



Ten-year Trends in the Financing of Family Medicine Training Programs: Considerations for Planning and Policy

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BACKGROUND AND OBJECTIVES: The recent Affordable Care Act (ACA) includes physician training provisions to address the US primary care workforce shortage and maldistribution. Policymakers require current graduate medical education (GME) residency finance data to design and implement programs that increase primary care physicians. The University of Washington Family Medicine Network residencies have collaborated for 10 years in collecting and comparing data regarding the revenues and expenses of their training programs. Based on biennial survey results from 2000 to 2010, this study examines changes in the finances of residency training over a decade using a standardized methodology.

METHODS: Data were systematically collected by standardized questionnaire, evaluated for quality and verified, and then analyzed.

RESULTS: The per-resident expense of residency education for these programs increased an average of 63%, and overall residency revenues increased 75%. GME funding per resident increased 47% but decreased as proportionate contribution to overall program revenue.

CONCLUSIONS: The mean cost per resident remained relatively stable over the 10-year period, with a 3.1% overall increase to \$27,260 per resident per year. Programs that successfully obtained federally qualified health center (FQHC) status, increased their residency graduate medical education (GME) slots or received other new significant funding, such as state grants, were the most financially stable. Policy solutions would stabilize both federal GME and state Medicaid GME funding and increase reimbursement of primary care practice to maintain the viability of primary care training programs.

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Medical education financing, an ongoing health policy focus, has garnered increased attention with the passage of the Patient Protection and Affordable Care Act (ACA).¹ This health reform law legislated primary care

workforce evaluation and increased training of primary care physicians to expand patient access to needed health care. Provisions in the ACA reauthorized the Health Resources Services Administration (HRSA) Title VII Primary Care Training and

Enhancement grant program, established Rural Physician Training grants, created Primary Care Extension Centers, and formed a new residency financing pathway in the Teaching Health Center Graduate Medical Education program. These programs all require detailed knowledge of residency finances and graduate medical education (GME) funding to properly allocate resources.

GME funding is predominantly provided to hospitals by the Centers for Medicare and Medicaid Services (CMS) through direct per-resident funding (DME) and indirect funding (IME), and then apportioned by hospitals to ambulatory training sites. Policymakers, recognizing the importance of GME funding for the future primary care workforce,² have reexamined this pathway of funding. Many voices calling for an outpatient-centered reform of GME (including the Council on Graduate Medical Education [COGME], the Medicare Payment and Advisory Commission (MedPAC),³ and other health policy experts⁴⁻⁷) have recommended the realignment of GME financing with physician workforce goals, including more directed funding of outpatient training. Although the Balanced Budget Amendment (BBA) of 1997—while capping residency slots—opened the door for payment of DME funds directly to ambulatory training sites,

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the exclusion of IME (the majority of GME funding) from this policy change effectively prohibited its adoption.⁵

Financial concerns have stressed primary care residency programs, especially family medicine programs. Finances significantly contributed to the closure of 27 family medicine programs in one calendar year,⁸ prompting a call for improved and more efficient funding mechanisms. Detailed residency financial cost-accounting information is limited and outdated, especially for primary care programs. Cost estimates of 1 year of training for one family medicine resident (most prior to the year 2000) have ranged from \$50,000 to more than \$350,000.⁹⁻¹⁴

Although family medicine department finances have been reported,¹⁵ family medicine residency training finances have been challenging to define and track for several reasons. Because GME funding predominantly flows through hospitals to the ambulatory training site, the cost and clinical revenue streams are separated, which may obfuscate accounting. Clinical and educational revenues and expenses can be intertwined in accounting systems, and indirect costs can be accounted for in many different ways. Additionally, the highly variable structures of programs make comparisons less reliable. The “true cost” of ambulatory residency training, as required by funders and programs, is indeed difficult to quantify.

