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Once again, this issue of the *Journal of Health Care Finance* is illustrative of the breadth of topics we cover.

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The Impact of RAC Audits on US Hospitals

Jeffrey P. Harrison and Rachel M. Barksdale

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) authorized a three-year demonstration program using recovery audit contractors (RACs) to identify and correct improper payments in the Medicare Fee-For-Service program. More recently, Section 6411 of the Affordable Care Act (ACA) expanded the RAC program to include the Medicaid program. This shows the Centers for Medicare & Medicaid Services (CMS) believe RAC audits are a cost-effective method to ensure health care providers are paid correctly and thereby protect the Medicare Trust Fund.

RAC audits are highly complex and require significant manpower to handle the large volume of requests received during a short period of time. Additionally, the RAC audit appeal process is complicated and requires a high level of technical expertise. The demonstration project found that RAC audits resulted in sizeable amounts of overpayments collected ("take-backs") from many providers.

This research study assesses the potential impact of the RAC audit program on US acute care hospitals. Data obtained from CMS show that RAC overpayments collected for FY 2010 were $75.4 million, increased to $797.4 million in FY 2011, and increased to $986.2 million in the first six months of FY 2012. According to the American Hospital Association (AHA) RAC Trac audit survey, the vast majority of these collections represent complex denials where hospitals are required to provide medical record documents in support of their billed claims. This study found that the RAC audit program collections are increasing significantly over time. As a result, these collections are having a significant negative impact on the profitability of US hospitals.

Key words: *recovery audit contractors, RAC audits in health care organizations, Medicare Audit Program*.

Introduction

The Medicare Fee-for-Service (FFS) program consists of a number of payment systems, with a network of contractors that process more than 1 billion claims each year, submitted by more than 1 million providers, such as hospitals, physicians, skilled nursing facilities (SNF), labs, and durable medical equipment suppliers.[1] Congress directed the Department of Health and Human Services (DHHS), in Section 306 of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA), to conduct a three-year demonstration program using recovery audit contractors (RACs) to identify and correct improper payments in the Medicare FFS program.[2] The Centers for Medicare & Medicaid Services (CMS) implemented the RAC demonstration program to establish whether the use of RACs would be a cost effective way of ensuring correct payments are being made to health care providers and as a result protect the Medicare Trust Fund.

The demonstration project which ended on March 27, 2008, took place in New York, Massachusetts, Florida, South Carolina, and California. Due to the success of the

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recovery audit demonstration project, Congress passed the Tax Relief and Health Care Act of 2006, which authorized the expansion of the recovery audit program nationwide by January 2010.[3] The program became permanent in 2010, and the RAC audit processes and timelines were established in the program guidelines and were expanded nationwide. More recently, Section 6411(b) of the Affordable Care Act (ACA) expanded the use of RACs to all of Medicare, including Medicare Part A, Part B, Part C, and Part D.[4] A contract for Medicare Part D RAC auditing was awarded on January 13, 2011.[5] RAC audits are expensive for providers and require a substantial commitment of staff to handle the large volume of requests received in a short period of time. Additionally, the RAC audit response and appeal processes are complicated and require a high level of technical expertise. The demonstration proved that RAC audits resulted in sizeable amounts of payment reductions or take-backs for the Medicare program. As a result, the RAC audit program had a negative effect on the cash flow of many health care providers.

The RAC audit program also raised new accounting questions on how to report the loss of current revenue on past admissions. Because all types of medical providers that bill Medicare may be audited under the new program, it has significant negative potential on health care providers. According to a study by Harrison and Sexton, they found that over 50 percent of US hospitals had negative profitability.[6] From a process perspective, RAC audits provide increasing pressure on those health care providers who are struggling for organizational survival.

Federal Regulation

According to CMS, inadvertent errors as well as health care fraud can account for billions of dollars in improper payments annually.[7] Such improper payments include both underpayments and overpayments of Medicare funds. As the US population ages, the services of Medicare will increase and the importance of safeguarding the Medicare program will be critical.

In 2003, CMS implemented the Comprehensive Error Rate Testing Program and began calculating error rates and estimates of improper payments. Since the inception of this program, CMS has reduced the improper payment error rate from 9.8 percent in 2003 to 3.9 percent in 2007.[8]

After the first year of the RAC demonstration project, CMS began getting inquiries from congressional staff regarding the program's impact on health care providers. As discussed in a CMS report titled RAC Status Document 2006, the RAC program collected $68.6 million in overpayments from health care providers in the first year.[9] Because the early RAC collections were processed manually, Medicare payment processors had a difficult time processing the take-backs in a timely manner.

RACs

To avoid a conflict of interest, Medicare claims processing contractors were ineligible to bid on the RAC contracts, and Medicare approved a new group of RACs to identify improper Medicare payments. These RAC auditors use their proprietary techniques to recognize claims that may contain errors resulting in improper payments. The RAC auditors then send lists of claims being audited to the billing provider

to get more claims detail. The provider has 45 days to respond to the RAC notice. Following a thorough review of all the medical record claims data provided, the RAC auditors identify improper payments and recover improper payments from the provider. The contingency fee paid to the RAC auditor is a percentage of the amount of the improper payment. In FY 2009 and FY 2010 the contingency fees ranged from 9.0 percent–12.5 percent. The fee is paid once the money is recouped or refunded, not when the improper payment is first identified. The RAC auditor must return the fee if an overpayment/underpayment is overturned at any level of appeal.[10]

There are two types of RAC audits, automated reviews and complex reviews. An automated review is a computerized analysis of a provider's Medicare claims using decision algorithms that look for improper payment patterns within the claims data. In contrast, a complex audit allows the RAC auditor to request up to 300 medical records from a hospital every 45 days. These medical records are then reviewed by clinicians and coding experts to identify improper payments.[11]

Research shows that RAC audits routinely look for "up coding" by providers within the Medicare program. Up coding is where a provider bills for a higher level of service than actually provided. Up coding is a focus of the permanent RAC program and has led RAC auditors to conduct more complex reviews on DRG coding and medical necessity. Complex reviews are significantly more taxing on the providers who must commit additional staff to provide more detailed information to support the claims.[12]

In a study by Brocato, Hirschl, & Padfield, they discuss how to staff for RAC audits to meet the flood of record requests, comply with paperwork deadlines, and mitigate the financial loss.[13] During the three-year demonstration period, a small percentage of claims were taken back due to missed deadlines. The financial impact of the RAC audit is felt in the dollars paid back to Medicare and in the additional resources needed to manage the process. Because RAC auditors could go back as far as October 1, 2007, this means that some medical records could be in paper form and others electronic. Making copies and entering them in a provider's RAC database is manpower intensive. In the study, they found that creating a RAC response team was beneficial and should include representatives from case management, finance, information technology, coding, compliance, and the medical director.[14] By augmenting existing staff, some providers were capable of filling the RAC requests in-house while others were forced to outsource the duties.

Compliance

While all claims submitted to Medicare are screened by thousands of system edits prior to payment, claims are generally paid without requesting the supporting medical records. Approximately 0.002 percent of claims are reviewed against the supporting medical records prior to payment. As a result, improper payments are sometimes made to health care providers by Medicare. Due to the volume of claims received and limited resources CMS must rely on the post-payment review of claims to identify erroneous payments. Because the RAC auditors are paid a percentage of the dollars they correct, their activities are self-funded unlike traditional claims processing activities.[15]

RAC audits are claims focused and frequently use statistical methods to extrapolate overpayments. In some cases, the RAC

auditors are allowed to extrapolate from their review sample to the population of similar claims. According to an article by C. Dorfschmid, automated reviews do not use statistical sampling.[16] However, complex reviews for inpatient claims usually use statistical sampling which allow for extrapolation of overpayments. Now that the permanent RAC audits have started, health care providers need to proactively implement an effective compliance program as well as increase their internal auditing efforts.

Dorfschmid encourages the use of RAT-STATS, a statistical package developed by the DHHS Office of Inspector General, which is available free of charge from the OIG Web site.[17] RAT-STATS provide analytical tools that could be used to develop a hospital internal audit program.

Health care providers need statistical experts to prepare for RAC audits and maximize the likelihood of cost-effective outcomes. The successful incorporation of statistics into the health care provider's proactive RAC strategy requires an expert to develop statistical samples for in-house audits and to check the RAC auditor's sampling technique to confirm the statistical calculation for any extrapolated overpayments.[18] The provider should verify the statistical portion of the RAC audit and communicate with the RAC auditors formally through the health care provider's legal counsel.

The provider should also consider using an independent auditor to reanalyze audited claims. As part of the internal auditing process, an organization should start with statistically valid random samples to maximize the power of the results. According to C. Young in an article, health care providers should incorporate research and statistical analysis as a way to maximize the efficiency of the compliance plan.[19] These issues should be integrated into the compliance department's risk assessment so that they are included in the annual compliance work plan.

Defending Appeals

RAC audits can have a significant impact on a health care organization's revenue cycle. To minimize the negative impact, an organization needs to optimize their use of electronic medical records, enhance their billing system through the acquisition of electronic software, and involve trained clinicians to validate the accuracy of the billing process.

Organizations should identify cases under RAC review and flag those with negative results. This data can provide the foundation for proactive internal audits on future billing practices. The preferred approach is to use evidence-based practice protocols to ensure accurate coding and incorporate physician review. The consistent application of these processes ensures the integrity of the revenue cycle.[20]

Health care providers should implement automated processes to ensure timely response to denial, rebuttal, and RAC appeal letters. Since record requests can occur every 45 days, concurrent appeals are likely as RAC auditors begin targeting specific providers. According to Brocato, Hirschl, & Padfield, staff involved in the appeals management should have strong project management skills and include revenue cycle experts who can monitor the real-time impact on cash flow associated with RAC appeals.[21]

For example, if medical records are not supplied by the provider within 45 days of a RAC request, the RAC auditors may classify the claim as an overpayment by default. According to Orsini, health care providers

were only able to meet the demand for medical record chart requests 75 percent of the time, resulting in automatic payment denials for the remaining 25 percent.[22] Because of this, many health care providers have centralized RAC processes in their health care information management (HIM) department or have outsourced RAC medical record requests to ensure they are done on a timely basis.

During the demonstration period, CMS disagreed with the RAC audit results and supported the health care provider in 40 percent of the cases appealed to the fiscal intermediary (FI). Filing an appeal is just one of the provider options; the other option is to file a rebuttal to the RAC audit directly. If a RAC audit has denied a claim based on the diagnosis related group (DRG) ICD–9–CM coding, then the hospital would need to submit additional documentation supporting the original DRG. For unsuccessful rebuttals, providers can use standard letters approved by their legal counsel to appeal denials based on medical necessity. The appeal process is expensive to the health care provider and is estimated to cost $2,000 per case.[23]

Accounting Ramifications

RAC audits have resulted in substantial overpayment collections or take-backs for many health care providers. These RAC audit take-backs have created a number of questions on how to accurately reflect the outcomes of these audits in the financial records of health care providers. When a provider receives notification from CMS regarding a RAC audit take-back, at that point there is an identifiable risk of disallowance to the previously recorded revenue stream. As a result, an accrual for a RAC audit take-back should be recorded on the income statement as a contractual discount expense and a liability on the balance sheet in the period in which notification is received. This process is similar to the accounting methods used for estimated and final reimbursement settlements with third-party payers.[24]

Typically, payments made to CMS for the RAC audit adjustments have been made through the process of withholdings from subsequent Medicare claims reimbursements. Since there is usually a delay in the actual take-back, the provider should record the liability upon receipt of the RAC audit adjustment notification and should release the liability when the amount is paid or withheld.[25]

Some providers participate in the periodic interim payment (PIP) program and receive biweekly payments from Medicare for services based on a prescheduled reimbursement. Typically, take-backs of claims for PIP providers are accomplished through the cost report settlement process. Steps should be taken to ensure that RAC audit adjustments and any subsequent favorable appeals are correctly entered in the financial records.[26] FY 2010 was the first year in which the RAC auditors began actively identifying and correcting improper payments under the National Recovery Audit program. All the RAC auditors began reviewing claims in October 2009.

Future RAC Developments

A request for information (RFI) was published in the *Federal Register* on December 27, 2010. In this RFI, CMS solicited comments on how best to implement the Medicare Part C and Part D RAC audits. Based on provider feedback, CMS requires that issues be posted on the RAC auditors' Web sites, which improves transparency to the public and the provider community. The Tax Relief

and Health Care Act of 2006 expanded the RAC audit program to Medicaid. In addition, Section 1893(h) of the Social Security Act expanded RAC audits to Medicare Parts C and D (CMS 2010).[27]

On January 13, 2011, CMS awarded a contract for Medicare Part D recovery auditing to ACLR Strategic Business Solutions. In addition on June 1, 2012, CMS allowed RAC auditors to begin reviewing claims before they are paid, focusing on types of claims that historically have been associated with high rates of improper payments.[28] RAC audits have also been expanded to include physician medical groups. The number of records that can be requested every 45 days from physicians, for a complex review, is based on medical group size. The maximum medical records request is 50 records for the largest medical groups.[29]

Health Reform

The American Recovery and Reinvestment Act of 2009 (ARRA) signed on February 17, 2009, included funding for the Health Information Technology for Economic and Clinical Health (HITECH) Act to promote the adoption and meaningful use of health information technology (HIT). Future RAC audits could penalize the providers if they fail to use electronic health record (EHR) systems and as a result have incorrect billings.[30] Fortunately, the use of EHRs will improve clinical documentation, which should allow process improvement in hospital billing systems.[31]

Outpatient Exposure

According to Kelley, Herdman, & Abramowitz, they believe that many hospitals face significant outpatient RAC exposure and that these hospitals have not given adequate attention to outpatient issues to alleviate their future risks.[32] Most RAC audits in the demonstration period focused on inpatient care and durable medical equipment claims. One-day stays or observation stays are now being closely scrutinized, as well as medical necessity cases. Most hospitals consider observation stays as an outpatient service because the patient does not stay in the bed for more than 24 hours.

National coverage determination (NCD) and local coverage determination (LCD) policies address the appropriate utilization of outpatient services while ensuring medical necessity. These policies determine whether certain diagnostic tests and outpatient procedures are necessary, based on the diagnosis code listed on the claim. It is critical that billing systems validate the correct diagnosis code prior to claim submission to ensure the service is reimbursable.

LCDs are established by each FI and provide local or regional policy guidance. The NCDs are established by CMS and provide national policy guidance. Within this policy guidance, the Healthcare Common Procedure Coding System (HCPCS) codes for each procedure and are linked to the International Classification of Diseases ICD-9-CM codes to ensure correct Medicare claims payment.

Many providers have software systems in place to evaluate each line item before a bill is generated. Where exceptions exist, the software flags the account for review prior to claims submission. The use of electronic billing software by health care providers may help mitigate the risk of RAC audits.[33]

Health care organizations are increasingly purchasing software specifically designed for the RAC audit program. The software

is embedded with rules and alerts designed to manage RAC audits. It also will generate supporting documentation for use during the appeals process. The long-term goal of RAC audit software is to analyze, report, and respond to RAC audits. The use of such software provides a fact-based data warehouse designed to make future changes in the organization's internal audit program.[34]

Laboratory Services

Independent laboratory providers are potential candidates for RAC audits. There are documented instances where laboratories have performed services for patients staying in a skilled nursing facility (SNF) but did not determine the patient's Medicare Part A eligibility before billing the Medicare Part B claims. This creates the possibility of double billing under Medicare because the laboratory services are billed under Part B while the SNF billed for the same service under Part A. According to Young, it is important that laboratory compliance officers ensure their billing director is aware of RAC policies that are relevant to laboratory services.[35] It is also important that the laboratory make certain it has a system in place to educate their employees who receive the mail to recognize letters pertaining to RAC audits so they can be handled promptly. Unfortunately, the laboratory may find itself responsible for RAC recoveries related to errors over which it has no control.

It is incumbent on clinical laboratories to play a role in achieving cost-effective care by balancing the quality of health care with the reality of limited health care resources. As a result, clinical laboratories should work with physicians to develop and implement effective internal control programs.

Theoretical Foundation

Resource dependence theory maintains that organizations manage their environment in ways to acquire and maintain essential resources. Resource dependence theory suggests that a company's survival relies on the leadership's ability to elicit necessary resource contributions and manage relationships between interdependent organizations. Thus, resource dependence focuses on strategic reasons for organizational restructuring in order to support improved organizational efficiency. With this in mind, health system integration can be seen as a method to gain access to highly skilled audit personnel as well as implement processes that enable an organization to maintain its resource base when faced with RAC audits.[36]

The implementation of the RAC audit program forces an organization's leaders to implement billing processes designed to maximize organizational performance while minimizing environmental constraints. It is becoming increasingly clear health care leaders are implementing processes and organizational structures designed to reduce the negative impact of the RAC program on organizational resources.

Research Questions

This study evaluates the impact of RAC audits on US hospitals. The following research questions were proposed:

- What is the anticipated impact of the RAC audit program on hospital inpatient revenue?
- What is the potential impact of RAC audits on US hospital profitability?

Data and Methods

We evaluated data reported by CMS associated with the RAC audit program for fiscal years 2010, 2011, and 6 months of 2012.[37] In addition, we examined data collected by AHA on RAC audits in US hospitals for the year 2012.[38] Data was obtained and analyzed from the AHA RAC Trac audit reporting data set. The RAC Trac data provides extensive organizational data on RAC audit results and its impact on US hospitals. The RAC Trac database provided RAC data from 2,220 US hospitals.

Results

Figure 1 provides information on the impact of RAC audits on US hospitals. For example, CMS RAC audits collected overpayments of $75.4 million in FY 2010, $797.4 million in FY 2011, and $986.2 million in the first six months of FY 2012. During the same period, the RAC audits returned underpayments of only $16.9 million in FY 2010, $141.9 million in FY 2010, and $86.4 million in the first six months of FY 2012. This represents total corrections of $92.3 million in FY 2010, $939.3 million in FY 2011, and $1,072.6 million in the first six months of FY 2012.

As noted in Figure 2, RAC audit collections during the first six months of FY 2012 varied significantly by geographic region. Specifically, Region A composed of the Northeast had RAC corrections of $201.7 million, Region B composed of the Midwest had corrections of only $137.7 million, while Region C composed of the Southeast had corrections of $343.0 million, and Region D representing the West had the highest corrections at $390.2 million.

According to the AHA Trac survey data in Figure 3, automated claim denials represent only 4 percent of RAC collections with 96 percent of overpayment collections coming from complex denials. In addition, the average dollar value of an automated denial was only $521 per claim in contrast to $5,839 for a complex claim denial. It is significant to note that by the middle of FY 2012, 78.5 percent of US hospitals reported that they have had claims denied as part of the RAC audit process.

From a profitability perspective, hospitals are experiencing a growing rate of claims denial. While many denials are overturned on appeal, it is clear the RAC

Figure 1. Medicare Recovery Audit Program by Fiscal Year

	FY 2010	FY 2011	FY 2012 (October 01, 2011 to March 31, 2012)
Overpayments Collected	$75.4M	$797.4M	$986.2M
Underpayments Returned	$16.9M	$141.9M	$86.4M
Total Corrections	$92.3M	$939.3M	$1,072.6M

Source: CMS (2012).

Figure 2. CMS Medicare Recovery Audit Data (January 01, 2012–March 31, 2012)

	Overpayments Collected	Underpayments Returned	Total Quarter Corrections	FY To Date Corrections
Region A: (1)	$112.6M	$11.3M	$123.9M	$201.7M
Region B:	$60.8M	$4.8M	$65.6M	$137.7M
Region C:	$202.8M	$20.1M	$222.9M	$343.0M
Region D:	$212.2M	$25.3M	$237.5M	$390.2M
Nationwide Totals	**$588.4M**	**$61.5M**	**$649.9M**	**$1,072.6M**

(1) States By RAC Region
Region A: Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont
Region B: Illinois, Indiana, Kentucky, Michigan, Minnesota, Ohio, and Wisconsin
Region C: Alabama, Arkansas, Colorado, Florida, Georgia, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia, Puerto Rico, and U.S. Virgin Islands
Region D: Alaska, Arizona, California, Hawaii, Idaho, Iowa, Kansas, Missouri, Montana, North Dakota, Nebraska, Nevada, Oregon, South Dakota, Utah, Washington, Wyoming, Guam, American Samoa, and Northern Marianas
Source: CMS 2012.

Figure 3. Impact of RAC Audits on US Hospitals

	Hospitals Responding (N=2,220)	
Variable	**Automated Denials**	**Complex Denials**
Financial Impact: Amount and Percentage	$26,087,927 and 4%	$714,693,470 and 96%
Number of Denials	50,395	124,055
Number of Medical Records Requested with Complex Denial		447,523
Percentage of Hospital with RAC Audit	78.5%	78.5%
Average Dollar Value of RAC Claim Denial	$521	$5,839
Primary Reasons for Complex Denials	73% Outpatient	97% Inpatient Reasons: Short Stay, Incorrect Inpatient Coding, Medically Unnecessary Care

Source: AHA (2012) includes RAC Trac Survey data for 3rd Quarter 2011 through 1st Quarter 2012.

audit program is reducing hospital profitability. From an operating performance perspective, hospitals are being forced to implement new policies and procedures designed to track and process RAC audit claims. These procedures add to administrative cost and require the addition of highly skilled technical staff. From an organizational perspective, hospitals are being forced to invest in new information technology to respond to RAC audits. In addition, many are using consultants or adding staff at the hospital or health system level in order to protect the organization's financial interests.

