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David Seltz
Executive Director
Health Policy Commission
Two Boylston Street
Boston, MA 02116

Dear Mr. Seltz:

In response to your August 28, 2013 letter, we have prepared the following written testimony.

**Written Testimony for Cost Trend Hearings
UMass Memorial Medical Center**

UMass Memorial Medical Center is part of the UMass Memorial Health Care System, with 1,200 beds and bassinets and 13,200 employees, is Central Massachusetts' largest not-for-profit health care delivery system, covering the complete health care continuum with UMass Memorial Medical Center, its academic medical center, member and affiliated community hospitals, freestanding primary care practices, ambulatory outpatient clinics, a rehabilitation group and mental health services. UMass Memorial is the clinical partner of the University of Massachusetts Medical School. We are responding to your questions for the UMass Memorial Medical Center as requested.

HPC1 Chapter 224 of the Acts of 2012 sets a health care cost growth benchmark for the Commonwealth based on the long term growth in the state's economy. The benchmark for the growth between CY2012-CY2013 and CY2013-CY2014 is 3.6%.

Summary

UMass Memorial Medical Center (UMMMC) is fully engaged in the movement to transform the health care system to deliver more accountable, cost effective and value based services. We support the core components of Chapter 224 and the desire to reduce health care costs in a thoughtful and transparent manner. At the same time, we recognize the critical importance of maintaining fiscal and operational stability during this transition to ensure long term, meaningful

and sustainable reductions in costs while ensuring access to high quality vital services. We must make substantial multi-year investments in our evolving information systems and clinical redesign in order to improve quality and reduce costs over the long term.

a) What are the actions your organization has undertaken to reduce the total cost of care for your patients?

The health care cost growth benchmark measures payments from public and private sources. The UMass Memorial Medical Center (UMMMC) has experienced declining growth in payments received from payers on a volume adjusted basis over the past few years for all payers except Medicare due to the AWI statewide adjustment. A contributor to the decline is the movement of services from an inpatient setting to outpatient. At the same time, we have seen an increase in severity as more routine services are being actively steered to lower cost providers. In FY14 we are projecting a - 0.1% growth in net patient service revenue per equivalent discharge while costs are increasing with the complexity of our patient mix.

We are faced with inpatient volume declines, shifts in payor and service mix and an overall reduction in growth in payments from our payors resulting in downward pressure on our margins and an increased need to reduce our internal costs while balancing the needs of our patients. In this effort we have implemented a number of cost reduction efforts as further discussed below.

THE MEDICAL CENTER COST REDUCTION PLAN

Given the fact that two thirds of our costs are labor related, reductions of almost 400 full and part time employees have been necessary. Included in our workforce reductions were the sales of our outreach lab service and our home health agency. These sales moved the services to lower cost community based settings.

We are undertaking an effort to evaluate all of our service lines to ensure sustainable financial and clinical performance. We intend to identify opportunities for cost savings, right sizing, and more efficient delivery of essential services through this effort.

CARE DELIVERY INITIATIVES TO REDUCE COSTS/INCREASE QUALITY

Throughout our system we continue to implement new ways of providing care that we are confident will reduce cost over time and increase value to our patients. While there are limited infrastructure funds and payment mechanisms are not fully developed to incentivize change, moving from volume to value is a constant and continual effort.

Across our system we have engaged in many initiatives, highlighted below are just a few examples of what UMMMC is doing to control costs and improve quality in a value based way in advance of the necessary payment system changes:

Episode Driven Care Coordination for Orthopedic Hip and Knee Replacements

Even as new payment mechanisms are evolving, we are beginning to work in areas we know can reduce cost and increase quality for patients including episode driven care (i.e. referred to as

bundled payments) We have implemented new care coordination and care elements as well as standardized protocols to reduce costs in orthopedics hip and knee replacement treatment. We have implemented all the key essential elements of the bundle that are generating cost savings throughout the entire patient episode - some of the savings is being realized by UMMMC; other savings are being realized by the payers.

- We have reduced ALOS while our CMI has increased;
- We have increased our patient discharge status to home vs. rehab/SNF considerably;
- We have improved upon our post discharge coordination of care with the PCP to reduce unnecessary readmissions and visits to the ED by having the PCP involved in managing co-morbid conditions post discharge;
- We have increased our patient education classes to better educate the patient and family on expectations pre-, during, and post-discharge;
- We have implemented the pain protocol to eliminate the pain pumps so that patients are able to get out of bed same day as surgery to assist in discharge process and lessen possible complications that arise from remaining in bed;
- We have developed a joint program in conjunction with Fallon Community Health Plan and VNA to perform a home assessment prior to surgery to ensure there is adequate support-socially as well as physically to discharge the patient to home;

The hospital's direct cost for this service has been reduced by 9% which does not include the savings generated by discharging patients to home vs. rehab/SNF, reduced ED and readmissions.

eICU

At UMMMC, we've implemented the first electronic ICU in Massachusetts. UMMMC provides eICU services to its member community hospitals Wing, Clinton, Marlboro and HealthAlliance, and to Harrington, Heywood, Melrose-Wakefield, and the Kindred LTAC in Leicester. Staffed with intensivists and affiliate practitioners (NPs & PAs) at UMMMC, we are able to monitor patients in our community hospital ICUs electronically, so that ICU care can be managed in a lower cost setting and patients can remain closer to home at a lower cost facility while not sacrificing the quality of care. Previously, respiratory failure patients with overwhelming infections and other high acuity critically ill patients would be transferred from our affiliated community hospitals to UMMMC for critical care. With the eICU many of the same patients can remain in the community hospital setting.

The costs of the eICU service are not currently covered by public or commercial under the existing fee for service payment structure. While the payers and patients enjoy the savings from the delivery of care in a lower cost setting, the eICU costs are not reimbursed directly and must be built into the Medical Center's overall rate structure. This is one example of why pricing variation exists and tertiary facilities cannot compete with community hospital reimbursement rates, although they are expected to.

Diabetes

We have implemented a web-based behavior modification tool to help patients better manage their illness and improve communication with our clinicians to help us manage their care more effectively. My Care Team allows our interdisciplinary team to monitor patients' glucose levels remotely and provide nutritional counseling support and case management. This program enables us to change the emphasis from visits and consults to more of an interdisciplinary team approach to managing outpatient diabetes care, improving health and wellness and reducing overall costs. We expect to reduce emergency visits, admissions and readmissions by 25% and physician office visits by 50% under this model. However, like the eICU, these services are not covered by public or commercial payers.

Marlborough Hospital Cancer Center

Another UMMMC coordinated initiative at a UMMHC member hospital, Marlborough Hospital is the new Cancer Center, just opened in September. This truly exemplifies giving the right care at the right place. The main reason for opening this cancer center was to provide the services close to where the patients live and work. Patients who are sick and undergoing intense daily treatment will no longer have to commute to the UMass Memorial Medical Center in Worcester. The radiation treatment which can take three to eight weeks where each dose of treatment takes just a few minutes requires patients to go to the hospital five days a week. The most complicated cases and procedures, such as bone marrow transplants, will continue to be handled in Worcester again exemplifying the right care at the right place.

These are just a few examples of how care at UMMMC is evolving to reduce the overall cost of care while simultaneously improving quality and outcomes for our patients. The payment system will need to evolve too to support more change in the delivery of care model. These examples highlight the cost-shifting challenges which tertiary hospitals like UMMMC uniquely face and which, along with the support of the vital academic mission, differentiate UMMMC's reimbursement rates for those of community hospitals.

b) What are the biggest opportunities to improve the quality and efficiency of care at your organization?

Given the financial pressures facing UMMMC, cost containment and operational efficiency have become our highest near-term priorities. Our mandate is to deliver the same quality of care on a less expensive cost base. Major efforts are underway to maximize the efficiency of our current resources:

MASTER FACILITY PLAN REVIEW

Efficient space utilization is imperative given the portion of our cost structure the physical footprint represents. UMMMC is evaluating cohorting and consolidation opportunities which can help maximize use of the most cost-efficient sites of care, increase efficiency for medical staff, and raise patient satisfaction.

OPTIMIZE OUR PHYSICIAN NETWORK:

Among UMMMC's greatest assets are our world-class physicians. A principal part of UMMMC's strategic vision is to ensure that our valuable talent is being deployed in the most effective and efficient manner, including growth and increased productivity in our primary care base and more effective deployment of specialists into community settings to improve local access to care.

