] There are likely to be other options worth considering. Ideally this review, and reforms, can be implemented prior to the open enrollment period in November 2005 so that they can be taken into account when employees choose their health plan for next year.

[40] A $10 co-payment for up to 24 visits per year.

d. Strengthen the reporting and governance arrangements that apply to the MIT Medical Department and improve procedures for evaluating and communicating major changes in services provided by the Medical Department: The Medical Department presently reports to the Vice President for Human Resources who in turn reports to the Executive Vice President for Finance and Administration (EVP) who reports to the President and ultimately to the MIT Corporation. There is also a Medical Management Board with advisory and oversight responsibility. According to the bylaws of the MIT Medical Department, adopted by the Corporation in the fall of 1984, the MIT Medical Management Board serves as a board of directors for the Medical Department, "operating within the Institute's structure." The board consists of nine to twelve voting members including members of the Corporation, Medical staff, and presidential appointments. As we understand it, the Medical Management Board was created to meet certain certification requirements for services provided by the Medical Department. Its role and structure reflect a compromise between creating a real board of directors for the Medical Department and the desire by MIT to retain control over the Department through MIT's general internal governance arrangements. There is also a Medical Consumers' Advisory Council made up of about 24 representatives from the Medical Department, faculty, administrators, staff, the unions, students and others. The Medical Consumers'Advisory Council serves as a communications link between the Medical Department and its users. Its objectives are to keep the MIT community informed of the services available through the Medical Department and to discuss issues, concerns, and suggestions for the modification or addition of services to meet the changing needs of the community. The

Council reports annually to the Medical Management Board. There are also internal Medical Department governance arrangements including an Executive Committee.

This governance structure seems to have worked reasonably well when the late Constantine Simonides oversaw it and applied a "big picture" perspective to major budgetary and strategic decisions. However, at the present time there is no such comprehensive "big picture" oversight and it is the sense of the Task Force that this complex governance structure worked poorly during the budget cutting process and the Medical Department's responses to it. In particular, it is clear to everyone involved that there was inadequate consultation inside and outside the Medical Department regarding changes in Ob/Gyn. We recognize that decisions that involve significant changes in staffing or the nature of services provided by the Medical Department will make some members of the Medical Department's staff and/or some patients unhappy. We also recognize that the severity and suddenness of the budget cuts, combined with the MIT Administration's earlier decision to implement a "temporary" budget cut funded by depleting the Medical Department's financial reserves, placed pressure on the Medical Department to act quickly to reduce costs.[41] However, we can do much better in the future by expanding consultation with and information provided to the Medical Management Board, Medical Department clinicians, and patients and to provide adequate time to receive and respond to feedback by those affected. The lessons learned from the Ob/Gyn experience need to be captured and changes in governance and consultation

[41] Although as we discuss further below, savings in Ob/Gyn costs probably have the smallest impact on MIT's bottom line of any service provided by the Medical Department since these costs are largely covered through premiums charged to employees and to students that subscribe to the SEIP family plans. Deficiencies in MIT's budgeting and financial management processes made it impossible for the Medical Department to understand this or to take this fact into account in its decisions.

arrangements implemented to support a more constructive and inclusive decision making process.

Given the importance of the Medical Department to MIT's primary missions of education, research, and service to society, and the role that the Medical Department was envisioned to play in the various task force reports discussed earlier, it seems like it would make sense for the Provost or the Chancellor, and the Chair or Vice Chair of the faculty to be more directly involved in the governance of the Medical Department, including in budgetary and financial management decisions. That is, we would like to see the academic side of the house play a greater role in governance. We also believe that the role of the Medical Management Board could be enhanced so that it plays a more direct role in strategic decisions, including major budgetary decisions, before they are made, in quality of care oversight, and is an entity that the MIT Administration can look to for expert advice on strategic issues.[42] Furthermore, physicians and other clinical professionals can and should be more centrally involved in major budgetary and restructuring decisions within the Medical Department. If our recommendation to put a highly skilled professional in charge of "Medical Care for the MIT Community" is adopted, it would be the job of this individual to help to facilitate this process.

We have made a number of recommendations in this report that may lead to significant changes in the delivery of care by the Medical Department and the availability, pricing and structure of MIT's health insurance options. We expect that the

[42] If the role of the Medical Management Board is to be enhanced in this way it will have to be accompanied by appointments of members with expertise in the delivery and management of health care and who are willing to make the time commitment to MIT (for love!) that would be necessary.

evaluation and implementation of these proposals will be undertaken within the context of an improved governance and consultation process.

e. Expand the participation of the Medical Department in MIT's educational, wellness, environmental, health and safety initiatives, and community outreach programs: We have the sense that one of the casualties of the budget-cutting process has been a reduced presence of the Medical Department and its physicians in education, pre-med advising, wellness programs, physical education, environmental, health and safety education, and related community outreach efforts. The reduced participation of these professionals has been a loss to MIT. It has also reduced the job satisfaction of the members of the Medical Department who have participated in these activities in the past. These activities were never fully funded directly as line items by MIT, and as the Department came under severe budget pressures and the clinical staff was required to increase clinical contact hours and reduce the time devoted to each patient contact, it was inevitable that time and resources devoted to these activities would decline.

Well-managed companies and companies that are rated highly as good places to work take the health of their employees very seriously. They do not do so just because they are nice but because it's good for business. Healthy employees are more productive at work and lose fewer days to illness. Many companies quantify the benefits of helping employees to improve their health in terms of the value of increased productivity and improvements in product quality. It would be very difficult to make this type of quantification for a university like MIT. Nevertheless, helping the MIT community to live healthier lives can improve the quality and length of their lives, improve their

productivity at work, and reduce MIT's health care costs in the long run as it does elsewhere. MIT should be doing a better job on this front. The MIT Medical Department should be viewed as the primary resource to lead expanded "wellness" programs at MIT.

Within six months we recommend that the Medical Department develop a plan to expand its activities in these areas,[43] in consultation with the Chancellor and the Dean for Student Life, and undergraduate and graduate student leaders for consideration by the MIT Administration. The plan should include a budget. The Center for Health Promotion and Wellness within the MIT Medical Department supports a wide range of activities devoted to health promotion education and wellness that is consistent with our recommendation.[44] The Center's goal of "Helping people to live to 80 to win that Nobel Prize, [and] not die at 50 from heart disease"[45] is exactly what we have in mind. However, the role of the Medical Department in the MIT community should go well beyond wellness programs to include pre-med advising, coordination with physical education, environmental, health and safety education, and related community outreach efforts. We believe that an effective plan will improve the life of the MIT community, support the goals reflected in the recommendations of other task forces, and make the MIT Medical Department a more attractive place to work, improving recruitment and retention of a high quality medical team. The plan should include an estimate of the incremental resources required to support each major program element.

[43] We understand that a considerable amount of work has already been done on this front.

[44] http://web.mit.edu/medical/a-center.html

[45] http://web.mit.edu/medical/pdf/chpw_annual.pdf, page 2.

f. Continue efforts to identify and take advantage of opportunities for reducing costs without reducing the quality of care: Over the last few years the Medical Department has taken a number of steps to review its costs and how they might be reduced. Again, we do not want to micromanage the Medical Department. However, we have examined several areas where it had been suggested to us that additional opportunities for efficiency gains may lie. We discuss four of these additional areas here.

1. The MIT Infirmary: The MIT infirmary is a licensed 18-bed hospital that provides a number of inpatient services to the community. In CY 2004, 37% of the inpatient days were accounted for by employees or their families, 36% by retirees, and 27% by students. The presence of a licensed hospital facility in the Medical Department also makes it possible for MIT to purchase prescription drugs at significantly lower prices than would otherwise be available to it, saving MIT several hundred thousand dollars each year.

The availability of a high quality inpatient facility in the Medical Department is viewed as providing very high value by the MIT community. Patients (students, employees, retirees, and members of their families) who have stayed in the infirmary generally give it rave reviews (with a couple of exceptions reflected in written comments). Indeed there is no MIT Medical Department service area that received higher rankings of satisfaction from the MIT community. An astounding 98% of the employees who have had experience with the MIT infirmary ranked the quality of care as being good to excellent (70% excellent). 100% of faculty retirees ranked their experience with the MIT infirmary as being good to excellent (98% very good to excellent). Over 95% of employees who have had experience with the infirmary indicate that the quality

of service has stayed the same or gotten better over time. Over 90% of the students rated the services provided by the infirmary as being good to excellent with very few responding that it was "poor." The MIT Infirmary is beloved by the MIT community. We commend the Medical Department for providing such an excellent service to the MIT community.

The demand for inpatient care is highly variable. With a relatively small potential patient population it is inevitable than an inpatient facility that seeks to have a high probability of having an adequate number of beds available to meet peak demands will also have a relatively low average occupancy rate (patient-days/bed-days).[46] This phenomenon is further complicated by seasonal variations in the resident population of a university community. Accordingly, it is not surprising that the MIT infirmary has a relatively low occupancy rate. However, the utilization of the infirmary has declined over the last few years across all categories of eligible users. None of the Medical Department staff with whom we spoke were able to explain the decline in utilization,[47] the loss of Clinical Research Center (CRC) patients aside.[48] While the aggregate costs of the inpatient unit have declined, the cost per patient has continued to rise because the costs of operating this facility are largely fixed costs.

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[46] Paul L. Joskow, "The Effects of Competition and Regulation on Hospital Bed Supplies and the Reservation Quality of the Hospital", *Bell Journal of Economics*, 1980, 421-447.

[47] Several hypotheses have been proposed. One is that medical department clinicians have concluded that reducing inpatient unit utilization contributes to reducing the Medical Department's costs. Since the costs of the infirmary are largely fixed this assumption is incorrect. A second hypothesis is that improvements in 24-Urgent Care have reduced the need for putting patients in the infirmary. We do not know what the answer is but it would be worthwhile to understand better the reasons for the decline in utilization when the levels of patient satisfaction are so high..

[48] Clinical Research Center patients are now directed to MGH. However, MIT would lose the option of serving CRC patients in the future if the infirmary lost its hospital license and certifications. Clinical Research Centers across the country have seen a trend away from inpatient studies.

Some have suggested that we follow other colleges and universities and close the MIT infirmary. We think that this would be a big mistake. Instead, we encourage the Medical Department to continue to seek ways to use the facility more effectively and intensively. First, the Medical Department needs to understand better why utilization of the infirmary has declined. Then options for more effective utilization should be considered. One suggestion that has been made is to integrate Urgent Care with the infirmary to provide better utilization of staff and space and increase patient privacy. Another suggestion is to intensify efforts to identify MIT patients who can be appropriately cared for in the infirmary rather than in a hospital or rehab center, yielding cost savings or revenues for the Medical Department. A third suggestion is to make empty beds available to third parties for low-intensity uses that will make more effective use of the facility and yield some fee revenues. A fourth suggestion is to downsize the infirmary and find other productive uses for the space that is freed up. We offer no opinion on the viability of these options but encourage the Medical Department to continue to evaluate these and other options.[49]

2. The MIT Medical Laboratory. The MIT Medical Lab is an in-house facility that provides convenient specimen collection and analyses Monday through Friday 8:30 am – 5:30 pm. After-hours specimen collection is done in Urgent Care or the Infirmary and if results are urgent the specimens are sent to a commercial laboratory in Central Square for analysis. The question that we have discussed is whether significant cost savings would be achieved without a sacrifice in the quality of care if all specimens were sent to an external laboratory for analysis. The Harvard University Health Plan has

[49]The Medical Department has already explored the possibility of merging the MIT and Harvard University Health Service infirmaries.

adopted this strategy and we recommend that the MIT Medical Department perform a careful study of the costs and benefits of outsourcing laboratory analysis.