Discussion

During the course of the three-year demonstration RAC program, health care providers raised concerns about the RAC program. According to O'Brien, Wachler, & Gustafson, CMS has made efforts to address these concerns and has adopted numerous changes in the permanent RAC program.[39] For example, under the RAC demonstration program, RACs were permitted to reopen claims up to four years following the date of initial payment. Under the permanent RAC program, RAC auditors have a maximum three-year lookback period. The permanent program will allow a review of all Medicare claims paid after October 1, 2007. Additionally, RAC auditors will be prohibited from reviewing claims more than three years past the date of initial payment.

Under the RAC demonstration program, the RACs were not required to employ a physician medical director or coding experts. However, under the permanent program, registered nurses (RNs) or therapists are required to make determinations regarding medical necessity, and certified coders are required to make coding determinations. The RACs are not required to involve physicians in the medical record review process; however, the RACs are required to employ one fulltime medical director (CMD), who is a doctor of medicine or doctor of osteopathy. The CMD will provide guidance to RAC staff regarding interpretation of Medicare policy.

CMS compensates RACs on a contingency fee basis, based upon the amount paid back by the provider. Under the demonstration program, the RACs were entitled to keep their contingency fees if a denial was upheld at the first stage of appeal, regardless of whether a provider prevailed at a later stage of the appeals process. According to O'Brien, Wachler, & Gustafson, this fee arrangement provided incentive to the RACs to aggressively review and deny claims based on the lack of medical necessity.[40] This is an area containing much subjectivity and medical necessity denials resulted in 40 percent of the alleged overpayments identified during the demonstration program. In a significant change from the demonstration program, under the permanent RAC program, if a provider files an appeal disputing an overpayment determination and wins this appeal at any level, the RAC is not entitled to keep its contingency fee and must repay CMS the amount it received for the recovery.

During the three-year RAC demonstration program contractors identified a significant amount of improper payments. The majority of these were overpayments to hospitals. As a result hospitals have been the RAC audit program's loudest critics. In addition, hospitals have started maintaining accurate

documentation of all care in preparation for future audits.[41]

As demonstrated in Figure 1, RAC overpayments collected increased tenfold from FY 2010 to FY 2011. Further increases were experienced in the first six months of FY 2012. When tracking these increases by geographic regions, the data shows that those areas that comprised the RAC demonstration project currently have the highest RAC overpayments collected. The data would suggest that as the RAC auditors working in the new geographic areas authorized in the national expansion become more proficient, RAC collections in these new geographic areas will increase.

Due to the recent expansion to a national audit program, our research suggests that RAC collections will continue to grow at a significant rate. This is supported by the fact that only 78.5 percent of US hospitals have currently participated in RAC audits. The intent of the RAC audit program is to monitor the performance of all US hospitals so a 100 percent involvement in RAC audits can be anticipated. In addition, anecdotal evidence suggests that those hospitals experiencing significant RAC overpayment recoveries can anticipate a higher percentage of future RAC audits. Since 96 percent of RAC recoveries involve complex denials, this will remain the focus of the RAC audit program. In addition, the data show 97 percent of the current complex inpatient denials are associated with short-term stays, incorrect coding, and lack of medical necessity.

Conclusion

A case can be made that the RAC audit program is important to ensuring the accuracy of Medicare claims payment and also improves the overall efficiency of the health care industry. As the US population ages, Medicare payments on behalf of the elderly will consume a growing percentage of federal budget. According to the Medicare Chart Book,[42] Medicare currently covers 47 million people. It is estimated to almost double to 80 million by 2030. In FY 2010 Medicare spent approximately $5.24 billion dollars representing 20 percent of national health expenditures, 15 percent of the federal budget, and 3.6 percent of gross domestic product. This would suggest that the RAC audit program will continue to be important in reducing Medicare expenditures.

Since Medicare payment reform is saving millions of dollars every year and preserving the Medicare Trust Fund for future generations, health care providers can anticipate spending staff time and money defending claims or filing appeals. Because RAC auditors have the ability to review a wide variety of claims, health care providers could run into cash flow problems because RAC auditors have financial incentives to challenge claims. In preparation for RAC audits, providers can implement appropriate compliance programs and maintain an aggressive internal audit program.

As more providers transition to electronic medical records, it is likely that automated billing systems will improve efficiency and quality. As a result, new software billing and financial expertise will be needed to successfully meet the changing Medicare payment regulations. The RAC audit program shows that providers must take a proactive approach to filing, processing, auditing, and appealing Medicare claims.

Managerial Implications

These results have important managerial implications, as the US hospital industry faces a more competitive environment and organizations struggle to remain financially viable. Low profits combined with a growing population of Medicare patients mean RAC audits represent a financial threat to many hospitals. As a result, hospital financial managers are challenged to implement meaningful internal control programs that can protect the hospital's revenue stream. This study clearly demonstrates that the RAC audit program represents a significant threat to the profitability of US hospitals.

Braccili believes that hospital financial managers should implement RAC reporting systems in preparation for increased RAC audits.[43] To establish helpful tracking mechanisms, finance managers should review CMS's current Statement of Work for the Recovery Audit Contractor Program. This document governs the actions RACs must perform when auditing health care providers and establishes ground rules for the RAC audits.

If a hospital has been subjected to an unfavorable RAC audit finding, the organization's leaders should evaluate the organization's patient care processes and assess the potential impact on the revenue cycle. Such process breakdowns may occur at the point of care, during charge entry, or be the result of poor medical record documentation. It is critical that hospitals identify the cause of RAC recovery and implement changes to prevent future inappropriate claim submissions to Medicare. Potential improvements to ensure new claims are error free include improved billing processes, better patient registration, more accurate patient accounting, and enhanced medical record documentation.[44]

The preferred way to minimize adverse medical necessity findings is to hold all Medicare inpatient claims until appropriate review by a clinical professional. Unfortunately, a hospital's case managers or clinical professionals are not always able to evaluate every inpatient admission prior to billing due to staffing and other constraints. This is particularly true of short-stay (observation) admissions ranging from one to three days which should be reviewed for a medical necessity determination. As a result, these short-stay (observation) admissions were a primary focus of RAC auditors during the demonstration program. This suggests that hospitals' case management and physician adviser documentation on medical necessity review should be included within the appeal package sent to the RAC for medical necessity denials.

Effective internal control programs involve the use of clinical protocols to improve the quality of health care services while improving the accuracy of billing systems. These internal control programs also provide a strategy for cost containment while ensuring compliance with Medicare payment guidelines. The development of internal control programs has been shown to decrease resource consumption, reduce health care cost, and protect the financial revenue stream. Moreover, such programs may prevent avoidable compliance audits resulting in significant savings and provide a more stable revenue stream.

Since adequate reimbursement is essential, management has a responsibility to quickly and accurately bill for all services in order to improve the collection rate. The development of a comprehensive internal

audit system designed to ensure accurate billing will enhance profitability.

This study shows that it is critical that US hospitals focus on the efficiency of providing clinical services as a method of reducing potential RAC audit liabilities. This can be done through the implementation of clinical protocols, the coordination of care, and the implementation of sound billing practices. The remaining challenge is to continue to implement operational processes that lower costs, increase efficiency, improve quality, and enhance organizational profitability.

Integrated health care delivery systems are well positioned to coordinate services across the continuum of outpatient and inpatient health services. Successful coordination of health care services may be key to reducing the liability associated with RAC audits while protecting the financial viability of US hospitals.

Policy Implications

From a policy perspective, the financial viability of US hospitals is critical to the provision of local and regional health care services. Unfortunately, the RAC audit program is a significant threat leading to reduced Medicare payments. This reduction combined with the high rate of uninsured and under insured patients has threatened the financial solvency of US hospitals.

Further analysis of the impact of RAC audits on the financial profitability of individual hospitals is necessary to ensure the integrity of the health care delivery system. In addition, an educational program should be implemented to assist individual hospitals who have high levels of RAC overpayments collected to improve their internal processes to reduce future RAC collections.

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The Cost Conundrum: Financing the Business of Health Care Insurance

Annemarie Kelly

Health care spending in both the governmental and private sectors skyrocketed over the last century. This article examines the rapid growth of health care expenditures by analyzing the extent of this financial boom as well some of the reasons why health care financing has become so expensive. It also explores how the market concentration of insurance companies has led to growing insurer profits, fewer insurance providers, and less market competition. Based on economic data primarily from the Government Accountability Office, the Kaiser Family Foundation, and the American Medical Association, it has become clear that this country needs more competitive rates for the business of health insurance. Because of the unique dynamics of health insurance payments and financing, America needs to promote affordability and innovation in the health insurance market and lower the market's high concentration levels. In the face of booming insurance profits, soaring premiums, many believe that in our consolidated health insurance market, the "business of insurance" should not be exempt from antitrust laws. All in all, it is in our nation's best interest that Congress restore the application of antitrust laws to health sector insurers by passing the Health Insurance Industry Antitrust Enforcement Act as an amendment to the McCarran-Ferguson Act's "business of insurance" provision.

Key words: *insurance, health insurance, financing, health expenditures, market concentration, health insurance market share, competition in health insurance, insurance premiums, antitrust law, business of insurance exception, McCarran-Ferguson Act, Health Insurance Industry Antitrust Enforcement Act, HIIAEA.*

Skyrocketing Health Care Expenditures

The rapid growth of health care costs continues to pose challenges for local, state, and federal health programs as well as the private sector. In light of the increasing demands on America's already stretched governmental health insurance system, we must ask how and why premiums continue to rise in the private sector. On a national level, health expenditures are growing at an exponential rate and the health care market is becoming an increasingly bigger slice of the GDP pie.[1] The Congressional Budget Office plainly identifies health care spending growth as one of the "central fiscal challenges" facing our federal government.[2] Collectively, Medicare and Medicaid spending make up 21 percent of all federal spending.[3] The cost of these programs is bigger than Social Security and dwarfs every other domestic program.[4] The federal government's health care spending on Veterans Affairs alone is astronomical—the Department of Veterans Affairs runs the largest hospital system in America.[5] The US Department of Defense's spending on health care is roughly 10 percent of its budget—more than the total military budget of all but four other nations.[6] Given these facts, it is not surprising that health care expenses have swelled social programs like Medicare.

The American government has severely underestimated the cost of health care funding needed to implement Medicare.[7] Initial cost estimates for this federal insurance program were far from realistic. In 1967, the House Ways and Means Committee predicted that the new Medicare program would cost roughly $12 billion in 1990.[8] Actual Medicare spending in 1990 was $110 billion—the 1967 assessment was off by nearly a factor of 10.[9] In 2009, US Senator Sam Brownback addressed this underestimate stating, "Health

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care appears to be an area with great room for overly optimistic assumptions regarding changes in the behavior of patients and providers, technological innovation, the practice of medicine, program take-up rates, future health cost inflation, and the likely success of proposed cost-control mechanisms."[10] Before Medicare was enacted, government spending on health care was miniscule.[11] The US government spent only 1 percent of its budget on health, with states and localities spending less than 6 percent of their budgets.[12] Because of the complicated nature of health care science, it follows costs in this sector are high.

The reasons why the health care sector has boomed are extensive and multifaceted. Changes in population demographics are one of many key factors.[13] Without a doubt, America will require significant health financing changes in the next few years. The aging of millions of baby boomers—individuals who were born immediately after World War II—is contributing to increased demands on America's health system.[14] According to the US Census Bureau, the population aged 65 and over is projected to grow 17 percent between 2015 and 2020, far outpacing the overall population growth rate of 3.9 percent.[15] Government records indicate that Medicare beneficiaries make up 16 percent of the total population.[16] In all, the government expects 76 million baby boomers will age on to Medicare in the next few years.[17] Even factoring in deaths over that period, the program will grow from 47 million today to 80 million in 2030.[18] In spite of this growth, Medicare spending continues to grow by about 8 percent each year.[19]

Additionally, health care costs have been driven upwards because a significant part of the population consists of uninsured individuals. When an uninsured person cannot pay his health care bills, that burden falls on the insured population, hospitals, doctors, and the government, leaving billions of dollars outstanding for "uncompensated care."[20] It follows that these uncompensated care costs must be absorbed *somewhere* and, in the end, the unpaid costs often result in higher insurance premiums.[21] The government defines "uninsured" individuals as persons not covered by the following: private insurance, Medicaid, the Children's Health Insurance Program (CHIP), state-sponsored or other government-sponsored health plans, Medicare, or military plans.[22] In 2011, 15.7 percent of the population (roughly 48.6 million individuals) were without health insurance.[23] While approximately 63 percent (197.3 million) of Americans were covered by private health insurance in 2011, the percentage and number of people covered by government health insurance was 32.2 percent (99.5 million).[24] About 9.4 percent of children under age 18 (7.0 million) did not have health insurance in 2011.[25] Though millions of Americans are left uninsured, insurance premiums have grown over 130 percent over the last 14 years.[26] The costs of treating the uninsured is usually absorbed by providers as charity care, passed on to the insured via cost-shifting and higher health insurance premiums, or paid by taxpayers through higher taxes.[27]

Dynamics of Health Insurance

Health insurance is *the* fundamental payment mechanism for health care.[28] In traditional forms of insurance like, for example, automobile or home insurance, we pay a

small premium and a little extra expense to avoid the possibility of a major loss.[29] What makes health insurance different is the fact everyone needs health care to some degree throughout their lifetime.[30] For example, upon close inspection there are stark differences between the automotive and health insurance industries. As economist William Baumol noted, the cost of automobile insurance has risen significantly faster than the economy's overall rate of inflation, yet, the cost of automobile repairs has not.[31] According to Mr. Baumol, this occurred because automobile insurance entails "not only the cost of automobile repair, but also the medical costs of accident victims, which are neither standardized or homogeneous."[32] Interestingly, health insurance cannot pool risk as efficiently because using the health care system is not a risk—it is an *inevitability* for all of us.[33]

Commenting on the unique dynamics of health insurance, businessman David Goldhill poses the following challenge: try to imagine what the market for homeowners' insurance would look like if it is certain that all of the people in the risk pool will eventually have their homes burn down.[34] Mr. Goldhill explains, "In our current health insurance model, we all pay a large premium and bear a lot of extra expense to fund the *certainty* of some loss."[35] All in all, the most we can say about the risk-sharing aspect of health insurance is that it shifts resources based on timing.[36] Those of us not having major health problems this year fund care for those who are.[37] Mr. Goldhill points out that in traditional forms of insurance we pay a small premium that provides insurance against the possibility of an adverse event, such as a house fire or automobile accident. With health insurance, however, it is guaranteed that we will all need health care at some point. In sum, health insurers are essentially giant intermediaries between consumers and the health care system itself, negotiating charges, checking bills, and assuring payment—basically shifting money around from consumers and taxpayers to providers.[38]

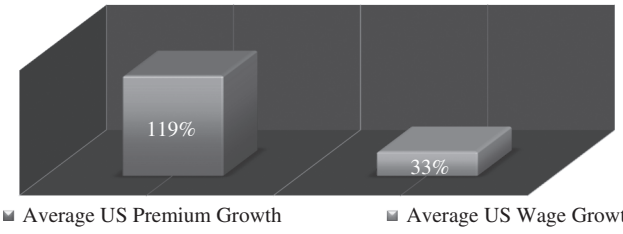
Market Concentration of Insurance Companies

It is clear health insurers function at an almost inconceivable level of expense.[39] Yet, in recent years health care costs have surged so dramatically that they have far outpaced the growth in Americans' income.[40] For instance, from 1999 to 2007, commercial health insurance premiums rose four times faster than people's wages—the average premium growth was 119 percent while the average US wage growth was only 33 percent.[41] (See Figure 1.) According to a nationwide survey by the Government Accountability Office (GAO), the median statewide market share of the largest insurer selling coverage to small employer groups increased from 33 percent to 47 percent between 2002 and 2008.[42] (See Figure 2.) Thirty-six of the 44 states the GAO studied identified a Blue Cross and Blue Shield (BCBS) carrier as their largest carrier, and in all but 1 of the remaining 8 states, a BCBS carrier was among the five largest carriers.[43]

Every year for the past eight years, the AMA has conducted the most in-depth study of commercial health insurance markets in the country to help researchers, policy makers, and federal and state regulators identify areas of the country where consolidation among health insurers may

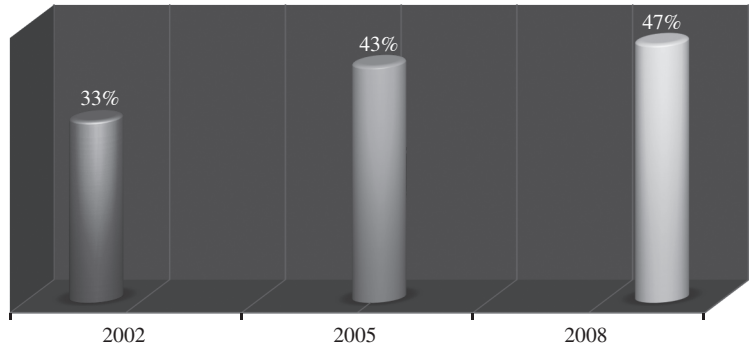
have harmful effects on consumers, on providers of care, and on the economy.[44] According to the AMA, there is a consensus among health economists that most health insurance markets are not perfectly competitive and, as a result, large insurers can exercise market power.[45] A large wave of health insurance mergers has led to such high levels of concentration in insurance markets that there are now only one or two dominant insurers in many states.[46] Localized insurance company monopolies go unchallenged because there are substantial barriers to market entry and expansion for other, smaller insurers.[47] The AMA has pointed out that a lack of competition has led to growing insurer profits, increased costs, and reduced coverage for enrollees.[48] Regarding combined HMO and PPO product markets, the AMA has revealed that 70 percent of statewide health insurance markets (HMO, PPO, and POS) are "highly concentrated."[49] (See Figure 3.) Respectively, 94 and 95 percent of HMO and

Figure 1. Insurance Premium vs. Income Increases, Nationally (1999–2007)



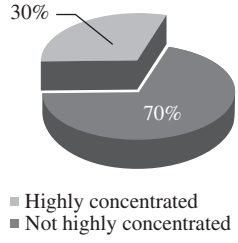
Sources: Kaiser Family Foundation, "Employee Health Benefits: 2008 Annual Survey," (2008) and US SSA, "Average Wage Index: 1999–2007," (2013).

Figure 2. Median Market Share of the Nation's Largest Small Group Insurance Carriers



Source: Government Accountability Office, "Private Health Insurance: 2008 Survey Results on Number and Market Share of Carriers in the Small Group Health Insurance Market," (2009).

Figure 3. Percentage of Statewide Health Insurance Markets Deemed "Highly Concentrated" Per US Department of Justice Guidelines

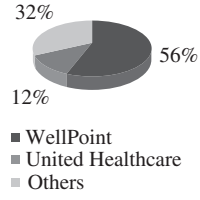


Source: American Medical Association, "Competition in Health Insurance: A Comprehensive Study of U.S. Markets 2012 Update," 8 (2012).

PPO markets are highly concentrated. In 89 percent of the medical savings accounts (MSAs) studies, one or more insurers had a market share of 30 percent or greater.[50] In more than 38 percent of the reviewed MSAs, at least one insurer had a market share of 50 percent or greater.[51] In 9 percent of the MSAs, one insurer had a market share of 70 percent or greater.[52]

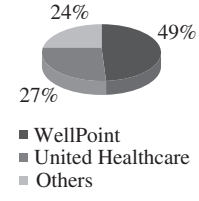
The AMA's research shows that one carrier controls more than half the market in at least 15 states.[53] Two carriers control at least half the market in 46 states.[54] In the end, insurer consolidation of market share creates a lower number of insurance providers for consumers to utilize. Unfortunately, serious market concentration problems impact both rural and more populous states. For instance, in Indiana, WellPoint Insurance controls 56 percent of the total market.[55] (See Figure 4.) In Iowa, the two largest insurers control 76 percent of the state's market.[56] (See Figure 5.) South Carolina's largest health insurer controls a 60 percent share of the statewide market.[57] (See Figure 6.) In Alabama, the market is even more consolidated, with one insurer usurping 88 percent of the state health insurance market. (See Figure 7.) In summary, while premiums rates continue to increase,

Figure 4. Indiana State Health Insurance Market Concentration



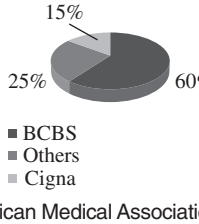
Source: American Medical Association, "Competition in Health Insurance: A Comprehensive Study of U.S. Markets 2012 Update," 13 (2012).

Figure 5. Iowa State Health Insurance Market Concentration



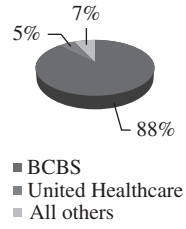
Source: American Medical Association, "Competition in Health Insurance: A Comprehensive Study of U.S. Markets 2012 Update," 13 (2012).