TRANSITIONS OF CARE PILOT:

Our Transitions of Care Pilot Program is targeted at reducing readmissions and improving follow up care. UMMMC looked at our data regarding readmissions and identified three populations representing our largest volume of readmits: adult patients with (i) primary or secondary Chronic Obstructive Pulmonary Disease (COPD); (ii) Congestive Heart Failure or (iii) Pneumonia diagnosis. Through the Pilot UMMMC focuses on the full continuum of care beginning with the patient's decision to go to the ED or the provider's decision to admit and ends with the safe transition of the patient to the next provider and 30 days post-hospital follow up. UMMMC has met and continues to achieve its goal of reducing readmissions by 20%.

PATIENT CENTERED MEDICAL HOME PILOTS:

We have implemented a Patient Centered Medical Home Pilot program at select community practice locations, which is expected to be rolled out on a broader basis after completion of the assessment of the initial implementation.

We have also undertaken several initiatives to improve efficiency and coordination of care including the implementation of an electronic medical record and population health management systems, which will link patient data across all of the UMass Memorial facilities and physician offices.

c) What current factors limit your ability to address these opportunities?

The largest limiting factor is **investment dollars**. Our organization does not have the financial capability to provide the necessary clinical model changes and invest in care coordination and care management needed to be successful in the current environment.

As discussed above, we are working hard to reduce costs across the board; reimbursement is declining at a faster rate than we can get cost out of the system. It is particularly challenging in our highly unionized environment.

We are experiencing major reductions in private payer rate increases over our historic cost trends. This means we can no longer subsidize the losses we experience on public payer patients through cost shifting to private commercial payers.

We face **environmental challenges** as well which have reduced our public funding due to the ACA, sequestration, and historic underfunding in Medicaid and in particular Behavioral Health payments. We also continue to bear a greater share of the burden for local uninsured and underinsured patients relative to other hospitals in our region.

We are looking to reduce costs at the same time we must **meet mandated regulatory changes** such as electronic health records, ICD-10, etc.

UMMMC has seen a change in patient/service mix in part due to an increase in adverse selection resulting from steerage which has the opposite effect on cost per unit at tertiary facilities. UMMC has historically been able to offer lower rates on more complex care in exchange for volume of more routine services. As a result of this shifting in service mix, rates for tertiary care will go up as case mix changes.

The current labor environment. UMMC, similar to many hospitals across the state, has a heavily unionized workforce. In fact, UMMC has a total of 7 labor unions representing approximately 5,200 of its 6,800 employees. Since November 2011, UMMC renegotiated labor contracts with its seven unions, which included productive discussions over reducing the rapidly growing costs of employee pensions, health insurance and other benefits. In May 2013, UMMC's two nursing unions, representing approximately 2000 nurses, exercised their legal right and gave UMMC notice of their intention to strike for one-day. When UMMC received the strike notice, it had to fly-in, house and train replacement nurses from around the country to take the place of the striking nurses at a cost of over \$4 million. In advance of the strike, we had to reduce our patient census to approximately 50% to ensure that we could continue to provide safe care to our patients, which cost UMMC millions in lost revenue. In addition to the financial strain on UMMC, this strike threat cost UMMC much more. It disrupted the continuum of care to our patients, had the potential to compromise their safety and damaged the good will that UMMC has in the community.

The proposed Massachusetts Nurses Association mandatory nurse staffing ratio legislation. The proposed law would limit how many patients could be assigned to a registered nurse in Massachusetts hospitals. The law would also prohibit hospitals from decreasing staffing levels for other nursing support staff such as LPNs, patient care assistants, service, maintenance, clerical and technical workers. During UMMC's 2012-2013 labor negotiations with its nurse unions, the MNA proposed mandatory ratios, which were not as stringent as all of the ratios in the proposed law. The proposed mandatory ratios would have cost UMMC approximately \$50 million to implement in 2012. The newly proposed legislation would cost UMMC much more. UMMC is committed to maintaining appropriate staffing levels to provide safe, high quality care to our patients. A law cannot mandate safe staffing--staffing levels are dynamic and they can vary from shift-to-shift, hour-to-hour and even minute-to-minute depending on things such as the number of patients on a unit, the severity of their illnesses and the education, skill-level and experiences of the nurses on the unit. We believe that our nurse managers are best suited to make decisions about patient needs in real-time.

d) What systematic or policy changes would encourage or help organizations like yours to operate more efficiently without reducing quality?

Payors can:

- Update payment systems to account for changes in the delivery of care model (as mentioned above, examples like reimburse providers appropriately for eICU, electronic home monitoring of Congestive Health Failure patients, changes in outpatient delivery of diabetes care, etc.)
- Reduce or eliminate copays to make patient compliance with treatment plans more affordable (improve access to primary care and drugs and outpatient visits for certain chronic conditions).
- Administrative Simplification: Reduce duplication of administrative functions of providers and payors. An example of this is in the credentialing process. Physicians go through a thorough credentialing process in order to obtain hospital admitting privileges. As such, hospitals employ staff to verify a physician's license, DEA numbers, Board Certification, etc. This process is duplicated by health plans who also employ staff for the same purpose in order to meet their accreditation requirements with NCQA. This adds unnecessary administrative costs to the system. While some payors have tried to streamline the process through a shared credentialing database administered through a jointly funded non-profit (Health Care Administrative Solutions (HCAS)), they are verifying the same information that hospitals have already verified when granting admitting privileges. So each health plan has a credentialing department and each hospital has a credentialing department and there is much duplication of efforts.
- Contract directly with providers for disease management programs rather than through for-profit third party vendors which duplicate disease management initiatives implemented directly by providers. This only adds costs to the system and creates extra work for providers.

The State can:

- Invest in providers and their ability to redesign care to reduce costs and increase quality:

Continued and expanded government investment in infrastructure, medical home and ACO pilots. We were very pleased to be the recipient of over \$2 million in infrastructure funding from the state's Infrastructure and Capability Building Grants. While this is a welcome and appreciated start, we have enormous amounts of building and standardization to do with increasingly limited ability to finance this work. We know, through evidence based research, programs to put in place that will reduce the overall cost of care for patients and provide lifelong quality to the patient but we cannot do this without continued governmental investment.

As the state begins to implement alternative payment mechanisms, they must encourage provider involvement in the benefit and program design process and flexibility to modify benefit and program design as pilots are tested.

- Invest in Behavioral Health - Underfunding and Access to Care:

Adequate and Flexible Reimbursement is needed. Since the early 1990s and the advent of managed care, behavioral health services have been under funded. Presently some Medicaid managed care plans reimburse at just 60% of cost... This has caused the steady erosion of safety net services and has forced mission driven organizations to assume significant losses in providing needed services while still recognizing the fact that access to services remains unacceptable in spite of best efforts.

From October 2012 through July 2013, UMMC lost \$20.3 Million on IP and OP psych services.

In addition to increasing reimbursement to acute providers there is the need to immediately create access to continuing care beds within the Department of Mental Health. Historically there has been poor access to continuing care beds and the burden has been born by the acute care hospitals. The on-going use of acute psych beds for continuing care patients takes acute psych beds out of the regional system. In turn our psych patients must wait in Emergency Departments for those acute psych beds to become available.

- The average duration from the date of our referral to Continuing Care for a psych patient to the actual patient discharge has increased by 118%. 2010= 22days; 2011 = 34 days; 2012= 48 days
- The overall Average Length of Stay for patients who were approved for continuing care has increased by 66%. 2010=42 days; 2011=60 days; 2012=70 Days. *Of Note, the 2012 number does not include the 8 patients approved for transfer before 12/31/2012 and who had already accrued 536 stuck days in CY 2012*
- The total number of bed days following referral to DMH continuing care has increased by 60%. 2010=1,067, 2011=1,343; 2012= 1,714. This is in spite of the fact the number of referrals went down by over 29%!
- The percent of occupied UMMC beds devoted to patients awaiting Continuing Care Placement has grown by 62%. 2010=5.8%; 2011=7.4%; 2012= 9.4%.

Many patients experience significant waits before inpatient placement can occur and many of those patients have to travel extensive distances to receive care. In CY 2012, out of 2,681 patients assessed to need inpatient psychiatric hospitalization, only 68% were able to secure beds in Worcester County. This is a problem for effective discharge planning as well as for family participation in treatment.

UMMMC operates its two inpatient psych units' 53 beds at 95% occupancy. Having 11% of our 2012 occupied beds devoted to patients awaiting DMH Continuing Care further exacerbated the region's acute psych access problem. During the last six months of 2012 we had 169 patients stuck in our ED for one day (over 24 hours), 32 patients stuck for 2 days (over 48 hours) and 7 patients stuck for three or more days (over 72 hours).