3. The MIT Dental Service. MIT provides a full service dental care facility on the fifth floor of its building. Employees account for the majority of the utilization of the facility. Our employee survey indicates that those who are familiar with the service are reasonably satisfied with the quality and convenience of this service, though 30% responded that they were ambivalent to very dissatisfied with the service. About 80% of the students who responded rated the service as being good to excellent. Student utilization (MIT does not offer dental insurance to students) has declined over the last few years as prices have risen and other lower cost options have been found for them (e.g., BU Dental School clinic). The Dental Service is now losing money. It does not quite cover its operating costs at the present time and makes no contribution to the cost of the space it occupies. The dental service is used extensively for cleanings, checkups and emergency repairs. Unfortunately, these are the "loss leaders" in the Boston dental marketplace, with services like crowns, bridges, implants, dental surgery, cosmetic procedures, etc. providing much higher margins. An enhanced electronic dental records system has been requested to enable the facility to provide high quality care and effective scheduling.

We recognize that the dental service provides a convenient way to obtain dental care and is of considerable value to those who use it. However, we have studied the availability of third-party dental services within one and two miles of MIT. There are plenty of general dentists and specialty practices that are in proximity to MIT. Unlike the

situation for many medical specialists, timely appointments can be made fairly easily when they are needed. Some practices are even open on Saturdays.

We do not consider the dental service to be a high priority for the Medical Department, especially in light of student utilization patterns and the availability of convenient alternatives. If the service can't cover its full costs then we recommend adopting an alternative strategy. For example, MIT can identify a list of preferred providers with offices close to MIT and refer students and employees to them. Money saved by closing the service might be used to support a student dental insurance plan (more on this in Section 7 below). At the very least, alternatives should be considered before making significant additional expenditures to support the dental service.

4. The MIT Pharmacy: The Task Force was asked to consider whether savings could be made for "outsourcing" the services provided by the MIT pharmacy. The MIT pharmacy provides high quality service, has access to prescription drugs at attractive prices (due in part to its relationship with the MIT Infirmary, a licensed hospital), and is a significant convenience to students and MIT Health Plan members. We believe that outsourcing pharmacy services is a very bad idea. To the contrary an "in-sourcing" strategy should be examined. Specifically, it would be worthwhile to explore whether it would be feasible for access to the MIT pharmacy to be extended to MIT employees who subscribe to the Blue Cross and Tufts health plans. The MIT pharmacy would be a convenient outlet for prescription drugs for some subscribers to these plans and might reduce their drug costs. However, expanding access to the MIT pharmacy raises issues regarding staffing, space, queues, the arrangements with Express Scripts, and the impacts on existing users. We recommend only that this option be studied carefully.

5. Expanded Utilization of modern information and communication technologies to reduce costs and increase the quality of care: We discuss information and communications technology initiatives separately below.

g. Continue efforts to bring modern information and communication technology into the Medical Department to improve the quality, expand access to care and to reduce the costs of medical records, to facilitate exchanges of medical information within the department and with outside providers, and to help assessments of objective measures of the quality of care. The Medical Department appears to have made significant progress in bringing information technology to the Department and in training the staff to use it effectively. These technologies have the prospect of reducing the cost of medical recordkeeping (a significant Medical Department expense), improving access to medical records, improving quality of care assessment and improving the ease of communications with patients, and some of these benefits have already been realized.[50] However, this is an area that is of some concern to the Task Force. These information technology advances are costly to acquire, maintain and to train staff to use them effectively. There are economies of scale in all of these dimensions that the Medical Department will have difficulty fully realizing. These technologies will change quickly and have high economic depreciation rates. At the present time each of the hospital groups in Boston has a proprietary system that may impede information exchanges with MIT.[51] Maybe the future will be characterized by open architecture, but this is uncertain at the present time.

[50] "The e-Health Revolution," *Time*, June 27, 2005.

[51] "$50 million test seeks to end doctors' paper chase," *Boston Globe*, August 29, 2004.

We recommend that the Medical Department review its information technology strategy to assess likely costs and benefits and its compatibilities with the technologies being used by outside providers who care for the Department's patients. Our concerns about the costs of acquiring new information technologies and keeping up with advances on the frontier represent one set of considerations that lead us to recommend below that the Department consider the benefits and costs of developing a closer, mutually beneficial, partnership with either Partners or Care Group.

We also note that patients are increasingly communicating with their physicians via email. It is important that the Department have a clear, consistent, and reasonably uniform set of policies regarding email communications and that patients know exactly what that policy is. When patients send email messages to a health care provider they should receive an acknowledgement that it was received and when a response should be expected. The general response that "if you don't hear from us in two days try again" is not acceptable. The use of available technology for managing email messages and ensuring that they are not forgotten should be expanded and explained to patients. Patient Online is a very promising platform for facilitating electronic communications, but neither its existence nor the clinicians using this platform appear to be widely known to the MIT Health Plan community.[52] A platform like this is characterized by network externalities; its value is much greater if there is uniform participation by Medical Department staff using common receipt and response protocols.

[52] With Patient Online, MIT Medical's new online, personal health-management tool, MIT Health Plan Members can request appointments (and get automatic email reminders), update their personal information, view certain parts of their health history, and send secure email to participating MIT Medical clinicians. Patient Online is available through the MIT Medical website.

The increased use of email communications and other information technologies also has implications for the management of the time of medical professionals. Responding to email messages takes time. Using new information technologies effectively also takes time. Traditional measure of "contact hours" and related measures of the medical care "output" and the productivity of care delivery are becoming increasingly obsolete in this environment. We urge the Medical Department to build time into the schedules of Medical professionals that properly reflects the time they spend with email and other information technologies.

h. Bring the services provided to retirees in the Medical Department into fiscal balance: The availability of care for retirees in the MIT Medical Department is a highly valued benefit, especially for current (looking to the future) and retired faculty members. It contributes to the attraction and retention of an outstanding faculty and research staff. We strongly recommend that MIT continue to make these services available to retirees. However, it must be properly funded to ensure that it does not further squeeze care available to others in the Medical Department.

At the present time, the revenues that the Medical Department receives from Medicare and from recoveries through the Medex supplemental plan appear to fall short of the (fully allocated) cost of providing services to retirees. As a consequence of the deficiencies in MIT's budgeting and financial management processes (discussed in more detail in Section 6 below) and in its understanding of utilization, costs and revenue streams it appears that the analysis performed for the Task Force is the first to identify and (roughly) quantify the net cost of providing these retiree services in the MIT Medical

Department. It net revenue gap amounts to somewhere between $1 million and $1.5 million per year. MIT has not provided funding specifically to cover the residual costs for these retiree services.[53] As a result, supporting retiree care through the Medical Department is another factor that has squeezed the medical services available to other users of the Medical Department during the period of budget cuts, especially to subscribers to the MIT Health Plans. The number of retirees seeking care in the Medical Department is likely to grow over the next decade and unless changes are made in how this care is financed, it will be an increasing strain on the Medical Department and further reduce the quality of care to subscribers to the MIT Health Plans.

We recommend a three-pronged strategy. First, as far as we can tell, there has never been a comprehensive assessment of the value and costs of providing retiree medical care in the Medical Department, including projections of costs and utilization into the future.[54] MIT has limited information about retiree health care utilization and costs, except at the most aggregate levels. The information and information systems available to communicate with retirees receiving MIT health care benefits are cumbersome, and this has made it almost impossible for the Task Force to solicit input from a cross-section of retirees. In conjunction with HR, the Medical Department should develop a strategic plan for treating retirees and their families over the next decade. It should include careful consideration of the implications of ongoing changes in the

[53] Placing retiree care provided by the Medical Department on a sounder and more transparent business basis was one of the recommendations of the Blue Ribbon Panel in 1996. However, the MIT Administration did not implement this recommendation and indeed, the Institute's understanding of these costs was very limited until recently.

[54]This analysis may also be useful to MIT so that it can account properly for the expected cost of post-retirement health care benefits on its financial statements.

Medicare program and how the MIT Medical Department can best respond to them from cost and quality of care perspectives. The plan should include staffing needs and expected costs. An analysis should be performed to determine whether or not it is significantly more costly to provide service to retirees in the Medical Department than to the Medex population generally, as a consequence of the availability of expanded benefits compared to those available to the much larger Medex population served primarily by third party providers. If the MIT Medical Department is providing an enhanced service that is more costly, MIT should consider creating an "MIT Medical for Seniors" plan and charge a subscription premium that reflects the cost of enhanced benefits as is now the case for the Blue Cross and Tufts Medicare Supplement options. [55,56]

Second, the Medical Department should continue to enhance its efforts to bill Medicare successfully for covered services. This is a challenge for all providers of care to Medicare patients. MIT has tightened up its processes and increased its payment success in the last couple of years. We recommend that MIT continue to explore opportunities to increase recovery.

Finally, we recommend that the MIT administration fully fund the net revenue gap for retiree services provided by the Medical Department and work with the Medical Department to improve MIT's capabilities to bill patients for services that are not covered

[55] Consistent with the SRB's recommendations regarding risk pooling discussed further below, any difference in premiums should reflect only differences in the benefits provided and the associated costs of care controlling for demographic differences. The MIT Medical Department would still be compensated for the residual costs of retiree care from the Medex pool. The prevailing (or any future) cost sharing formulas for the Medicare supplemental plans would still apply.

[56] This was one of the recommendation of the Blue Ribbon Panel is 1996. It was not acted upon by the MIT Administration.

by retiree insurance plans. In the short run, the costs of funding this net revenue gap can be added to the Medex cost pool and recovered through the prevailing premium formulas. After the strategic analysis described above is completed a decision can be made about whether it would be fairer to charge a subscription premium to retirees receiving their care through the Medical Department.

i. Address issues regarding access to specialists within and outside the Medical Department. The comments that we received about specialist referrals raise a complex set of issues. Patients would like access to specialists on campus in the Medical Department for reasons of convenience. Patients would also like to get appointments with specialists promptly. However, the MIT Medical Department is too small to support a full complement of medical specialists available on campus every day. Accordingly, specialists may only be available in the Medical Department a few days each month. These specialists are sometimes hard to contact between their visits to the Medical Department. They have varying levels of understanding of student insurance and MIT Health Plan benefits and referrals procedures. Accordingly, there is a tradeoff between convenience of access to specialist care on campus and the expansion of the potential contact times available to see specialists at their primary practice locations off-campus. Specialists in the latter category may be even less familiar with MIT Health Plan procedures and resources.

