Financial and Cost Accounting Perspective

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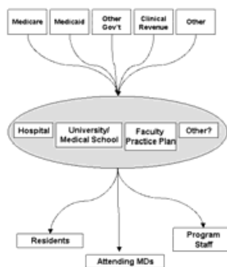
Overview

- Review of current funding process for medical residency programs
- Title VII programs and funding
- Current GME and IME formulas & examples
- Case Study: Integration of a CHC and family medicine residency program at RiverStone Health
- Challenges and process lessons

Graduate Medical Education: What are We Paying For?+



+NORC (National Organization for Research at the University of Chicago)
http://aspe.hhs.gov/health/reports/06/GradMedicalEdu/report.pdf

Funding for GME, FY 2003

Funding Source	Funding Amount (billions$)
Medicare DGME	2.5
Medicare IME	4.9
Subtotal, Medicare	7.4
Medicaid	2.5
VA	0.8
Dept. of Defense	0.3
Children's Hosp. GME	0.3
Other HRSA	0.2
Subtotal, Public Funding	11.5
Private Payer	7.2
Total Funding	18.7

40% (Medicare DGME, Medicare IME, Subtotal, Medicare)

* Wynn B, Guarino C, Morse L, and Cho M. "Alternative Ways of Financing Graduate Medical Education." Report to the Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, May 2006.

Title VII

- "Titles VII and VIII of the Public Health Service Act authorize a variety of initiatives for training programs and students to improve the geographic distribution, quality, and racial and ethnic diversity of the health care workforce."
- "Title VII programs support physician, dentist and allied health profession training, with most of the funding dedicated to training in primary care medicine and dentistry and medical student diversity."

http://www.ncsl.org/programs/health/forum/78grants.pdf

Comparison of Title VII and GME Funding (David and Goliath)

- Substantial cuts in funding for Health Resources and Services Administration (HRSA) Title VII Section 747 Primary Care Training Grants (Title VII grants)
  - from $92.4 million in fiscal year 2003 to $48.0 million in 2008
  - At most, accounted for 0.5% of GME funds, now <0.3% of GME funds

Rittenhouse et al. Impact of Title VII Training Programs on Community Health Center Staffing and National Health Service Corps Participation. Annals of Family Medicine 6:397-405.

GME Funding

- Largest single funding stream is the Medicare program
- Title VII can provide some competitive funding but that stream is drying up
- State funding
  - Medicaid GME (shrinking as state budgets face shortfalls)
  - Disproportionate Share payments (not directly for GME, but support the hospitals that tend to provide training)
  - Direct support (e.g., MT)
- Some costs covered through grants (e.g., research, development)
- Can generate some revenue through outside activities (e.g., medical directorships)

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State Funding of GME

- Medicaid FFS programs (methods similar to Medicare calculations)
- GME payments carved out from capitated Managed Care Organization
- Targeted Medicaid GME payments:
  - 10 states' Medicaid payment policies linked to health care workforce, State policy goals
    - GA support of AHEC
    - MI has separate "primary care pool"
  - 5 states' Medicaid payments linked to training in certain settings (ambulatory, rural, underserved)
    - TN (TennCare) GME follows residents to community training sites
  - 4 states link payment to increasing supply of providers for Medicaid beneficiaries

COGME Resource Paper: State and Managed Care Support for Graduate Medical Education: Innovations and Implications for Federal Policy, July 2004

Model State GME Financing Initiatives

- Arkansas
  - Appropriation of tobacco settlement to directly support community residency programs (enhance GME hospital pass-through)
- Colorado
  - Commission on Family Medicine created in 1977
    - Meet the need of rural and underserved communities for family physicians
    - Annual state appropriation to support Commission and residencies
- Texas
  - Higher Education Coordinating Board may allocate state funds to family medicine residencies
  - Funds limited to no more than 35% of total budget
- Creation of Medical Education Trust Fund Funded by Multiple Payers
  - New York (Medicaid, commercial insurers)
  - Minnesota (Medicaid, tobacco settlement fund, state general fund, Medicaid managed care carve out).
  - Utah: CMS waiver for Utah to pool all Medicare GME funds (DME and IME) and distribute according to state workforce needs

Medicare Funding

- Two streams of revenue
  - Direct graduate medical education funding ("DGME")
  - Indirect graduate medical education funding ("IME")
  - Collectively "GME"!!