UMMMC is committed to working with our State partners and share the commitment to the most vulnerable patients in the Commonwealth. By improving access to care we will improve the quality of care to our patients, improve organizational efficiency and reduce unnecessary costs borne inappropriately for non acute level patients.

e) What steps are you taking to ensure that any reduction in health care cost is passed along to consumers and businesses?

As discussed above, UMMC is undertaking a number of initiatives related to cost reduction and efficiency of care. All of this work will result in reduced costs which are passed on to insurers and patients both directly in terms of the amount of supplies, testing, emergency room usage, etc. as

well as indirectly in terms of reduced premiums and reduced coinsurance (resulting from decreasing charges). For example, standardization of operating room and medical surgical supplies leads to a decrease in costs of the supplies which leads to a decrease in the charges for those supplies. Depending on the patient's insurance, this would lead to a decrease in the patient's financial responsibility.

HPC 2 The 2013 Examination of Health Care Cost Trends and Cost Drivers by the Attorney General's Office found that growth in prices for medical care continues to drive overall increases in medical spending. What are the actions your organization has undertaken to address the impact of the growth in prices on medical trend and what have been the results of these actions?

As mentioned above, at UMMMM the growth in prices has been declining over the past few years with the exception of the increase Massachusetts providers have experienced in Medicare payments due to the area wage index factor.

Prices are primarily driven by:

- actual costs to provide care to the insurer's member.
- unreimbursed costs to care for Medicaid, Medicare and free care patients (UMMMC as a disproportionate share hospital and the safety net hospital in its region services a high proportion of low income patients)
- un-reimbursed costs for services not recognized by the current fee for service payment system (eICU, web visits, etc).
- inflation factors

In recent payor contract negotiations UMass Memorial has accepted lower price increases even below the rate of inflation as we are actively working to keep the rate of increase down. This has most definitely compromised our financial stability. Our hospital is heavily unionized and two thirds of our costs are salaries. The union contracts include increases exceeding our payor increases which significantly stresses our financial situation. As discussed in the above answer, we have undertaken major steps to control and reduce our costs at the same time we are attempting to standardize, implement cost saving clinical care processes while also investing in information technology to implement mandated EMR and ICD-10 requirements and necessary population health management tools.

HPC3 Chapter 224 seeks to promote the integration of behavioral and physical health. What are the actions your organization has undertaken to promote this integration?

Summary

UMass Memorial Medical Center has been an industry leader in Massachusetts in developing programs to integrate behavioral and physical health for its patients. We have programs that integrate behavioral and physical health across our inpatient floors, outpatient clinics, the emergency department, as well as at Community HealthLink, UMass Memorial Health Care's

community based mental health provider. Recently, we have been working to expand these types of programs, most recently with the aid of some grant funding from EOHHS and the Blue Cross Foundation, but additional support is needed to be able to further this work.

a. What potential opportunities have you identified for such integration?

Traditional Continuum Overview:

UMMMC supports a vibrant continuum of behavioral health services that are available to individuals regardless of their ability to pay. Specifically we operate two inpatient psychiatric units totaling 53 beds (95% occupied) that are designed to care for adults and transition aged youth; an outpatient clinic providing over 40,000 visits per year with services provided to adults and children with numerous specialty clinics focusing on depression, psychosis, intellectual disabilities, autism, anxiety, women's issues, substance abuse and health psychology; a 1,000 visit per year psychiatry consultation service that supports both adult and child medical admissions and an emergency mental health service that conducts almost 7,000 evaluations with approximately 20% of the services provided to youth and their families.

In addition to services provided under UMMC's license, Community HealthLink (CHL), a fully owned subsidiary of UMass Memorial Health Care, augments UMMC's hospital based services by providing the most comprehensive community based mental health and substance abuse treatment system in the region. CHL offers outpatient and emergency services to adults and children, residential programming for mental health and substance abuse, including both adolescent and adult detoxification, care management and outreach for the homeless and persistently mentally ill and more recently introducing primary care into the behavioral health domain.

Innovation relating to Integration

UMMMC and our Department of Psychiatry have a history of developing unique clinical programming that seeks to create integration between behavioral health and physical health in spite of the fact that reimbursement models most often do not support such activities.

- In the Spring of 2013 we opened the new Psychiatric Treatment and Recovery Center (PTRC) on UMMC City Campus. This move required a \$7m build out expense. With this move we have set the stage for the development of integration across multiple levels of medical and psychiatric care. The PTRC is located at 26 Queen Street in a building that is shared by the Worcester Family Health Center and Community HealthLink. The Health Center provides primary care and specialty medical services, dental care and urgent care. Many of the PTRC patients receive their health care through the health center. By moving on to the CHL campus the PTRC is now also located with CHL's primary Mental Health and Substance clinics, the Adult and Adolescent Detox Centers, Crisis stabilization services, care management services, homeless outreach services and most recently CHL's new Medical Home for individuals with Mental Illness (growing to 3,000 patient by 2015). In just the few months since the move, the

level of clinical communication across all programming has increased dramatically. With the implementation of payment reform the potential to increase this integration is exponential.

- We provide consultation liaison interventions on our medical surgical floors for both adults and children. On the request of the medical attending, we conduct a psychiatric evaluation and develop clinical recommendations. Without insurer support we have and will continue to develop a constellation of services with our consultation liaison program to bring the behavior health perspective and service to our medical patients. For Example:
- We are preparing to open a child and adolescent post-consultation liaison clinic that would increase our capacity to commence psychiatric care for medically admitted patients and temporarily transfer those cases to the new clinic. This clinic will address the inadequate outpatient access to psychiatric care in Central Massachusetts for this vulnerable subset of patients. Inadequate reimbursement decreases our ability to grow this service beyond a single clinic. Losses are estimated to be 40 % of the overall expense of the service
- Working with Hospital Medicine, Psychiatry developed an Inpatient Post Overdose program to provide intensive psychiatric social work services to patient's post-opioid overdose while they are still undergoing treatment on our medical services. Patients admitted after an overdose are quickly identified, seen by our psychiatric consultant and followed by a clinical social worker who provides counseling to the patient and family, clinical care in collaboration with community providers and discharge planning. In its first year, 30% of patients were discharged to community based substance abuse care, bypassing unnecessary and expensive inpatient psychiatric hospitalization. This program is well received by patients and family.
- We are working to implement a program to expand hospital based consultation services to include, with support from UMMMC, the Department of Psychiatry, through its consultation liaison program with an attending referral, offering the services of a tobacco consultant to any inpatient. The consultant will help the patient develop an understanding of the health impact of tobacco and will work with the patient to develop a plan to decrease or eliminate tobacco use.
- We are working to develop a specific program to address the needs of patients with co-morbid substance disorders and medical conditions requiring frequent hospitalization. UMMMC has a committee working on strategies to reduce re-hospitalization for its highest users. For FY 12 and the first quarter of FY 13 there were 84 patients who experienced greater than 8 hospitalizations in a year. Of these patients, 18 (21.4%) were found to have co-morbid conditions including alcohol dependence or abuse, opioid or other drug dependence or abuse in addition to psychiatric conditions contributing to longer and more frequent hospitalizations. Patients with these co-occurring conditions will benefit from the services of an addictions counselor who will be able to assess severity of substance use problems, conduct brief interventions while the patient is in the medical setting, and implement post acute discharge plans, which would provide for continuity of substance addiction treatment post-hospitalization and for utilization reductions. This project is currently being funded for 6 months by an EOHHS Infrastructure and Capacity Building Grant.