There are no easy answers here. We suggest that the Medical Department review on a specialty by specialty basis whether a more satisfactory balance between the various dimensions of access to specialty care can be identified. It is also important that all

specialists who are providing care in the Medical Department receive training in the provisions of the Health Plan contracts, referral processes, and use of the Medical Department's information technology systems.

j. Explore the adoption of enhanced protocols to reduce queues for specialist referrals, to build flexibility into the system to facilitate responses to more urgent needs, and to use time made available by last-minute cancellations and "no-shows" productively: We have received many complaints about difficulties in obtaining specialist appointments in a timely fashion. (Similar concerns were reflected in our surveys and comments from BC/BS and Tufts subscribers, so this is at least partially a health care system problem rather than an MIT Health Plan problem.) We would encourage the Medical Department to examine all specialist areas to identify opportunities to use available clinical time more efficiently, to take urgency of care into account in scheduling appointments, and to use "standby" lists in a constructive way.[57] We understand, for example, that changes in the management of patient needs and scheduling protocols have reduced scheduling delays for colonoscopies.

k. Continue efforts to strengthen the measurement and assessment of objective measures of the quality of care provided by the Medical Department: The Task Force has made no effort to assess "objective" measures of the quality of care. By objective measures we are referring to the establishment and adherence to appropriate medical

[57] One way to reduce wasted time due to "no shows" is to utilize an automated system to remind patients about their appointments. The MIT Medical Department's "Patient Online" service has this capability. After registering to use the service, patients can do the following: request appointments and automatic email appointment reminders; update some of their personal information; send secure email to participating MIT Medical clinicians; view parts of their health history; and request copies of their medical record.

protocols, the identification of medical errors and near misses, analysis of outcomes compared to best practice norms, and the effective utilization of advances in medical knowledge and technology. For example, if it is the Medical Department's protocol that patients over the age of 50 should be advised to have colonoscopies, there should be a process in place to monitor the adherence to this protocol by the Department's physicians. It is our sense that the Medical Department takes quality of care seriously and that for an organization of its size it is doing a good job monitoring the quality of care. This view was reinforced by conversations with the Chair of the Medical Management Board, which reviews quality of care assessments. However, members of the Medical Department with whom we have spoken recognize that more can be done on this front, both in the Medical Department and within the health care community generally, and that the expansion of information technology, including digital records, will help to facilitate the further development of quality of care assessments. We encourage the Medical Management Board to work with the Medical Department to continue to strengthen quality of care assessments and remedial responses.

l. Evaluate whether and how MIT can make more effective use of the resources available in the Boston medical community by developing a closer partnership with one of Boston's major hospital groups (Partners or Care Group): This recommendation reflects the following considerations: (a) the need to reduce waiting times for referrals and to expand the number of hours in any week when appointments with specialists are available; (b) the need to adopt the most effective new information and communication technologies, to train Medical Department staff to use these technologies effectively, and

the high costs of doing both; (c) the desirability of having seamless communications of medical records and the results of diagnostic procedures between inside and outside providers consistent with privacy protocols; and (d) the desirability of giving MIT's clinical professionals opportunities for continuing education in state-of-the art medical procedures, drugs and diagnostic tests. Boston has an extraordinary wealth of health care resources that the Medical Department has used very well in the past by picking and choosing among providers that meet particular clinical needs. The question is whether this approach will continue to be successful in the future or whether a closer business alignment with one of the hospital groups would be mutually beneficial.

We recommend that contacts with Partners and Care Group be made at the highest levels of both MIT and these hospital groups to explore mutually advantageous options along these lines.

m. Improve education about the availability and effective utilization of mental health care services for students and respond to some students' negative perceptions and concerns about the mental health service: The recent changes in mental health care in the Medical Department were motivated by conclusions and recommendations contained in the report of the Mental Health Task Force. More internal resources are being devoted to student mental health care and student contact hours have grown (the only area of the Medical Department where internal contact hours have grown significantly).[58] Facilities have been renovated and new information systems are being added. Overall, student satisfaction is fairly high and, based on comparisons with the 2002 and 2004 senior

[58] The SEIP mental health care benefit was also reduced from an unlimited benefit to a 24 visit per year benefit. The 24 visit per year benefit conforms to the employee benefit in the Blue Cross and Tufts plans.

surveys, satisfaction appears to have improved. Yet, based on our surveys, there is a significant number of dissatisfied students.

Based on the written comments it seems that a significant number of respondents were caught in the changeover in SEIP benefits from an unlimited number of visits per year benefit to the 24 visit per year benefit. They were resentful and confused by the change. There is also confusion about how providers could be changed when there was not a "good match." It would be useful to expand educational efforts regarding available services and to improve efforts to solicit patient feedback regarding their satisfaction with mental health services in the Medical Department. It is also clear that the negative comments of the few students who were hospitalized for psychiatric care, and the articles in *The Tech* over the winter, have added fears and suspicions about the mental health service. Efforts are currently underway to follow recommendation of the Student Health Advisory Council (SHAC) to improve education about care and to improve responses to concerns about care. We recommend that the service intensify its efforts to respond to these issues.

n. Enhance efforts to maintain patient privacy and to treat all patients with respect: We received several complaints regarding privacy concerns. These complaints are largely a consequence of the architecture of the Medical Department and inadequate availability of private waiting and consultation room space. For example, patients waiting in Urgent Care are in an open area that is a major transit point for people going to and from the East end of the campus. They don't like people walking through the area and asking them what their problem is. Nor do they like speaking with medical

professionals in an open waiting room area. We hope that efforts will be made to respond to these concerns.

o. Improve education about student medical benefits, the "smart use"of the MIT Medical Department and the external Boston area health care system for our students: There is considerable confusion about what services are covered by the basic student health care benefit and what services are covered by the SEIP. It is the Task Force's view that the precise boundaries between the coverage provided by the two plans are murky. The benefits provided should be defined clearly and made available to students on an MIT web page and in hard copy form. We must all recognize that many of our students have little experience with arranging for medical care services. Many undergraduates did not arrange for their health care themselves prior to coming to MIT. The U.S. health care system is a complete mystery to many international students when they first seek to use it. At least some of the problems identified with specialist referrals and appointments and with reimbursement for covered outside services result from a lack of understanding of the benefits under the various plans, the effective use of the health care system, and resources available at MIT to help patients deal with these types of problems.

The Medical Department should develop improved educational materials and outreach programs to help our students to better understand their coverage and how to get the most out of the medical care resources available to them. One potential way to better disperse this information to undergraduates is to enhance the MedLinks program to make it one path by which this information can be accessed. This will require additional

training for MedLinks coordinators. The MIT Administration should provide the resources to support these educational initiatives.

p. Improve education about the process for resolving complaints about access to and quality of services provided by the MIT Medical Department, including the specialist referral process. It is evident from our surveys and from written comments that we have received that there is an inadequate understanding by patients of the Medical Department's procedures for resolving complaints about access to and the quality of care received in the Department. Some of the complaints about the referrals process also reflect a lack of understanding about the procedures available to obtain urgently needed specialist care when a call for an appointment yields the response "we can see you in four months." We urge the Medical Department to ensure that easily understood protocols and procedures are available, to expand educational programs for students during the orientation period and IAP, and to ensure that the procedures for resolving complaints and problems with obtaining care are resolved objectively and in a timely manner. As suggested immediately above, the MedLinks program may be used constructively to disseminate this information to the undergraduate student population as well. We will also urge the MIT Administration to provide the funding to support these and other educational and community support recommendations that we make here and elsewhere.

q. Reevaluate the role of the Primary Care Physician in student health care: Relatively few students, especially undergraduates, are engaged with a primary care physician. The incidence of illness requiring medical attention is much lower for

students than for employees and at least some students continue to obtain routine care from their family physicians. When they need medical care urgently they want it as soon as possible and rely extensively on 24-Hour Urgent Care. If they need follow-ups with physicians, many of them would be more satisfied if they could be followed by the physician they see in Urgent Care. Of course, there are students with chronic care needs who should continue to be encouraged to develop a relationship with a primary care physician. We recommend that the Medical Department adapt its protocols to reflect student preferences and needs.

r. Retain the Lincoln Laboratory medical clinic: Questions have been raised about the costs of the Medical Department's satellite facility at Lincoln Lab, and there have been rumors that this Task Force might recommend that it be closed to reduce costs. As with most of the rumors about the Medical Department, this one is inaccurate. We have examined the costs of the facility, its utilization, and the value to the affected community. The facility provides services that are highly valued by Lincoln Lab employees and administrators, it has helped to promote MIT Health Plan membership by Lincoln lab employees, provides services to some non-Lincoln lab Health Plan members living in the Western suburbs, and it is not very expensive. Moreover, we do not believe that the continued support for the Lincoln Lab facility should depend on whether the incremental revenues from Health Plan membership exceed the incremental costs of maintaining the facility. Lincoln Lab employees are MIT employees and this is a service to which they should have access. Accordingly, we see no reason to change the existing arrangements. However, we do note that staffing the Lincoln Lab facility takes "visiting"

physician time which would otherwise be available on the Cambridge campus. This contributes to increased appointment queues and inconvenience for patients served at the main facility. This is another reason for increasing staffing in Internal Medicine and Pediatrics. It may also be appropriate for a fraction of the costs of the Lincoln Lab facility to be covered by an allocation of employee benefits funds from MIT rather than entirely by the premiums from the Health Plans.

s. Organize an external fundraising program to provide support for the Medical Department: As far as we can tell, no efforts have ever been made by MIT to seek charitable contributions to support facilities or health care and education programs in the Medical Department. We believe that it would be desirable for the MIT Development Office to work with the MIT Medical Department to develop a fundraising program. Based on the comments that we have received there are many employees and students who are grateful for the medical care they have received from the Medical Department and view it as contributing positively to their lives at MIT. The MIT Infirmary (even the individual rooms) is a potential naming opportunity, and the Director's position is a potential opportunity for a named endowment. We urge MIT to consider working with the Medical Department to develop an external fundraising initiative.

6. MIT'S BUDGETING AND FINANCIAL MANAGEMENT SYSTEMS FOR THE MIT MEDICAL DEPARTMENT: CONCLUSIONS AND RECOMMENDATIONS

6.1 Budgeting and Management of Revenues and Expenses

The budgeting and financial management systems that the MIT Administration has historically relied upon to set budgets for the MIT Medical Department and the procedures for working with the Medical Department to meet fiscal and health care goals in an integrated manner are fundamentally flawed. It is impossible for the Medical Department to make good resource allocation decisions as long as they must work within this budgeting framework. Moreover, MIT's information about utilization and costs in both the Medical Department and for our self-insurance program has been inadequate for providing the data necessary to meet cost and service quality goals effectively. Significant improvements have been made in the last couple of years or are being made now with regard to cost and utilization information and budgeting protocols for the Medical Department. These changes were stimulated in part by the community's concerns about developments in the Medical Department and SEIP premium increases and in part by the inquiries of this Task Force. We applaud these recent changes and urge that they continue.[59] However, the budgeting, financial management and associated framework for implementation by the Medical Department continues to have deficiencies and needs to be fixed urgently

The MIT Administration's budgeting process for the Medical Department relies on what they refer to as a "net internal budget" rather than a normal income statement

[59] We would like to see the efforts to improve our information about utilization and costs to all of the plans that MIT has decided to self-insure and to expand MIT's auditing of these intermediaries.

(revenues and expenses) and balance sheet (assets and liabilities) that would be utilized if the Medical Department were an independent health care enterprise. While the MIT Medical Department is not an independent business, important aspects of the services it provides are effectively lines of business that charge students and employees (and MIT) premiums for the services that it provides. Adopting an accounting, budgeting, and financial management framework for the Medical Department that reflects all revenue (including imputed revenue) and cost streams in a transparent and consistent manner, and incorporates an integrated capital budgeting process, will lead to better budgeting and decisionmaking.[60]

To oversimplify for expositional purposes, the Medical Department's "net internal budget" is constructed from a combination of different cost centers and profit centers that constitute MIT Medical and the insurance plans respectively. It starts with a measure of the Medical Department's "internal" costs. This measure of the Medical Department's costs excludes costs associated with outside services (e.g., hospital care and specialist referrals), space, depreciation of equipment, and MIT support costs (external to the Medical Department).[61] In order to get to the Medical Department's internal budget a measure of the revenues earned by the Department is then deducted from this measure of the Department's internal costs. This measure of revenues is the sum of premiums paid

[60] This is similar to the budgeting process used for academic departments and service departments like utilities. To be blunt, the budgeting process that the MIT Administration uses for its support service departments and academic departments does not work for the Medical Department. It may not work for other areas of MIT either, so perhaps adopting a more business-like financial budgeting and control framework will be a useful experiment for potentially broader implications.