Total Medicare GME payments, FFY02 – FFY04

Fiscal Year	GME (B$US)	IME (B$US)
2002	**2.4**	**5.7**
2003	**2.59**	**5.30**
2004	**2.7**	**5.8**

Medicare covers ~30% of total cost of training residents

http://www.amsa.org/pdf/Medicare_GME.pdf

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FFY03

Total Medicare spending ~ $272B

Medicare payments to hospitals ~ $109B (40%)

Total Medicare GME payments ~ $8B (7% of hospital spending and 3% of total spending)

http://www.medpac.gov/publications/congressional_reports/Jun04DataBookSec6.pdf

DGME

- Intended to cover the direct cost of training, including:
  - salary and benefits for residents, faculty, and support staff who work directly to support the residency program
  - Overhead and allocated costs required to support the program (e.g., space, utilities, legal fees, liability insurance, etc.)
- "All or substantially all" standard
- Roughly 1/3 of total GME payment

DGME Computation

- Key factors
  - Number of residents per hospital (subject to 1996 cap on number of residents in the hospital – can increase program size but must decrease elsewhere to not exceed the cap)
  - FTEs of residents per hospital
  - Initial Residency Period (“IRP”) – the authorized length of a residency and the period for which 1.0 FTE can be allocated (0.5 FTE for periods beyond the IRP)
  - Per Resident Amount (“PRA”) – begins with 1984 base level then adjusted by the CPI
  - Proportion of inpatient Medicare days (remember that Medicare says it pays ***<u>its share</u>*** of GME costs)

DGME Computation

$$\frac{\text{(Medicare days)}}{\text{(Total days)}} * \text{FTE} * \text{PRA}$$

- Note that Medicare's share is linked to its share of inpatient days, which is clearly a hospital-only measure
- Medicare does allow DGME payments to non-hospital settings but this is not realistic for reasons that will become apparent in IME discussion
- DGME is paid in 26 equal installments

DGME Example

- Resident FTE = 15 (assume at or under cap)
- Per Resident Amount = $75,000
- Average daily census = 350
- Average Medicare daily census = 105
- Total inpatient days = 350 * 365 = 127,750
- Total Medicare days = 105 * 365 = 38,325

Medicare GME = (38,325/127,750) * 15 * $75,000
= 0.3 * 15 * $75,000
= $337,500 per year

IME

- Intended to compensate *hospitals* for inefficiencies that come with training programs
- Indirect costs include considerations like:
  - Treating sicker patients
  - Longer lengths of stay
  - Using costlier and more sophisticated technology
  - Residents perform more tests
  - Requiring a more extensive and costlier staff mix
  - Providing a broader range of services
  - Lack of support from other payers for GME
- Roughly 2/3 of Medicare GME funding
- Paid as percentage "add-on" to every Medicare DRG (**and only hospitals have Medicare DRGs – this is why non-hospital settings cannot get IME payments**)

IME Computation

- Key factors
  - Multiplier (determined by Congress)
  - Intern Resident Bed Ratio ("IRB")
- The multiplier sets the percentage increase in IME for every 10% increase in IRB ratio
- Under the Balanced Budget Act of 1997 ("BBA") and the Drug, Improvement and Modernization Act of 2003 ("DIMA") the percentage increase per 10% IRB increase shrinks from 7.7% to 5.5%

IME Computation

% add-on = multiplier * $[(1 + IRB)^{0.405} – 1]$

- DRG payment for a given Medicare discharge is computed by multiplying the case mix index times the hospital's base DRG rate
- IME is included by multiplying the result of the formula above by the computed DRG payment

IME Example (single case)

- 2008 multiplier = 1.35
- 200 residents
- 500 bed hospital
- Case mix index = 1.75
- Base DRG amount = $4,000