- We are working with a number of clinical department's sub-specialty programs to integrate behavioral health. Presently work is conducted with Oncology, Diabetes, Organ Transplant, and Cardiac Rehab. Expansion is desired but increased costs with limited revenue prohibits this form of growth for both inpatient and outpatient service.
- UMMMC has developed an integrated behavioral health program called the *Behavioral Health Service* (BHS). The BHS offers an innovative service using Health Promotion Advocates who work collaboratively with the ED care team. They are trained to apply evidence-based screening, brief intervention, and referral to treatment (SBIRT), including universal screening for alcohol, tobacco, and other drugs, brief motivational counseling, and referral to treatment for those who are appropriate. Recently we were funded for 6 months by an EOHHS Infrastructure and Capacity Building Grant focusing on integration in the Emergency Department to further develop this program. In the ED, unless referred for specific emergent mental health intervention, assessment and referral for underlying mental health and substance use conditions for non-psych emergent patients is rare despite evidence of its effectiveness.
- Funded by the BCBS Foundation, MyLink, a program of CHL, is a partnership between CHL and the UMMMC's Emergency Department. Community based mental health workers identify and counsel high emergency department patient utilizers most of whom are low-income patients with significant mental health and/or substance abuse conditions. During the first year of operation significant impact has been noticed with improved care and decreased costs. One patient experienced a 44% decrease in emergency department visits, from 131 to 74, in the first year of participation.
- Currently, UMMMC has three primary care medical homes with integrated behavioral health providers who see individual patients, provide educational group interventions, and collaborate with primary care providers through verbal communication and shared documentation. These clinics screen patients for depression, anxiety, PTSD, and alcohol misuse and offer in-house psychiatry consultation.
- A recent project has been to develop a new Medical Home for individuals with Intellectual Disabilities (ID) and co-morbid medical and psychiatric illness, often with problematic behaviors. Internally, this Medical Home utilizes a partnership with psychiatry, neurology and family medicine and the support of the Department of Developmental Services and EOHHS. These individuals, often with autism spectrum disorders (ASD), are at high risk for medical and psychiatric hospitalizations as well as extensive emergency department utilization. Though the overall number of people with IDD/ASD served in the larger delivery system may be small, these individuals frequently require the most expensive forms of care, and present unique challenges to healthcare providers.
- Massachusetts Child Psychiatry Access Project (MCPAP) is a program that was developed and researched at UMMMC before it was brought to a statewide scale by EOHHS. A number of years ago the Department of Psychiatry participated in a New England wide review of poly-psychopharmacology for youth. We identified that the majority of behavioral health medications were prescribed by the youth's primary care physician. The primary care physician was required to be the behavioral health provider and did so without the training and support to be as effective as possible. We now offer prescriber-to-prescriber consultation within fifteen

minutes, diagnostic evaluations to establish treatment planning and care coordination.

Working with the MBHP we will soon be adding specialized consultation relating to perinatal and post partum depression to pediatricians, family medicine practitioners, obstetricians, and gynecologists. Of note, while started in Worcester, this model is already operating in 26 states.

- On our psychiatric inpatient units and throughout our outpatient continuum we have recognized the need to remain in communication with primary care providers, particularly in addressing obesity, diabetes and other chronic diseases. In addition we are creating a wellness agenda at each clinical site across the system.

b. What challenges have you identified in implementing such integration?

Adequate and flexible reimbursement is needed. Since the early 1990s and the advent of managed care, behavioral health services have been underfunded relative to their costs. This has caused the steady erosion of safety net services and has forced mission driven organizations to assume significant losses in providing needed services while still recognizing the fact that access to services remains unacceptable in spite of best efforts. As mentioned above, in 9 months from October 2012 through July 2013, UMMC lost \$20.3 Million on IP and OP psychiatry services.

c. What systematic or policy changes would further promote such integration?

The existing fee for service payment structure does not cover the reasonable costs of delivering essential behavioral health services and is neither sustainable in the immediate term nor does it support the development of flexible and multidisciplinary approaches to the integration of behavioral and physical health services in the long term. Unfortunately, most health care providers cannot assume the financial risk of providing additional underfunded services or investing in the necessary infrastructure to better integrate care without significant changes to reimbursement. Such changes must include adequate fee for service payment and a transition to global payments or grant support combined with administrative simplification (e.g., elimination of cumbersome billing and authorization requirements). Only such changes to reimbursement will allow providers to develop innovative approaches to integrate the full range of behavioral health and physical health care services through a flexible and multidisciplinary approach.

Coordination and collaboration which are not assigned a CPT code are many times the most valuable clinical intervention. Provider and patient engagement occurs on many levels. For example, it may be helping the patient fill out paperwork while they are in the inpatient or outpatient setting and engaging with them in a consultative manner, or it may be counseling primary care providers on prescribing mental health medicines. These activities are not reflected in a fee schedule and are not reimbursed.

HPC4. Chapter 224 seeks to promote more efficient and accountable care through innovative care delivery models and/or alternative payment models.

a. Describe your organization's efforts to promote these goals.

- b. What current factors limit your ability to promote these goals?**
- c. What systematic or policy changes would support your ability to promote more efficient and accountable care?**

Summary

UMass Memorial Medical Center has been working for several years to implement new and innovative care and payment models. Several examples are Patient Centered Medical Homes, a pilot program with a payer for Dual Eligible patients, bundled payment initiatives and the use of Practice Improvement Facilitators. However, expansion of these types of programs is difficult under the current reimbursement system. Increased infrastructure funding would allow us to implement more of these innovative programs.

- a. Over the last two years, UMMMC has promoted innovative care delivery in a number of ways; one pathway has been the piloting of patient centered medical homes. UMMMC has participated in the Commonwealth's multi-payer PCMHI pilot since its inception. Two practices, the Barre Health Center and University Pediatrics Associates (Benedict Pediatrics), have been recognized as NCQA Level 3 Patient Centered Medical Homes as a result of their participation in PCMHI. UMMMC supplemented the financial assistance provided through the PCMHI program and provided additional personnel to support the development of this new care delivery model. Our organization also provided funding and personnel to four other primary care practices in our system (Hahnemann Internal Medicine Group, Plumley Village Health Services, Hahnemann Family Health Center, Nashaway Pediatrics – Clinton) to transform them into patient centered medical homes; three of the four have been designated as NCQA Level 3 Patient Centered Medical Homes. Our internal medical home pilot introduced financial incentives and an RVU support model to better align physician compensation with this new model of care.

We are also in the final stages of planning for a pilot program with a healthplan to integrate our respective approaches to shared members of the healthplan's government payor plans (e.g. dual eligibles over and under age 65) in Worcester. The pilot program will involve two to three large facility based primary care practices (both Family Medicine and Internal Medicine). We are working together to redesign and integrate services to deliver better patient care and outcomes, with a focus on being accountable for a defined population of patients. Both organizations have clinical integration successes and a long-standing relationship, and each organization will bring complementary areas of expertise to this initiative.

- b. The current reimbursement system from payers is not aligned with new care delivery models such as the patient centered medical home. For example, telephone talk time, where physicians in our pilot practices set aside time to reach patients by phone, is currently not reimbursed by payers. Remote synchronous and asynchronous (web-based) visits are not reimbursed. Interactions with family and other caregivers are not reimbursed

either. All of these innovative approaches could prove extremely beneficial in delivering more efficient and effective care with improved outcomes for our patients.

We are exploring with another payer the possibility of partnering to pilot test a bundled payment pilot for diabetic patients that would include payment for services and resources not typically covered. The new services would include redesign in workflow of primary care offices and the Diabetes Center of Excellence to include routine review of such information as patient reported (uploaded) blood sugars and diet and asynchronous (web-based) remote visits. Given that these services are not billable under existing fee for service terms, the health plan will provide a grant to cover them during the pilot.

UMass Memorial is working to establish an approach to training and implementation of new models. Since many new models rely on team-based care, one approach we are evaluating is deployment of a new practice improvement facilitator, (also known as a practice coach in some systems). The practice improvement facilitator (PIF) educates the practice on the new model and works with the practice on development of a practice-specific action plan and timeline that includes training, implementation, evaluation and refinement. Currently this approach is being used to guide workflow redesign for quality performance improvement on payer-specified measures. UMass Memorial has absorbed the costs of deployment of PIF resources and adoption of new technology applications in hopes that performance bonuses/infrastructure associated with improved performance will cover associated costs over time. However, the start-up expenses far exceed available reimbursement. Inadequate funding will limit the rate at which we can do this work and expand it to include spread of other new models of care and workflow redesign.

- c. The multi-payer PCMHI program was an exciting innovation and our organization has been deeply invested in the program. However, the financial support from the pilot was not adequate to cover the cost of the program and its deliverables. The program also did not provide financial incentives, such as RVU support, for providers to fully embrace the new models of care. The hoped for shared savings opportunities did not materialize. In addition, the lack of standards for the payers with respect to their payments to participants and information reporting has required more personnel time on our end to track the information and limited our ability to embrace the model more fully.

HPC5. What metrics does your organization use to track trends in your organization's operational costs?

- a. What unit(s) of analysis do you use to track costs structure (e.g. at organization, practice, and/or provider level)?
- b. How does your organization benchmark its performance on operational cost structure against peer organizations?
- c. How does your organization manage performance on these metrics?