[61] The outside service costs (e.g. for hospitalizations) are added back in when premiums are set. However, space, depreciation and external support costs are completely excluded. The Task Force's analysis has added back in these cost elements, or at least estimates of them. They are included in the $61 million number referenced earlier.

by employees (MIT Health Plans), premiums paid by students (SEIP only), Medicare reimbursements, co-payments and other payments (e.g., for vaccinations) made to the Medical department. This measure of revenues excludes the imputed basic student health care premium, the imputed premium for the basic employee benefit (about $14 million/year in total), MIT's share of MIT Health plan premiums and the contributions to retiree care discussed earlier. Subtracting this measure of revenues from this measure of costs then produces the net budget that is the focus of budget reviews by the MIT administration. We will refer to this as a "top down" net budget system. Table 3 provides an illustrative example of the MIT Medical Department's net budget for FY06.

Over the period FY2001 through FY2004, MIT proposed to cut the then prevailing net budget by $5.5 million or over 15% of the Medical Department's budget for "internal" costs at that time. After pushback from the Medical Department the final proposed cut was reduced from $3 million/year to $1.5 million/year yielding an aggregate cut in the Department's recurring internal budget of about $4 million per year (nominal --- during a period of time when health care costs in the Boston area were rising at about 10% per year so the real cut was larger). As far as we can tell the proposed budget cuts were arbitrary and not based on significant analysis of costs, utilization, efficiency opportunities or the effects of the implementation of these cuts on the quality of patient care. Moreover, only a fraction of the cuts actually flowed to MIT's bottom line to reduce the Institute's deficit. We estimate that no more than half of the budget cut eventually flowed to MIT's bottom line. The rest of the savings were realized through premium reductions, lower recovery from grants and contracts, and an accumulation of reserves associated with the SEIP plan. To put this number in perspective, the same

impact on MIT's bottom line would have been realized by increasing employee health insurance premiums by no more than about $16 per month, with an after-tax impact on each employee of about $11 per month.[62]

At first blush, focusing on the net budget would seem to make sense. After all, this appears to be the net cost to MIT of providing health care services in the Medical Department. As is frequently the case, however, MIT's finances are more complicated than first meets the eye. There are several flaws in this system:

1. The system fails to account properly for the interactions between the net budget and the formulas used to establish premiums for employee, retiree and student insurance, the fringe benefit rate, and recovery in grants and contracts. On average, a one dollar decrease in the net budget yields much less than a one dollar decrease in MIT's realized net cost. This is the case because a portion of increases or decreases in the Medical Department's costs flow through as changes in premiums paid by students, employees and retirees and recovery in grants and contracts through the fringe benefit rate.[63] Moreover, as discussed in more detail below, the impact on these different cost "buckets" varies widely depending on exactly which services are cut.

2. The system fails to account fully for the explicit and imputed revenues and costs for the different "lines of business" that reflect the various health care services, health insurance plans, and associated premiums provided by the MIT Medical Department. Specifically, there are no separate revenue lines for basic student health care, for extended student care, the MIT Medical Plans, retiree services, educational and

[62] Using a 35% marginal tax rate. See the earlier footnote that discusses the tax shield on health insurance premiums.

[63] About 10 percentage points of the 27% employee benefit (EB) rate for FY 2006 is attributable to employee health care costs, or slightly more than a third of the EB pool.

community services. There are no matching expense budgets for providing these services individually or in the aggregate. Relevant expenses (space, capital equipment depreciation, external support services) are not captured in the budget at all. Thus, the basic components of a budget that supports an effective cost and revenue management system are absent. The Blue Ribbon Panel recognized this deficiency and recommended that the MIT Administration adopt a transparent income statement that reflects all revenues (explicit and imputed) and all costs (including space, equipment depreciation, and external support costs) as a basis for budgeting and financial management. That recommendation was not implemented.

3. These deficiencies are compounded by wide variations in the effects of resource allocation decisions to and from the Medical Department's various clinical and community service areas on the recovery of these costs through premiums, from grants and contracts, and the net costs to MIT. We offer two extreme examples:

a. Assume that the Medical Department responds to the cuts in its "net budget" by reducing obstetrics costs by $1. Obstetrics cost increases and decreases accrue entirely to the SEIP "cost bucket" and the MIT Health Plan "cost bucket" because these are the health insurance plans that cover births and associated care. Let's assume that 50% of the babies delivered are the children of graduate students covered by the SEIP and 50% are the children of employees covered by the MIT Health Plan. Under the current premium formulas, 100% of the cost reduction for student obstetrical care would flow through as a reduction in the SEIP family premium. In the case of employees, 50% of the cost reduction (on the margin) would flow through as lower MIT Health Plan premiums. This leaves 25 cents from the original $1 of reduction in obstetrics costs that

has not been returned to students and employees as premium reductions. Of the remaining 25 cents, about 58% would then be recovered from the fringe benefit charges in grants and contracts, leaving a net cost reduction to MIT of 10.5 cents from the original $1 cut in Medical Department expenditures. If the $1 cut was implemented to improve the efficiency of delivering care then everyone benefits. However, if the primary rationale is to help MIT to meet its budget deficit reduction goals, the impact of a $1 cut in obstetrics service costs on the budget deficit is a rather modest 10.5 cents.

b. At the other extreme, consider a $1 decrease in mental health services focused on supporting undergraduate counseling and mentoring in living units. This cost saving accrues to the imputed cost of the basic health care benefit that is a component of tuition. MIT saves 100% of every $1 of cost reduction in this case. If the goal is to reduce MIT's budget deficit, the impact of any reductions in costs that are attributable to the basic student health care benefit flow to MIT's bottom line dollar for dollar.

The point of this discussion is not to conclude that it is better to cut costs that accrue to the basic student health care benefit than it is to cut costs that are partially recovered in premiums and through grants and contracts. Rather we simply want to make it clear that changes in costs in different service areas have very different effects on MIT's net costs and that these differences are not reflected in the budgeting and financial management process in a transparent or constructive way. Unless these differential impacts are clear and reflected in the interactions between the MIT Administration and the MIT Medical Department, there are likely to be significant inconsistencies between the impacts of the Medical Department's decisions and MIT's expectations for how its budgeting and financial management decisions affect MIT's net bottom line costs. More

importantly, absent a clear communication and interaction of both the revenue and cost impacts, it will be impossible for the Medical Department to make appropriate comparisons of the patient and community benefits and costs of its decisions that reflect the true costs to MIT and to those who pay health insurance premiums to MIT.

4. This budgeting system creates incentives to move inside services to outside providers whose costs are not captured in the net budgeting process but are then added back in when premiums are set.

5. This budgeting mechanism does not provide a good framework for evaluating tradeoffs between the effects of reducing costs, the associated effects on quality of care, and increasing premiums to sustain services the students, employees or retirees may value. It may also distort decisions that involve tradeoffs between internal costs and outside costs since some aspects of the associated services are close substitutes from a care (but not necessarily patient satisfaction) perspective.

6. The budgeting mechanism does not apply cost control efforts symmetrically to the MIT Health Plan and the "outside" Blue Cross and Tufts plans despite the fact they we self-insure all of them, and employees can choose between them.

The bottom line is that the existing budgeting and financial management system that the MIT Administration relies upon for budgeting and financial management of the Medical Department is bound to lead to unsatisfactory results from the perspective of making sensible resource allocation decisions.

The Task Force's recommendations regarding budgeting, financial controls and interactions between the MIT Administration and the MIT Medical Department are:

a. The MIT Administration should adopt a transparent complete "bottoms up" budgeting and financial control system for the MIT Medical Department that relies on a complete specification of revenues from different lines of business and a complete specification of the associated costs. This is the same recommendation made by the Blue Ribbon Panel in 1996. If it had been adopted we believe that at least some of the problems created by the most recent budget crunch would have been mitigated.

b. The MIT Administration should work with the Medical Department to manage budgetary decisions from a line of business perspective that matches revenues, costs and target service levels for each line of business: Basically, MIT needs to specify how much revenue the Medical Department will receive for each line of business, how the revenue will be split between premiums paid by students, employees and retirees, recovery through grants and contracts, and how much will be contributed to MIT. The Medical Department will then manage its services and costs to meet the revenues that it expects to receive from the various revenue streams.[64] When there is an imbalance between revenues and costs to support the target service levels for each line of business, the MIT Administration would then be able the engage the Medical Department in a more constructive dialogue than has taken place in the past. That is, any inconsistencies between revenues, costs and service levels would then become the target for focused discussions with the Medical Department regarding alternatives (efficiencies, service reductions, or premium increases) for balancing the budget and meeting service goals for

[64] The revenue transfers to the Medical Department are obvious "internal" MIT transfers that define the Department's total budget each year. If the SRB's recommendations for cost pooling and demographic adjustments are adopted, the Medical Department's revenue streams for the MIT Health Plans will have to be "unadjusted" to reflect the actual demographics of the populations it serves and any catastrophic claims.

each line of business. This process will help to focus the discussion on tradeoffs between proper measures of costs, revenue, and service levels, and correctly reflect the impacts of alternative responses to changes in costs and service levels on subscriber premiums, the fringe benefit rate, the net cost to MIT and the quality and quantity of services available to the various segments of the community that use the Medical Department. This process will facilitate more rational financial planning and assessments of the costs and benefits of alternative service levels. We hope that it will provide additional financial and service quality discipline so that decisions made by MIT to increase, for example, services to students are not financed by a reduction in services to employees or retirees without a careful consideration of the impacts on patient satisfaction and health care outcomes.

Tables 4, 5, and 6 illustrate how a comprehensive "bottoms up" budgeting system for the Medical Department would work. Table 4 provides a sample income statement for the Medical Department for FY05. Revenues (or budgeted expenditures) are specified for each of the major "lines of business" provided by the Medical Department. Budgeted revenues/expenditures for Student Basic Insurance, the employee primary care benefit, retiree care provided by the Medical Department, and various education and community service activities are all specified explicitly rather than treated as a residual in the net budget approach. The Medical Department's inside and outside costs of providing services, including MIT support services and contributions to reserves (which could be positive or negative in any particular year), are all included as explicit expenses on the expense side of the income statement. Table 5 illustrates how the expenses incurred in various service areas inside and outside the Medical Department (only four are used for illustrative purposes) can be allocated, necessarily with some degree of

subjectivity, to each line of business based on utilization factors and other considerations. So, for example, the costs of hospitalizations are allocated to the MIT Health Plans and the Student Extended Insurance plan because these insurance plans cover hospitalizations (while retiree hospitalizations are covered by Medicare and through the Medex pool rather than the Medical Department). Internal Medicine costs are allocated to all of the lines of business since internal medicine services are provided to all of them, including to education, community service, etc. This process assigns all of the Medical Department's costs to one or more lines of business and provides the cost information for use in setting premiums and for budgeting for the services provided by the Medical Department that are not covered by insurance premiums. In the last couple of years, MIT has enhanced its capabilities to do these types of allocations. Finally, Table 6 illustrates who pays for changes in costs that are assigned to each of the lines of business as discussed earlier. This information allows the Medical Department and the MIT Administration to have a common understanding of the ultimate incidence of increases or decreases in Medical Department costs on employees, students, the fringe benefit rate, and MIT's bottom line for each line of business.

c. *The Medical Department should enhance its financial management capabilities to interact effectively with the new budgeting and financial management systems that we recommend MIT adopt for the Medical Department.* If MIT adopts more effective budgeting and financial management systems, the MIT Medical Department must have the capabilities to take advantage of this new budgeting framework and to participate effectively in the budgeting and financial management process as it makes resource

allocation decisions. In cooperation with the MIT Administration's finance and budgeting professionals, the Medical Department should evaluate what the appropriate staffing and system needs are for it to meet this challenge effectively. As we have already discussed, involving physicians and other clinical staff in the Medical Department in the ultimate resource allocation decisions made to meet budgetary constraints should be a central part of this process, but a sound integrated financial management framework is essential for constructive participation.