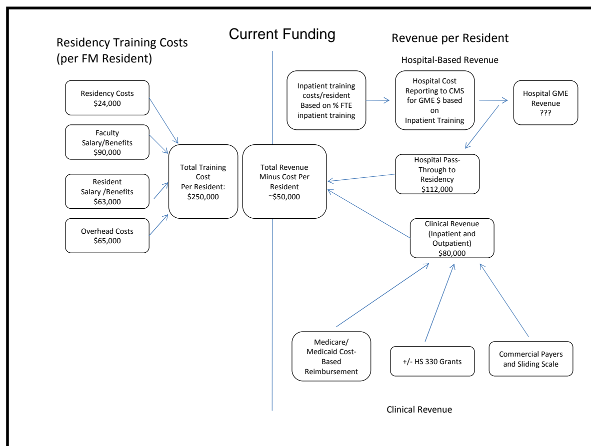
Base DRG payment = $4,000 * 1.75 = $7,000

IME multiplier = $1.35 * [(1 + (200/500))^{0.405} - 1]$
= $1.35 * [(1.4)^{0.405} - 1]$
= $1.35 * (1.146 - 1)$
= 0.1971 (i.e., adds 19.71% to DRG payment)

Final Medicare DRG payment including IME add-on =
1.1971 * $7,000 = <u>$8,379.70</u>

Pass-Through of GME to CHC

- Analogous to hospitals, costs of ambulatory care teaching sites are at least 1/3 higher (almost ½ of which is infrastructure cost)[*Hogan]
- Program directors typically do not know the hospital GME payments for their program's residents; IME often is not passed through[*Phillips]
- Ambulatory sites need to "make up" these training costs through grants, sponsoring hospital, or other funding



Multiple Funding Streams

- Good accounting systems are a must when you have multiple funding streams
- For example: One faculty physician might be paid through DGME funds as a direct cost of training residents, as PI for a Title VII rural primary care training grant, as a medical director for two nursing homes, and for providing direct clinical services to patients (is this a 2.6 FTE physician?!?!?)

Changing Directions…

- Let's move from the generalities of GME programs and funding to a case study of the integration of RiverStone Health Clinic (a federally qualified health center) and the Montana Family Medicine Residency Program

The Players

- RiverStone Health is the assumed business name (i.e., "DBA") used for Yellowstone City – County Health Department since 6/30/08)
- RiverStone Health Clinic (known as Deering Community Health Center prior to 6/30/08)
- Montana Family Medicine Residency

RiverStone Health

- Organization originally formed in 1974
- Initial 330 funding in 1984 started CHC (public model with co-applicant boards)
- 330 activities and funding expanded to include dental practice, HCH (local and statewide via sub-recipient agreements with three other CHCs), Montana Women's Prison, and 3 rural satellites
- RiverStone Health also operates an on-site retail pharmacy with 340B authority, Ryan White HIV/AIDS, immunizations, WIC, Maternal-Child Health, and other public / community health services in concert with CHC activities
- Provides extensive clinical training in many disciplines

MFMR

- Opened in 1996 – graduated eleventh class in June 2008
- Six new interns annually plus one sports medicine fellow
- 501(c)(3) joint venture sponsored by two Billings hospitals and RiverStone Health
- Other Board representation from Montana University system, MHA, and MAFP

The Starting Point – RiverStone Health Clinic, c. 1995

- A small but successful CHC with limited services
- 3 exam rooms
  - 5-7,000 patients
  - 14,000 visits annually
  - Acute outpatient care, STD care and immunizations
  - No diagnostic procedures, therapeutic procedures, prenatal care, nursing home care, inpatient care, night call coverage
  - Minimal continuity and episodic chronic disease care

The Starting Point – MFMR

- Only graduate medical education program ***in Montana***
- Employed faculty, residents, fellow, midlevels, and administrative support staff
- Funding from GME/IME via hospitals' pass-through; state general fund allocation; grants; clinical service contract at CHC (RiverStone Health Clinic received clinical income)