UMMMC uses a variety of metrics to measure its performance against its expense budget and to track expense trends. These metrics are produced monthly at several levels within the organization – for UMMC as a whole, for departments within UMMC and for individual cost centers within UMMC. Metrics are also produced by provider within their service line. The attached Financial and Operational Dashboard (see appendix) is one of the reports that is used to measure performance. Within the Expense section of this report are some of the metrics that are used at the UMMC level. Additional metrics are used for reporting on different levels, i.e., FTE's per outpatient visit is used for outpatient clinic cost centers. The metrics we use are always being reviewed and adjusted as needed. In addition to reporting the data as shown on the dashboard, trend charts are produced for numerous metrics to assist in analysis and identification of problems.

Various sources are used for benchmarking our performance against our peers in the industry. For productivity measures we use AMS, Patient Care Link (for nursing) and the National Database of Nursing Quality Indicators (also for nursing). Other benchmarking is done using UHC and Moody's.

UMMMC uses these metrics to evaluate trends and manage to budget (flexed by volume). For example, within a service line, we identify providers who are outliers with respect to their costs per unit of service. We then work with the service line leaders to change the practices of those outlying providers to help bring them in line with their peers and benchmarks. Managers are expected to manage to their budget (flexed for volume) and are subject to corrective action if they are not meeting their budget.

Question HPC6 Please describe the actions that your organization has undertaken or plan to undertake to provide patients with cost information for health care services and procedures, including the allowed amount or charge and any facility fee, as required by Chapter 224.

Summary

UMass Memorial Medical Center has been helping patients understand their financial responsibility related to their medical bills for a number of years. This includes patients who are insured, but may have some out of pocket costs, as well as patients who are uninsured. With the implementation of the provisions in Chapter 224, we are reviewing and updating our existing procedures to ensure that we are in compliance with all aspects of the law.

UMMMC has always strived to maintain Credit and Collection policies that, while enabling us to meet our financial obligations, are patient-friendly, flexible and crafted in the context of our mission as a non-profit health care system. We have had a process in place for a number of years to help our patients understand their out of pocket costs upon their request (See appendix for Financial Counseling Pricing Process document).

Because of our State's Health Care Reform Law, most of our patients are insured or eligible for insurance. We employ a staff of 24 Financial Counselors who help those patients without insurance understand and apply for available coverage. And, importantly, we devote significant

resources to helping such patients stay covered and/or re-enroll when they all too frequently get automatically dis-enrolled from a State program. We help over 11,000 people per year with health insurance applications and enrollment, SNAP applications and other assistance program applications.

Because of the relatively low rate of uninsurance in Massachusetts, the number of questions we get from patients regarding our costs or what we charge for a service is relatively low. The most common question we receive from our patients regarding billing is why they have a balance after their insurance company paid and how it was determined. We employ 26 Patient Representatives to answer these and other billing questions from our patients in an effort to help them navigate and understand the complexities of the financial side of their healthcare.

As a health care provider, we do not determine an insured patient's co-pay, co-insurance or deductible amounts – those determinations are made between the health insurers and employers. Yet we are required to collect these amounts, bear the expense and financial risk of doing so, and often are perceived by patients as the “bad guy” for our efforts. We are therefore encouraged by the elements of Chapter 224 that will require insurers to better provide this information to their subscribers, and we will work with health insurers to help steer patients to those resources.

We also continue to support the intent of previous legislative bills that would require health insurers to collect patients' co-pays and deductibles directly, rather than continuing the current practice of pushing those responsibilities onto health care providers.

For those patients who are not eligible for insurance or who have chosen not to obtain it, and those patients with insurance who may have a deductible, coinsurance or copayment, we help them estimate what the cost of their care will be upon their request. This is a much more difficult process than many appreciate, since prior to service it is impossible to precisely know which tests, supplies and services an individual patient will need. See the Financial Counseling Pricing Process for a detailed explanation of our current process for answering patients' questions about their financial responsibility. We expect that we may need to enhance and streamline these processes in order to meet the provisions of Chapter 224.

We are attending the September briefing sponsored by MHA to learn more about what insurers and health care providers can do to address the requirements of Chapter 224, and will ensure that we fully comply with these regulations, as well as the Federal regulations (501r) for Tax Exempt Hospitals and the Massachusetts Attorney Generals' guidelines for Non-Profit Hospitals, all of which have important specific requirements relative to our Credit and Collection policies.

HPC7 After reviewing the reports issued by the Attorney General (April 2013) and the Center for Health Information and Analysis (August 2013), please provide any commentary on the findings presented in light of your organization's experiences.

Summary

We support the movement to transform the health care system to an accountable, value-based industry. We appreciate the reports issued by the Attorney General and CHIA which continue the discussion around provider and insurer costs and trends pointing out many of the unintended consequences and areas requiring thoughtful attention. We support the core components of Chapter 224 and the desire to reduce health care costs in a thoughtful and transparent manner. Maintaining stability during this transition to afford the best decisions and our ability to meaningfully and sustainably reduce costs is critical. The continuous, multi-year investments needed to make to our evolving information systems and clinical redesign are enormous as we are fully committed to improving quality and reducing costs.

It is important to understand the makeup of UMMMC and the unique aspects that enable us to serve our community, our state and the healthcare industry; UMMMC is an academic medical center including a large (>1,100 employed physicians) medical group, a community hospital, a safety net hospital, a teaching organization, a research institution and the region's largest employer.

UMMMC is designated as an Essential MassHealth Hospital based principally upon its unique status and safety net characteristics, which are highlighted below:

- **Legislated Obligations:** UMMHC must comply with significant legislative mandates. The health care system was established in 1997 only pursuant to unique statutory authorization, which allowed the public UMass Medical Center, owned by the University of Massachusetts, to merge with a not-for-profit community hospital in Central Massachusetts (Memorial Hospital) to become the private non-profit UMass Memorial Health Care System. Pursuant to the enabling legislation, UMMHC must meet certain obligations to the State; UMMHC is obligated to fulfill a public mission to the underserved in Central Massachusetts, and must provide significant financial support to its academic partner, the University Of Massachusetts Medical School. No other hospital in the state has these obligations. This partnership and ongoing support has helped the UMass Medical School to become the preeminent medical teaching institution on the country.
- **Safety Net Provider:** UMMHC cares for over 70% of the low income, uninsured, and Medicaid patients seeking healthcare residing in Worcester County. The UMMHC system is the 3rd largest safety net provider in Massachusetts and the largest provider of care to the uninsured outside of Greater Boston. We are a Disproportionate Share Hospital and incur additional costs related to the low income population we serve such as large interpreter services and financial counseling departments.
- **UMMHC Comprehensive Services:** UMMHC provides the only pediatric and neonatal ICU in Central New England and the region's only designated Level 1 adult and pediatric trauma center. Our Lifeflight helicopters are the busiest helicopter emergency air lift system in the country. UMMHC is also the largest provider of mental health and substance abuse services in Central Massachusetts. UMMHC continues to invest heavily in its training of primary care clinicians and providing primary care for the region's residents.
- **Critical Contributor to the Economy in Central Massachusetts:** UMass Memorial Health Care is the 7th largest employer in the state and employs over 13,000 people in Western and Central

Massachusetts. Additionally, we provide financial support for public health initiatives in the region, as well as for major public service agencies.