6.2 Capital Budgeting

The Task Force has also observed that there has been no coherent businesslike mechanism for making decisions about capital expenditures. Each major capital decision appears to be an independent decision that gets made after considerable arm wrestling between the MIT Administration and the MIT Medical Department. There is no coherent process for evaluating longer term tradeoffs between capital expenditures, operating costs, and the quality of care. It is impossible to operate the Medical Department efficiently over the long run without a rational capital budgeting system that integrates the costs of capital expenditures with revenue, expenditure, and service targets. The Task Force recommends:

a. A comprehensive capital budgeting process needs to be developed and implemented: [65] The MIT Medical Department should prepare a 5-year capital budget that it can justify as being necessary to meet clearly defined health care service goals. Tradeoffs between capital expenditures, operating costs, and the delivery of care should be identified. The capital expenditures that are made would then become part of the Medical Department *balance sheet*. The expenditures would become assets on that balance sheet. A matching entry on the other side of the balance sheet would become a liability that would be paid off over time according to an agreed amortization schedule from the revenue streams in the Medical Department's "bottoms up" budget. The impacts on future revenues and operating costs should be included as part of the capital budgeting process. The Medical Department should expect that the costs of servicing

[65] We recently learned that a new capital budgeting and capital cost recovery process that is consistent with this recommendation has recently been implemented and we applaud this development.

capital expenditures will be recovered through the standard total premium formulas that will then be split between MIT and subscribers as are increases or decreases in operating costs. The amortization of the capital budget over the relevant economic lives of the investments and the agreed revenues (explicit and implicit) and operating costs for the bottoms up budget should be internally consistent. That is, the Medical Department would have both a standard income statement and an internally consistent balance sheet. The capital budget, balance sheet, revenue and expense projections should be updated annually as part of the annual budget review process.

7. HEALTH INSURANCE PROGRAMS: CONCLUSIONS AND RECOMMENDATIONS

The Task Force has reviewed all of MIT's medical insurance options and made comparisons with other peer institutions.[66] We have also reviewed proposals regarding changes in the insurance options and methodology for establishing premiums developed by the Strategic Review of Benefits Committee. We divide our comments and recommendations between employee, student, and retiree insurance plans.

7.1 Employee Health Insurance

The health insurance plans offered by MIT have coverage provisions that are generally competitive with the plans offered by peer research universities. Employees are generally highly satisfied with their plans but have raised a number of specific concerns that we have examined. Those concerns specifically related to the student health plans, the MIT Health Plans for employees, and retiree care provided by the MIT Medical Department are incorporated in the discussion of the MIT Medical Department above. We focus on general issues of insurance pricing, cost sharing between MIT and employees, and specific issues raised by subscribers to the Blue Cross/Blue Shield and Tufts plans.

a. Reevaluate the current formula for sharing costs between MIT and employees from a total compensation and benefit perspective: One dimension in which MIT is not competitive with peer institutions is with regard to the fraction of health insurance costs paid by employees. The employee share of health insurance premiums has been increasing nationwide for several years. However, employees at MIT pay a larger

[66] As already noted we have not studied the Affiliate insurance program and the population it serves.

fraction and pay more in the aggregate than do employees at our closest peer institutions.[67] Under the current formula, increases in the weighted average total cost of the employee health insurance options are shared 50/50 between MIT and employees. Thus, if the average cost goes up by $1 then the average premium goes up by $0.5 and MIT's contribution goes up by $0.50.[68] This formula was adopted a long time ago, is not well understood by employees, and as far as we know it has not been reviewed in a long time. In addition, changes in benefits, especially increases in co-payments for prescription drugs, have increased the effective share of health care costs that are paid by employees. Comments that we have received from employees, especially from our unionized employees, have expressed their concern about the level of premiums they are required to pay and the rate of increase in premiums plus out-of-pocket expenses. MIT's very modest average salary increases in the last couple of years have reinforced these concerns.

In our view, health insurance premiums should be evaluated as one component of the total compensation and benefit package that MIT offers to employees, not in isolation. The primary health insurance options offered to employees provide very similar benefits. As a result, neither the level nor the structure of premiums provides incentives for employees to choose between "high coverage" and "low coverage" plans. The relative levels of premiums may lead employees to shift plans to save money, and increase their effective compensation, but this is unlikely to have any effect on their

[67] MIT employees pay about 40% of the premium on average and this fraction will continue to rise to 50% under the current sharing formula. The average employee at U.S. colleges and universities pays about 30% of the premium. *Chronicle of Higher Education*, September 27, 2005. The employee share appears to be lower at our closest peer institutions.

[68] MIT's contribution then goes into the fringe benefit pool and about 58% is recovered from grants and contracts.

utilization of health care resources or on MIT's long run costs since the coverage provided in the different plans is so similar. Indeed, when employees shift between Blue Cross and Tufts plans they can typically continue to receive care from the same physicians.

MIT needs to provide a competitive total compensation package to attract and retain the kinds of employees that we need to support our mission. Health insurance benefits are a highly valued component of that package. We recommend that MIT review the current cost sharing fraction and the formulas that determine the average level of health insurance premiums paid by employees from this broader total compensation and benefit package perspective. (We address proposals for other changes affecting the structure of health insurance premiums rather than the average level of premiums in our discussion of the SRB recommendations later in this section.) In addition, many MIT employees have limited knowledge about the monetary value of the total benefit package provided to them by MIT (pension, health insurance, etc.). MIT should consider providing this information to employees through an annual Personal Benefits Statement that specifies the value of the full array of benefits programs in which they are eligible to participate.

b. Improve MIT's ability to implement its self-insurance strategy effectively: MIT has decided to "self-insure" all of its employee medical insurance plans. In the case of the MIT Health Plan, self-insurance means that the costs attributed to providing services to Health Plan subscribers are measured (necessarily imperfectly), an inflation forecast is applied, available information on utilization patterns examined, and premium levels for

the following year are determined with the help of outside consultants. For the BC/BS and the Tufts Plans, the sponsors of these plans design the features of the plans, manage the application of the plans' features, and administer payments to providers for covered services. They then bill MIT for the payments they claim to have made to these providers for the services provided to MIT employee subscribers plus an administrative fee. BC/BS and Tufts do not provide insurance to MIT per se, but rather a plan design and billing service. A very significant benefit of relying on BC/BS and Tufts to administer our plans (BC/BS also administers the payments for outside services provided under MIT Health Plan coverage) is that we get the prices for outside services they negotiate with providers and these prices are typically significantly discounted from the "retail prices" posted by outside providers.[69]

There is a difference between implementing a good self-insurance program and being uninsured. The implementation of a good self insurance plan requires a complete understanding of utilization patterns, utilization volatility, cost trends and cost volatility. It also requires the maintenance of appropriate insurance reserves to manage year to year volatility in utilization and costs. A good self-insurance program effectively pools risks so that extreme events do not distort year-to-year changes in premiums which may lead subscribers to shift between otherwise equivalent insurance plans for reasons other than service quality and convenience. The latter is of particular concern with an annual open enrollment opportunity. Finally, a good self-insurance program will design the features

[69] In the wonderful world of health care pricing in the Boston area, hospitals and other providers have confidential "retail" price schedules. Insurers then negotiate contracts at significantly lower "wholesale" prices with providers. In the case of BC/BS and Tufts, these contracts do not permit "balance billing" of patients for the difference between the retail price and the negotiated wholesale price. The differences can be enormous. Providers' higher posted retail prices are the prices that are billed to those without health insurance. This is the health care pricing world we live in, and MIT has done a good job maneuvering in it to the benefit of MIT and the MIT community.

of the plan to promote efficient utilization decisions and monitor bills from providers to ensure proper billing and that the best prices are being received. As already noted, provider prices are a particularly important issue in Boston where the "retail prices" for hospital, diagnostic and physician care are very different (much higher) than the prices negotiated by Blue Cross (also on behalf of the MIT Health Plan), Tufts, and other intermediaries.

The bottom line is that the implementation of a good self-insurance program is a significant technical and analytical challenge that must be shaped sensitively to meet the needs of the MIT community. If MIT is going to be self-insured it needs to upgrade its self-insurance capabilities. Members of the Task Force have raised questions about the incentives Blue Cross and Tufts have to give MIT their best prices for services and to bill MIT properly for these services when all of the skin they have in the game is an administrative fee. As far as we can tell MIT did not audit Blue Cross or Tufts until recently and our ability to do a complete audit is contractually limited. There has been a large increase in the cost of care that was flowed through to MIT by the Tufts plan in 2004. However, at the time premiums were set for CY2005 MIT did not know whether the increase was due to particular utilization patterns by MIT employees or the prices that Tufts has negotiated with providers or some other reason. The predictions of claims experience that MIT uses to develop premiums have not been particularly accurate in the recent past. The dramatic increase in SEIP premiums discussed earlier resulted from a poor understanding of MIT's cost and utilization experience, a failure to incorporate an important benefit change in cost projections, and too much reliance on outside

consultants. MIT does not appear to have a scientific process for setting targets for insurance reserves, funding them, or utilizing them.

We recommend that MIT make a concerted effort to upgrade its self-insurance capabilities and the implementation of its self-insurance strategy.

c. Continue to refine the proposals made by the Strategic Review of Benefits Committee[70] *and seek additional community input on them.* The Strategic Review of Benefits Committee (SRB) has put forward a number of proposals for changing the pricing of our health insurance plans and expanding the options available within each plan. These proposals reflect a lot of good work on complicated insurance pricing and product design issues. However, it was a challenge to explain the rationale for, impacts of, and empirical validity of some of the SRB's proposed changes to the Task Force. If it was difficult to explain them clearly and convincingly to the Task Force it will be even more difficult to explain them to the entire employee community. We believe that further analysis and additional consultation with the community is necessary before most of them are implemented. We consider each SRB proposal in turn:

1. SRB Proposals to pool catastrophic risks across plans and adjust premiums to reflect demographic (e.g., age, health status) differences between the populations in each plan: One of the benefits of MIT's adoption of a self-insurance strategy is that it gives MIT the flexibility to adopt sound insurance principles when it establishes premiums. This proposal is especially attractive to MIT because the number of subscribers within each plan is too small effectively to diversify risks

[70] The members of the Strategic Review of Benefits committee (SRB) included Laura Avakian, John Curry, Jim Morgan, Dean Robert Silbey, Dean Thomas Magnanti, Chair of the Faculty Raphael Bras, Professor Peter Diamond, Treasurer Allan Bufferd, Tom Mullen, and Charles Bruce (Lincoln Lab). The committee met five times in 2004.

on a plan-by-plan basis. Harvard sets premiums for pricing its employee insurance options using pooling protocols similar to those recommended by the SRB. Premiums will reflect differences in the coverage of the various insurance plans and the underlying costs of the services provided by these plans. However, premiums will not vary based solely on the demographic attributes of the employees in each plan or their health status. Catastrophic events will not distort premiums from one year to the next. This proposal will eliminate the imperfections in the pricing of the POS plans and provide a fairer price for an option that is attractive to the "worried well." It will also lead to changes in the relative premiums for the MIT Health Plans, the BC/BC plans and the Tufts plan.