Needs

- Uninsured – 22%
  - 25,000 people locally
- Underinsured – no idea (but really big – MT has the one of the highest rates of people working 2 or more jobs in the country)
- Physician education in the state attuned to the state's current and future workforce needs

Addressing the Needs by Working Together

- Clinic expanded facility to meet volume needs
- MFMR opened in 1996 with a contract agreement to staff the CHC and educate residents using the clinic as its family medicine center
- RiverStone Health Clinic and MFMR co-located since Residency's inception
- CHC agreed to support expansion to full scope primary care for patients to meet training requirements

Parallel Organizations

- Although interdependent, the CHC and the residency program operated in parallel
- No matter how close parallel lines get, by definition ***they never intersect***
- CHC perception: Residency is here for education first and patients are "textbooks" negatively impacted by discontinuity (35 staff comprise 10 provider FTEs)
- MFMR perception: Patient care and graduate medical education are inseparable but clinical sites must accept challenges of clinical education (especially challenges related to continuity and inefficiency)
- Separation of accountability means separation of priorities

The Issue that Precipitated Change

- Professional liability insurance premiums were growing rapidly and outstripping revenues
- FTCA was seen as an alternative so MFMR Board asked RiverStone Health to investigate options to have MFMR covered by FTCA
- The real questions: Is saving money on medical malpractice insurance a good enough reason to change the model? If not, what ***is*** a good enough reason?

Early Discussions

- Both sides lobbied for their positions and turf
- Who would control?
- Who would win and hence who would lose?
- History of contentious issues / perceptions colored the discussions
- Breakthrough moment: the decision to change to "interest-based bargaining" model with shared principles and goals

Guiding Principles – Mission

- The purpose of the integration of MFMR and RiverStone Health Clinic is to provide superior graduate medical education in Montana and high quality, comprehensive, state-of-the-art primary healthcare to underserved populations that is indistinguishable from the standard of care available to people of means.

Guiding Principles – Vision

- The integrated MFMR / RiverStone Health healthcare system will provide the best available primary care regardless of consumers' access to resources while populating other areas of medical need within the state of Montana with sensitive, well-prepared, and competent primary care practitioners.

Guiding Principles – Shared Goals

- ***Financial Goal:*** Ensure the long-term viability of the RiverStone Health Clinic / MFMR clinical and educational model.
- ***Educational Goal:*** Provide superior graduate medical education for family medicine practitioners and leverage the benefit of exposure to a community health center and a public health agency to populate medically underserved rural areas of Montana with uniquely qualified primary care physicians.

Guiding Principles – Shared Goals

- ***Clinical Goal:*** Develop and deliver primary care through a model that ensures comprehensive, high quality, and safe care that is indistinguishable from the quality and extent of care available to people with resources.
- ***Operational Goal:*** Fully integrate the care delivery systems, quality management systems, expectations, and priorities of MFMR and RiverStone Health.
- ***Governance Goal:*** Provide fully integrated governance and direction of RiverStone Health and MFMR.

The New Model – Structural

- Three-part agreement between RiverStone Health, RiverStone Health Clinic, and MFMR effective 9/1/05
- All MFMR staff (administrative support, faculty, residents, fellow, and midlevels) offered employment by RiverStone Health
- The corporate entity of MFMR remains and the Board retains fiduciary responsibility and oversight of educational activities
- RiverStone Health has all obligations, rights, and responsibilities of employment (includes FTCA)

The New Model – Operational

- Original model: MFMR provided GME with own staff and contracted to provide clinical services to RiverStone Health Clinic
- New model: RiverStone Health provides clinical services with own staff and contracts with MFMR to provide GME staff and activities

Management

- Senior VP of Clinical & Educational Services: Physician who leads integrated medical / education division that includes MFMR and all components of RiverStone Health Clinic
- VP of Clinical & Educational Services: Single senior level administrator who provides administrative leadership to MFMR and RiverStone Health Clinic
- Shared accountability ensures balanced decisions
- Needed to build infrastructure to allow administrators to lead rather than manage daily activities