Notable discussion points from both the Attorney General's report and the Center for Health Information and Analysis's report are as follows:

- *Shift in payer mix statewide from private insurance to public insurance from 2009 to 2011.* We have seen the same trend and it has continued into FY 13. UMMC's public payer mix (63%) is much higher than the statewide average. This payer mix contributes to UMMC's financial challenges in light of public payer's low reimbursement rates that in many cases do not cover reasonable costs of care.
- *UMass's five hospitals are noted to have received 7% of the total statewide payments to acute hospitals in MA.* This is in line with the volume of services we provide – in FY 2011, we provided 7.4% of discharges, 7.6% of patient days and 9.4% of outpatient visits in MA. Our hospital expenses were 7.7% of statewide acute hospital expenses.
- *Academic Medical Centers are noted as being paid higher prices from private payers than other hospitals.* UMMC agrees that many of the payment rates it receives are higher than the rates received by community hospitals; however, there are numerous reasons why higher payments are warranted such as teaching, research, patient acuity, range of services, etc. Noted above are additional unique aspects of the UMass Memorial's academic medical center, such as, legislated obligations to the state's public medical school, safety net provider, only provider of certain tertiary and quaternary services that are critical to the community and the largest employer in the region.
- *UMMC's payment rates are in the middle of the range as compared to other AMC's.* Although some of our private contracts pay us above the 50th percentile in relative price, some are also below the 50th percentile.
- UMMC has begun the shift to alternative payment methodologies, although it has moved cautiously in this area. It is critical to us to make sure the new payment methodologies and rates adequately capture the complexity of the patient population we serve. *We agree with the AGO's comment that data has been a limiting factor in moving into new payment arrangements;* UMMC has not received adequate data from the payers when analyzing potential new contracts and continues to be disadvantaged in budget based contracts which apply network wide trend benchmarks vs. hospital specific trends which more accurately account for adverse selection and differentiate between community and tertiary cost structure differences.
- *The Attorney General's report discusses Tiering.* As mentioned above in our response, Tiering (steerage) has a significant impact on a tertiary facility whereby prices appropriately will go up as case mix changes and this impact must be taken into account as

data and price trends are reported. Also, current tiering criteria which compare costs/admission vs. an entire episode of care can be misleading. Facilities with lower infection and complication rates have lower downstream costs and this needs to be taken into consideration in the cost comparisons rather than the single cost of the inpatient admission. This puts tertiary facilities who appropriately have higher pricing as discussed above at a disadvantage with community hospitals even though the tertiary facility may have lower downstream costs and better outcomes.

- *Although the UMass hospitals are in line with state and national averages on many process and patient experience measures, there is room for us to improve and we are working continually to better our performance in quality measures.*

AG1. For each year 2009 to present, please submit a summary table showing your operating margin for each of the following three categories, and the percentage each category represents of your total business; (a) commercial business, (b) government business, and (c) all other business. Include in your response a list of the carriers or programs included in each of these three margins, and explain and submit supporting documents that show whether and how your revenue and margins are different for your HMO business, PPO business, or your business reimbursed through contracts that incorporate a per member per month budget against which claims costs are settled.

UMass Memorial Medical Center

<u>Operating Margins</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>
Commercial business	16.9%	20.5%	20.0%	15.9%
Government business	-11.6%	-14.9%	-14.8%	-16.5%
All Other business	-42.0%	-68.2%	-61.8%	-90.0%

Percentage of Total Business

Commercial business	40.2%	37.5%	36.0%	35.7%
Government business	58.4%	61.4%	63.0%	63.0%
All Other business	1.4%	1.1%	1.0%	1.3%

<u>Commercial</u>	<u>Government</u>	<u>Other</u>
Aetna	Medicare	Workers Compensation
Blue Cross	Medicare Advantage	Self Pay
Cigna	Medicaid	
Fallon	MBHP	
Harvard/Pilgrim	Boston HealthNet	
Tufts	Network Health	
United Health Care	Neighborhood Hlth Plan	
Other HMO's	Fallon Medicaid, Comm Care	
Other Commercial	Celticare	
	Health Safety Net	
	TriCare/Champus	
	Other Government	

	<u>Inpatient/discharge</u>		<u>Outpatient/Visit</u>	
	<u>Revenue</u>	<u>Margin</u>	<u>Revenue</u>	<u>Margin</u>
HMO	17,685	2,426	441	66
PPO	18,607	3,078	403	23

Note: UMMMC has not yet had any contracts reimbursed on a per member per month basis against which claims were settled.

AG2 – If you have entered a contract with a public or commercial payer for payment for health care services that incorporates a per member per month budget against which claims costs are settled for purposes of determining the withhold returned, surplus paid, and/or deficit charged to you, including contracts that do not subject you to any “downside” risk (hereafter “risk contracts”), please explain and submit supporting documents that show how risk contracts have affected your business practices,

including any changes you have made, or plan to make, to care delivery, operational structure, or to otherwise improve your opportunities for surpluses under such contracts, such as any changes to your physician recruitment or patient referral practices. Include in your response any analysis of the impact of changes in your service mix, payer mix, or patient member type (e.g. HMO v. PPO, fully insured v. self insured) on your opportunities for surpluses.

Summary

We have responded below by breaking your question down into three parts. Overall, our entry into "risk based contracts" is in its very early stages and therefore the full impact on our business and our delivery of patient care is yet to be seen. That said we have been engaged in redesigning our care pathways and supporting systems to further improve the patient's experience and quality of care. We believe that this is the paramount avenue to take and the financial aspects of our new contracts need (and we believe will) reward and support that continued path to meet this triple aim approach.

We have just recently entered into two commercial payer agreements which meet the criteria of "risk contracts". In response to the question:

How risk contracts have affected our business?

As mentioned in the Attorney General's report,

Providers are taking on increased performance risk under extremely complex contracts that lack consistency in incenting providers to coordinate care, manage cost and successfully take on risk.

At UMass Memorial we feel that we not only need to change the payment methodology to align incentives, but more importantly change the delivery of care model and ensure that payment systems are updated to support this change in delivery of care. We are challenged by current budget models which do not adequately account for severity of case mix specific to our hospital as they are based on payor network trends and require more specific coding than is currently standard practice. Additionally, investment in infrastructure and personnel to manage risk and shared savings agreements are offsetting savings potential so these contracts benefit the health plans but put additional administrative burden on providers for little return.

Changes we have made or plan to make, to care delivery, operational structure or to otherwise improve your opportunities for surpluses under such contracts?

As discussed above in response to HP1 inquiring about our actions to reduce the total cost, improve quality and efficiency of care for our patients, we have engaged in substantial ways to control costs and improve quality in a value based way in front of the necessary payment system changes:

- Episode Driven Care Coordination for Orthopedic Hip and Knee Replacements
- eICU
- Diabetes My Care Team
- Transitions of Care Initiative

- Master Facility Planning
- Physician Recruitment and Deployment Efforts
- Patient Centered Medical Home

Analysis of the impact of changes in your service mix, payer mix, or patient member type (e.g. HMO v. PPO, fully insured v. self insured) on your opportunities for surpluses.

At issue is that the new “risk contracts” include FFS based budget models where providers share in surplus if their FFS expense goes down from one year to the next or in downside risk if their relative FFS performance is worse. The fundamental problem is a provider might reduce costs by changing the way care is delivered and share in the savings in year one, but when the budget is rebased for the next contract year or term, the new budget is set based on FFS claims experience. So if the provider reduced MD visits, but increased mid-level provider interventions which do not have a separately billable procedure code, these services (and the expense for these services) would not be captured in future budgets.

Complicating the equation and often not addressed is the fact that pricing variation is necessary to ensure costs for services not recognized by FFS payment methodologies or uncompensated care is accounted for in the overall pricing. At UMMC pricing variation can be explained by:

- FFS rate structures which over time blended rates for inpatient services, undervalued Observation, new technology and new drugs and do not recognize certain services like eICU, web based care delivery models, and other services which help reduce costs to health plans but are not compensable under traditional FFS payment rates and therefore these costs are built into other hospital rates;
- Commercial Behavioral Health and ancillary service rates are underfunded, resulting in cost-shifting;
- Disproportionate Share Hospitals are required to shift costs more due to payor mix;
- Union environment which provides richer wages and benefits than non-union environments and restricts benefit changes and more recently has introduced minimum staffing ratios into its contracts where legislative policy has recognized that staffing needs to flex with acuity of the patient population and such ratios add unnecessary cost to the delivery of care;
- UMass Memorial is the region’s only Level 1 trauma center and transplant program which has increased costs for on-call coverage and blood products which are not separately billable and therefore are built into the overall rates;
- UMMC provides 24/7 MRI/CT (weekend & evening hours) with conscious sedation and 1v1 supervision of pediatric patients and therefore cannot compete on price with freestanding imaging centers which have limited hours and less staffing. Similar differences exist with various service lines across tertiary and community hospitals;
- Teaching hospitals have added expenses not fully funded through other programs;
- Medicare and Medicaid Fee Schedules, especially for Behavioral Health do not cover full costs, resulting in cost shifting

- Budget methodologies don't adequately account for case mix changes specific to a particular hospital. Network trending ensures actuarial predictability for the health plans but leaves tertiary hospitals in particular with exposure as case mix is more likely to change relative to community hospital case mix.