We support this proposal in principle. However, before this proposal is fully implemented, the data that were presented to the Task Force need to be updated and, ideally, more consideration should be given to the likely affects of premium changes on plan choices by employees. More consideration needs to be given to the treatment of health care costs for active faculty above age 65 who continue to be covered by MIT insurance plans (primarily the MIT Health Plan) rather than by Medicare. Once a decision to proceed is made, we agree with the SRB's recommendation that the changes be phased over three years to minimize any "price shocks" and to allow adaptation to changes in employees' choices of plans and any associated changes in utilization behavior and costs.

Moreover, if this proposal is implemented it will necessarily drive a wedge between the actual costs incurred by each insurance plan and the revenues generated from the associated premiums. That is, budgeting of expenditures for the various plans and the setting of premiums for each would be partially separated. The Task Force is not convinced that MIT yet has the information, analytical capabilities, or fiscal discipline to implement this proposal. We recommend that a more detailed implementation plan be developed and presented to the SRB before this proposal is fully implemented.

In light of these considerations we suggest that MIT move forward at this time with a phase-in of the catastrophic cost pooling component of the proposal and defer the adjustments for demographic factors pending further analysis.

2. Proposal to restructure insurance premiums so that they vary with the level of employee compensation: The SRB has proposed that MIT set premiums so that they vary with employee compensation. Employees with lower levels of compensation would pay lower premiums than employees with higher levels of compensation. The analysis presented to the Task Force assumed that compensation-related premium changes would be "revenue neutral" to MIT. This means that the lower premiums for employees with lower levels of compensation would be financed by raising premiums for those with higher levels of compensation.

We are not in favor of implementing this proposal without further analysis and consultation with the community. The issues discussed above regarding the overall level of premiums within the context of a competitive total compensation review need to be addressed first. Otherwise we may simply be rearranging the deck chairs on the Titanic.

We asked questions about different versions of this proposal on our employee survey. There is considerable support for a premium structure that varies with compensation, especially among the faculty (who would not benefit from the SRB proposal). There is much more support if the premium reductions for employees with lower levels of compensation were not financed by raising premiums for others. In either case, a significant fraction of the employees indicated opposition to compensation-related health insurance premiums.

We are informed that MIT's payroll system is not capable of implementing a compensation-related premium program without costly and time-consuming programming efforts. In light of this fact and the desirability of further

consultation with the community, we recommend that the proposals be refined and that MIT seek additional input from employees regarding this proposal. If and when the salary-based premium system is implemented, we agree with the SRB's recommendation that it be phased in over a three year period for the same reasons as identified for the risk pooling and demographic adjustment proposal.

3. Proposal to offer alternatives to the "family plan" that would provide additional insurance options for families composed of two adults (employee plus spouse or partner) and families composed of one adult and one or more dependents. Insurers and employers are increasingly offering these variations on the traditional family plan. In the context of MIT's approach to pricing health insurance, the effect of offering these additional products would be to increase premiums for families composed of two adults and one or more children and to reduce premiums that would otherwise be paid under a family plan for those choosing one of the new "one + one" options. The written responses to our surveys indicate that there is substantial demand for these new products by employees who would benefit from them. We are told that HR views offering these options as a necessary competitive response to attract and retain employees.

This proposal generated considerable discussion and debate among the members of the Task Force. The competitive effects of the proposal are in dispute. The impact would be to increase employee premiums for MIT employees with a spouse and one or more children in the (roughly) 30 to 55 year old range, a group that includes faculty and research staff who are often in play in the competitive labor market. Moreover, questions were raised about the equities of this change. All social insurance systems involve value judgments associated with pooling of different groups of insureds for the purposes of setting premiums. There are always some apparent cross-subsidies and there are cross-subsidies embedded in MIT's present premium pricing system. Some feel that MIT's historical approach to premium pricing involved an implicit social contract in which the young subsidized the old and two-person families subsidized two-adult families with

children. Over time, young two-person families became two-person families with children and eventually older two person families; the subsidies evened out over time. Some feel that the proposed changes would break this contract. Others argue that the world has changed and that MIT's employees have much more diverse family arrangements than in the past. Questions were also raised about the equities of pooling young two-person families with older empty nesters.

We are not wise enough to assess the assertions about competitive necessity or harm or to resolve the value judgments associated with this proposal. We also feel that the numerical analysis that we were presented with reflected some assumptions that appeared to be arbitrary. More importantly, this proposal has not received adequate input from the MIT community. Accordingly, we recommend that MIT scrub the numbers and make an effort to explain this and the other SRB proposals to the community and solicit additional feedback on them. If this proposal is eventually implemented we again agree with the SRB's recommendation that the premium changes be phased in over three years for the reasons that have already been discussed.

d. Review the performance of the Express Scripts prescription drug benefit and respond to concerns raised by subscribers to the BC/BS and Tufts plans: When MIT employees choose to be covered under the BC/BS or Tufts plans their prescription drug benefit is now managed by a company called Express Scripts, Inc (ESI), a large national pharmacy benefit manager (PBM). MIT chose Express Scripts to manage this prescription drug benefit to help to reduce the costs of prescription drugs, the fastest rising component of U.S. health care costs.

Express Scripts helps MIT to control the rapidly rising costs of prescription drugs and offers a convenient delivery-by-mail option. However, we received many complaints about Express Scripts from employees. They included complaints about the speed with

which drugs were delivered, delivery errors, inflexibility in adapting deliveries to conform to travel schedules, co-payments, reimbursements and others. We have already conveyed some of these concerns to HR.

MIT's efforts to control the cost of prescription drugs to the MIT community are very sensible and important. However, it is also important for MIT to work with a PBM that can provide us with these economies in a way that also serves the needs of the MIT community. We recommend that HR further review Express Scripts performance, including a careful assessment of whether its policies are consistent with the busy travel schedules of MIT faculty and research staff, and seek to resolve the problems that have been identified. If Express Scripts is not cooperative, we suggest looking at alternative PBMs.

e. Consider whether and how the MIT Health Plans, the BC/BS plans, and the Tufts plan can be redesigned to make more effective use of creative co-payment structures. This recommendation is motivated by three sets of considerations. First, since MIT is self-insured it should have some influence over the design of the insurance plans that it makes available to students and employees. Second, the prices for health care services that BC/BC and Tufts have negotiated are substantially lower than the "retail" prices that are charged to individuals without insurance or whose insurance coverage has been exhausted. Third, MIT's plans have "hard limits" on the number of visits for particular services that are covered (e.g., mental health, physical therapy). These limits are necessarily arbitrary and when they are hit the patient is faced with a large increase in the effective price of services. This structure stimulates gaming to avoid

hitting these walls. We recommend that MIT review the provisions of all of its health insurance policies and consider whether tapered co-payment structures can be designed that would better meet patients' needs while controlling excessive use of Medical services and the associated costs to MIT.

f. Reevaluate whether it makes sense to continue offering the Tufts Health Plan as an MIT health insurance option. Less than 15% of MIT's employees have chosen to be insured under the Tufts HMO plan. In the last open enrollment period 185 employees shifted out of the Tufts plan (14 shifted into it). Most of them switched to Network Blue. The shift out of Tufts is the result of a significant increase in MIT's cost experience with subscribers in this plan and the associated increase in employee premiums. It has been widely reported that Tufts has lost 650,000 (25%) of its subscribers in the last five years.[71]

We are informed by knowledgeable people at MIT that on the order of 97% of the providers who can be accessed through the Tufts plan can also be accessed through Network Blue. *If* this is the case, we see little benefit in offering both Network Blue and Tufts. The cost of dealing with both plans, especially in the context of MIT's self-insurance program, does not appear to yield commensurate benefits. We recommend that MIT consider the benefits and costs of either concentrating all of MIT's business with

[71] "Tufts HMO reverts to managing care," *Boston Globe*, August 26, 2005.

Blue Cross/Blue Shield[72] or to offer a more differentiated alternative such as a Harvard Pilgrim plan to employees.[73]

We think that it is important that MIT continue to offer a high quality alternative to the MIT Health Plan, as well as a POS version of the MIT Health Plan (priced properly), to continue to place competitive pressures on the Medical Department and to provide benchmarks against which its performance may be managed. By allowing employees effectively to vote with their feet each year on which health plan best suits their needs (assuming that the premiums are priced properly), we have created an important external benchmark on the cost and quality of services provided by the Medical Department to Health Plan subscribers. We believe as well that these benefits of direct and yardstick competition accrue to students who use the Medical Department as well.

g. Evaluate whether MIT should offer a catastrophic health care option with a high deductible and co-payment provisions, perhaps in conjunction with a Health Savings Account (HSA).[74] This is not an option discussed in any detail by the Task Force or by the SRB committee. However, we received questions from a few faculty members regarding why MIT does not offer a catastrophic health care policy that would have significantly lower premiums and require the employee and her family to take on more responsibility for payments for care when it is needed --- that is, high deductibles and co-

[72]Perhaps in return for better utilization and cost information and expanded auditing rights to better support MIT's self-insurance and premium development process.

[73] Harvard Pilgrim is a highly rated HMO. "Harvard Pilgrim Top U.S. Plan," *Boston Globe*, September 23, 2004.

[74] "Your New Health Plan," *Business Week*, November 8, 2004; "Insurance Option Has Workers Pay More," *Los Angeles Times*, May 23, 2005.

payments. There are many complex issues associated with making such policies available. These include adverse selection problems that are compounded by annual open enrollment, the peculiar ways in which actual prices for medical services are ultimately determined in the Boston area, and MIT's willingness to help students and employees faced with very high medical costs on a case-by-case basis by allowing them to enroll retroactively in an insurance plan that provides better coverage than the plan that they chose (or declined to choose) originally.[75] Nevertheless, there is no reason why MIT should not evaluate the pros and cons of making such a policy an option available to employees. We understand that MIT has begun to study the HSA program and we support continued exploration of the costs and benefits of providing a catastrophic health care option of some form to employees.

h. Enhance the availability of information about access to emergency medical care for students and employees who are traveling to other countries: Many faculty, research staff and students travel to foreign countries, often on MIT-related business. Medical emergencies sometimes occur when they are traveling abroad.[76] Most well-managed companies that have employees with international travel responsibilities have programs in place to assist their employees with medical care and emergency evacuations while traveling abroad (e.g., contracts with companies like SOS International). MIT

[75] MIT's willingness to help students and employees out on a case by case basis in extreme circumstances can be thought of as a benefit provided by a "humane" employer. However, this option must be used carefully so that it does not reduce incentives students and employees have to enroll in the appropriate insurance plan ex ante. Moreover, the costs that are incurred as a result of allowing retroactive enrollments in specific insurance plans should not be included in the premiums charged for the plans but rather be funded separately as an employee benefit.

[76] The Chair of the Task Force became particularly interested in this issue after he broke his arm in London.

presently provides no convenient source of information to assist employees and students who have medical emergencies while abroad regarding how they can most effectively access and arrange payments for care.[77] We have learned that both BC/BS[78] and Tufts have made arrangements for care in such situations and relevant information is available (after some very clever searching) on their web sites. Since Blue Cross administers outside care for the MIT Health Plans as well, we understand that these services can be used by MIT Health Plan members as well with the approval of the MIT Health Plans. However, the availability of this information has not been disseminated to the MIT community. Moreover, in its present form this information would not be easy to obtain from these sites by an employee or student lying in an emergency room in a foreign country.