In an effort to understand family medicine residency costs over time despite these challenges, the University of Washington Family Medicine Residency Network (UWFMRN) has conducted a financial benchmarking survey biennially from 2000 through 2010 of all family medicine residencies in the five-state region comprising Washington, Wyoming, Alaska, Montana, and Idaho (WWAMI). Fourteen residencies in 2000 completed the survey, increasing to 18 by 2010. This report is an update to the previous two analyses of these

benchmarking results^{16,17} and summarizes 10-year changes in family medicine residency patient revenue, GME support, insurance payor mix, residency expenses, and average per-resident net cost.

Methods

The UWFMRN is composed of 18 independently operated programs in the WWAMI states that are connected through an affiliation with the University of Washington. The WWAMI Network of residencies is comprised of two university-based programs, 11 programs sponsored by community hospitals, three programs that are self-sponsored, and two uniformed services programs (Table 1). Only two civilian programs have other residency programs sponsored at their institutions, although individual residents from other programs may rotate electively at other institutions. Medical students rotate in family medicine (as well as some other specialties) at all of the programs. The programs in 2010 housed an average of 23.0 residents (range 15–34, an increase of 5.1% from 2000, with eight residencies increasing their resident complement), and 10.8 faculty (range 6-19.7, a 21% increase from 2000). Six programs have added satellite sites or rural training tracks in addition to the core program, and three have closed such sites during this period. The main family practice center (FPC) was an FQHC in five programs in 2010, increased from two in 2000, and an additional two programs had satellite residency clinics in FQHC settings.

The survey instrument was developed in collaboration with program directors and administrators, and the same instrument was used for all five data sets. Emphasis was placed on understanding data elements and definitions to achieve as much input uniformity as possible for comparison purposes. The current program administrators at each site completed surveys; all but one site had at least one change in

administrator over the 10 years of the survey, and new administrators were oriented to the survey prior to first completion. Data were received at the central UWFMRN office, and a team of an administrative assistant and two physician project managers examined and analyzed the data for completeness and internal consistency. Data discrepancies and missing data were brought back to individual programs for clarification. Standardized spreadsheets of data for each of the five data sets for all programs were created. Each data set was analyzed using the same approach. The analysis was done both by examining trends within each program over the 10 years and comparing those trends and by examining trends in program averages over the 10 years. This study was exempted from review by the University of Washington Institutional Review Board (IRB).

Results

All data reported “per resident” are calculated per full-time equivalent (FTE) residents, as program actual resident numbers fluctuated with part-time residents.

GME Revenue

All 12 programs reported GME revenue for each of the 5 years. Table 2 presents the aggregate GME figures for the 12 programs, reporting GME/actual resident FTE in the program. Medicaid GME was excluded from this table and is discussed in the following section. DME as a percentage of total GME (IME+DME) is reported for the 10 programs able to separately list those contributions. Only three programs indicated that the GME revenues received by the institutions were directly allocated back to the program’s budget. Of note, all programs reported increasing GME/resident over the 10 years but with a progressive decrease of DME relative to total GME contributions. The programs with the greatest GME increase were those programs able to increase their resident GME caps,

either through reallocation from other residency programs that decreased in size at their institution (two programs) or through an increase with recent reallocations by CMS (three programs).

For years 2006–2010, 10 of the 12 programs or their sponsoring institutions were “over cap”: the currently approved residency size and current FTEs were greater than the DME cap as allotted by federal GME calculations in the 1996 base year; nine of these 10 are single-residency programs. The GME figures are from the programs’ pre-cost reporting for comparison across the years rather than from actual GME cost reports, which are not yet available for recent years. Additionally, some programs are contesting CMS determinations of prior cost reports. Because programs were on average five residents over cap, the actual GME/FTE resident in 2010 was 23.2% less than the GME/DME resident cap.