Physician-Patient benefit

- Physicians and other students gain comfort with care of patients with economic and social disparities and complexities
- Students and physicians learn how to use community resources to advance care of patients with financial limitations
- Patients have a personal physician and healthcare home with full scope, continuity care without regard to means
- Collaborative care uses scarce health resources wisely

Now

- 27 exam rooms, expansion needed
- Three new rural sites opened in 12/07 – 1/08
- 25,000 patients – 45 new per month
- 60,000 visits, including dental, HCH, and MWP in 2007 (before three new sites)
- Full two-hospital inpatient service averages 25 patients
- 60+ nursing home patients
- Prenatal care and delivery
- Endoscopy, colposcopy, ultrasound and x-ray, skin procedures, vasectomy, and more
- Addition of medical students, PA students, nursing students, pharmacy students and others

Advantages to RiverStone Health

- Access to telemedicine educational network
- Increased interaction / investment of the residency's hospital sponsors at the CHC and HCH sites
- Full scope of services for patients, state of the art primary care with full access goal
- Access to new funding sources, increased revenue from hospital-based care

Advantages to the Residency

- A plethora of patients
  - Endless medical need
  - Wide variety of experience for residents
- Attraction and development of physicians as faculty who understand service in medicine
- Good model for rural and frontier care
- Access to different funding streams for patient care support
- Attraction of residents with "the right stuff"
  - >300 applicants annually for six slots
  - ~ 80 interviewed and~45 ranked
  - Never failed to fill with matched candidates (from top 1/3 of list)

Advantages to Community

- Medical community
  - Greater ownership of underserved and homeless patient community
  - More comprehensive care of underserved
  - Better consultation and follow up efficiency
  - Large decrease in unassigned patient call load in hospitals
  - Able to refer uninsured and underinsured patients with clear conscience
  - Opportunity to educate future colleagues

Funding

- Service:
  - 330 funding including HCH grant
  - Ryan White grantee
  - Prospective payment – Medicaid
  - FQHC Medicare
  - Fee for service – self pay and private insurance
- Education:
  - Graduate Medical Education pass through from hospitals
  - Grants
  - Endowment fund
  - Hospital funding for education costs in addition to GME
  - Student program funding

Placement statistics: 53 Graduates to date

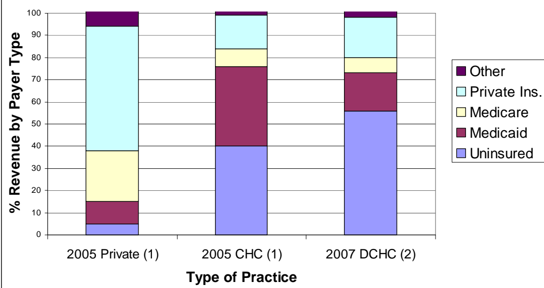
- ~85% in health care shortage areas
- ~70% in Montana

Tiers of benefit

- Residents and faculty benefit from broad education and rewarding service
- Patients benefit by access to quality affordable care without stigma
- Local community benefits as care gaps are filled
- State benefits from skilled graduates and healthier people
- Nation benefits from graduates and portable curriculum and care system
- And the world is a little better place…..

One Really Big Thing, Though…

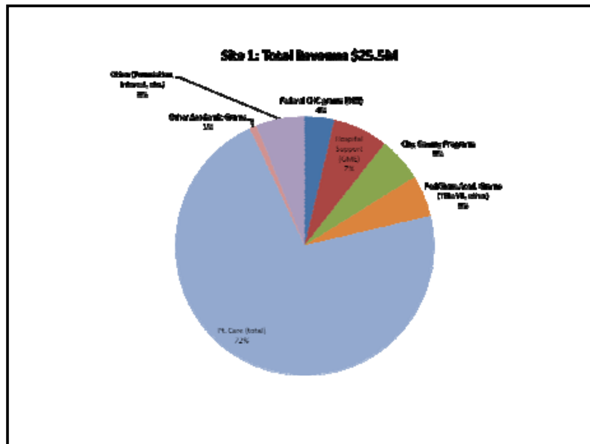
- GME funds flow through the two hospitals
- RiverStone Health bills hospitals for DGME costs based on resident FTE count at that hospital
- This works because of well-established relationships, although not everyone understands that the hospitals are receiving ongoing funding to support the residency
- It would be easier to have direct GME funding of the CHC (could get DGME but not IME and IME is 2/3 of Medicare funding)