We recommend that MIT move toward best practice in this area by creating a single easily accessible MIT web page that contains the relevant information about access to emergency medical care while abroad. We also recommend that MIT prepare "wallet cards" to be made available to MIT international travelers that contain the relevant Blue Cross and Tufts emergency numbers listed on their web pages (U.S. 800 numbers sometimes cannot be accessed from other countries --- in particular by MIT's Qwest calling card service --- so the card should provide regular phone numbers that will accept collect calls). We have been informed that in response to the Task Force's inquiries

[77] Buried deep on the travel office page on the MIT website there is a .pdf file that describes the availability of a medical evacuation service sponsored by Cigna, but the document was missing a policy number and was not easy to find. http://web.mit.edu/cao/www/travel/cigna_worldwide_assistance.pdf . We are informed that the Medical Department has a separate contract for emergency evacuation.

[78] The relevant BC/BS web page is not easy to find. The URL is: https://international.worldaccess.com/bcbsa/index.asp?page=home. You will also need your BC/BS subscriber number to access this site.

efforts are already underway to implement this recommendation, and we are pleased by this rapid response. We also recommend that the personnel at the reception desk at the MIT Medical Department be educated in the available services and how they can be accessed so that they can provide useful information to MIT travelers in need if and when they call the MIT Medical Department for assistance.

i. Reevaluate health insurance options for faculty members on sabbatical leaves: Faculty members use their sabbatical leaves in a wide variety of different ways. In some cases they will spend time at another institution that provides them with health insurance coverage. In many cases they do not have access to alternative health insurance options and rely on MIT for health insurance. Faculty may spend their sabbatical years in the U.S. or in foreign countries. They may be resident in one place or traveling around the country or the world.

We have received a number of complaints from faculty members about the health insurance available to them when they were last on sabbatical leaves and were not resident at institutions that provided health insurance to them. For many years, the only option for faculty members in this situation was to enroll in the out-of-state BC/BS plan, a plan with a small diverse population. This plan is very expensive and involves significant challenges for getting medical bills paid and for receiving reimbursements. It also created difficulties for members of the MIT Health Plan (78% of the faculty) who wanted to continue to have access to Medical Department clinicians while they were away from MIT. Recently, faculty members on sabbatical leaves have been given the alternative option of enrolling in the Flexible MIT Health Plan. While this is more

convenient for Health Plan members, the Flex Plan is also very costly and was not designed to be an indemnity plan to cover out-of-area health care costs. Using the Flex Plan in this way may be unfair to other subscribers.

As far as we can tell MIT has never done a comprehensive assessment of health insurance needs for faculty members on sabbatical leaves, their satisfaction with the existing options, the impacts on other subscribers of the existing policies, or the availability of alternatives. We recommend that MIT review the current programs from these perspectives and identify opportunities to improve upon them.

j. Reevaluate the coverage limits of the Delta Dental insurance plan: The Task Force has not conducted a careful review of MIT's dental insurance plan. We do observe that the structure of the Delta Dental plan does not represent particularly good insurance. The plan pays for checkups and some routine care, has high co-payments for some covered services, and a relatively low maximum aggregate payment limit in any year. The plan does not cover major expenses associated, for example, with dental implants[79] and provides only limited coverage for catastrophic care. The plan seems more designed to provide a subsidized and tax advantaged payment mechanism for routine care than good insurance. We have compared MIT's plan to Harvard's plan. Harvard's Delta Dental plan has the same basic plan design as MIT's but has a higher maximum annual benefit (double MIT's) for about the same cost to the employee. We recommend that HR perform a more comprehensive assessment of dental benefits offered by peer institutions and examine alternative structures that provide better coverage for catastrophic care.

[79] The Task Force was recently informed that Delta Dental will begin to cover implants next year.

k. Provide employees with more information about the availability of the long-term care insurance plan that MIT offers and provide education about the value of the coverage options: There is limited employee knowledge about the existence of the long-term care plan. Nor does MIT provide much help to employees to help them to choose among the three options that are offered. Option 3 seems to be particularly interesting for younger employees since it provides good protection for inflation in the costs of nursing home care (at an additional cost). An effort should be made to increase employee awareness of this and other health care benefits. More generally, the HR website contains a lot of useful information but it is not always as user friendly as it could be. For example, if one wanted to know what the mental health benefit is for Network Blue an employee would naturally turn to the Health Plan web page on the HR site.[80] That page directs the employee to a BC/BS web page which then requires further searching to find the information.[81] The information is actually available in a convenient comparative format on the MIT web site, but one would have to know to click on "Forms and Publications" to find it.[82]

l. Improve the availability of information about MIT resources that are available to help employees with health insurance coverage and reimbursement problems: MIT has highly trained resources available in the benefits office to assist employees with issues that arise with their insurance coverage or with reimbursements. The availability

[80] http://web.mit.edu/hr/benefits/health.html

[81] http://www.bcbsma.com/common/en_US/index.jsp

[82] http://web.mit.edu/hr/benefits/forms/comparison_chart.pdf

of these resources and how to access them are not as widely known as they should be, however. We have already discussed the availability of information about access to medical care when students or employees become ill in foreign countries. More broadly, we recommend that efforts be made to better disseminate information about the MIT resources available to assist employees with their health insurance coverage and reimbursement problems.

7.2 Student Insurance Plans

Our survey revealed generally high levels of satisfaction by our students with the health care and insurance programs that are made available to them, with a significant minority of less than fully satisfied customers. Graduate students are generally more satisfied than are undergraduates. We have compared the undergraduate survey results that we obtained with the results for related questions drawn from a consortium of peer institutions' senior surveys performed in 2002 and 2004 and also made comparisons to the senior survey results for two groups of peer institutions. The good news is that undergraduate student satisfaction with health care at MIT has generally improved over time. The bad news is that the MIT senior survey assessments of the health services they receive are in the middle of the pack for the group of about 30 universities surveyed and at the low end for a smaller group of peer institutions with which MIT now competes most closely. This result is troubling since MIT expends more resources on undergraduate health care than many of the other institutions in the survey.

To gain further insights about how to interpret the results from the a consortium of peer institutions' senior surveys, we proceeded to review how MIT undergraduates

ranked their satisfaction with other "quality of life" and "educational infrastructure" attributes compared to those of our closest peer institutions. MIT students typically gave MIT relatively low rankings in many areas compared to the rankings of seniors at our closest peer institutions.[83] This appears to suggest that MIT students have higher expectations than students at peer institutions or that there is some systematic failure to meet undergraduate student expectations that MIT needs to understand and address.

In addition to the issues discussed above with regard to the Medical Department, there are two issues that have been raised frequently by our students. The first is the cost and value of the SEIP insurance plan. The second is an interest in a low-cost dental insurance plan for students.

We have reviewed the process that led to the 60% increase in SEIP rates for AY2004.[84] The analysis underlying the increases was flawed, due largely to a poor understanding of the underlying utilization data drawn from the previous year, faulty projections of "trends" for the following year, a failure to take account of a change in mental health benefits, and the absence of sound risk pooling and insurance reserve protocols. In short, it seems to be widely agreed that it was a mistake. Although claims experience would indicate that the SEIP premium for individual students should has been reduced after AY 2004, MIT has kept the premium for the individual plan constant to accumulate a reserve. The premium for an SEIP family plan has been reduced since AY2004 and it is now about half of what it was in AY2004. Nevertheless, the net

[83] One exception was the relative rankings of satisfaction with quality of athletic facilities. MIT students were more satisfied with the quality of athletic facilities than students at a small group of our closest competitors. We suspect this reflects some differences in preferences across these schools' student populations.

[84] MIT's consultant recommended a 72% increase.

premiums in AY2005 (after basic coverage for the student that is bundled with tuition) for a family composed of a student, spouse and one dependent that benefits from being an RA/TA is $3,040/year for a U.S. student and can be as high as $4,500/year for an international student who is not an RA/TA. These premiums are very steep for graduate students with families living on RA/TA or fellowship stipends, especially if their spouses cannot work in the U.S.

If we add together the total cost of basic coverage (in tuition) to the residual premium charges for SEIP (and for basic coverage for international students' spouse and child), the total cost (MIT + student) of medical insurance for an international student with a spouse and child is nearly $5,320. How does this compare to premiums charged by commercial insurers in the Boston area? The closest equivalent Blue Cross[85] plan would cost this family over $11,000/year (with higher co-payment obligations). The least expensive Blue Cross Plan for this family is about $7,000/year (with significantly lower benefits).[86] So, the basic problem here is not that MIT's insurance plans are too costly, but rather that health care costs in the U.S. are high and the incomes of our graduate students are typically quite low.

a. Continue efforts to bring SEIP premiums down and take the associated premiums into account in RA/TA and MIT graduate fellowship benefits as well as in undergraduate financial aid awards. The MIT Administration is aware of the burdens that are placed on graduate students, especially those with families, by health insurance

[85] A family plan with a student aged 25.

[86] http://www.bluecrossma-directpay.com/directpay.php#family . Accessed on September 7, 2005. These premiums are likely to increase by about 10% in 2006.

premiums and has taken a number of actions to respond to the problem, in particular the RA/TA SEIP subsidy. The Administration is also aware of the errors that led to the dramatic premium increases in AY2004. We urge the administration to continue to work to make the SEIP more affordable especially for graduate students with families.

The SEIP has now accumulated a significant reserve and this reserve is projected to continue growing if no changes are made in premiums or benefits. MIT should consider reducing premiums or using some of the reserve to increase the access to and quality of care in the Medical Department.

b. Consider whether MIT can purchase/arrange for a catastrophic dental insurance policy that it can make available to students. Many students expressed their desire to have access to a low-cost dental insurance option. At the present time the only dental benefit provided to students is a 10% discount on the standard charges at the MIT dental service and the arrangements for dental services that have been made with the BU dental school. However, as we discussed above, student utilization of the MIT dental service is declining as the prices it charges have risen. There are a significant number of students who come to MIT with major dental care needs who would certainly benefit from a low-cost dental insurance product. These needs often arise as a result of poor dental care in the past rather than from contingencies that are realized after the students come to MIT. We expect that it will be difficult to find a low-cost dental insurance product for our students since to make it low-cost it would necessarily require pooling students with significant dental care needs with those who have had access to good dental care before coming to MIT and have modest needs for routine dental care once they are

here. The students in the latter category would be unlikely to pay for such a product and the required risk pool to support a low-cost policy would not emerge. Nevertheless, MIT should at least explore the availability of catastrophic dental insurance on a group basis in the commercial market and if such an insurance product is identified make it available to students at cost. We expect, however, that the most effective strategy is for MIT to continue to work with providers in the area, like the BU dental school, to identify lower cost dental care options for students.

7.3 Health Insurance for Retirees

We have already discussed health care provided to retirees through the MIT Medical Department. About 70% of our retirees are not cared for in the MIT Medical Department and obtain their care primarily from outside providers of their choosing. The care is paid for by a combination of Medicare benefits, MIT's Medicare supplement policies whose premiums are shared with employees, and out-of-pocket payments made by employees. MIT has limited information about the retiree population and communicating with them in an efficient way has proven to be beyond our capabilities.

a. We recommend that MIT create a user friendly data base of names, addresses, phone numbers and email addresses for retirees who are eligible for MIT medical benefits and try to obtain more information about this population's utilization, levels of satisfaction and specific concerns.

b. We recommend that the benefits office continue its efforts to optimize MIT's responses to changes in the Medicare program, to continue its efforts to keep retirees

informed about these options, and that MIT provide the resources necessary to do so. As already noted, the benefits office has been out front on understanding and adapting to the changes in the Medicare program and in providing information about it to retirees. It is important that MIT devote the resources required to continue these activities for the benefit of MIT and our retirees.