While we expect each of the opportunity programs noted above to produce cost savings over time, we have experienced an increase in adverse selection resulting from steerage through benefit design and incentives to physicians to use lower cost options. The result is an increase in cost per unit for more complex care as our severity of case mix increases. In order for tertiary hospitals to continue to cover their costs in this environment, rates for complex care inevitably will increase as more routine services are redirected. This is not to say that UMMMMC does not have a responsibility to lower its costs for delivering care. As it is successful in bringing its overall costs down, this will have an offsetting effect on the cost/unit rate increases but rate adjustments need to be handled in a thoughtful way to ensure quality and access to services is not compromised.

AG3 Please explain and submit supporting documents that show how you quantify, analyze, and project your ability to manage risk under your risk contracts, including the per member per month costs associated with bearing risk (e.g. costs for human resources, reserves, stop loss coverage), solvency standards, and projections and plans for deficit scenarios. Include in your response any analysis of how your costs or risk-capital needs would change due to changes in the risk you bear on your commercial or government business.

Summary

UMass Memorial Medical Center has only recently entered into a risk based contract, the Blue Cross AQC contract. As we are only in the first year of this contract, we are just in the beginning stages of the analysis of our performance under this contract. The following explains the analysis that was done before entering into this risk-based contract, and the work that is ongoing relative to estimating a surplus or deficit position.

Baseline & Trend

When UMass Memorial is contemplating entering into a risk based contract the initial steps involve requesting and analyzing historical claims, enrollment and provider information from the payer entity. Working with a healthcare actuary, we were able to validate a reasonable starting point PMPM along with the underlying trends in the data to establish a budget going forward. From that we were able to build assumptions and projections for the 2013 and future years using actuarial models such as the 12 month, 18 month and 24 month least squares trends. This type of analysis provides a comfort level that 1) the baseline budget PMPM is in fact accurate, and 2) that the trend assumptions we negotiate with the payer are realistic and achievable.

Funds Flow & Surplus/Deficit Projections

Once we validate the above, we use the raw data to build funds flow models and surplus/deficit scenarios. Since we have validated the starting point on a PMPM basis, we can project the initial budget PMPM with some degree of accuracy. We validate the estimated member count and from

that we can project an estimated annual member month total and then a total medical expense budget (TME). We then analyze the funds flow of medical expenses within the budget, and specifically break out payment estimates to all UMass Memorial entities, including its participating physicians. We then make an assumption as to what we think the quality score will be for the projection year in question. From that we can then calculate the provider and health plan risk share, and therefore surplus/deficit after the risk share. Simultaneously, since we have estimated payments to all of the various UMass Memorial entities and physicians, we can model out the potential withhold dollars associated with this contract, and lastly we can also estimate the potential for quality incentive payments and management fees. Once this model is completed, we can then build in variables to the trend, leakage, and other aspects of the model to forecast and project various surplus and deficit scenarios, and how those scenarios impact UMass Memorial and the various constituencies related to the contract.

Costs / Risk-Capital Needs

It should be noted that entering into risk based contracts is not inexpensive. In order to be successful under these payment models, UMass Memorial must essentially build the same type of infrastructure that already exists within the health plans (or government entities that develop risk based contracts). In addition to the healthcare actuary noted above, we need analysts to receive, review and work with the data from both a financial and a quality/process improvement standpoint, including the software needed to facilitate the analytics and verify severity adjustments. UMass Memorial also developed a stop-loss reinsurance agreement which involved its captive insurance company along with commercial reinsurance to protect itself against the potential for catastrophic loss. Lastly, we are reserving withholds to cover the worst case scenario until we have sufficient data to measure performance and ensure budgets are adequate to support the cost of care provided.

AG4 Please describe and submit supporting documents regarding how, if at all, you track changes in the health status of your patient population subgroups (e.g. subgroups by carrier, product, or geographic area).

Summary

UMass Memorial Medical Center has been working on developing population health management tools since 2005. Over the years, we have expanded our population health management capabilities significantly, adding numerous data sources and analytic tools. We continue to work to improve our capabilities in this area and are in the process of purchasing software tools that will enhance our ability to manage and track the data that allows us to manage our patients' health needs and improve the care that we provide. This will assist us as we move into more risk-based contractual arrangements.

At the heart of our population health management tools is our patient registry. The data from this registry is used to provide data to our physicians and practices so that they may identify patients most in need of intervention such as follow-up care or missed scheduled screenings. An example of a clinic worksheet from our patient registry is shown below. There are many data fields in the

registry that can be used to aggregate and analyze data for different cohorts, for example, by age, sex, race, zip code, payer/product. Our patient registry has also been used to identify health disparities and help us develop strategies to address any identified disparity.

We also use the registry data to produce dashboards so that we can work with our physicians and practices to improve their performance by providing them with their individual metrics as compared to other providers and practices. Reports are also produced that allow us to track the change in these metrics over time. This data allows us to review providers' individual care practices and adjust them to bring them into line with their peers with better scores.

UMass Memorial currently produces and distributes to all primary care practices Quality Performance Reports (Quarterly), Patient Care Registry (Monthly) and Registry Progress Reports (Monthly) for all patients using EMR and commercial payer claims data. The reports are based upon the Blue Cross Blue Shield and Fallon Community Health Plan process (preventive screening) and outcome measures. With the planned acquisition of new technology applications the patient care registries and progress reports will be refreshed daily and available in a more user-friendly form on physician and practice staff desktops in the next 12-18 months. See the appendix for a sample worksheet from our patient registry.

Performance improvement operations staff and physicians help primary care practices to understand current performance, identify opportunities for improvement as well as develop and implement a time-specific action plan to improve performance on AQC quality metrics.

AG5 Revenue Breakdown by Type of Payment Arrangement - See Excel File

AG6. Please identify categories of expenses that have grown (a) 5% or more and (b) 10% or more from 2010 to 2012. Please explain and submit supporting documents that show your understanding as to the factors underlying any such growth.

There were several categories of expenses at UMMC that increased more than 5% from FY 2010 through FY 2012:

Increases over 5% -

- Purchased Services increased 5.7% from FY 10 to FY 12, from \$145.8 million to \$154.1 million. The biggest component of this increase (\$5.4 million) was related to consultants and additional help needed during the conversion from Meditech to Soarian clinical and financial information systems. Moving to the Soarian system will enable UMMC to receive meaningful use funding. Other components of this increase were start up costs related to our specialty pharmacy (\$1.1 million) and an increase in costs for some contracted anesthesia services (\$1.3 million).
- Insurance expense increased 6.1% from FY 10 to FY 12, from \$7.9 million to \$8.4 million. This is due to an increase in malpractice expense.
- Rental & Lease expenses increased 6.4% from FY 10 to FY 12, from \$28.2 million to \$30.0 million. This was a combination of having some new leased space for outpatient clinic expansion as well as an increase in the pricing of existing lease agreements. As part of our

facilities master planning work that is in process, we are reviewing all of our space utilization and lease agreements in order to consolidate where possible and negotiate better lease pricing

- System allocation expense increased 6.5%, from \$114.3 million to \$121.7 million. The major reason behind this increase is IT expense related to migration to EMR/CPOE systems which will allow us to capture meaningful use funding as well as implementation of a new clinical and financial system.

Increases over 10% -

- Benefit Expenses increased 17.0% from FY 10 to FY 12, from \$131.9 million to \$154.3 million. There were two components of our benefits that caused this increase – Pension Expense increased \$13.5 million and Health Insurance Costs increased \$12.1 million.
- Pharmacy Costs increased 12.6% from FY 10 to FY 12, from \$53.8 million to \$60.2 million. This increase is directly related to increases in drug pricing.

AG7. Please describe and submit supporting documents regarding any programs you have that promote health and wellness (hereinafter “wellness programs”) for: (Include in your response the results of any analyses you have conducted regarding the cost benefit of such wellness programs.)

(1) Patients for whom you are the primary care provider

Summary

As UMass Memorial Medical Center has been building the Patient Centered Medical Home model in its primary care practices, focus has shifted towards prevention and patient education. Our Patient Care Registry is an important tool to enable our primary care providers and practices to work to improve the health of their patients. Other examples of tools utilized are disease specific patient newsletters, group visits for patients with the same chronic illness and disease specific care plans.

- The rising importance and reported impact associated with Patient Centered Medical Home and population health management efforts have put preventive care at “center stage” within the UMass Memorial system. Each practice and provider receives a Patient Care Registry (referenced above in Population Health management) which lists all patients and their health maintenance requirements. As a result of our System focus on population health management and development of registries to support the practices in their efforts, well infant, well child and well adolescent visits, breast, cervical, and colorectal cancer screenings, smoking cessation are topics that are discussed with patients at every contact with our primary care providers and their office teams. Patient care needs are being addressed in routine and urgent visits. Outreach to patients who are due for care but do not have scheduled appointments is being completed.