Figure 6. South Carolina State Health Insurance Market Concentration



Source: American Medical Association, "Competition in Health Insurance: A Comprehensive Study of U.S. Markets 2012 Update," 17–18 (2012).

Figure 7. Alabama State Health Insurance Market Concentration



Source: American Medical Association, "Competition in Health Insurance: A Comprehensive Study of U.S. Markets 2012 Update," 10 (2012).

health insurers have grown to such an extent that they have largely consolidated the market.

The McCarran-Ferguson and the Business of Health Insurance Exception

The AMA has commended the Obama administration "for recognizing the threats that health insurer consolidations pose to the delivery of health care across the country."[58] President Obama has been speaking out against rising insurance premiums and anti-competitive behavior since he was an Illinois Senator. In 2006 he stated: "There have been over 400 health care mergers in the last 10 years … [We must] reinvigorate anti-trust enforcement."[59] He proclaimed a goal to seek "review of merger activity and take effective action to stop or restructure those mergers that are likely to harm consumer welfare, while quickly clearing those that do not."[60] Before exploring the details of antitrust enforcement and its exception for health insurers, we will first discuss the place of antitrust in the body of health care law and policy. Because federal and state antitrust laws (and coverage exemptions) impact much of the health care sector, a basic understanding of these principles is crucial to any health law insurance analysis.[61]

Generally, the purpose of antitrust laws is to protect and promote competition in the economic marketplace.[62] Antitrust is an integral part of health law today. The types of antitrust issues arising are almost endless, including, but by no means limited to, hospital and physician-practice mergers, hospital acquisitions of individual physicians, certificate-of-need disputes, pharmacy boycotts of networks, and the use of bundled discounts in contracts between hospitals and payers.[63] America's major antitrust statutes include the Sherman Act, Clayton Act, Federal Trade Commission Act, and McCarran-Ferguson Act.[64] The Sherman Act attempts to restrain corporate attempts to monopolize.[65] The Clayton Act prohibits price discrimination, tying, or exclusive dealings that either substantially lessen competition or create a monopoly.[66] The Clayton Act also prohibits mergers or other combinations that could reasonably be expected to reduce competition or create a monopoly.[67] The Federal Trade Commission Act created the Federal Trade Commission (FTC) and prohibits unfair methods of competition that affect interstate commerce.[68] Lastly, the McCarran-Ferguson Act exempts the "business of insurance" from the antitrust laws if regulated by the state.[69]

Under the McCarran-Ferguson Act of 1945, a law passed at the end of World War II, health insurance companies are exempt from the federal antitrust legislation that applies to most businesses.[70] For the Act's exemption to apply, a defendant must prove three elements: (1) the challenged conduct constitutes the "business of insurance"; (2) the state regulates the business

of insurance; and (3) the challenged conduct does not constitute "boycott, coercion, or intimidation."[71] In determining whether certain conduct constitutes the "business of insurance," courts have traditionally examined whether the conduct: (1) transfers or spreads policyholder risk; (2) is an integral part of the relationship between the insurer and its insured; and (3) is limited to those within the insurance industry.[72] Interestingly, based on these standards, provider agreements between health insurers and their participating providers do not constitute the business of insurance, although contracts between insurers and their insureds do.[73] The law provides that a state must regulate the business of insurance for the Act's protection to apply.[74] The courts have interpreted this provision liberally to mean that only the most general type of state insurance regulation is required.[75] The Act also provides, however, that the exemption does not apply "to any agreement to boycott, coerce, or intimidate or [to any] act of boycott, coercion or intimidation."[76] For purposes of the Act, "boycott" refers to refusals to deal in collateral transactions as a means to coerce terms in a primary transaction.[77] The "business of insurance" exception does not refer to all business aspects of an insurance company, only those that involve spreading the risk that the insured will suffer a financial loss arising from the need for health care products or services.[78] The Supreme Court has clarified that "the statutory language in question here does not exempt the business of insurance companies from the scope of the antitrust laws … [t]he exemption is for the 'business of insurance,' not the 'business of insurers.'"[79] Therefore, contracts between an insurer, as a third-party payor, and a service provider are merely agreements the insurer uses to reduce its costs in fulfilling its underwriting obligations.[80]

Though not all states statutorily define the "business of insurance," state court decisions have produced a fairly consistent common law definition as the "shifting of risk, for the payment of a fee, from an insured to an insurer who is able to assume that risk by pooling together the payments received from all individuals, thereby spreading the risk among a defined population."[81] Historically, state courts have recognized the distinction between general "business risks" and specific "insurance risks."[82] Specifically, state courts distinguish between situations in which the key objective is the provision of a service and situations in which the key objective is the provision of financial reimbursement for the cost of a particular loss.[83] This distinction is further illustrated in the California case of *Transportation Guaranty Co., Ltd. v. Jellins*.[84] The *Jellins* court stated that in construing insurance contracts, "it must be borne in mind that nearly *every* business venture entails some assumption of risk, some element of gambling … [to] indemnify another against loss."[85] It added that a "sound jurisprudence does not suggest the extension, by judicial construction, of the insurance laws to govern every contract involving an assumption of risk or indemnification of loss; that when the question arises each contract must be tested by its own terms as they are written, as they are understood by the parties, and as they are applied under the particular circumstances involved."[86] In summary, the assumption of the risk is not controlling, rather, one must look at the arrangement as a whole to determine whether the principle objective is service or indemnity.[87]

The FTC has explained that the McCarran-Ferguson Act "was passed in response to *United States v. South-Eastern Underwriters Association* … which held that insurance transactions were subject to federal regulation under the Commerce clause, and that the antitrust laws, in particular, were applicable to such transactions."[88] In order to assure that insurance companies "would not interfere with the traditional role of the states in regulating and taxing insurance," the McCarran Act provided that the "business of insurance" would fall under its exception.[89] As one legal scholar explains, "Before World War II, it was generally assumed that insurance companies did not do business in interstate commerce and need not concern themselves with statutes relating to restraints of trade."[90] This assumption changed in 1944 when the Supreme Court ruled that the sale of insurance is indeed part of interstate commerce and is therefore subject to antitrust laws.[91] It has been suggested that a freely competitive environment is not appropriate for the insurance industry and that reasons for exempting the "business of insurance" include the following concerns:

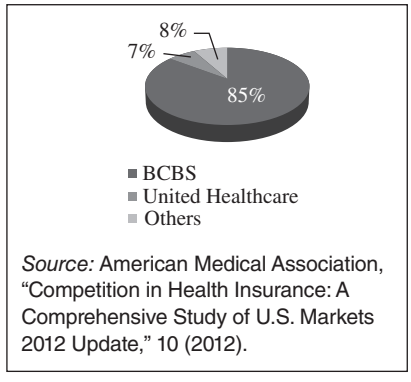
> A completely free market characterized by open competition would cause some insurance companies to issues policies at rates that do not cover the actual risk. The consequences might well be the insurance companies' failure and inability to pay legitimate claims. Sound public policy, therefore, requires that the government be concerned for the financial integrity of insurance carriers.[92]

According to some, cooperation in fixing actual rates for insurance is consistent with desirable public policy. Supporters of the "business of insurance" exception argue the only way insurers can collect huge amounts of information to assess risk is to work together, as no single insurer generally has enough information do it on its own.[93] This means sharing claims information, analyzing that information, and predicting what that information will mean for the likelihood of future losses and claims.[94] Under the exception, it is argued, insurance companies are encouraged to work together to develop common insurance policy forms, create pools of risk, and implement consistent underwriting factors for their businesses.[95] Simply put, supporters of the "business of insurance" exception argue that America cannot sustain its free market economy if people are unwilling to take risks and buy insurance; moreover, individuals will only take risks if they can *properly* spread those risks via the selling of insurance in multiple areas to multiple policyholders to minimize the danger that all policyholders will have losses at the same time.[96] Hence, one legal scholar describes the underlying premise of the "business of insurance" exception in the following terms: "[T]he only way insurers can safely spread risk is to collect huge amounts of information so they can make predictions about how costly claims will be in the future … [w]ith these predictions, they can then price the insurance policy."[97] Some proponents of the exception believe that because insurance is a product whose true cost is never known at the time it is sold, the accuracy of these predictions can be the difference between the solvency and insolvency of an insurer.[98]

Opponents of the "business of insurance" exception argue that because health insurers and medical malpractice insurers are not subject to the antitrust laws, they are colluding to determine the prices that they charge for health insurance and, as a

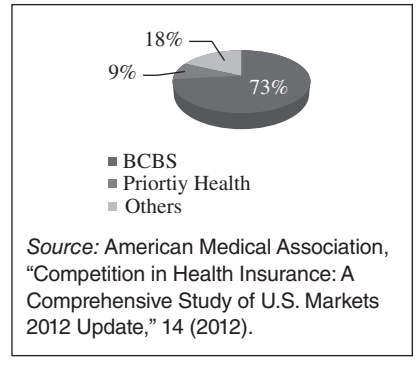
result, insurance premiums continue to rise without meaningful competition.[99] One such opponent, US Congresswoman Diana DeGette, has declared: "As health insurance premiums continue to go through the roof, now is the time to ensure that health insurance companies are not engaging in anti-competitive behaviors that make it more difficult for Americans to afford health coverage … [s]imply put, the bottom lines of the big insurance companies should not be put above the American public's ability to gain access to health care."[100] The AMA has confirmed concerns about market concentration in multiple states.[101] The AMA noted that one insurance company alone, Blue Cross Blue Shield (BCBS), controls 69 percent of the market in the Michigan and 88 percent in Alabama.[102] Specifically, in Birmingham, Alabama, BCBS controls 85 percent of the total market share for all HMO, PPO and POS plans.[103] (See Figure 8.). In Ann Arbor, Michigan, BCBS controls 73 percent of the total market.[104] (See Figure 9.) All in all, those opposed to the blanket antitrust exemption created by the McCarran-Ferguson Act believe it has improperly shielded health insurance companies from legal accountability for decades.

Figure 8. Health Insurance Market Concentration in the City of Birmingham, Alabama



Source: American Medical Association, "Competition in Health Insurance: A Comprehensive Study of U.S. Markets 2012 Update," 10 (2012).

Figure 9. Health Insurance Market Concentration in the City of Ann Arbor, Michigan



Source: American Medical Association, "Competition in Health Insurance: A Comprehensive Study of U.S. Markets 2012 Update," 14 (2012).

Amending the McCarran-Ferguson Act

In his administration's effort to overhaul the nation's health care system, President Obama has called for the repeal of the health insurance industry's exemption from federal antitrust laws.[105] In light of increasing fiscal demands and sector growth, the legislature should back this repeal. The Health Insurance Industry Antitrust Enforcement Act (HIIAEA) currently pending in the US House of Representatives, seeks to repeal the federal antitrust exemption for health insurance.[106] In a speech to the House, Congressman John Conyers briefly explained the bill stating,

> This bill would level the playing field between health care professionals and insurance companies in the health care industry and improve the quality of patient care. [It] would eliminate the antitrust immunity provided under the

> McCarran-Ferguson Act for price fixing, bid rigging, and market allocation by health insurance issuers or medical malpractice insurers. The bill would also repeal the McCarran-Ferguson exemption for the business of health insurance and enable enforcement by the Federal Trade Commission. The purpose of this bill is to extend antitrust enforcement over health insurers and medical malpractice insurance issuers, which currently enjoy broad antitrust immunity under the McCarran-Ferguson Act. This immunity can serve as a shield for activities that might otherwise violate federal law.[107]

All in all, because our nation's antitrust laws exist to protect free market competition, supporters believe this bill will restore competition to the health insurance marketplace because the economy in general would benefit from increased competition among private insurers. HIIAEA will repeal the federal antitrust exemption for health insurance and medical malpractice insurance companies for flagrant antitrust violations.[108] More specifically, it will further protect consumers against price-fixing, bid rigging, and market allocations, while subjecting health insurers to the same good-competition laws that apply to virtually every other company doing business in the US.[109] HIIAEA seeks to amend the McCarran-Ferguson Act stating: "Nothing contained in this Act shall modify, impair, or supersede the operation of any of the antitrust laws with respect to the business of health insurance .... the [MFA] shall apply with respect to the business of health insurance without regard to whether such business is carried on for profit..."[110] In total, given the surging consolidation of the commercial market, soaring overall health expenses, and rising premiums, it would be prudent for Congress to pass this bill.

Conclusion

In conclusion, the private health insurance profits are booming, though the government's funding mechanisms are overburdened. As increased demands are placed on America's already financially stretched health care system, restoring competition in the marketplace for the purchase of health insurance services will improve the consolidation problems facing the health insurance industry by increasing market competition. It follows that more competition will result in lower, more competitive premiums for consumers. For these reasons, it is in our nation's best interest to pass HIIAEA. Congress should amend the McCarran-Ferguson Act to remove the "business of insurance" exemption from antitrust laws and to restore the application of antitrust laws to health sector insurers.

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The Law of Unintended (Financial) Consequences: The Expansion of HIPAA Business Associate Liability

Jonathan P. Tomes

The recent Omnibus Rule published by the Department of Health and Human Services greatly expanded liability for breaches of health information privacy and security under the HIPAA statute and regulations. This expansion could have dire financial consequences for the health care industry. The Rule expanded the definition of business associates to include subcontractors of business associates and made covered entities and business associates liable for breaches of the entities who perform a service for them involving the use of individually identifiable health information under the federal common law of agency. Thus, if a covered entity or its "downstream" business associate breaches security or privacy, the covered entity or "upstream" business associate may face HIPAA's civil money penalties or a lawsuit. Financial managers need to be aware of these changes both to protect against the greater liability and to plan for the compliance costs inherent in effectively, if not legally, making business associates into covered entities.
Key words: *HIPPA, Omnibus Rule, business associate, HITECH Act, unintended liability, security breach, privacy breach, civil money penalties, federal common law of agency.*

Introduction

If one listened to (and believed) the government, one might think that the government was interested in controlling health care costs. We all know that Obamacare is hardly likely to do so. But the stealth takeover of health care is not Obamacare: We knew that Obamacare was coming, but we just did not know how bad it was going to be. And we probably still do not. The stealth takeover, however, actually began with the so-called HITECH Act,[1] that portion of the so-called Stimulus Package,[2] that provided incentives for adopting an electronic health record (EHR),[3] increased the enforcement of HIPAA,[4] and provided individuals new health information privacy rights. And those of you who have tried to qualify for the incentives for adopting an EHR know just how simple complying with the meaningful use standards is.

HITECH Act Effectively Made Business Associates into Covered Entities

In the HITECH Act, Congress effectively made HIPAA business associates—persons or entities that provide a service for or on behalf of a covered entity[5] other than the provision of health care[6]—into covered entities, thereby expanding government regulation of health care to transcription services, copy services, billing services, medical marketing services, and the like. This expansion of government regulation is hardly likely to reduce the cost of health care.

Omnibus Rule Expanded Definition of Business Associate

Further, the so-called Omnibus Rule expanded the definition of *business associate*

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to mean a person or entity that creates, receives, maintains or transmits protected health information to perform certain functions or activities on behalf of a covered entity. The final rule also adds a new category of services, patient safety activities, to the list of functions and activities a person or entity may undertake on behalf of a covered entity that give rise to a business associate relationship. Three categories of service providers are specifically identified as business associates under the final rule:

- Health information organizations, e-prescribing gateways, and other people or entities that provide data transmission services to a covered entity with respect to protected health information and that require access on a routine basis to such protected health information.
- People or entities that offer personal health records to one or more individuals on behalf of a covered entity.
- Subcontractors that create, receive, maintain or transmit protected health information on behalf of business associates.[7]

The addition of subcontractors means that all requirements and obligations that apply to direct contract business associates of a covered entity also apply to all downstream service providers. Thus, the Omnibus Rule makes it clear that subcontractors face the same criminal and civil liability as do covered entities and "upstream" business associates and must follow those Security and Privacy Rules applicable to business associates.

Using Business Associates vs. In-house Employees Was Once Cost Effective

Health care entities use business associates to provide quality services at less cost than is inherent in having employees perform the service. For example, hiring an outside transcription service rather than having employees onsite transcribe the doctor's dictation avoids the costs inherent in having such employees, such as FICA, health benefits, workers' compensation, the potential legal liability in discrimination or wrongful discharge litigation, and the like.

HITECH Act and Omnibus Rule Increase Liability for Both Covered Entities and Business Associates in General

The HITECH Act and the Omnibus Rule not only expanded who are business associates, but also expanded their liability for breaches of health information confidentiality. Stated somewhat simplistically, before the HITECH Act, covered entities were liable only for the breach of one of their business associates if they had actual knowledge of the breach and did not take any action to remediate it.[8] The HITECH Act and the Omnibus Rule, however, greatly expanded both business associate and covered entity liability for breaches by business associates. Under Section 13410 of the HITECH Act, a business associate is now directly liable for uses and disclosures of protected health information (PHI) that are not in accord with its business associate agreements or HIPAA's rules itself.

Omnibus Rule Now Makes Covered Entities Liable for Breaches by Business Associates Under Federal Common Law of Agency

Further, under the Omnibus Rule implementing the HITECH Act, covered entities

will now be liable for breaches by business associates under the federal common law of agency.[9] Such liability may include civil money penalties or the new federal lawsuit authorized by the HITECH Act.[10]

The discussion of the Rule set forth guidance on when a business associate of a covered entity or a business associate of a business associate is an agent so as to face this liability. The Department of Health and Human Services (DHHS) noted that the essential factor in determining whether an agency relationship exists between a covered entity and its business associate (or business associate and its subcontractor) is the right or authority of a covered entity to control the business associate's conduct in the course of performing a service on behalf of the covered entity. The right or authority to control the business associate's conduct also is the essential factor in determining whether an agency relationship exists between a business associate and its business associate subcontractor. Thus, if the only authority that the covered entity or business associate has is to specify the associate's duties in the business associate agreement and to fire the business associate or sue it for breach of contract if it does not perform, that scenario would indicate that no agency relationship existed. If, however, the business associate contract required the business associate to perform some service involving PHI "as specified by the covered entity" (or upstream business associate), then an agency relationship would exist. DHHS noted that several factors are important to consider in any analysis to determine the scope of agency:

1. Time, place, and purpose of a business associate agent's conduct;
2. Whether a business associate agent engaged in a course of conduct subject to a covered entity's control;
3. Whether a business associate agent's conduct is commonly done by a business associate to accomplish the service performed on behalf of a covered entity;
4. Whether or not the covered entity reasonably expected that a business associate agent would engage in the conduct in question.[11]

DHHS noted that a business associate can be an agent of a covered entity even in the following circumstances:

- Despite the fact that a covered entity does not retain the right or authority to control every aspect of its business associate's activities.
- Even if a covered entity does not exercise the right of control but evidence exists that it holds the authority to exercise that right.
- Even if a covered entity and its business associate are separated by physical distance, such as if a covered entity and business associate are located in different countries.[12]

Think of the nightmare of being sued for a breach of confidentiality by your transcription service in New Delhi, India.

Assessing Unintended Consequences

In attempting to assess the unintended consequences of this greatly increased regulation of and liability by and for business associates, one might expect the following consequences:

- Business associates refuse to sign business associate agreements containing the new compliance burdens and liabilities. Parenthetically, the first business associate has been sued under the expansion of civil liability to business associates.[13] The HITECH Act authorized, for the first time, federal lawsuits for HIPAA violations but required state attorneys general to bring them rather than the aggrieved patient.[14] To date, no business associate has been indicted for a criminal HIPAA violation, nor has DHHS imposed a civil money penalty against one, but it would seem to be only a matter of time.
- Business associates that perform services for other entities besides covered entities, such as a document destruction service that can also destroy bank, savings and loan, and other businesses' records, may simply stop serving covered entities and upstream business associates. A transcription service, on the other hand may have no business other than that provided to covered entities and may thus have to sign the new business associate agreements and continue their transcription services to remain in business.
- Business associates may have to raise their fees to cover the increased compliance and liability costs inherent in the changed relationship.
- Covered entities and upstream business associates may have to bring business associate functions back inside the facility. A hospital, for example, may choose to open up a transcription department or subset of the Health Information Management Department if its transcription service either refuses to sign the new business associate contract or demands more compensation for its services. The uncertainty of whether the covered entity will be liable under the federal law of agency may also be a factor in deciding to bring services back within the fold. Does existing insurance, for example, cover a breach by a business associate that the covered entity may be liable for under as vague a legal concept as the federal common law of agency? Again, parenthetically, the last malpractice policy that the author reviewed did provide coverage for HIPAA violations but only for acts or omissions by the doctor and his employees—not his agents, such as independent contractors.
- Increased legal fees for the review of business associate agreements and litigation involving downstream business associate liability.
- Need for more liability insurance that covers liability for breaches by downstream business associates.