7.4 Post-Doctoral Associates and Fellows

We devoted one of our meetings to a briefing and discussion regarding health insurance and health care for post-doctoral fellows. The primary issues that have arisen here are (a) the high cost of insurance for Fellows, especially those with families, (b) asymmetries in the treatment of post-docs doing essentially the same work that happen to have different funding sources, and (c) the changes in the available insurance options when a post-doc's status changes from Associate to Fellow. The issues here are complicated, they are recognized by the Administration, and efforts to deal with them have been initiated or are under consideration. In 2005, Post-Doctoral Associates who became Post-Doctoral Fellows were allowed to continue to have access to the same insurance options as before, though without explicit cost-sharing by MIT. It would be useful to survey academic units to determine how they have responded to the January 2005 recommendation that they provide additional subsidies to Post-Doctoral Fellows. Dental insurance coverage has also been extended to Fellows meeting certain criteria.

8. CONCLUSION

Effectively managing the provision of health insurance and health care to the MIT community has always been a significant challenge. It has been an especially difficult challenge in the last few years as MIT struggled to deal with unexpected budgetary problems. Mistakes have clearly been made, but they have not been made because of bad intentions. We have observed many examples of the benefits office and the Medical Department "bending the rules" to respond to especially urgent medical and financial needs. The clinical, technical, administrative, and support staffs in the Medical Department often go to extraordinary lengths to respond to the health care needs of students, employees, and retirees. MIT is a place where people care about each other and try to do the right thing for students, employees, and retirees. This is how it should be if MIT's mission is to be realized. In the end, MIT's success is driven primarily by its ability to meet the needs of the people who study and work here.

We all know that in the end MIT must balance its budget and that tradeoffs must be made. We also all know that high quality health care at a reasonable cost is very important to all segments of our community. We introduce unnecessary stress and sub-optimal outcomes into what is a necessary process of tradeoffs when the budgeting, financial management, cost and utilization information, and the level of understanding of the needs, expectations and concerns of the MIT community do not meet the highest standards. We believe that we can do better in the future if we adopt better financial management, information collection and dissemination protocols and, most importantly, improve communications between the MIT Administration, faculty, students, other employees, and the Medical Department so that we are all rowing the ship in the same direction.

It is unfortunate that it became necessary to create a special Task Force to respond to intense community concerns about changes in medical care at MIT. MIT needs to adopt more effective mechanisms to monitor community perceptions about the availability, costs, and quality of care on an ongoing basis and to respond to concerns promptly. The efforts the Task Force has made to solicit the views of the members of the MIT community about health insurance and health care make three things clear to us. First, high quality health care and health insurance are extremely important to all members of our community. Second, there is a willingness to share views and experiences when given the opportunity to do so. Third, there is much to learn from the views of the community, both positive and negative, that can usefully inform better management of MIT's health insurance and health care policies. MIT --- the MIT Administration and the Medical Department --- needs to do a better job of staying in touch with the community on health care issues and responding to their concerns. *As a first step, there is a wealth of information contained in the surveys that were performed by the Task Force, especially in the thousands of written comments that we received. We recommend that resources be devoted to reviewing this information in more detail, consistent with privacy and confidentiality commitments that we have made to the community, to identify key themes that can inform future decisions by Human Resources and the Medical Department. In addition, we recommend that HR and the Medical Department seek advice on more effective ways to obtain feedback from the MIT community regarding their experiences with the health care and health insurance that MIT provides to them.*

The members of the Task Force will be happy to make ourselves available to the Administration for further discussion about our work and recommendations.

TABLE 1

MIT HEALTH PLAN MEMBERSHIP BY EMPLOYEE CATEGORY 2004

Employee Category	Percentage of MIT Employees[87]
Cambridge Campus	
Faculty	78%
Other Academic	81%
Sponsored Research	54%
Support Staff	52%
Service Staff	30%
Administrative	46%
Other	45%
TOTAL Cambridge Campus	55%
TOTAL Lincoln Lab	28%

[87] Excludes employees who do not take MIT medical benefits

TABLE 2a

AY 2005 HEALTH INSURANCE PREMIUMS
$/Monthly Faculty and Administrative Staff

	Total Premium	MIT Share	Employee Share
MIT Traditional			
Individual	321.12	219.92	101.20 (32%)
Family	865.54	563.10	302.44 (35%)
MIT Flexible (POS)			
Individual	471.74	219.92	251.82 (53%)
Family	1,210.50	563.10	647.40 (53%)
Network Blue			
Individual	334.13	219.92	114.21 (34%)
Family	912.77	563.10	349.67 (38%)
Blue Choice (POS)			
Individual	645.08	219.92	425.16 (66%)
Family	1,699.66	563.10	1,136.56 (67%)
Tufts			
Individual	369.31	219.92	149.40 (40%)
Family	1,028.21	563.10	465.11 (45%)

TABLE 2b

AY 2005 HEALTH INSURANCE PREMIUMS
$/Monthly Support and Service

	Total Premium	MIT Share	Employee Share
MIT Traditional			
Individual	321.12	229.57	91.55 (29%)
Family	865.54	588.02	277.52 (32%)
MIT Flexible (POS)			
Individual	471.74	229.57	242.17 (51%)
Family	1,210.50	588.02	622.48 (51%)
Network Blue			
Individual	334.13	229.57	104.56 (31%)
Family	912.77	588.02	324.75 (36%)
Blue Choice (POS)			
Individual	645.08	229.57	415.51 (64%)
Family	1,699.66	588.02	1,111.64 (65%)
Tufts			
Individual	369.31	229.57	139.75 (38%)
Family	1,028.21	588.02	440.19 (43%)

TABLE 3
SAMPLE MIT MEDICAL DEPARTMENT
"NET INTERNAL BUDGET" FY06

Inside Medical Care:	**$25,700,000**
Inside Admin costs:	**8,500,000**
Gross Internal Costs	**$34,200,000**
External Costs	**$29,600,000**
Total external Revenues[1]	**($23,900,000)**
Net Budget:	**$39,900,000**

[1]Includes SEIP, Employee Premiums, Medicare & Fee for Service

TABLE 4
SAMPLE MIT MEDICAL DEPARTMENT
INCOME STATEMENT (FY05)

REVENUES	
MIT HP Employee premiums (includes MIT contribution):	$33,800,000
Student Extended Insurance premiums:	11,300,000
Student Basic Insurance (AY 05)	9,900,000
Retiree, Medicare, co-payments, other	5,700,000
Primary employee care benefit	4,000,000
TOTAL	$64,700,000
EXPENSES	
Inside Medical Care	$23,900,000
Inside Medical Admin	7,500,000
Outside Medical Services (incl. Admin)	23,900,000
Building service, depreciation, other MIT support services	2,000,000
Contribution to reserves	8,500,000
TOTAL	$64,700,000

TABLE 5
SAMPLE SERVICE COST ALLOCATION PATHWAYS

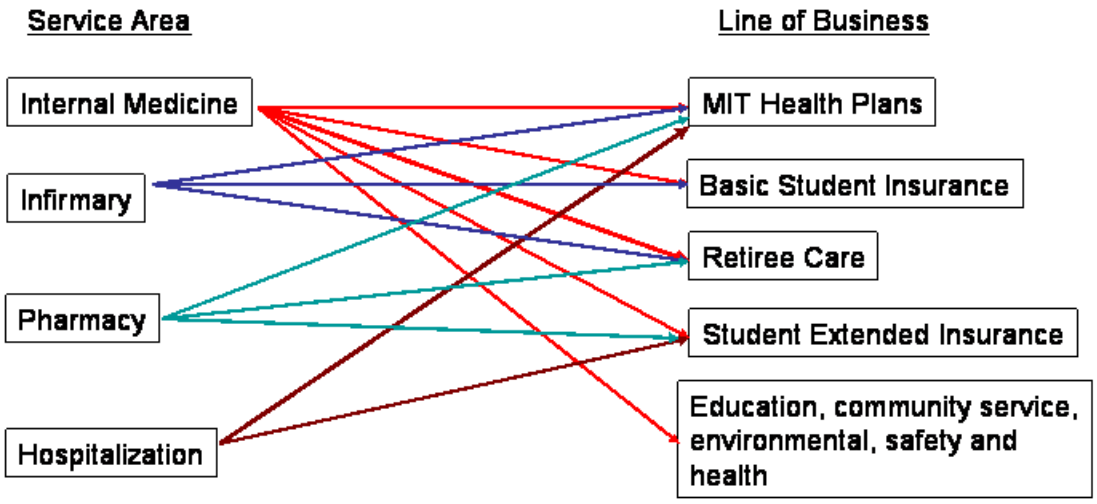

TABLE 6
SAMPLE MARGINAL COST BURDEN ALLOCATION SHEET

MIT Health Plan ===→ (based on CY04 utilization & FY05 Costs)	**employees:** **fringe benefit recovery:** **MIT net:**	**36%** **37%** **27%**
SEIP Individual ===→	**RA/TA:** **Student pay:**	**54%** **46%**
SEIP Family ===→	**Student pay:**	**100%**
Student Basic Benefit ==→	**In Tuition/MIT**	**100%**
Employee Basic Benefit ==→	**fringe benefit recovery** **MIT**	**58%** **42%**

APPENDIX 1

MASSACHUSETTS INSTITUTE OF TECHNOLOGY TASK FORCE ON MEDICAL CARE FOR THE MIT COMMUNITY

Members

Paul L. Joskow, Task Force Chair, Professor, Department of Economics

Larry G. Benedict, Dean for Student Life

Mary Boyce, Professor, Department of Mechanical Engineering

R. Erich Caulfield, Graduate student

Lydia B. Chilton, Undergraduate student

Gerald R. Fink, Member, Whitehead Institute for Biomedical Research and Professor, Department of Biology

Alice P. Gast, Vice President for Research, Associate Provost, and Professor of Chemical Engineering

Morris Halle, Institute Professor Emeritus

Marc B. Jones, Assistant Dean, School of Science

Thomas A. Kochan, Professor, Sloan School of Management

Nancy L. Rose, Professor, Department of Economics

Alan E. Siegel, Chief, Mental Health Service, MIT Medical Department

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Paul F. Levy, President and Chief Executive Officer, Beth Israel Deaconess Medical Center.

A. Neil Pappalardo, Life Member of the MIT Corporation.

James Richter, M.D., Physician, Massachusetts General Hospital, Associate Professor of Medicine, Harvard Medical School.

APPENDIX 2

MASSACHUSETTS INSTITUTE OF TECHNOLOGY TASK FORCE ON MEDICAL CARE FOR THE MIT COMMUNITY

CHARGE

The Task Force on Medical Care for the MIT Community will be asked to recommend to the president of MIT a single vision or appropriate alternative visions for the future of health care for MIT students, employees, and retirees.

To construct and support this vision, the Task Force should:

- Review and articulate the goals of MIT's programs to provide health care and health insurance to our undergraduate and graduate students, employees, and retirees in terms of access to care, quality of care, and costs of providing care.

- Review and assess how well current arrangements are achieving the goals for providing health care to our students, employees, and retirees through the MIT Medical Department and through other providers accessible through our insurance plans.

- Examine how other leading research universities provide health care and health insurance to meet the needs of their students, employees, and retires.

- Benchmark the quality and costs of health care services provided directly by the Medical Department as well as the methods used by MIT to set the prices for health insurance.

- Review and assess alternative models for providing health care and establishing health insurance prices from the perspectives of quality of care, access to care, and the cost of care to students, employees, and retirees and to MIT.

- Seek input from the MIT community, including the staff of the Medical Department, Medical Management Board, Medical Consumers' Advisory Council, and Strategic Review of Benefits Committee regarding access to health care, quality of health care, and the costs of health care and health insurance.

- Based on this work, form a set of specific recommendations for advancing high-quality health care in a cost effective manner for all members of our community.