- We have established within the Office of Clinical Integration a Performance Improvement and Practice Redesign team to help primary care practices use the Patient Care Registry to optimize care delivered during a visit and reach out to schedule patients with identified gaps in care/services. This work has resulted in cases where, despite initial resistance, screenings were scheduled, completed and risk or illness identified. These patients received appropriate care for the findings. In many cases the patient has thanked the primary care physician and office team for “saving their life.” Such efforts and results demonstrate the importance of proactive and disciplined work on patient engagement and per-visit planning. This work will have an increasingly significant impact on patient outcomes, keeping patients well and/or in an optimal state of health.
- Shared Medical Appointments and Group Visits are utilized in some primary care practices for patients with chronic disease such as Diabetes, Hypertension, and Metabolic Syndrome to provide a community of support, education and a network of health professionals and fellow patients engaged in caring for and motivating patients. These visits include activities such as grocery store tours, ideas for achievable physical activities, cooking demonstrations and others.
- “Stick to It” and “Pressure Points” Newsletters are published monthly and shared with patients electronically, in our Primary Care Practices and in our Diabetes and Cardiovascular Centers for Excellence. The newsletters are designed to promote health and wellness and provide practical tips (such as easy recipes) for patients. Website Links:
 - Diabetes <http://www.umassmemorial.org/news-and-events/enewsletters/stick-to-it-for-diabetes>
 - Hypertension <http://www.umassmemorial.org/news-and-events/enewsletters/pressure-points-for-hypertension>
 - Sample Newsletters are attached as pdfs.
- “My Care Team” a system for patients with diabetes provides patients of our Primary Care Providers and Diabetes Specialists the opportunity to upload their blood glucose meters from home so medications and therapy can be adjusted between office visits to reach goals for disease control and self-management support can be provided more frequently and easily. We are currently working with a payor to pilot test combining the use of “My Care Team” with remote, asynchronous office visits to improve clinical outcomes as well as patient and practice productivity.
- Care plans, such as asthma action plans, are utilized in some of the practices and are designed to set care goals developed jointly by the provider team and the patient.
- Efforts to embrace living well *with* chronic disease - UMass Memorial’s Cardiovascular Center of Excellence provides free community heart health seminars at community locations. The focus of the seminars includes common conditions and patient education needs when living with a heart condition.

(2) Patients for whom you are not the primary care provider

Summary

UMass Memorial Medical Center is committed to improving the health status of all those it serves and to addressing the health problems of the poor and other medically underserved populations. In addition, nonmedical conditions that negatively impact the health and wellness of our community are addressed.

Our mission for Community Benefits incorporates the World Health Organization's broad definition of health defined as "a state of complete physical, mental and social well being and not merely the absence of disease." The UMass Memorial Health Care (UMMHC) Community Benefits Mission was developed and recommended by the Community Benefits Advisory Committee and approved by the UMass Memorial Health Care Board of Trustees.

Target Populations:

The 2012 Community Health Assessment (CHA) and subsequent Community Health Improvement Plan (CHIP) focus on the City of Worcester and the outlying communities of Shrewsbury, Millbury, West Boylston, Leicester, and Holden, a sub-section of its primary service area. Focusing UMass Memorial's CHA on this geographic area facilitates the alignment of the hospital's efforts with community and governmental partners, specifically the city health department, the area Federally Qualified Health Centers, and several community-based organizations.

UMass Memorial's target populations focus on medically-underserved and vulnerable groups of all ages in Worcester, as follows:

- Children
- Elders Living in Public Housing
- Ethnic and Linguistic Minorities
- Individuals Who are Obese/Overweight
- Populations Living in Poverty
- Targeted Low Income Neighborhoods
- Underinsured/Uninsured
- Youth at Risk

UMMHC's Community Benefits programs adopts the five core principles outlined by the Public Health Institute in terms of the "emphasis on communities with disproportionate unmet health-related needs; emphasis on primary prevention; building a seamless continuum of care; building community capacity; and collaborative governance."

The Community Benefit Strategic Implementation Plan

The Community Benefit Strategic Implementation Plan aligns well with the priorities identified by the 2013-2015 Community Health Assessment and Community Health Improvement Plan.

UMass Memorial Community Benefit Priority Areas:	Goals:
Priority Area 1: Increase Access to Health Care	Goal 1: Support programs and develop collaborative efforts that will improve access to care for the medically underserved/uninsured in Worcester.
Priority Area 2: Promote Healthy Weight	Goal 2: Reduce overweight/obesity among youth and adults and support efforts that promote Healthy Weight.
Priority Area 3: Promote Health Equity by Addressing Health Disparities	Goal 3: Support programs and policies that promote health equity and reduce health disparities.
Priority Area 4: Promote Positive Youth Development	Goal 4: Support at-risk youth programs that promote positive youth development (e.g., substance abuse, tobacco, mental health and violence prevention).
Other: Enhance the Public Health Infrastructure of the Community	Community-Wide Public Health Strategy: Develop and support strategies and systems that enhance the public health infrastructure of the Greater Worcester community.

Detailed action plans will be updated and tracked annually to monitor and evaluate progress and determine priorities as well as adjust to accommodate any revisions that merit attention.

UMass Memorial Community Benefits Programs & Initiatives

UMass Memorial supports and is engaged in multiple efforts for medically underserved populations. These include:

Improving Access to Medical & Dental Services:

- The Ronald McDonald Care Mobile
- Insurance & SNAP (Food Stamps) enrollment assistance
- Medical services for Elders living at public housing facilities
- Oral Health
- Outreach to vulnerable populations

Physical Activity/Exercise:

- Wheels to Water
- Exercise for Elders at Public Housing sites
- After school and summer exercise classes in underserved neighborhoods
- YWCA Collaboration

HOPE Coalition:

- Peer Leadership Program Substance Abuse Prevention
- HOPE Youth Mental Health Model

Community Gardens, Hunger/Nutrition:

- REC Grant Square garden
- Plumley Village Community Garden
- Greenhouse Development project
- Cooking Matters

Health Literacy:

- Reach Out & Read
- Wellness Education at Belmont Street Community School/ Monthly PTO meetings

(3) Employees

UMMMC has been offering wellness programs to its employees for a number of years, but is in the process of a major expansion of its employee wellness programs.

In the past, smoking cessation services/nicotine replacement therapy, flu shots and immunizations have been offered free to employees. Starting in October, 2013, we will be significantly expanding this program – a new employee wellness website is being launched and additional wellness programs are being added, as shown by the chart below:

What Are We Doing? HR

	Complete	In Progress	Next Steps
Awareness & Education	<ul style="list-style-type: none"> -Branding -MyHR Wellness Site 	<ul style="list-style-type: none"> -Calendar of Events -Health Risk Assessment 	<ul style="list-style-type: none"> -Biometric Screening
Resources	<ul style="list-style-type: none"> -Walking Toolkit -Mental Health Screening -Healthy Food Choices 	<ul style="list-style-type: none"> -Beating the Blues -Tobacco Cessation Assistance 	<ul style="list-style-type: none"> -Wellness Challenges -Lifestyle Coaching
Sustainable Environmental Change	<ul style="list-style-type: none"> -Wellness Advisory Committee 	<ul style="list-style-type: none"> -Improving on the Tobacco Free Campus 	<ul style="list-style-type: none"> -Employee Wellness Committee

The program will focus on both behavior change support as well as environmental support (for example – healthy eating initiatives with food services). Rewards and recognition will be used to help motivate employees to participate in the wellness initiatives.

Although it is too soon to be able to measure the results, metrics will be collected and analyzed to measure the return on investment. We will track our current health care costs for employees and their dependents (on a PMPM basis) and compare that to our costs over time as well as to industry data. Other measures will be employee productivity, employee retention, employee sick time and employee injuries.

Thank you for the opportunity to provide this testimony. We have made our best efforts to respond fully and accurately to the questions presented, but given the complexity and fluidity of many of these issues and the compressed timeframe permitted for our response, we reserve our right to update or clarify the written testimony we are submitting today. I am legally authorized and empowered to represent UMass Memorial Medical Center for the purposes of this testimony. I hereby certify under the pains and penalties of perjury that UMass Memorial Medical Center has made a diligent effort to respond to the foregoing questions, and that, to the best of my knowledge; the foregoing answers are true and correct.

Sincerely,



Eric W. Dickson, MD, President and CEO
UMass Memorial Health Care