DHHS Estimates of Increased Compliance Costs Naïve at Best

Even if these consequences of the expansion of business associate liability do not come to pass, the health care industry will face significant compliance costs. In the required cost-benefit analysis[15] of the Omnibus Rule, DHHS assumed that most business associates currently implement security measures that meet the Security Rule requirements.[16] This assumption, in the author's view, is naïve. Although some business associates have such measures in place, such as health care clearinghouses, billing services, transcription services, and the like, one doubts whether less health service specific business associates, such as copy services,

have security measures anything near what the Security Rule requires. And certainly, subcontractors are unlikely to have that level of security compliance. DHHS noted:

> [W]e recognize that some smaller or less sophisticated business associates may not have engaged in the formal administrative safeguards required by the HIPAA Security Rule, and may not have written policies and procedures for compliance. For these business associates, we estimate that the costs to come into compliance with the Security Rule will be between approximately $22.6 million and $113 million. Annualizing the midpoint estimate ($67.8 million) at 3 percent and 7 percent produces costs of $7.9 million and $9.7 million, respectively.[17]

DHHS acknowledged that some business associates may make such efforts for the first time now that they and their subcontractors are subject to direct liability for HIPAA breaches. For these business associates, DHHS estimated that the costs to bring subcontracts into compliance with the business associate agreement requirements will be between $21 million and $42 million. The annualized cost at 3 percent and 7 percent will result in costs of $3.7 million and $4.5 million, respectively.[18]

Considering that DHHS notes that the rule also applies to approximately 1–2 million business associates[19] and a number of subcontractors that DHHS could not estimate, these annualized costs seem to be wishful thinking. And when has the government accurately estimated the costs of its regulations?

To illustrate just how wishful DHHS's thinking is, one need only refer to its statement that it assumes that no more than 25 percent are likely to incur some cost to document their administrative safeguards and their policies and procedures as now required by statute and these regulations.[20] From having presented seminars coast to coast and having performed HIPAA consulting for more than 1,000 covered entities and business associates, the author believes that it is unlikely than 25 percent of covered entities have adequately documented their administrative safeguards and policies and procedures, much less 25 percent of business associates.[21]

Another example of how unlikely DHHS's estimate of the costs would be its calculation of legal fees inherent in revising business associate contracts and related matters at the median hourly rate for lawyers of $56.21, which rises to $84.32 with fringe benefits.[22] Although a recent law school graduate that has been forced to hang up his own shingle in the very tight market or a lawyer working as a public defender or in a prosecutor's office today may work for $50-something an hour, a competent health care attorney does not. In a major market, such as New York City, Washington, DC, San Francisco, and the like, a $500 an hour rate is more likely. Even a small market, like Grand Rapids, Michigan, or Wichita, Kansas, is going to cost the covered entity or business associate $200 an hour or more for a competent lawyer. And because the business associate contracts must now be structured to avoid liability under the federal common law of agency, the author doubts that covered entities and business associates want a fresh-out-of-law-school lawyer reviewing the contract.

Other examples of wishful thinking in the DHHS cost-benefit analysis include the following:

- The range of costs that any one business associate would incur to comply with the new statutory and regulatory requirements would be between $113 and $283, as first year, one-time costs. The author can only hope that some of his business associate HIPAA clients do not read the DHHS analysis.
- The changes to the business associate relationship will not increase litigation. Tell that theory to Accretive Health, Inc., a business associate of hospitals, which was sued by the Minnesota Attorney General under the HITECH Act's expansion of civil and criminal liability to include business associates. The court dismissed the case after the parties had entered into a settlement.[23]
- No basis to conclude that business associates will refuse to contract with covered entities exists.[24] The author's clients and seminar attendees recount that some of their business associates have already refused to sign business associate agreements containing the new HITECH and Omnibus Rule changes and that very few covered entities or upstream business associates have yet attempted to get such contracts in place.

Conclusion and Checklist

This expansion of government control of and liability for violation of government laws and regulations can only lead to increased costs for covered entities and their business associates. Although we cannot be certain what the unintended consequences will be, we can expect that they will require sophisticated analysis by health care financial managers to ensure that such consequences are not even worse than they have to be. The good news is that the Omnibus Rule relaxed HIPAA's fundraising rules.[25] Maybe DHHS knows that covered entities will need more funds to deal with the new business associate rules. Use the following handy checklist to help you get started with your efforts to deal with these changes in HIPAA's rules and regulations:

- ❑ Review all existing business associate contracts and determine which ones must be updated by the compliance date. A business associate agreement that contains language to the effect that the business associate will comply with all changes to HIPAA and its regulations *may not* need to be updated. Because of the "downstream" liability for breaches by subcontractors, however, the wiser approach would seem to be to update all such agreements.
- ❑ Consider whether it makes economic sense to bring a particular service back in-house rather than outsourcing it to a business associate.
- ❑ Consider adding indemnification clauses to business associate agreements in which the business associate agrees to indemnify you for its breaches. Whether you can get a business associate to agree to such a clause is, quite simply, a matter of relative bargaining power. A transcription service, for example, may have to agree to such a clause because it must work for covered entities. Amazon, on the other hand, will most probably not if you want it to host your health records in "the cloud" because it has plenty of other such business.
- ❑ Consider revising your insurance to cover breaches by business associates.

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5. HIPAA defined covered entities to include the following:
   (1) Health plan;
   (2) Health care clearinghouse;
   (3) Health care provider that transmits any health information in electronic form in connection with a transaction covered by the HIPAA Administrative Simplification transaction standards.

   A subsequent revision added Medicare prescription drug sponsors.
6. 45 C.F.R. § 160.103 contains the complete definition of a business associate:
   (1) Except as provided in paragraph (2) of this definition, business associate means, with respect to a covered entity, a person who:
      (i) On behalf of such covered entity or of an organized health care arrangement in which the covered entity participates, but other than in the capacity of a member of the workforce of such covered entity or arrangement, performs, or assists in the performance of:
         (A) A function or activity involving the use or disclosure of individually identifiable health information, including claims processing or administration, data analysis, processing or administration, utilization review, quality assurance, billing, benefit management, practice management, and repricing; or
         (B) Any other function or activity regulated by this subchapter; or
      (ii) Provides, other than in the capacity of a member of the workforce of such covered entity, legal, actuarial, accounting, consulting, data aggregation, management, administrative, accreditation, or financial services to or for such covered entity, or to or for an organized health care arrangement in which the covered entity participates, where the provision of the services involves the disclosure of individually identifiable health information from such covered entity or arrangement, or from another business associate of such covered entity or arrangement, to the person.
   (2) A covered entity participating in an organized health care arrangement that performs a function or activity as described by paragraph (1)(i) of this definition for or on behalf of such organized health care arrangement, or that provides a service as described in paragraph (1)(ii) of this definition to or for such organized health care arrangement, does not, simply through the performance of such function or activity or the provision of such service, become a business associate of other covered entities participating in such organized health care arrangement.
   (3) A covered entity may be a business associate of another covered entity.
7. 45 C.F.R. §§ 164.306, 164.314(a). DHHS clarified the definition of "subcontractor" in § 160.103 to provide that subcontractor means "a person to whom a business associate delegates a function, activity, or service, other than in the capacity of a member of the workforce of such business associate."
8. *See* 45 C.F.R. § 164.504 (e)(1). *See also http://www.hhs.gov/hipaafaq/providers/business/236.html*.
9. Omnibus Rule § 160.402(c).
10. *See* "Court Dismisses Minnesota AG's HIPAA Enforcement Action Against Business Associate Following Settlement," available at *http://www.phiprivacy.net/?p=10042*, for a

discussion of the first HIPAA lawsuit against a business associate.

11. In Community for Creative Non-Violence v. Reid*,* 490 U.S. 730 (1989) and Nationwide Mut. Ins. Co. v. Darden, 112 S. Ct. 1344 (1992), the U.S. Supreme Court set forth thirteen factors as constituting a nonexhaustive list of factors to consider when applying the common law agency test:
    1. The hiring party's right to control the manner and means by which the product is accomplished;
    2. The skill required;
    3. The source of the instrumentalities and tools;
    4. The location of the work;
    5. The duration of the relationship between the parties;
    6. Whether the hiring party has the right to assign additional projects to the hired party;
    7. The extent of the hired party's discretion over when and how long to work;
    8. The method of payment;
    9. The hired party's role in hiring and paying assistants;
    10. Whether the work is part of the regular business of the hiring party;
    11. Whether the hiring party is in business;
    12. The provision of employee benefits;
    13. The tax treatment of the hired party.
12. 78 Fed. Reg. 5582 (Jan. 25, 2013).
13. *Supra,* n.10.
14. HITECH Act § 13410(e).
15. Executive Orders 12866 and 13563.
16. 78 Fed. Reg. 5669 (Jan. 25, 2013).
17. *Id*.
18. *Id*.
19. DHHS believes that this number likely overestimates the number of business associates, as some entities may be business associates to multiple covered entities.
20. *Id.* at 5678.
21. The author has provided HIPAA consulting services to federal covered entities, state covered entities, county covered entities, hospitals, physician practices, long-term care facilities, and other health care providers, as well as business associates, including medical marketing firms, transcription services, billing services, document storage and destruction services, and others. In four such consultations conducted this year alone, including a hospital, a pediatric practice, and a physician practice, three had not even conducted a risk analysis, and the fourth had only conducted one because it was a former client that wanted its risk analysis updated. Although four covered entities is too small a sample to draw the sweeping conclusion that the majority of covered entities are not compliant, coupled with the surveys conducted during HIPAA seminars in which only about 10 percent have conducted a risk analysis, the author is confident that the DHHS estimate that only 25 percent of business associates will incur any cost to get compliant is wildly inaccurate.
22. *Supra*, n.16 at 5679.
23. *Supra*, n.10.
24. *Supra*, n.16.
25. As originally implemented, the HIPAA Privacy Rule permitted only the use of demographic information and dates of care for fundraising purposes. The Omnibus Rule permits the use of demographic information, dates of service, department of service, treating physician, outcome information, and health insurance status for fundraising purposes. The Rule maintained the notice and opt-out requirements for fundraising communications, which must be included in the covered entity's notice of privacy practices. Section 164.514(f) at 78 Fed. Reg. 5700 (Jan. 25, 2013).

Electronic Health Records Lifecycle Cost

Steven R. Eastaugh

We have overestimated the ability of electronic health records (EHR) systems to enhance efficiency by eliminating transcription and the need to physically pull charts. Hospital managers typically underestimate the costs of upgrade fees and support. To avoid this problem, hospitals must develop a full total cost of ownership (TCO) analysis to independently forecast total lifecycle costs for EHR information technology. Vendor information must be checked for validity and a milestone payment schedule must be devised to pay for results (outcomes) not promises. Vendors vary widely in their capacity to set up a fully functional inpatient-outpatient EHR system. Documentation programming will help to control hospital costs while enhancing service quality and staff morale. This study presents cost analysis from 62 hospitals in 16 cities during the period 2012–2013.
Key words: *electronic health records, lifecycle cost, information technology.*

One previous study of electronic health records (EHR) in this journal suggested a short-run gain in productivity of 1.6 percent, with no net cost savings.[1] Fiscal and quality enhancement benefits of health information technology (HIT) have been limited. Hospital boards and managers too frequently consider only the initial cost of acquisition plus initial annual maintenance fees when considering EHR bids. One needs to analyze the full lifecycle cost for each and every significant capital information technology purchase. Managers have often become complacent towards EHR costs because of the huge federal investment in new systems. The Obama administration has invested over $20 billion in EHR through the American Recovery and Reinvestment Act of 2009. Now is the time for all good managers to come to the aid of their country (and their bottom line) and construct a total cost of ownership (TCO) model to independently forecast total lifecycle costs (upgrades and all support costs) for their EHR systems.

A more global advanced HIT vision of cost analysis has to look beyond the basic interoperable system (IS) that enables many providers in various locations to access a patient's data no matter who created the medical record. A mature EHR system (best 10 percent) allows the integration of evidence-based medicine profiles and lexicons. The 2013 Rand study outlined two reasons why EHR systems have yet to achieve any cost savings. First, providers failed to re-engineer care processes to reap full benefits of HIT. Secondly, the systems are neither interoperable nor easy to use.[2]

It is often cited that over one million Americans are injured each year by medical errors. With evidenced-based medicine and lexicons for re-engineered care processes the American public can benefit from improvements in the quality of care. To date the quality benefits of her investment in EHR are insignificant. The American public is restless for results. The September 18, 2012 *Wall Street Journal* (page A16) concluded from sifting through 36,000 studies of HIT, quality benefits and promised cost savings by vendors and government are

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little more than hype. The academic community of health services researchers agree with this negative assessment.[3] Many hospitals and health care providers are "behind the curve" in HIT adoption, and simply trust the first vendor to simply assemble a best-of-breed hodgepodge of complexity-confusion-software (CCS). Many taxpayer dollars have been wasted on CSS.

Congress has created incentives to acquire EHR systems, but the systems are often not very useful. The crawl towards the digital future has to emphasize results: enhanced quality of care, plus significant cost savings. In July 2008, Congress passed a law providing Medicare bonuses to physicians who use electronic prescribing, and for penalties beginning in 2013 to those who do not. The United States must learn from the experience of other nations. With a 10-year head start on the United States, France and Germany placed EHRs in all hospitals and clinics. EHR adoption, along with universal coverage has allowed France and Germany to enhance productivity, do 80–90 percent more patient visits per capita than the United States, at a system wide 40 percent cost savings per capita compared to the United States.[4] The cost savings have produced price reductions to help fuel exports. In the decade 2000 to 2012 exports as a portion of gross domestic product (GDP) has grown 31 percent in Germany, but only 1.9 percent in the United States. According to the World Health Organization, France and Germany rank in the top five for quality of health care, whereas the United States ranks number 31.[5]

Background

Productivity is the first test of a manager's competence. A hospital manager seeking the best level of productivity should get the greatest output for the least inputs, therefore, better balancing all factors of care delivery to achieve the most with an optimal level of quality. Hospital managers must be change agents. The hidebound, tradition-based hospital that does not adopt then aggressively require all members of medical staff to improve, will not survive in the new world of accountable care organizations (ACO) and value-based purchasing. The hospital medical staff must work as a team to re-engineer processes and follow the goals of evidence-based medicine. This transition has been accomplished in two dozen academic medical centers. Will HIT achieve optimal benefits of EHR beyond the world of academic medical centers like Harvard and Johns Hopkins?

With time, as physicians become familiar with their EHR system, the medical staff can actually use the query tools and improve the quality of patient care, as reported in a study by Romano and Stafford.[6] Providers require a screen format that is easy to navigate, with good content and efficient clinical order sets. Enhanced business intelligence software and dashboards help enhance communication across various departments. HIT has both a strategic impact, and a potential productivity improvement impact that prove cost beneficial for hospitals, physicians, and ACOs. Cost savings will ultimately be generated with the help of HIT decision support systems such as patient scheduling, physician scheduling, nurse scheduling, and computerized order entry.

Managers must closely evaluate the long-run TCO rather than focusing solely on the initial cost of acquisition and annual maintenance. TCO includes not only the initial software and infrastructure costs but also

implementation resources, training and integration fees, as well as ongoing costs such as upgrade fees, annual maintenance, and support costs including a dedicated staff of FTEs. The author has written two previous articles with the HIMSS Analytics Healthcare Information Management Systems Society database.[7] The unique contribution of this current paper is surveying the nonrespondants who do not report to the HIMSS survey.

Data and Limitations

As an individual with a background in accounting, one can happily live with the Pareto principle of 80/20, if one knows 80 percent of the possible respondents' information, the sample is sufficient. We contacted 100 nonrepondants to the HIMSS survey with two possible theories as to why certain chief information officers (CIO) had not responded. In this study, 62 percent of the 100 hospitals responded to our aggressive promptings. We entered the study with two possible null hypotheses. Hypothesis number one suggested that late adaptors or facilities with poor experience implementing their EHR system, would not respond to the HIMSS survey. Hypothesis number two, which was confirmed by the data, suggests early adaptors to EHR were most likely to not respond to the HIMSS survey. One respondent offered a typical rationale: "as CIO I have the scars and success stories to teach others, so I want to sell my consulting expertise to other hospitals just like Henry Ford Hospital does so that I can maximize financial benefits from knowledge acquisition." The philosophy of this group is simple: if we can sell it (knowledge, experience), do not give it away.

Across our sample of 62 hospitals: (1) EHR/HIT expenses represented 4.3–8.1 percent of the hospital's total revenue, and (2) 22–39 percent of the hospital's available capital. The hospitals underestimated the high number of personnel required to support a EHR/HIT system by 19–44 percent in 2009–2013. Vendor selection appears to be a major determinant of the ongoing costs of a EHR/HIT system.

In Figure 1, we outline the EHR support staff levels, now and in the future (10 year FTE costs) for hospitals in the sample. In considering the performance of EHR vendors (vendors A, B, and C), we control for organization size (beds). Many factors contribute to the long-run (decade-long) cost of implementing an EHR system, the cost of support staff is a convenient proxy for assessing an EHR's ongoing support costs minus software upgrade fees. In our sample of 16 cities, the expense per FTE for EHR support staff ranges from $55,000 to $75,000 to $95,000 annually (New York City the highest).

The sample includes 15 hospitals that utilize vendor A, the most efficient supplier of EHR in terms of TCO. The sample has 31 hospitals that use vendor B, a vendor that is 30 percent higher cost than vendor A. The sample includes 16 hospitals that utilize vendor C, a vendor that is 105 percent higher cost relative to vendor A. These three vendors, A,B,C, were on a par in terms of system functionality and usability, and exhibited leadership by 2010 in CPOE adoption in the hospital industry. In considering the peer hospitals by revenue and bed size, the significant variance in total cost of variance is obvious. If we contrast the most efficient install by a 500-bed hospital for vendor C, it is twice as expensive as using vendor A.

Figure 1. Hospital Comparison of Acute EHR Support Staff Costs for Vendors A, B, C

Features	A	B	C
Hospital Location	New York	California	Midwest
Annual Revenue ($M)	$868	$782	$748
Staffed Beds	706	677	629
EHR Support Staff	19	25	38.5
Est. Decade FTE Costs ($M)	10–16	14–21.5	19–29
Hospital Location	Florida	Northwest	New England
Annual Revenue ($M)	$449	$474	$553
Staffed Beds	513	404	425
EHR Support Staff	15	20	32
Est. Decade FTE Cost ($M)	7.5–11.5	10–16	16–25.5
Hospital Location	Southwest	Midwest	Texas
Annual Revenues ($M)	$245	$219	$256
Staffed Beds	241	230	282
EHR Support Staff	7	9.5	14.5
Est. Decade FTE Cost ($M)	3.5–5.5	5.5–8.5	8.5–13

Est. Decade = Estimated 10-year FTE labor costs of EHR system ($ millions)

Vendor A offers superior cost performance. The incremental cost of selecting vendor C over vendor A at a typical 500-bed hospital with annual expense per FTE annually of $75,000 annually, is $25 million versus $12 million (TYIC, Ten Year Incremental Cost).

A multiple regression analysis suggested that for a 900-bed hospital, vendor C would require over 10 years, 27 FTEs more support staff than vendor A. The incremental additional FTEs required by vendor C is 15 FTEs for a 500-bed facility, 9 FTEs for a 300-bed facility, and 3 FTEs for a 100-bed facility. Figure 2 outlines the 10-year incremental support costs for vendor C relative to vendor A within three labor markets ($55,000, $75,000, and $95,000 per year for EHR support staff). In line one, last column, the New York City marketplace suggests a $28 million excess expense from selecting vendor C over 10 years. In the most low cost, rural, 100-bed marketplace, vendor C still wastes $1.75 million compared to the most efficient benchmark, vendor A. Vendor A offers the superior cost performance to hospitals of all bed size.

The choice of a EHR vendor may determine in large part the total cost of ownership of the system. Selecting vendor A could lift hospital operating margins 3.9–5.5 percent. Consider a quick calculation for the median urban teaching hospital that currently uses

Figure 2. Ten Year Higher Incremental Cost [TYIC] for Vendor C versus Vendor A, 2014–2024

	FTE Cost —		
TYIC	**Low (55k)**	**Medium (75k)**	**High (95k)**
TYIC 900 beds, needs 27 more FTEs	$15,741,000	$22,518,000	$28,548,000
TYIC 500 beds needs 15 more FTEs	$8,745,000	$12,510,000	$15,860,000
TYIC 300 beds needs 9 more FTEs	$5,248,000	$7,505,000	$9,516,000
TYIC 100 beds needs 3 more FTEs	$1,749,000	$2,502,000	$3,172,000

vendor C. This facility has 591 beds and $888 million in annual revenue. The 2012 operating margin (total operating revenue—total operating expenses)/total operating revenue is 3.59 percent. With vendor C, the EHR support staff is 37, but if they convert to vendor A, the new support staff would be 18.5, thus lifting the operating margin 5.5 percent to 3.79 percent. This example is for an urban setting with EHR support staff expense of $95,000. If the expense per FTE were $75,000, the lifting of the operating margin would be 4.7 percent. In the rural setting, the expense per FTE were only $55,000, the lifting of the operating margin would be 3.9 percent.

Should hospital managers seek a 4–5.5 percent lift in their operating margin? Obviously, the answer is yes. In the next decade hospitals must contend with a rising inability to raise prices, a less profitable payor mix, and technological inflation pressures to remain state of the art (*e.g.*, robotic surgery). In two years the nation will have but four health care systems: ObamaCare, Medicaid, Medicare, and private employer-provided insurance. We must continuously scan for opportunities to improve operating margins while enhancing the quality of care in the eyes of our patients, the insurance exchanges, and other third parties.