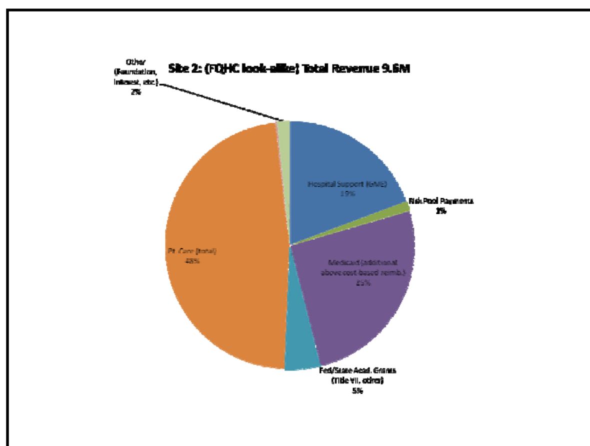


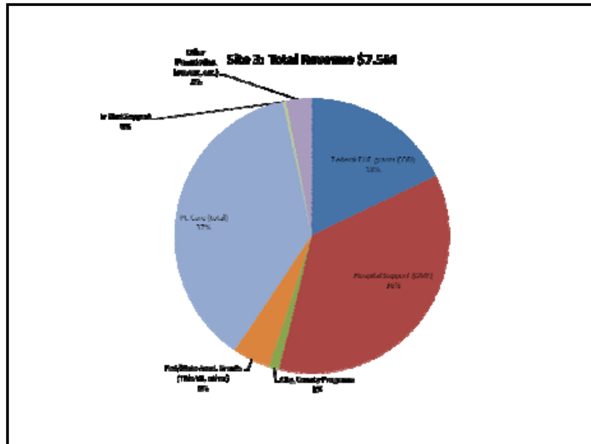
Sources: 1 = *A Sketch of Community Health Centers: Chart Book 2006* (NACHC)
2 = Deering CHC 2007 Uniform Data System Report

Cost Accounting

- Forms to calculate
  - Basic Operating Expenditures for CHC and outside sites
  - Annual Basic Operating Professional Revenues
  - Annual Staff Expense Information
- Samples available electronically: contact drlesko@u.washington.edu







Medicare in the CHC

- We know that other payers do not contribute to GME for the most part
- Medicare has been willing to pay “its share” based on proportion of Medicare days in the hospital
- What if CHCs are forced to adopt the same model? There might be hope – HRSA has a “Children’s Hospital GME Program” to pay for pediatrics training, and HRSA funds FQHCs…

Challenges and Lessons Learned

- Although more and more medical care is delivered in the ambulatory care setting, the current system only supports a hospital–based residency program from a reimbursement perspective
- CHCs offer many of the same benefits to the overall healthcare system from an ambulatory care perspective that safety net hospitals offer from an inpatient perspective

Challenges and Lessons Learned

- The federal government depends on formulas that only work in the hospital setting because GME is primarily paid through CMS, but there is a model for trainings residents in low-Medicare settings (i.e. children's hospitals)
- Graduate medical education does not seamlessly fit in with purely clinical settings – everyone has to give a little in pursuit of higher level goals
- There are many potential funding streams so a good accounting system is very important

Challenges and Lessons Learned

- There are language barriers between clinical settings and the GME world that need to be recognized and overcome
- Training physicians is inherently inefficient (hence IME) – must be willing to accept and work with that premise or don't even bother trying to operate a residency program
- And perhaps the greatest lesson learned through studying the GME system…the people who developed the IME methodology take geekdom to new heights so don't expect reimbursement systems to develop quickly, simply, or directly even if ***everyone*** agrees that CHC-based residency programs are a good idea!