Some additional factors are needed in selecting an EHR vendor. Indeed, the benefits of vendor A might be understated. Why? Because the pool of skilled engineers supporting older languages is much smaller, and therefore more expensive than mainstream programming languages like Microsoft or Oracle. Vendor C, ranked second for usage in the hospital sector, uses MUMPS, an old programming language ranked 91 on the business-standard prevalence list. Vendor A uses Microsoft.NET framework, which supports multiple mainstream programming languages including C#. Vendor B is built on a mainstream Oracle database and programming language.

There is one final point concerning flexibility. Vendor A is not only 30 percent less costly than vendor B over a 10-year lifecycle, but it also allows extra applications like enterprise scheduling, clinical analytics,

outsourced IT services, and access management. Such value-added applications will earn substantial benefits in the long run, enhancing productivity and the quality of service. One California chief information officer said his 40-month EHR system had achieved 30 percent of what he hoped it would achieve. Productivity gains may emerge in two years, whereas a net cost-saving return on investment may take five to seven years to emerge.

Too Much Hype—Searching for Solutions

Better HIT can reduce unnecessary activity flow, reduce unit costs, improve patient satisfaction, and reduce waiting time for both providers and patients. A good EHR system can reduce costs through reducing downtime (wasted time). Evidence-based medicine lexicons need to be implemented facility wide across all departments. These systems have been outlined in the popular press by Soumerai and Koppel.[8] Department managers need to identify quality problems and sources of waste, emphasize team building, and implement successful HIT remedies with lexicons approved by the medical staff. By avoiding mistakes and useless activities, gains in productivity are followed (maybe in two to four years) by cost savings, and quality is enhanced.

The benefits of HIT investment are often slow to emerge. One Oregon CIO reported EHR system implementation costs gobbled up 35 percent of the hospital's capital budget each year for four years. A California CIO remarked that the EHR system used 5.5 percent of the systems total revenues ($111 million). Partners HealthCare in Boston is completing an enterprise-wide EHR system for $615 million. Duke University Health System out of Durham, North Carolina, is spending $707 million for their system. Many players are impacted by EHR cost escalation. In 2012 to 2013, Sutter Health trimmed $924 million from its budget through layoffs and suspension of raises to finance their enterprise-wide 24-hospital EHR system version 2.0. The question emerges—are we getting our money's worth?

With an appropriate clinical analytics solution package, lexicons linked to evidence-based cost-effective medicine, one can report to CMS the performance outcomes for 30-plus quality measures. The number of quality measures will soon expand to 65, and other third-party payors like Wellpoint and United Healthcare will demand the same metrics. Simple applications like CPOE will reap their full potential benefits as the payment system changes, and we pay more for quality through value-Based purchasing.

A fully functional EHR system has been defined as having the capability to:

1. Record patients' clinical and demographic data.
2. View and manage results of laboratory tests and imaging.
3. Manage order entry, including electronic prescription and the ability to order tests and imaging.
4. Support clinical decisions, including warnings about drug interactions or contradictions.

A basic EHR system is one that allows just some of the first three functions. The fourth function of an ideal EHR is computerized physician order entry (CPOE). When a physician uses CPOE to enter a

prescription, the system alerts him or her to potential interactions with other drugs the patient is taking. Common dosages, contradictions such as pregnancy, and patients' allergies are also flagged. Goals set by the federal government call for EHRs to be standardized and interoperable, meaning that multiple clinics and hospitals should be able to access and update them as patients seek treatment at multiple locations.[9] The Rand Corporation Study suggests reducing 404,000 unnecessary deaths through EHR improvements, disease management, and prevention would save hospitals $51.7 billion.[10] To reap these benefits may take us to 2024.

Substantial efficiency gains through HIT are visible to many managers. For example, the medication cycle time, the time it takes for an order to be filled and administered to the patient has been reduced from 68 minutes to 7.5 minutes in one of our sample hospitals. Physicians enjoy the productivity gains. After physicians make hospital rounds in the morning, they do not have to call the nurse in the afternoon or at night to see how their particular patient is doing. They can look it up themselves on the computer and see the current patient information. Physicians desire an integrated delivery system so the manner in which they enter an order is the same as their office and at the hospital. The EHR incentive program will expedite the use of digital records.[11]

The evolving plug-and-play applications, such as those found on the iPad or Android devices, enable organizations to optimize care by reducing integration and maintenance cost. The 2011 Institute of Medicine digital infrastructure study recommends these practical smart technologies to promote a patient-centered, knowledge-based, system-minded model of health services delivery.[12] One CFO noted the vendor with the lowest total cost of ownership for HIT systems was also the best at trimming wasted units of activity. Their HIT system reduced redundant lab tests and imaging studies by using advanced clinical decision support (ACDS). The ACDS prevented duplicate tests and studies when physicians were notified that the test/study was unnecessary, and offered the past results, and verified the duplicate test/study would not be reimbursed. Only ACDS alerts with a just-in-time, point-of-care focus, allows cost-effective clinical decision making. This type of ACDS will thrive in our new era of value-based payment, because the old world of volume-based reimbursement is dead. Managers that reposition the hospital to optimize HIT applications, select the best vendors, and develop effective accountable care organizations, will capture market share.

The largest impact that EHR may have in the long run is on quality. EHR allows for the creation of virtual warehouse for health data, as initiated by Kaiser and the state of California. Soon we can develop community health measures applicable not just to a single hospital or physician, but across an entire geographic population cohort. We can finally ask what treatments work, and what risk factors matter. As a young finance professor at Cornell, I learned from a sage physician, Lewis Thomas, the importance of those two issues. Doctor Thomas observed that data mining like innovation itself, is a chaotic disturbed beehive. Then suddenly a pattern emerges with the purity of the best classical music, and a seminal new truth about the system emerges, revealing new benchmarks for quality and content.

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Estimation of Health Care Costs and Cost Recovery: The Case of Rafidya Hospital in Palestine

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The purpose of this study is to develop an estimation model for health care costs and cost recovery, and evaluate service sustainability under an uncertain environment. The Palestinian National Authority's recent focus on improving financial accountability supports the need to research health care costs in the Palestinian territories. We examine data from Rafidya Hospital from 2005–2009 and use step-down allocation to distribute overhead costs. We use an ingredient approach to estimate the costs and revenues of health services, and logarithmic estimation to prospectively estimate the demand for 2011. Our results indicate that while cost recovery is generally insufficient for long-term sustainability, some services can recover their costs in the short run. Our results provide information useful for health care policy makers in setting multiple-goal policies related to health care financing in Palestine, and provide an important initiative in the estimation of health service costs.

Key words: *costs, revenue, cost recovery, health care, hospitals*.

Financing of health services is a concern shared by developed and developing countries, although the features and conditions are substantially different. In developing countries, the process is often to introduce key concepts and initiate systematic approaches to establish the foundations for one or several systems suited to the needs of the local environment. Such systems must meet the satisfaction of the users regardless of their socio-economic status, the healthcare personnel, the public health authorities, and also must maintain the support of the political leaders.

The overall objectives of health financing policies, as with all health policies, are to improve health outcomes, provide financial stability, and ensure consumer satisfaction. Health financing policies can help to achieve these objectives by improving equity, efficiency, and sustainability in the three basic functions of (1) collecting revenues, (2) pooling resources, and (3) purchasing services.[1] Collecting revenues deals with the sources and levels of revenues attracted to pay for the health services. The amount of revenue *collected* needs to be adequate to provide individuals with a basic package of essential services and provide financial security against catastrophic medical expenses from illness or injury. Revenue must be collected equitably, efficiently, and in a sustainable manner. The various revenues need

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to be *pooled* so individuals will have equitable access to health care, and any resulting cross-subsidies are justifiable. The available revenues must also be allocated to *purchase services* in ways that maximize improvements in health outcomes and consumer satisfaction while minimizing the related costs.

The Palestinian National Authorities' (PNAs) recent focus on improving financial accountability supports the need to research health care costs in the Palestinian territories. Health care costs, in general, are continuing to increase throughout the global community. Due to rising costs, examination of cost allocations within the hospital setting is important for future research.[2] Cost recovery is also important, and is measured as the ratio of revenue to costs. Cost recovery measures the capacity to generate future revenue.

In this study, we examine total revenues, costs, and estimate the potential for cost recovery for Rafidya Hospital. Rafidya Hospital is one of the largest hospitals in Palestine. It was built in 1976 and is owned by the Ministry of Health (MOH) in Rafidya. The hospital serves about 300,000 people and is a referral hospital for all of the West Bank. When the hospital was established, there were approximately 40 beds. Over time and with an increase in the population, hospital services were expanded to include about 212 beds.[3] The objective of the hospital is to provide a broad range of health care services, including surgical services, to the regional community.

Background

A study of cost recovery in a developing country was conducted in Bangladesh for primary health care facilities.[4] The study was designed as a case study covering a single facility from the provider's perspective. The facility was run by Building Resources Across Community (BRAC), a large nongovernmental organization (NGO) in Bangladesh, for the period July 2004–July 2005. Because of the provider's perspective, the costs estimated for the provision of inpatient and outpatient services did not reflect the costs incurred by patients when obtaining care. The "ingredient approach" was used in analyzing the service delivery process. Cost recovery for the facility was also estimated from the provider perspective. Depreciation of capital assets was estimated in order to calculate annual capital costs, and replacement values were estimated using a 5 percent discount rate. A sensitivity analysis was also done using a 3 percent discount rate. The study demonstrated that the total operating and capital cost recovery ratio for the inpatient department (IPD) was 72 percent while it was 40 percent for outpatient department (OPD). Excluding the capital costs, the average operating cost recovery ratio for the IPD was 88 percent, while it was 47 percent for OPD.

A study by Akashi *et al.,*[5] assessed the effects of user fee programs on hospital performance and provider attitudes in Cambodia. Before the introduction of user fees, the revenue from patients was taken directly by individual health care staff as their private income. After the introduction of user fees, however, the fees were retained by the hospital and used to improve the quality of hospital services. They collected various data elements to assess the effects of user fees from April 1997 to March 2000. For outpatient services, their study found that the total volume of patient services almost

doubled within two and half years after implementation of the user fee program. For example, the average number of inpatient baby deliveries per month significantly increased after the introduction of user fees, and the hospital bed occupancy rates also increased from 50.6 percent to 69.7 percent. As patient utilization increased, hospital revenue also increased. In addition, the cost recovery ratio was maintained within the range of 49.2 percent to 79.2 percent for the same period.

Kanha[6] estimated the cost, revenue, unit cost, and potential cost recovery of Takeo Hospital in Cambodia for the year 2003 from the provider's perspective. The study demonstrated that the cost recovery contributions from user fees increased from a baseline point of 30 percent (with zero price increase) to 58 percent (with 50 percent price increase).

Taking a different approach, Liu *et al.,*[7] examined the association of managerial incentives and political costs with hospital financial distress, recovery, or closure in the US. Some hospitals recovered from financial distress, while others failed and closed. Hospital closure is an important measure of access to care, especially for indigent patients, that is considered by the Medicare Payment Advisory Commission. The factors associated with hospital closures have important implications for the distribution of cost, quality, and access to health care throughout the US. The study demonstrated that hospital closure was associated with low occupancy, return on investment, asset turnover, and lack of affiliation with a multi-hospital system. It was also significantly associated with urban location, teaching programs, high Medicare (for the elderly) and Medicaid (for the poor) patient populations, and high debt. The study presented the results of three pair-wise group comparisons for the total sample using binominal logistic regression analysis. Essential-access, private nonprofit hospitals were less likely to close, largely due to political factors. However, the study did not examine government-owned or private for-profit hospitals, as are commonly found in developing countries.[8]

Prices for health care services in China are set under guidelines established by the State Price Commission.[9] The prices are supposed to be set high enough to protect and develop the services provided, yet low enough to assure affordability to the users. At the time of the Cultural Revolution the government tried to increase access to care by reducing the prices of visits and hospital days to levels that a poor farmer could afford. Because most Chinese hospitals charge patients for each item of service rendered and drugs given, about 85 percent of the revenues come from these charges. Liu *et al.,*[10] analyzed the distortion effects of hospital pricing policies in China. Comparing the regulated fees of selected hospital services with their average unit costs, they found that the average cost-recovery rate of the fees is only 50 percent. The fees for 90 percent of the services are below their average unit costs, while the more recently established fees for high-tech services exceed their costs.

Health care payment reforms in China are perhaps some of the most radical.[11] Starting from the early 1980s, the government budget for public hospitals was fixed, and hospitals had to rely on patient charges to fill the gap between hospital expenditures and revenue received from the government. Medical prices regulated by the government

were increased and hospitals were allowed to earn a profit from certain services and from drugs. A bonus system is now widespread and used by almost all hospitals in China. The types of hospital bonuses can be summarized in three forms: flat bonus, quantity-related bonus, and revenue-related bonus.

The objectives of the Liu and Mills[12] study were to assess the effects of the bonus system on hospital revenue, cost recovery, and productivity, and to explore whether bonus pay was associated with the provision of unnecessary care. Their study employed both uni-dimensional ratio analysis and data envelopment analysis (DEA). DEA is a linear programming method that measures the relative technical efficiency of production. Cost recovery was alternatively defined as service revenue divided by recurring costs and by total costs.

The Liu and Mills[13] study found that transition to the bonus system over time contributed significantly to an increase in hospital service revenue and cost recovery, a doubling of patient admissions, a decrease in outpatient visits, and a tripling of operations. The average annual revenue increase in real terms was 16.3 percent per year. There was an increase in both the probability of patient admission to a hospital and in the frequency of unnecessary care when the bonus system was changed from a weak financial incentive to increase services to one with a stronger incentive.

The Cost Recovery for Health Project (CRHP) in Egypt was formed under the MOH to convert a number of government hospitals and polyclinics into largely self-financing facilities.[14] The Health Financing and Sustainability (HFS) Project provided technical assistance to the CRHP in financing, economics, and administration. The HFS Project developed a cost analysis methodology and applied it in Embaba Hospital in Egypt. An analysis of patient ability and willingness to pay for health care was conducted among the people in the neighborhood of Embaba. These two metrics were jointly used to formulate a pricing policy for Embaba.

The analyses to evaluate costs at Embaba Hospital were conducted in four stages. In the first stage, costs of supporting medical activities were estimated. In the second stage, hospital overhead and final service department costs were estimated. In the third stage, costs of resources used for medical procedures and services were estimated. At final stage, the unit of analysis was the cost of procedures for inpatient, outpatient, or emergency patient cases.

In the Zaman[15] study, all costs of operating the hospital were assigned and allocated to departments. The departments were identified as overhead, intermediate service, or final service departments. The overhead departments provided support to intermediate service departments, and to final service departments. Intermediate service departments provided procedures and services to patients in the final service departments. The study found that fixed salaries, fringe benefits, and other incentive payments to Embaba staff accounted for more than 40 percent of total expenditures. There was substantial variation in inpatient cost across departments. The average cost of inpatient discharges varied from 599 LE (Egyptian pounds) for intensive care units, to 31 LE for ear, nose and throat (ENT) departments, with a hospital-wide inpatient cost of 84 LE. The average cost of an outpatient care visit at Embaba Hospital was 8 LE.

Methodology

In our study, we retrospectively identified and analyzed costs for Rafidya Hospital in Palestine from 2005–2009, then prospectively estimated unit costs and cost recovery ratios for the year 2011. Similar to prior research, the costing method we used is from a provider perspective and does not include the costs incurred by patients when obtaining care. We collected information on the infrastructure and organization of the hospital, including an organizational chart, the number of services or departments under IPD and OPD, and the number of different types of health care staff in each department. We collected data on the epidemiological factors for unit cost estimation in each department, including number of OPD visits and number of IPD patient days, the number of X-Ray tests, number of laboratory tests, and average patient length of stay. We also collected information on salient macroeconomic parameters, including the domestic inflation rate, domestic interest rate, and life time of assets in order to estimate capital costs.

Allocating Overhead Costs

We distributed the costs of overhead departments to the intermediate and final service departments using the classic step-down method, based on close approximations of actual resources used by the departments. We allocated personnel costs based on the percentage of time spent for inpatient and outpatient services. We distributed other operational costs, including utilities, pharmacy costs, laboratory costs supplies, and maintenance costs among inpatient and outpatient services according to the proportion of users. In some cases, the existing accounting systems were inadequate for our analysis purposes and estimates were required. Figure 1 summarizes our allocation criteria.

Consistent with Shepard, *et al.,*[16] we employ seven steps in calculating unit costs: (1) define the final product, (2) define the

Figure 1. Cost Allocation for Inpatient and Outpatient Services

Category	Allocation Criteria
Capital Costs	
Equipment, machinery, and furniture	Use of equipment, machinery, and furniture by IPD and OPD services
Recurring Costs	
Personnel	Proportion of time spent on IPD and OPD services
Pharmacy, Laboratory and Supplies	Proportion of pharmacy, laboratory, and supplies used on IPD and OPD services
Transportation	Transportation costs incurred on IPD and OPD services
Kitchen	100% used on IPD services
Other Operating Costs	Proportion of utilities and maintenance used on IPD and OPD services

Note: IPD = Inpatient Department, OPD = Outpatient Department

cost centers, (3) identify the full cost for each input, (4) assign inputs to cost centers, (5) allocate all costs to final cost centers, (6) compute total and unit costs for each final cost center, and (7) report results. The costs of Rafidya Hospital can be classified into two elements—capital costs and recurring (or, operating) costs. We define capital costs in the traditional manner, as the costs of resources having a useful economic life exceeding one year and not acquired primary for resale. We estimate the capital prices prospectively for 2011 based on the purchase prices in year "*t*". All costs are expressed in local New Israeli Shekels (NIS). Our formula is:

$$C_{2011} = C_t(1 + r)^{2011 - t}$$

where C_{2011} is the value of the capital costs in the year 2011. C_t is the market value of capital assets for the year t, and r is the discount rate.

We estimate the annual cost of capital based on Younis *et al.*[17]

$$C_n = C_0(r - i)[(1 + i)/(1 + r)]^n \div [1 - [(1 + i)/(1 + r)]^n]$$

where C_n is the amount of money required to purchase the assets in year n, C_0 is that amount in the initial period, i is the inflation rate, n is the useful life of the assets, and r is the interest rate in the local market (Palestine).

Recurring costs are the costs of operating the hospital, including labor and materials costs. Labor costs are the amounts paid to employees in return for services rendered, material costs are the costs of resources with less than one year life, including the utility expenses such as water, electricity, and facilities maintenance. We use an ingredient approach to estimate the costs of health care services for the year 2011.

To calculate the unit cost for each patient service, we estimate the output for year 2011 using a demand estimation formula, as follows:

$$D_t = D_{t-1} \times e^r$$

where D is demand, r is the annual growth rate, and e is the natural exponential value (2.7183).

We use a log equation for quantity demanded (Q), assuming the growth rate to be constant with no change in price.

$$Q_{2011} = e^{\ln Q_{2011}}$$

We used the following formula to estimate the revenue of Rafidya Hospital for 2011, assuming no change in prices as:

$$\text{Revenue} = P_{2011} \times Q_{2011}$$

where P is the price for a service in the year 2011 and Q is the quantity of the service demanded in the year 2011.

We obtained the cost recovery using the following formula:

$$\text{Cost recovery} = \text{Revenue/Cost}$$

Results

Estimate of Total Demand for 2011

We use financial and non-financial data for the years 2005–2009 to prospectively estimate quantity demanded for the year 2011. First, Figure 2 presents the 2005–2009 quantities demanded for services in Rafidya Hospital, classified by IPD, delivery services, surgical operations, emergency, and polyclinic services.

Then, we use the logarithmic formula, $Q_{2011} = e^{\ln Q_{2011}}$, to estimate prospective

Figure 2. Quantity Demand for Rafidya Hospital 2005–2009

Service	Metric	2005	2006	2007	2008	2009
IPD	Hospital days	11,375	9,311	9,566	29,658	36,717
Delivery Services	Hospital days	6,468	4,944	7,786	6,249	7,977
Surgical Operations	Surgeries	6,390	6,035	5,677	9,057	10,929
Emergency	Visits	37,213	29,179	26,754	35,069	41,606
Polyclinics	Visits	52,046	35,578	28,263	39,780	50,216

Note: IPD = Inpatient Department

demand for the year 2011, with a growth rate in Palestine of about 2.9 percent. Our results are presented in Figure 3, Panel A. From Figure 3, Panel A, we take the inverse of the natural logs to estimate the quantity demanded for the year 2011 by service type, as presented in Figure 3, Panel B.

Estimate of Total Revenue for 2011

According to the MOH financial system, patients admitted to the hospital pay 500 NIS for each inpatient day, and 400 NIS for delivery services, which covers all of the services provided by the hospital. The MOH

Figure 3. Logarithmic Demand Estimates for 2011

Panel A: Log Demand Estimates

Services	2005	2006	2007	2008	2009	2010	2011
IPD	9.3392	9.1390	9.1660	10.2975	10.5110	10.8158	11.1295
Delivery Services	8.7746	8.5059	8.9601	8.7402	8.9843	9.2449	9.5130
Surgical Operations	8.7625	8.7053	8.6442	9.1113	9.2992	9.5689	9.8464
Emergency	10.5244	10.2812	10.1944	10.4651	10.6360	10.9444	11.2618
Polyclinics	10.8599	10.4795	10.2493	10.5911	10.8241	11.1380	11.4610

Panel B: Quantity Demand Estimates

Services	Est. 2011
IPD	68,150
Delivery Services	13,534
Surgical Operations	18,889
Emergency	77,795
Polyclinics	94,939

Note: IPD = Inpatient Department

does not charge any fee for the cost of surgical operations services, assuming the cost is covered by the inpatient daily fees. An outpatient patient pays only 20 NIS for each visit, which covers only doctor visits. The cost for an emergency room visit is 15 NIS. For IPD and delivery services, we estimate total revenue as follows:

$$TR = P \times Q$$

where TR = total revenue, P = price, and Q = quantity. Our results are presented in Figure 4.

Outpatients who visited clinics or the emergency room and paid 20 and 15 NIS, respectively, for doctor visits, may recover their payments if they subsequently pay for intermediate services, such as drugs or laboratory tests.

Cost and Unit Cost Estimation

Capital costs average 9 percent of the total costs, where recurring costs account for the remaining 91 percent. Figure 5 presents the total costs of Rafidya Hospital as 21,679,643; 21,488,154; 20,236,669;

Figure 4. Estimated Total Revenue for 2011

Services	Price (NIS)	Quantity	Total Revenue (NIS)
IPD	500	68,150	34,075,210
Delivery Services	400	13,534	5,413,620
Surgical Operations	0	18,889	0

Note: NIS = New Israeli Shekels, IPD = Inpatient Department

Figure 5. Costs by Category (000NIS)

Cost Categories	2005	%	2006	%	2007	%	2008	%	2009	%	Ave.	%
Labor	11,520	53	12,240	57	12,465	62	12,465	60	15,761	46	12,890	54
Drugs & Supplies	2,909	13	4,443	21	2,717	13	2,910	14	7,367	21	4,069	17
Water & Electricity	1,013	5	1,063	5	907	5	1,123	5	1,357	4	1,093	5
Fuel Oil	437	2	264	1	380	2	384	2	680	2	429	2
Maintenance	1,072	5	489	2	858	4	858	4	880	3	831	3
Other Operating Costs	2,669	12	930	4	851	4	1,102	5	6,353	18	2,381	10
Capital Costs	2,059	10	2,059	10	2,059	10	2,109	10	2,119	6	2,081	9
Total Costs	21,679	100	21,488	100	20,237	100	20,950	100	34,517	100	23,774	100

Note: NIS = New Israeli Shekels

20,949,629; and 34,517,039 NIS for the years 2005–2009 respectively. We analyze various components of total costs and find that the major component of the total costs is labor costs, with an average proportion of 54 percent, followed by drugs & supplies 17 percent, other operating costs 10 percent, capital costs 9 percent, water & electricity 5 percent, maintenance 3 percent. and fuel oil 2 percent. By dividing total operating costs by output for each service, we obtain unit costs, as presented in Figure 6.

We estimate the total costs for each service using an ingredient approach, where we multiply the unit costs by the demand for 2011. We estimate capital costs using a generally prevailing 13 percent discount rate in 2009. Our results are presented in Figure 7.

By excluding outpatients and emergency visits, we find the cost recovery ratio is 83 percent for IPD and 126 percent for delivery services, including capital costs. The average cost recovery ratio for IPD services is 87 percent for IPD and 130 percent for delivery services, excluding capital costs. Our cost recovery ratios for each service, IPD, delivery services, and surgical operations, with and without capital costs, are presented in Figure 8, Panels A and B.

Figure 6. Total Operating Costs, Outputs, and Unit Costs (NIS)

Services	Total Operating Costs	Outputs	Unit Costs
IPD	55,317,649	96,627	572.49
Delivery Services	10,304,268	33,424	308.29
Emergency	6,507,959	169,821	38.32
Polyclinics	9,219,608	205,883	44.78
Surgical Operations	27,116,495	38,088	711.94

Note: NIS = New Israeli Shekels, IPD = Inpatient Department

Figure 7. Total Cost Estimation for the 2011

Services	Operating Costs Per Unit (NIS)	Capital Costs Per Unit (NIS)	Demand for 2011	Total Costs (NIS)
IPD	572.49	26.60	68,150	40,827,984
Delivery Services	308.29	8.68	13,534	4,289,872
Emergency	38.32	0.17	77,795	2,994,330
Polyclinics	44.78	2.66	94,939	4,503,906
Surgical Operations	711.94	26.73	18,889	13,952,738

Note: NIS = New Israeli Shekels, IPD = Inpatient Department

Figure 8. Estimated Cost Recovery Ratios (NIS)

Panel A: Including Capital Costs

	IPD	Delivery Services	Surgical Operations
Revenue	34,075,210	5,413,620	0
Total Cost	40,827,984	4,289,872	13,952,738
Cost Recovery Ratio	83%	126%	0%

Panel B: Excluding Capital Costs

	IPD	Delivery Services	Surgical Operations
Revenue	34,075,210	5,413,620	0
Total Cost	39,015,194	4,172,397	13,447,835
Cost Recovery Ratio	87%	130%	0%

Note: NIS = New Israeli Shekels, IPD = Inpatient Department

Conclusion

The aim of our study is to gain insights into the cost and cost recovery potential, and thus the financial sustainability, of Rafidya Hospital in Palestine. Our study demonstrates that the delivery services can recover the costs of its services, while the other inpatient services have a shortfall due to current pricing policies. To improve the cost recovery or financial sustainability, the MOH may consider policies to either contain costs or increase the revenue structure. Our study contributes to formulating macro level policy in light of costs, revenue, and the demand for health services. Despite the limitations of our analysis, this study employs established methods in estimating costs and cost recovery ratios for hospital services. Future studies may consider extending this line of inquiry by applying our methodology to other hospitals, or to secondary health care services.

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The Fee-For-Service Shift to Bundled Payments: Financial Considerations for Hospitals

Keely Scamperle

Skyrocketing health care costs are forcing payers to demand delivery efficiencies that preserve and promote quality care while reducing costs. Hospitals are challenged to meet the pressure from payers to deliver value and outcome-based health care while preserving sufficient financial margins. The fee-for-service (FFS) model with its perverse incentives to incur high-volume services is no longer, if ever, sufficient to ensure quality, cost-efficient health care. In response, payers have sought to force the issue through accelerated efforts to bundle payments to providers. It is theorized that by tying together providers throughout the continuum or episode of care for a patient, efficiencies in delivery inclusive of cost reductions will be obtained. This article examines the bundled payment models and the financial considerations for hospital facility providers.

Key words: *bundled payment, reimbursement, BPCI, pioneer ACO.*

Payment methodologies in both the private and public sector are making the significant shift from the volume-driven fee-for-service (FFS) methodology to payments for value and outcomes. Historically, FFS has been a relatively reliable, albeit "messy," method of obtaining reimbursement. Under a FFS payment model, providers are relatively assured of reimbursement for the services provided and reflected in an insurance claim with little or no accountability for delivery efficiency or quality of care. However, the general consensus is that FFS is unsustainable. The Government Accountability Office (GAO) has concurred that Medicare's FFS payment system may contribute to spending growth because it rewards volume of services regardless of the appropriateness, cost, and quality of those services.[1] Not only does FFS encourage high volume of services, but this payment methodology increases cost and invites fraud and abuse. This failure in the health care reimbursement system leaves abundant room for waste and poor quality health delivery and outcome. Recognizing that health care costs are partially driven by the FFS payment mechanism, payers are turning to alternative methods.

The leading alternative payment model to the FFS problem is bundled payment, which provides payment for all of the care a patient needs over the course of a defined clinical episode.[2] It has been hypothesized for some time that by tying providers together

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via a single-bundled payment, costs can be reduced and quality can be improved. These types of arrangements seek to promote coordination among providers and the integration of health care delivery.[3] Bundled payments may promote closer integration of health care providers and hold them jointly responsible for the cost and quality of services.[4] Bundled payment arrangements effectively hold providers collectively responsible financially for the health care they provide to a patient. The shift from FFS to value- and outcome-based payments with its increased financial risk has caused hospitals to question whether or not they can close the revenue gap between the two payment mechanisms. Bundled payment models are extremely complex and the paltry data demonstrating their effectiveness in delivering quality and reducing costs serves to exacerbate the concerns of providers over the future of their financial health. Nevertheless, bundled payment is becoming the method of choice for payers, making it imperative that providers understand the associated financial challenges and implications.

What Is a Bundled Payment?

A bundled payment consists of a single payment for an episode of care which is then distributed to other providers, such as physicians or surgeons, involved in the care. The concept of bundling payments has been in place for Medicare hospital inpatient services since 1983.[5] These first bundled payments were in the form of the hospital prospective payment system (PPS) and actualized via the diagnostic related grouping (DRG) payment. The DRG groups cases with similar resources. The facility is then paid one DRG, or case rate set in advance, based on the diagnoses of the patient upon discharge. Recognizing the need to address cases with higher complexities or comorbidities, in 2007, the Centers for Medicare & Medicaid Services (CMS) developed MS-DRGs to designate cases with higher severity. However, payment for physicians has remained a FFS methodology. The discrepancy between the PPS payment to the facility and the FFS payment to the physician has exacerbated the problematic lack in care coordination, accountability, quality, and outcomes. The PPS, focused only on hospital payment, has done little to impact overall Medicare spending because it lacks an accountability mechanism between the two providers. Bundled payment is touted as a viable option to meet the goals of payers and providers because of the potential improvements it promises over the Medicare fee-for-service system of reimbursement and the capitation model of payment.[6]

Private insurers have over 20 years of experience with bundling models for services such as organ transplant procedures. The models of bundled payment that have been tested in the public and private sectors have yielded promising results.[7] Early bundles focused on cardiovascular procedures (*e.g.,* Texas Heart Institute, Geisinger Health System's "ProvenCare" model) and transplant procedures. The appeal of more recent models of bundled payment is that they ensure that the financial risks of treating a patient are shared by both the payer and the provider and allow for flexibility in defining the scope of the bundled payment (*e.g.,* timeframe, services included, and other considerations).[8] Examples of recent bundling models include: the PROMETHEUS Bundled Payment Experiment; the CMS Acute Care Episode (ACE) Demonstration Project; the Bundled Payment

for Care Improvement pilot program; and the Shared Savings/Pioneer Accountable Care Organization programs.

PROMETHEUS (Provider Payment Reform for Outcomes, Margins, Evidence, Transparency, Hassle-Reduction, Excellence, Understandability and Sustainability) Payment Project

The PROMETHEUS payment project, a collaboration between the Robert Wood Johnson Foundation (RWJF) and the Commonwealth Fund, is one of the most comprehensive and relatively established efforts to create evidence-based bundles or case-rates. Launched in 2008, the project identified 21 "bundles" of services intended to treat defined diseases including some cardio-vascular services and total joint replacements.[9] Covered services are based on commonly accepted clinical guidelines or expert opinions that define the best methods for treating a given condition.[10] Participants include facilities, physicians, employers, and health plans. To date, the pilot programs are still open and in the process of yielding results. In a November 2011 report, the RAND Corporation noted that three years after the PROMETHEUS payment project was launched in three US communities to test this approach, no bundled payments had been made and no payment contracts for bundled payments have been executed.[11] Although all parties involved with the effort are committed to its success, researchers say the slow progress underscores the challenges such complex payment reforms must overcome.[12]

Acute Care Episode (ACE) Demonstration Project

In 2009, CMS announced the ACE demonstration project to last for a period of three years. The demonstration was intended to "test the use of a global payment for an episode of care as an alternative approach to payment for service delivery" and included "specified cardiovascular and/or orthopedic procedures."[13] CMS selected five organizations to participate in the bundled payment project:

- Baptist Health System in San Antonio, Texas
- Exempla Saint Joseph Hospital in Denver, Colorado
- The Lovelace Health System in Albuquerque, New Mexico
- Hillcrest Medical Center in Tulsa, Oklahoma
- Oklahoma Heart Hospital, LLC in Oklahoma City, Oklahoma

The sites had the option to provide incentives to the providers who met certain quality and improvement markers. The sites were also allowed to provide monetary incentives to patient participants and their families in the form of a share up to 50 percent of the Medicare savings to offset their Medicare cost-sharing obligations.[14] The early results from the ACE demonstration were significant enough to propel bundling as a method of payment for Medicare providers into the Affordable Care Act of 2010 (ACA).

Bundled Payments for Care Improvement (BPCI)

ACA created a new division under CMS called the Center for Medicare & Medicaid Innovation (CMMI). Section 3021 of ACA granted authority to the Center to test payment delivery models to reduce expenditures.[15] To improve the coordination,

quality, and efficiency of services provided to Medicare beneficiaries, in the ACA, the Secretary of Health and Human Services (HHS) is required to implement a national pilot program by January 1, 2013, that integrates services into payment bundles. The Initiative is a kind of testing ground which will eventually finalize the framework of the pilot program that was announced by Secretary of HHS Kathleen Sebelius on August 23, 2011.

Under the bundled payments initiative, CMS links payments to a variety of providers for multiple services patients receive during an episode of care. For example, instead of a surgical procedure generating individual claims from multiple providers, the entire team is compensated with a "bundled" payment that provides incentives to deliver health care services more efficiently while maintaining or improving quality of care. Providers have flexibility to determine which episodes of care and which services would be bundled together.[16] The health reform law holds promise for the expansion of bundled payment by authorizing the Secretary to expand the program after the pilot phase, based on performance. Expansion of previous federal bundled payment demonstrations has been curtailed by the congressional approval process, but due to inclusion in ACA, the process will move forward. The law also eliminates the budget-neutrality requirement for the expansion of previous demonstration programs and hints at the possibility of aligning Medicare payment programs with private sector initiatives.[17] To participate in BPCI, the contracting organization is required to discount the episode price by 3 percent for 30 day episodes and by 2 percent for 90 day episodes.[18]

The CMS bundling initiative presents providers with an opportunity to participate in, and ultimately determine, how the pilot program will look at the point of implementation. A total of eight models will be tested. The Initiative's first "wave" consists of two types of payments and four models. The first three models are retrospective and the fourth is prospective. (See Figures 1 and 2 for additional detail.[19])

Model 1—Retrospective Acute Care. One payment for an acute episode. Allows gain-sharing arrangements with physicians. Physicians are paid separately. However, facilities are allowed to share the savings resulting from collaborating in the care of the patient.

Model 2—Retrospective Acute Care Plus Post-Acute. The episode of care expands to include 30 or 90 days post discharge.

Model 3—Retrospective Post-Acute Care. The initial hospital visit is excluded, and begins at the point where the patient is discharged and lasts for 30 days. Both Models 2 and 3 include physician services; post-acute provider; readmissions; durable medical equipment, prosthetics, orthotic and supplies (DMEPOS); and Part B drugs.

Model 4—Prospective Acute Care Stay. Expansion of the ACE demonstration. Extends geographically beyond the initial areas in the ACE demonstration. One single payment for the acute care for agreed-upon conditions, which is allocated by the facility to the other providers. Other providers submit "no-pay" claims.[20]

Figure 1. Services Eligible for Inclusion in Bundled Payment Models

	Care Related to the Initial Hospitalization for the Episode				Related Care Post-Initial Discharge			
Model	Pre-Hospitalization[a]	Initial Hospitalization[b]	Hospital Physician Services[c]	Post-Acute Care[d]	Related Readmissions[e]	Hospital Physician Services[c]	Community Physician Services[f]	Other Post-Discharge Care[g]
1	X	X						
2	X	X	X	X	X	X	X	X
3				X	X	X	X	X
4	X	X	X		X	X		

[a] Hospital diagnostic testing and all related therapeutic services paid under Part A and furnished by an entity wholly owned or operated by the admitting hospital within 3 days of admission.
[b] All hospital facility services paid under Part A and furnished during the hospital stay.
[c] All physician and other professional services paid under Part B conducted in the hospital.
[d] Services paid under either Part A or Part B for related services, including care received in long-term care hospitals, inpatient rehabilitation facilities, skilled nursing facilities, and by home health agencies.
[e] All hospital facility services during readmissions that are related to the episode and paid under Part A.
[f] Physician and other professional services that are delivered in outpatient settings (including the emergency department and hospital outpatient department), which are related to the episode and paid under Part B.
[g] Includes related services and goods paid under Part A or Part B, such as independent outpatient therapy services, clinical laboratory services, durable medical equipment, and Part B drugs.

Shared Savings/Pioneer Accountable Care Organizations

The BPCI has been viewed as the stepping-stone towards accountable care organizations (ACOs). Again, under the authority granted by the ACA, the CMMI is testing an alternative ACO model called the Pioneer ACO Model. Through the Medicare Shared Savings Program, providers will be rewarded through formulating ACOs that lower their growth in health care costs while meeting performance standards on quality of care.[21] The Program is designed to improve beneficiary outcomes and increase the value of care by:

- Promoting accountability for the care of Medicare FFS beneficiaries
- Requiring coordinated care for all services provided under Medicare FFS
- Encouraging investment in infrastructure and redesigned care processes[22]

Bundled Payment Challenges

There are difficulties inherent in bundled-payment implementation. Challenges include defining the bundles, administering the bundles, deciding upon and implementing gain-sharing schemes.[23] Further consideration should be applied to framework elements such as determining which patients will be included; for example, patients with significant comorbidities should be excluded and considered outliers. Case management functions should be considered as a way to ensure services stay within the parameters. Planning will also entail identifying benchmarks, both payment and quality. Additional challenges

Figure 2. Bundled Payment for Care Improvement Initiative Models

	Model 1	Model 2	Model 3	Model 4
Types of Services Included in Bundle	Inpatient hospital services	Inpatient hospital services (the initial stay) Physician services in and out of the hospital Post–acute care services Readmissions Hospital outpatient services Independent outpatient therapy services Clinical laboratory services Durable medical equipment Part B drugs	Physician services in the community, as well as for follow-up hospital care Post–acute care services Readmissions Hospital outpatient services Independent outpatient therapy services Clinical laboratory services Durable medical equipment Part B drugs	Inpatient hospital services Readmissions Physician services related to hospital care
Eligible Awardees	Physician group practices Acute care hospitals Health systems Physician-hospital organizations Conveners of participating health care providers (*e.g.*, states)	Physician group practices Acute care hospitals Health systems Physician-hospital organizations Conveners of participating health care providers (*e.g.*, states) Post–acute care providers		Physician group practices Acute care hospitals Health systems Physician-hospital organizations Conveners of participating health care providers (*e.g.*, states)
Payment of Bundle and Target Price	Discounted inpatient prospective payment system (IPPS) payment	Retrospective comparison of target price and actual fee-for-service payments		Prospectively set payment
Clinical Conditions Targeted	All Medicare Severity-Related Diagnosis Groups (MS-DRGs)	Applicants to propose targeted clinical conditions based on MS-DRG for inpatient hospital stay		
Minimum Discount Expected	Minimum discounts increasing from 0% in first 6 months to 2% in Year 3	3% for 30–89 days post-discharge episode; 2% for 90 days or longer episode	No Minimum	3% with larger discount for MS-DRGs in ACE Demonstration
Payment from CMS to Providers	Acute care hospitals receive IPPS payment minus discount Physicians receive traditional fee schedule payment	Traditional fee-for-service payment to all providers and suppliers, subject to reconciliation with predetermined target price		Prospectively established bundled payment to admitting hospital; hospitals distribute payments from bundled payment

Continued ...

Figure 2. Bundled Payment for Care Improvement Initiative Models *(Continued)*

	Model 1	Model 2	Model 3	Model 4
Quality Measures	All hospital inpatient quality reporting measures and additional measures to be proposed by applicants. CMS will ultimately establish a standardized set of measures that will be aligned to the greatest extent possible with measures in other CMS programs	To be proposed by applicants, but CMS will ultimately establish a standardized set of measures that will be aligned to the greatest extent possible with measures in other CMS programs		

Source: Based on chart in the Bundled Payments for Care Improvement Initiative Fact Sheet: *http://innovations.cms.gov/documents/pdf/Fact-Sheet-Bundled-Payment-FINAL82311.pdf.*

include investing in significant technical, legal and HIT resources in order to execute on implementation, and each should be carefully identified and addressed. The following is a detailed look at just a few of the multitudes of considerations for facility providers:

Partnering with Physicians

A significant result of the shift in payment methodology is the change in the view of the role of the physician within the hospital facilities' revenue stream. More precisely stated, the physician can no longer be viewed as a customer, but rather as a partner. In order for a bundled payment model to be successful, it requires the buy-in of the physician. This can be a difficult hurdle to overcome, yet cannot be ignored. The interprofessional relations and the overall medical culture have a recognized impact on the quality of the health care delivery mechanism and whether or not it can be successfully transformed.[24]

Anti-Trust

As networks are formulated and contracts entered into, concerns regarding market share and restriction will likely come under increased scrutiny by the Federal Trade Commission (FTC). Furthermore, there are individual state law considerations related to these arrangements. While the FTC did issue a Final Statement of Antitrust Enforcement Policy Regarding Accountable Care Organizations Participating in the Medicare Shared Savings Program,[25] the only assurance it provides is that the "Rule of Reason" will be applied when analyzing for violations of the anti-trust laws. The government's shift toward promoting these payment models over the traditional FFS model may warrant a parallel shift in anti-trust analysis.[26] However, all of these issues require legal oversight by highly qualified health care and anti-trust council prior to securing the structure of the arrangements amongst providers.

Fraud and Abuse

The financial arrangements that are required in order to facilitate a bundled payment arrangement present a multitude of legal questions. Facilities and physicians should naturally be concerned with potential violations of the Stark Law (physician self-referral), federal anti-kickback statute, and the civil monetary penalty (CMP) statute. CMS has authority to waive the application of certain Medicare and Medicaid fraud and abuse laws "as may be necessary" to develop and implement the Initiative.[27]

As discussed, the ACA provides for incentives for providers to consolidate. For the ACE demonstration purposes, the Secretary waived those requirements of Title XVIII necessary to allow the payment of a bundled payment for an ACE. In other words, the provisions that would normally penalize the participants in a shared services and/or payment arrangement, such as anti-kickback and the Stark Law, were waived to facilitate the structure under the ACE demonstration. The Secretary also waived those provisions of Title XI (*e.g.*, Sections 1128A and 1128B) and Title XVIII necessary to conduct a shared-savings or gain-sharing program at the demonstration sites, as well as to allow payment to Medicare beneficiaries representing a portion of the savings achieved by Medicare under the demonstration.[28] Waivers have also been provided for under the pioneer ACO project. However, no other clarification has been issued from CMS and leaves providers potentially vulnerable as partnerships are developed and contracts written.

CMS has had a long-standing prohibition against gain-sharing arrangements, as they are inherently problematic because such arrangements may result in a reduced level of service to the patient from the physician so that the physician may increase the amount of monetary "gain" allocated by the hospital. In other words, gain sharing is likely to compromise patient care so that the physician may obtain a larger monetary incentive amount at the end of the episode of care. However, CMS did set out gain-sharing parameters in the request for applications to the Initiative. This consisted, in part, that the physicians share could not exceed 50 percent of the savings, and nor could the participation or nonparticipation of the physician be penalized.[29]

While CMS has explained that it "will consider exercising [its] waiver authority with respect to the fraud and abuse laws" and "may also consider waiving additional provisions" of the Medicare Act, it offers no detail as to the process it will follow in waiving application of these laws or the proposed scope of any such waiver(s).[30]

Financial Costs (Operational)

The bulk of the changes that come with bundled payment for providers are operational. When compared to FFS, bundled payments also require the provider to carry the burden of the financial responsibility of outcomes. However, preliminary experiments with bundling models have demonstrated a variety of cost savings and quality improvements. The data that bundled payments definitively result in improved quality, outcomes, or cost-savings is not yet well established. AHRQ concluded that there is weak but consistent evidence that bundled payment programs have been effective in cost containment without major effects on quality, finding that reductions in spending and utilization relative to usual payment were less than 10 percent in many cases.[31]As the RAND report found, implementation of the

PROMETHEUS pilot has proven difficult and by the end of November 2011, progress had been slow and disappointing.[32] Nevertheless, this new payment methodology has quickly spread throughout the payer systems and providers are wise to work toward strategizing and taking the necessary steps to accommodate the change. In this endeavor, there are some key points to consider:

Expenses

Expenses can be significant for facilities to implement bundled payment models. Ardent Health System, a participant in the ACE demonstration, discovered this firsthand. Sharon Fiser, the VP of Financial Operations, reflected in an interview with the Advisory Board that Ardent's bundled payment success has come at a cost. Hillcrest incurred $570,000 in incremental expenses its first year under ACE. A significant portion of that—around $150,000—was for start-up legal expenses and infrastructure investments. Annual incremental operating costs are around $400,000.[33] Additional expenses can be incurred for added staff, information technology (IT) structure, and claims payment processes. Some facilities have also found that assigning a case manager to direct the continuum of care throughout the bundled episode is also a necessary expense.

Information Technology

Establishing bundled payment models requires a significant investment in IT. IT has been cited as being critical in helping to improve hospital system performance and responding to market and regulatory demands for increased efficiency and accountability.[34] Investment in IT systems is probably the most important, and expensive, area of capital spending. Bundled payment models are very data intensive. There must be mechanisms in place that can analyze and process financial models, track outcomes, develop gain-sharing structures, and process claims. Every hospital is expected to meet new standards for having and using electronic medical records for its patients or face penalties in 2015 and meeting that requirement safely will cost as much as $50 million for a midsize hospital.[35] This provision is necessary, for without electronic records, bundling payment models cannot function.

Gain-Sharing Arrangement

A gain-sharing arrangement is where the savings incurred by the hospital facility is shared with other providers, such as the physician. Although the gain-sharing arrangement must be set out and carefully defined at the onset, hidden fluctuations may disrupt projections. For instance, recall that in order to participate in the BPCI, the participating entity must agree to a discount for the episode. However, not all DRGs are treated the same. For instance, there are some DRGs where the facility incurs the bulk of the costs. In those instances, the discount has a more significant impact than originally planned, which could negatively impact the amount of shared savings. In November 2012, CMS issued new DRGs to applicants that expanded the original list of DRGs within an episode family. The new requirements increase the total amount of cost covered within the episode family by about 40 percent.[36] This is a significant amount of Medicare revenue to be moved from FFS payment into bundled payment.[37] This expansion of the episode DRG family also impacts the discount rate negatively. This is mostly because the DRGs to which the episodes are expanded include services that are primarily provided for by non-hospital providers.

Financial Benefit

Bundled payment should create a financial incentive for providers to reduce the number and cost of services contained in the bundle.[38] Ropes and Gray's CPI Antitrust Chronicle notes that ACA will pose new challenges for health care providers because some of the reforms will place new financial pressure on inefficient providers or lower quality providers.[39] It is theorized that increased quality of care can be achieved by adhering to evidence-based protocols that will reduce the variability of care and resources. While conceptually that makes sense, facility providers are likely to seek more tangible ways in which to reduce the costs within an episode of care.

Decreased Costs

Facilities in a bundled payment model may struggle with how to retain volume and income, let alone acquire growth. While significant savings are gained and easily identified through device acquisition, most of the incremental revenue gained through *volume* (although offered at a discount to payers) is additive to the organization's bottom line.[40] For this reason, it is imperative to determine how the prices within the facility will be set. The GAO noted in their report to Congress that to the extent that bundled payment arrangements encourage providers to become more efficient in the delivery of care, these arrangements can also benefit providers financially. The report went on to note that some studies of bundled payments in the private sector suggest that for certain services and in certain settings, bundling may lower costs and improve efficiency.[41]

A representative from one hospital in the Medicare ACE demonstration reported a 10 percent reduction in costs for orthopedic procedures stemming largely from the purchase of lower-priced medical devices such as orthopedic implants.[42] The savings found in bundling episodes of care was reflected upon by Ardent Health, a participant in the ACE demonstration:

> The bulk of savings from procedural inpatient bundles results from device cost reductions. Ardent has been highly successful in using bundled payment to control costs. By working with physicians to define clinical criteria for the use of high-cost devices and cultivating physician support for consolidating device vendor in exchange for price concessions, Ardent was able to control costs where past efforts had failed.

> The vast majority of savings has consisted of reductions on high-cost surgical supplies and devices . . . . The greatest savings have come from knee surgical supplies, defibrillators, and pacemakers. Interestingly, Hillcrest continued its cost reduction efforts in the second year of ACE and achieved further meaningful savings. Ardent had hoped to achieve additional savings in some other areas, such as consults and pharmaceutical utilization, but thus far these have largely failed to materialize.[43]

Facilities can also look to safety-net hospitals as examples in how to operate under narrow financial margins, increased efficiency, reduction in costs, and improving quality. Not needing to be paid for the volume of services delivered has enabled these hospitals to invest in new delivery practices.[44]

Volume

The shift is not all about cost savings, however. Bundled payment also can be viewed as a growth strategy. If you are selected as the only hospital or one of the few entities in a region, to win a bundled payment contract with CMS and/or a commercial payer, then you are in a position to have patients directed to you.[45] Here, the volume is not measured in the number of services per patient, but rather the number of patients treated due to a more efficiently run mechanism. Quality care and outcomes delivered through a coordination between providers is likely to increase patient satisfaction and a commiserate desire to seek care at facilities that are able to accomplish this goal. As noted previously, the increase in patient volume is an important upside to the alternative payment models.

Conclusion

So much of the discussion amongst stakeholder policymakers, facility executives, and providers in general has been focused upon cutting costs and, yes, quality and outcomes measurement. There has been, however, seemingly more theory and little sound evidence of how bundled payment directly improves patient care. What is certain is that fragmentation is detrimental to the overall health care delivery mechanism. "That's not just our opinion: nearly everyone, from the Institute of Medicine to the Medicare Payment Advisory Commission, has identified fragmentation as one of the main culprits of higher cost, lower quality health care," remarks Rich Umbdenstock, President and CEO of the American Hospital Association (AHA).[46] More importantly, Umbdenstock also points out that "Our fragmented health care system … .is also an obstacle to better patient care." The bottom line is that collaboration means better health care. Bundling models forces providers to work together in a collaborative manner to improve the overall care of the patient.

The shift from FFS to alternative methods such as bundled payments is not something that can be ignored. Not only are private or commercial payers demanding the shift, it is a fundamental part of the health care reform legislation. ACA is therefore at the forefront of a larger trend of shifting away from a FFS payment system towards alternative payment methods such as global or bundled payments, which are expected to contain costs and result in the efficient provision of care.[47] There are two positions providers are currently taking: those who have been on the forefront of participation and implementation, and those who have taken the "wait and see" approach. In either instance, acceptance of the shift from FFS to alternative methods must come in order to maintain viability; and staying informed, calculating all risks and preparing for change is necessary to achieve stability.

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Fiscal Space for Health Spending in Southeast Asia

Indrani Gupta and Swadhin Mondal

This article examines the availability of fiscal space in the context of health spending and the challenges and constraints in raising additional resources for health given the macroeconomic situations, in the ten countries of the South-East Asia region (SEAR) of the World Health Organization (WHO). Using a variety of secondary data, the analysis indicates that there are differences among the SEAR countries with respect to the various indicators of fiscal space. While the aid situation is under control, there are concerns regarding public debt, fiscal deficit, and revenues. Based on the findings, this article proposes ways forward for each of the countries in the coming years.
Key words: *health financing, resource mobilization for health, Southeast Asia.*

Introduction

In developing countries poor households spend a significant proportion of their family income for health care exposing them to economic vulnerability and poverty.[1] Out-of-pocket spending (OOPS) is the major health financing mechanism in many developing countries which imposes a major burden particularly on the poor households.[2] Public financing for health is now seen as a major tool for protecting households from catastrophic medical payments and also ensuring better health outcomes. The 58th World Health Assembly in 2005 adopted a resolution on sustainable health financing, universal coverage, and social health insurance, where WHO's member states were urged to ensure that health financing systems include prepayment and risk-sharing mechanisms, to avoid catastrophic health care expenditure, and to work towards universal coverage.[3] This approach in turn raises the issue of fiscal space: are countries able and ready to raise enough resources to carry out these objectives?

On the positive side, a study uses Canadian data[4] to show that low health care spending was associated with high infant mortality rate and low life expectancy. Similarly, a study from India on rural households finds that there is a significant effect of health expenditure on infant mortality rates.[5] In a study by Wang,[6] using Demographic and Health Survey (DHS) data from over 60 low-income countries shows that public health expenditure is the single most important determinant of child mortality. Gupta *et al*.,[7] also confirm that the public spending on health care matters more to the poor than the non-poor, which is corroborated by other studies.[8]

In contrast, a number of other studies show that public health spending is a relatively poor predictor of cross-country differentials in health indicators.[9] The efficiency and effectiveness of resource use is now a major part of the discussion on strategy of health financing. The World Health Report

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has now clearly stated that public spending is a necessary but not a sufficient condition for improved health outcomes.[10] While the quality of spending is an important factor in the context of efficiency of overall resource use, raising sufficient resources for the health sector remain a challenge for many developing countries. The question of fiscal space in the context of social sectors—especially health sector—has given rise to much discussion and debate in the recent past.

This article is organized in the following manner: Section I gives an introduction to the topic and some literature review. Section II discusses the definitions of fiscal space and lays out the indicators to be used to analyze fiscal space, followed in Section III by an analysis of the availability of fiscal space in the SEAR countries. A macroeconomic perspective is brought in to understand the possible constraints in expanding fiscal space in Section IV. Finally, summary and conclusions are presented in Section V.

Fiscal Space and Resource Mobilization: Indicators

The need to meet the millennium development goals (MDGs) and concerns regarding equity and efficiency in the health sector on the one hand, and the impact of the recent global economic crisis on the other, has made the issue of fiscal space more urgent.[11] Different approaches have been used to define and analyze fiscal space, though operationally there are no major disagreements on the broad parameters used to judge the lack of fiscal space. The Interim Report on Fiscal Policy for Growth and Development submitted to the Development Committee of the joint World Bank—IMF Board on Fiscal Policy and Growth (henceforth Development Committee, 2006) defined fiscal space as "the gap between the current level of expenditure and the maximum level of expenditures a government can undertake without impairing its solvency." Another widely quoted definition from the IMF defined fiscal space as "the availability of budgetary room that allows a government to provide resources for a desired purpose without any prejudice to the sustainability of a government's financial position."[12] In contrast, Roy and Heuty define fiscal space as "concrete policy actions for enhancing domestic resource mobilization, and the reforms necessary to secure the enabling governance, institutional and economic environment for these policy actions to be effective," which emphasizes domestic resource mobilization as the key parameter in the fiscal space discourse.[13]

While the IMF-World Bank attempted to come out with a more suitable definition of fiscal space aligned with the developmental needs of less developed countries, there still remains some concern that the adaptation of the definition fell short of a more practical and pro-development approach towards raising resources. The United Nations Developement Programme (UNDP) defines fiscal space as "the financing that is available to government as a result of concrete policy actions for enhancing resource mobilization, and the reforms necessary to secure the enabling governance, institutional and economic environment for these policy actions to be effective, for a specified set of development objectives."[14] This definition takes a longer term view of developmental goals and emphasizes human development as the core objective of enhanced fiscal space.

Operationally, however, the most commonly used approach is to define fiscal space based on values of some key parameters. For

example, fiscal space has been decomposed into four subcomponents, jointly referred to as the "fiscal space diamond," with each subcomponent useful as a measure of the long-term fiscal capacity of government: fiscal balance, tax revenues, overseas development assistance, and reprioritization and efficiency of expenditures; each is expressed as a percentage of GDP.[15]

While it has been argued that that there are no clear criteria for determining whether deficits or tax revenues are low or high,[16] threshold values have nevertheless been used to define fiscal space.[17] The following four indicators have been used to understand fiscal space: (1) fiscal deficits (desirable: 3 percent or less), (2) government (gross) debt-to-GDP (desirable: 60 percent or less), (3) revenue-to-GDP (desirable: 13 percent or more), and (4) aid-to-GDP (desirable: 5 percent or less). While it is now acknowledged that efficiency of expenditures and quality of spending is a key component that should not be omitted from discussions on fiscal space,[18] there are no ready measures that might indicate efficiency of spending and is generally not usual to include it in this list of summary measures.

An empirical analysis of the effect of economic growth volatility on social sector spending in 108 developing countries for 1995–2007 (IMF & World Bank 2010) throws up three results: (1) social spending growth rates tended to be volatile; (2) per capita social spending levels showed a steady upward trend despite GDP volatility; and (3) social spending in poor countries was subject to more pressures than in richer countries during contractions in GDP.[19] In other words, the analysis confirmed that the negative impacts of crises on health spending are much stronger in the low-income countries, where growth in health spending is more likely to fall in response to a decline in GDP. The implications of these results are that low-income countries need to pay special attention to protect their social sector expenditures especially after an economic crisis. This also has implication about global cooperation and development assistance to buffer countries from deteriorating social sector spending after an economic shock.

Fiscal Situation in SEAR Countries

Overall, the countries of the region have not been hit too badly by the global economic crisis. Moderate to strong macroeconomic fundamentals and timely countercyclical fiscal policies have enabled most countries of the SEAR to ride the crisis.[20] However, since the development base is quite low in some of the countries, vulnerability remains, and social sector spending needs to be watched to ensure there is no dip in the progress towards human development and the MDGs.

In addition to the four indicators mentioned above, we also used three additional indicators to get a better picture of fiscal space of these 10 countries: (1) the ratio of tax to non-tax revenue indicates to what extent taxes are being used to generate revenues; (2) domestic credit provided by the banking sector as a percentage of GDP indicates the robustness of domestic credit markets as a possible source of public borrowing; and (3) a weighted moving average of last five years' inflation rate is looked at to understand possible overheating of the economy.

Figure 1 presents the statistics on these various parameters; however, it is a bit difficult to make immediate sense out of these figures. Clearly, countries are at different

Figure 1. Fiscal Space and Sustainability in SEAR Countries (2009)

	Income classification (World Bank)	Fiscal deficit (% of GDP)	Government gross[1] debt (% of GDP)	Revenue (% of GDP)	Tax revenue (% of GDP)[2]	ODA (% of GDP)	External debt (% of GDP)[3]	Ratio of tax to non-tax revenue (%)	Domestic credit provided by banking sector (% of GDP)	Weighted moving average of inflation rates, last 5 years
Bangladesh	Low	–3.3	45.4	**11.3**	8.60	0.40	24.3	77.23	60.4	**8.6**
Bhutan	Lower-middle	1.8	**73**	22.7	9.24	4.60	**66**	24.76	**30.9**	**10.5**
India	Lower-middle	**–6.6**	**67.3**	**9.7**	9.79	0.10	18	82.18	69.4	**9.9**
Indonesia	Lower-middle	–2.3	25.7	15.5	11.44	0.10	29	74.26	**37.0**	5.8
Maldives	Upper-middle	**–6.7**	**88**	50.6	11.90	0.20	**79**	44.56	96.5	6.3
Myanmar	Low	–4.5	46	**7.2**	**3.88**	0.30	**43**	N/A	**21.3**	**9.9**
Nepal	Low	–3.5	40	14.0	11.85	2.10	27	87.13	69.1	**10.0**
Sri Lanka	Lower-middle	**–9.8**	**81.9**	14.6	12.9	0.50	40	85.15	**39.6**	**8.7**
Thailand	Upper-middle	–4.1	44.1	16.6	15.16	0.00	22	90.10	137.0	2.9
Timor-Leste	Lower-middle	–0.9	None so far	72.5	-	4.10	-	36.64	**–17.2**	**8.3**

[1] Gross public debt refers to the short- and long-term debt of all institutions in the government sector. It includes all government liabilities such as future pension payments, payments for goods and services the government has contracted but not yet paid. Net debt refers to gross debt minus all financial assets.

[2] IMF, World Economic Outlook (2011); the amount of official development assistance received in grants and loans during the reporting period, as a percentage of GDP.

[3] *Id*.; the outstanding net amount of those current, and not contingent, liabilities owed to non-residents by residents of an economy that require payments either of principal and/or interest by the debtor at some point in the future. Residents comprise the general government, individuals, private non-profit bodies, and enterprises. Indicator calculations: Percentage of GDP figures are based on GDP in current US dollars.

Sources: The World Bank, ESCAP Data (2010); IMF Country Report No. 09/334 (2009), available at *http://www.imf.org/external/pubs/ft/scr/2009/cr09334.pdf*; IMF Country Report No. 11/293 (2011), available at *http://www.imf.org/external/pubs/ft/scr/2011/cr11293.pdf*; International Monetary Fund(2013) IMF Country Report No. 13/13, available at *http://www.imf.org/external/pubs/ft/scr/2013/cr1313.pdf*
Public finance, Gov't of Nepal (2011), available at *http://www.mof.gov.np/publication/budget/2011/pdf/chapter2.pdf*; IMF Country Report No. 10/184 (2010), available at *http://www.imf.org/external/pubs/ft/scr/2010/cr10184.pdf*;
IMF Country Report No. 12/24 (2012), available at *http://www.imf.org/external/pubs/ft/scr/2012/cr1224.pdf*;
Ministry of Finance, Gov't of Timor-Leste (2012); IMF, World Economic Outlook 2011 Database; World Economic Outlook 2011.

positions with respect to each of the indicators. While somewhat arbitrary, numbers in bold indicates a somewhat adverse value of the parameter, and it is easy to see which countries need to worry about fiscal space as well as other fiscal-monetary issues: Myanmar, followed by Bhutan, India, and Sri Lanka have the most adverse values of these indicators among this group. Thailand seems to be doing the best among these countries, followed by Indonesia and Nepal.

For fiscal space specifically, Figure 2 shows fiscal deficit and government debt as a percentage of GDP with the two threshold figures for these parameters. The lower the values of these parameters, better is the fiscal position of the country. In Figure 3, revenue to GDP (its inverse is plotted) and aid to GDP ratios are plotted, with the threshold values indicated with solid lines.

In Figure 2, the best position to be in is in the top left quadrant. Apart from Timor-Leste—which is the outlier because of its petroleum revenues and income—Indonesia is the only other country that is in this quadrant. Nepal, Bangladesh, Myanmar, and Thailand are also doing rather well, though there is scope to tighten their fiscal deficit situation. India, Sri Lanka, and Maldives seem to be performing relatively poorly on both the indicators, with high fiscal deficit as well as debt ratio. Bhutan also has very high public debt ratio though its fiscal balance situation is quite comfortable.

As for the aid and revenue situation (Figure 3), the best quadrant to be in is the lower left one. Maldives is in the most

Figure 2. Relative Position of the Country in Terms of Public Debt to GDP & Fiscal Deficit to GDP

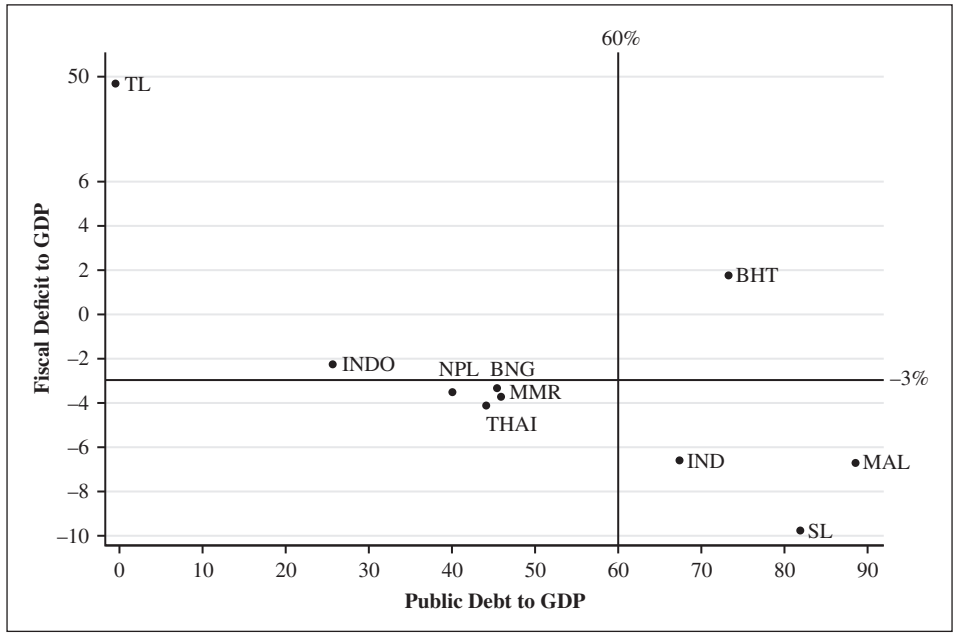
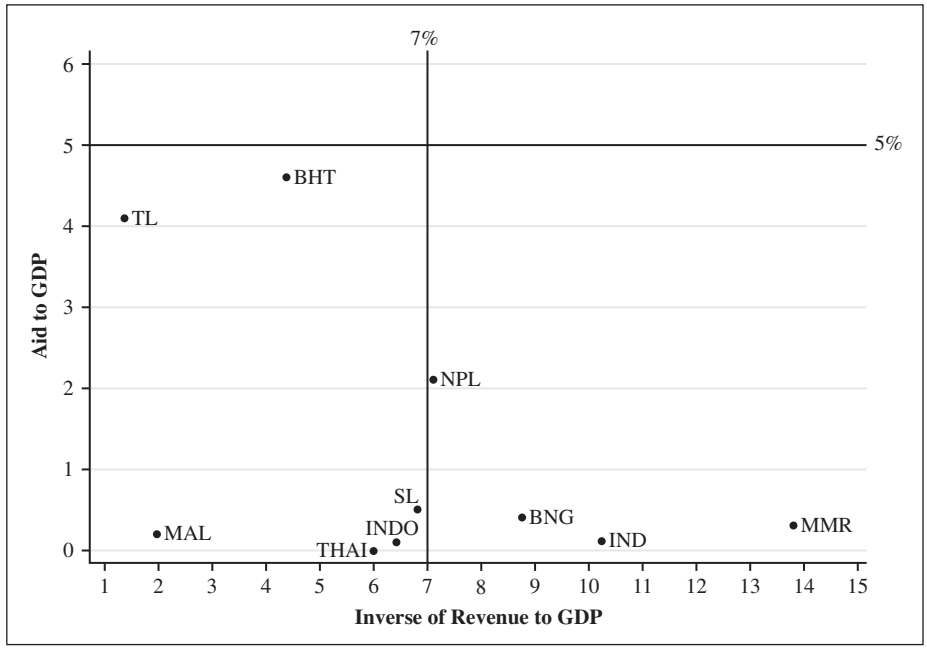


Figure 3. Relative Position of the Countries in Terms of Revenue to GDP & Aid to GDP



favorable situation with respect to both these parameters. Timor-Leste, Bhutan, Thailand, Indonesia, and Sri Lanka also are within limits in these two variables, though there are differences among this group. For example, Sri Lanka and Indonesia, and to some extent Thailand, should watch their revenue situation because they are on the border. Nepal can improve its revenue situation with less effort too, because it is close to the optimal value of this parameter. The countries that need to focus on their revenue situations seriously are Bangladesh, India, and Myanmar. Overall, most of the South Asian countries have manageable aid to GDP ratios, but not very favorable revenue to GDP ratios.

This analysis indicates that there are differences among the SEAR countries, but generally the aid situation is not worrying. Of concern, however, are most countries' situation with respect to public debt, fiscal deficit, and revenues. For many of these countries, raising additional resources through further borrowing is definitely not an option.

The one thing that most of the SEAR countries have been struggling with is high rates of inflation; except for Thailand, all the countries have fairly high rates (Column 10, Figure 1) with Bhutan, Nepal, Myanmar, and India leading the group in very high inflation rates. This constrains the options of raising additional resources by deficit financing. The good news for some of these countries is their ability to raise credit domestically (Column 9, Figure 1). Thailand and Maldives have very high levels of credit from banking sector. However, countries such as Myanmar, Bhutan, Indonesia, and Sri Lanka need to focus on monetary

reforms to strengthen their domestic credit markets.

Fiscal Space and the Economy in SEAR Countries

Evidence indicates that while low health spending is common in Bangladesh, India, Indonesia, Myanmar, Nepal, and Sri Lanka, only India, Myanmar, and Nepal are lagging behind in their MDG targets, and not doing very well on other indicators like poverty.[21] While some countries have met their MDGs, there should be continued efforts to raise additional revenues. is no scope to slacken the efforts to raise additional revenues. Increasing prevalence of non-communicable diseases (NCD) is a major reason why the current levels of spending, even in countries such as Thailand, might need to be augmented. The discussion on raising health spending has to be compared to the overall macroeconomic situation of these countries in the recent past.

Bangladesh has been performing moderately well on the economic front until recently, when it began to be plagued with falling reserves due to strong pressures of rising oil and capital goods imports, volatile commodity prices, and weak aid inflows.[22] Fiscal pressures have also emerged due to increasing subsidy costs, mainly on account of fuel consumption, despite tax revenues having exceeded 10 percent of GDP in FY11. Inflation reached a multi-year high in August 2011, with aggregate demand and food prices being the major drivers. The IMF board has recommended that the extended credit facility (ECF) for Bangladesh be resumed to help stabilize its current account and take reforms forward. The country continues to struggle with inflationary pressure.

It is contended that Bangladesh is currently going through a difficult phase due to a multiplicity of factors: global growth issues, financing and balance of payment gaps, institutional factors, and political concerns.[23] Its fiscal space, therefore, does not seem very much at this point, and borrowing—external and internal—to finance development does not seem a prudent option. While external debt has come down, public debt's share in GDP has been increasing. One recommendation is for it to be able to mobilize and channel committed foreign aid, particularly for on-going projects. Also, it will have to try for developmental assistance to be able to continue its growth path, especially for the social sectors. However, while improving efficiency of spending, improving absorptive capacity is important which will in turn ensure greater utilization of allocated funds in the health sector.[24] At the same time, there is considerable scope for garnering additional tax revenues through tax reforms in many of these countries.

Since its transition into a parliamentary democracy in 2008, Bhutan's growth has been strong. Social development indicators are progressing steadily, and Bhutan is on track as far as MDGs are concerned. The IMF predicts that Bhutan's near-term outlook is favorable, with growth continuing to be around 8 percent. While the current account deficit is likely to remain high due to imports, financing from development partners, especially India, is predicted to be adequate, with the resultant balance of payments remaining in surplus.[25] Inflation is expected to decline somewhat, though it has to be watched, because for Bhutan (and also Nepal) its inflation depends to a large extent on inflationary trends in India, which has recently experienced significant

inflation. The change in Bhutan's economic classification also means, however, that it might get less aid than before. Thus, increased domestic revenues will have to be an important priority for Bhutan for garnering additional fiscal space; slow growth in revenues has been partly responsible for large fiscal deficit in Bhutan.[26] The fact that Bhutan has been able to make good progress on its MDGs, however, does give it some breathing space.

Among SEAR countries, India's story seems the most disappointing. Though currently there has been a deceleration in its growth rate,[27] India's growth record has been quite impressive in recent years despite turbulent global situation. Despite this India has not been able to either raise sufficient resources for health or improve the efficiency of spending in the health sector.

India is the most integrated with global financial markets in the region, and its short-term external debt was 6.8 percent of GDP in the second quarter of 2011, with total external financing needs projected to reach 9.8 percent of GDP in 2012.[28] India's fiscal deficit and short-term external debt has given it less maneuvering space and tightened fiscal space. With falling growth rate due to "the weakening in activity reflects a significant moderation in domestic demand, led by a deceleration in investment activity that has faced headwinds of rising borrowing costs, high input prices, slowing global growth and heightened uncertainty,"[29] India needs to be careful that social sector spending does not get affected. The recent reports of alleged financial corruption with National Rural Health Mission (NRHM) funds are an indication of India's inability to stem corruption in its public spending.[30] Despite its current economic conditions and given its past impressive growth record, India can still increase health spending by broadening its tax base. This might be a necessity given its weak performance on the MDGs.

Indonesia, on the other hand, gives rise to cautious optimism. It has been growing steadily, despite global turbulence. The IMF projects that Indonesia will grow above 6 percent in 2012 as well.[31] It has low fiscal deficit and its debt levels are moderate. However, health has a relatively low priority in the budget and earlier suggestions to increase health spending include reduction of subsidies, targeted increases in health spending, cross-subsidization within a universal health insurance system, earmarking taxes, or specific levies in income.[32] While its progress towards poverty elimination has been good, its progress in the health sector is less evident. Infrastructure constraints and labor market issues are seen as areas that have hampered better health sector performance.[33] Indonesia, like India, has considerable scope to improve its allocation to the health sector as well as improve efficiency of its health spending. Its fiscal space will primarily come from reprioritization and increased efficiency in current spending, as well as improved revenue collection efforts with a focus on tax reforms and broadening tax base.[34]

As for Maldives, it has been able to reverse the post-tsunami decline with rapid growth, which enabled it to make the transition to the category of a middle-income country. There have been improvements in poverty levels and also in social indicators like health. Maldives has been struggling with reforms in public governance and public financial management for better policy-making. In particular, budget planning has been somewhat unstructured and reforms are

now high on the government's agenda.[35] The economy continues to face unsustainable fiscal and external positions, limiting its fiscal space.[36] The IMF has recommended that Maldives continue to make urgent adjustment efforts, including through a "combination of additional revenue-enhancing, expenditure-reducing, and expenditure-targeting measures."[37] Some of the recommendations for increased revenue include introduction of excises on alcohol, tobacco, jet fuel, gasoline, and vehicles.[38]

Maldives has made considerable progress on the MDGs. The major challenge remains provision of services on an equitable basis to populations scattered over many islands. The reorganization of the health system with the introduction of atoll hospitals and placement of doctors at health centers has increased access to curative services for the island communities.[39] However, Maldives continues to face large uncertainties due to climate change issues, and would always need to be prepared for large expenditures due to such calamities. Thus, while fiscal space for health does not seem to be a major immediate concern, given it already spends more than 5 percent of GDP on health, additional resources are always welcome. Currently, its challenge is better health planning and prioritization in its health spending.

The new government of Myanmar faces significant challenges for sustainable and inclusive improvement in living standards of its population. One important part of this process is fiscal and monetary reforms to ensure macroeconomic stability. Currently, the country owes $11 billion in foreign debt, which clearly is impossible for it to repay and the government is negotiating with the international community about its options and their assistance in this regard.[40] The country still is coping with many years of political and economic turmoil and its aftermath, so it is too soon to comment on issues like fiscal space. Nevertheless, clearly Myanmar needs to increase its dependence on internal sources for its social sector investment, and it has been recommended that additional fiscal revenue be mobilized from non-resource-based sources. IMF recommends that increase in revenues be brought in through improved tax policies with an emphasis on direct taxation over indirect taxes to protect the poor.[41] In this regard, recent efforts to simplify the structure of several taxes are welcome and should go further, while reforms to tax administration remain essential to broaden tax bases and reduce tax avoidance. Very recently, the government, especially the Ministry of Health, has began addressing the huge out-of-pocket expenditure on health and the need for universal health coverage.

The global crisis has had a delayed impact on Nepal's economy, and real GDP growth rate has slowed down somewhat, with decline in exports, a sharp slowdown in remittances, and a worsening of economic confidence. This has contributed to a large deterioration in the current account balance and a decline in international reserves.[42]

There are structural weaknesses in Nepal's economy that are compounded by political instability that prevent it from moving along a faster growth path. Nepal remains dependent on foreign aid (7.1 percent of GDP), agriculture, and trade with neighboring countries.[43] Additional challenges to Nepal's growth include its landlocked geographic location, civil strife and labor unrest, and its susceptibility to natural disaster. The economic situation remains

volatile, with uncertain government revenue impeding sustainable and secure allocations across different sectors.[44] The country has also been facing high inflationary pressure (around 12 percent). Low productivity, poor infrastructure, weak governance, and an underdeveloped financial sector remain impediments to growth.[45]

Despite all these, its progress towards the overall MDGs has been moderate on other fronts and it is close to achieving several of the MDGs by 2015.[46] Specifically, in terms of health outcomes, the record is not very impressive, and mortality rates remain too high. Public spending in health is low at 2.2 percent of GDP, and it remains a challenge to increase the level of investment in health. Its recent fiscal policy has been prudent, resulting in decline of public debt as a percentage of GDP. This has created fiscal space that can be used for social sector and other essential spending.[47] There can also be some fiscal space that can be obtained by broadening its tax base. Finally, like many other South Asian countries, there can be space freed up by more effective spending at the current levels in the health sector. However, currently, the IMF predicts rising external and financial sector risks, with stabilization as a key priority.

Despite continued civil conflict, Sri Lanka has been able to maintain an adequate rate of growth. Currently the growth has been strong at about 7.5 percent.[48] However, its fiscal situation is still weak and Sri Lanka has one of the highest public debt-to-GDP ratios among emerging market countries.[49] The IMF predicts that this will change when inflation and monetary conditions have eased in the coming months.

Apart from the improvement of economic indicators the country has considerably improved its health indicators, and is one of the success stories in the SEAR. While its ambitious health MDG targets may not be possible to meet, it still is in a far superior position compared to its immediate neighbors. This has happened despite very low level of public spending on health. Sri Lanka is often cited as an example of a country that has been able to attain its impressive health outcomes with relatively low levels of resources, which is attributed to the efficiency of its health system.[50] Nevertheless, a higher level of spending can certainly enable the country to do even better in the health sector.

With high fiscal deficit and public debt, additional revenues seem safer to obtain from taxes. Tax revenue in Sri Lanka is about 13 percent of GDP, which leaves some room for using this source further. In the 2011 budget, the Sri Lankan authorities proposed measures to simplify the tax system, broaden the tax base, reduce rates, and spread the tax burden more equitably.[51] These steps would help increase the amount of tax collected, which are much needed for investment in infrastructure, construction, and social sector spending. There is also some scope for additional external funding since its Overseas Development Assistance (ODA) has been quite low, though only after it has fully ensured that all domestic sources have been explored and used.

Thailand's income categorization was upgraded by the World Bank from a lower-middle income economy to an upper-middle income economy in July 2011. It has made impressive progress in social and economic development, despite facing a number of financial/economic and political challenges.[52] Its strong growth over a long period has made a significant dent in poverty as

well. Its major challenge remains unequal distribution of the benefits of growth, particularly in the North and Northeast.

In 2010, Thailand saw a set back to its economic growth due to global economic conditions and political uncertainty, but it has slowly recovered, with a return to its usual level of economic activity. More recently, the devastating floods took a severe toll of the economy, but thanks to a low public-debt level (around 40 percent), Thailand had fiscal space for investment to restore infrastructure.[53]

In terms of health indicators Thailand is ahead of its South and South-Eastern neighbors. Its progress towards the MDGs has been impressive, though regional targets remain to be met. Fiscal space does not seem to be the main concern in the country as far as health spending is concerned. Current public health spending to GDP is a modest 3.3 percent, and Thailand has one of the most satisfying social health protection system in the region, even with this level of health spending. While growth may not be very high, the fundamentals in the Thai economy are sound enough for it to be able to generate additional resources, if required. ODA also remains a source for it to use, since it has not depended on this source to any great extent in the past.

Timor-Leste is one of poorest countries in Asia. The country's economy is heavily dependent on oil and natural gas exports. It is also one of the most oil dependent countries. In 2009, petroleum income accounted for about 95 percent of total government revenue and almost 80 percent of GNI.[54] The country has managed to grow well in the past few years and tackle poverty to a significant extent. However, the domestic infrastructure is very poor and the investment environment is significantly limited by inadequate institutional capacity and a very small private sector. The financial sector is very small and underdeveloped. Inflation is currently running into double digits.[55]

Reflecting increased transfer payments and other subsidies, government spending has increased to a level equivalent to 108.7 percent of total domestic output, which is not strictly comparable with other countries because the government deposits all its oil revenues in a Petroleum Fund that gets counted in the revenue but does not get reflected in the GDP reported by the government.[56] The non-oil fiscal deficit has gone down, financed by revenues from the Petroleum Fund. In fact, the country has huge budget surplus and the actual fiscal deficit to GDP is only 0.9 percent.[57] However, recent IMF reports indicate that there may be a huge increase in the non-oil fiscal deficit due to significant planned increase in expenditure by the government, especially capital expenditure.

The challenge in Timor-Leste is to be able to use the surplus from oil revenues to its advantage and manage wise and effective spending, without jeopardizing stability. It is also recommended that non-oil economy be boosted, tax rates rationalized and revised, and social sector spending be increased. In 2009 the domestic tax to non-oil GDP ratio was only 8 percent, whereas the overall tax revenue as a percentage of non-oil GDP was 133.9 percent,[58] reflecting large tax revenues from the petroleum sector. Tax collection in the non-oil sector is ineffective and reforms have been initiated to improve the tax system. There is considerable scope to mobilize additional domestic revenues by raising tax other than petroleum product. IMF also recommends that higher tax rates and new taxes, including tax on land, should be considered.[59] Such reforms and a well-planned

out spending using all resources, oil and non-oil, should be sufficient to ensure that health spending is not constrained by lack of fiscal space in Timor-Leste.

Discussion and Conclusion

Low health spending is common in Bangladesh, India, Indonesia, Myanmar, Nepal, and Sri Lanka, but only India, Myanmar, and Nepal are lagging behind in their MDG targets, and not performing well on other indicators like poverty.[60] Thailand and Sri Lanka have already met the MDGs and have been able to extend health coverage to a majority of their populations. The other countries are only now starting to think of universal health coverage (UHC). While the right model for such coverage is still not a foregone conclusion, it is clear that there is a need for a much higher level of health spending, irrespective of the model adopted.

There seems considerable scope for better tax administration and management on the one hand, and increase revenues from additional taxes on the other. Other instruments of raising resources like borrowing or external funding do not seem suitable given the current global as well as domestic macroeconomic environments. While earmarked taxes for health funds might be a good idea, caution must be exercised to implement such ideas in environments of low efficiency of spending. There may also be a perverse incentive problem in sin taxes with the revenue objective overriding the aim to reduce the particular activity. It is also not a sustainable source of revenue in the long run if the particular activity has to be curtailed.

Sri Lanka covers its entire population through general revenues with low reliance on private spending, especially for the poor, precisely because the efficiency of spending is fairly high. Thailand, as well as Bhutan and Maldives, have very high government commitments and strong primary health care.

Countries that need to see rapid expansion in health coverage are India, Nepal, and Myanmar. It is not clear that adding an earmarked tax is going to do be sufficient; UHC is a legal and political, rather than technical, issue. Empirical evidence shows that political commitment, higher tax revenues, and greater democracy are associated with a higher share of GDP going to public health spending.[61] Other analysis stress on conditions that are common among countries that have good practices in health financing.[62] It is argued that many countries have poorly developed social protection infrastructure that cannot be solved by mere increase of spending, but calls for fundamental reform to the institutions of social protection, including pension systems, health care financing and delivery, transfer programs, and unemployment benefits.[63] Unfortunately, this recognition seems to be missing from discussions on UHC in countries such as India that are planning health coverage expansion. Additional revenue is only one among many other preconditions that would be required to achieve good practices in health financing.

Nevertheless, while not sufficient, additional resources would still be a necessary ingredient of any health reform that would move countries towards UHC. There is considerable scope to garner such resources domestically in SEAR, either through strong tax reforms at the current levels of taxation or introducing additional levies in a progressive and innovative manner. However, caution must be exercised to ensure that such additional resources are spent effectively.

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