Medicaid GME Revenue

Medicaid GME revenue was highly variable and subject to reporting errors and was therefore not included in the GME program totals but is nonetheless critical to financial considerations for GME training. Second to Medicare, Medicaid is the largest explicit payer of GME; unlike Medicare, state Medicaid programs have no statutory requirement to support GME.¹⁸ Medicaid GME, because it is a state payment, has been vulnerable to state budgets; whether states have participated in supporting Medicaid GME, whether DME and/or IME was included, and the methodology used to determine the level of support has varied significantly over time. As of 2009, there has been a significant decline in the number of states providing Medicaid GME, with five states ceasing these payments, and nine states considering withdrawal of funding.¹⁹

In the WWAMI region, the number of states contributing Medicaid GME support has varied over this 10-year period, with only two of five states contributing in 2000,

Table 1: UWFMN Program Structures

State	County Population Size, 2009*	Setting (University/Community)	Total Resident FTE (% Change From 2000 to 2010)	Total Faculty FTE (% Change From 2000 to 2010)
AK	286,174	Community	34.0 (+42%)	10.1 (9%)
ID	384,656	Community	32.0 (+14%)	19.7 (4%)
WA	240,862	Military	n/r	n/r
WY	74,508	Community	21.0 (+5%)	2.0 (n/a)
WA	1,916,441	Community	29.0 (-6.5%)	8.3 (-12%)
WY	88,854	Community	19.0 (+5.6%)	15.0 (n/a)
WA	1,916,441	Community	32.0 (+7%)	15.3 (50%)
WA	1,916,441	Community	15.0 (0%)	3.4 (-59%)
ID	82,539	University	18.0 (+38%)	9.6 (+42.9%)
WA	796,836	Military	n/r	n/r
MT	144,797	Community	18.0 (0%)	6.0 (2%)
WA	250,979	Community	18.0 (0%)	9.8 (5%)
WA	468,684	Community	21.0 (-22%)	11.2 (53%)
WA	796,836	Community	24.0 (0%)	13.4 (46%)
WA	1,916,441	University	24.0 (0%)	9.2 (1%)
WA	1,916,441	Community	24.0 (0%)	11.4 (3%)
WA	432,002	Community	20.0 (+6.4%)	16.0 (90.5%)
WA	239,054	Community	19.0 (+11.8%)	11.1 (22%)
Average, excluding military (n=16)			23.0 (5.1%)	10.3 (21%)

UWFMN—University of Washington Family Medicine Network

FTE—full-time equivalent

n/r—not recorded

* US Census Bureau

increasing to four of five in 2006–2008, and recently decreasing to three of five states since 2008. Additionally, programs have significant difficulty obtaining information about these payments, and all report that these monies are not directly attributed to the program by the sponsoring institution. Therefore, these monies were not included in this analysis of program financing. However, the amount provided by the six programs able to report it varied from \$117,000 to \$1,820,000, averaging \$812,000 with a median of \$648,000.

Clinical Revenue and Payor Mix

Clinical revenue historically has comprised about half of total program revenues^{16,17} and is therefore

an important tracking measure. Clinical revenues for these programs included billings from outpatient family medicine center visits, inpatient visits, and visits at other sites such as nursing homes and emergency rooms; only three programs reported direct revenues from ancillaries and for all three the amount was less than 2% of total revenues. Detailed description of the clinical practices are reported in a separate paper, including volumes of patients, both inpatient and outpatient, and the implementation of electronic health records and Patient-centered Medical Home efforts.

Total gross clinical revenue for the 12 programs increased 112.6% over the 10 years, with a net clinical revenue increase of 58.9%; during

Table 1a: UWFMN Program Structures

State	# of Other Residencies in Sponsor	Satellite # of Residents/Year	RTT, Fellowships	Main FPC Is FQHC or Look-alike, *=Satellite in FQHC
AK	0	No	No	
ID	0	no	RTT, 2 fellowships	Yes (New 2010)
WA	n/r	n/a	n/a	
WY	0	No	No	Yes
WA	1	6	No	*
WY	0	No	No	Yes
WA	0	5	2 fellowships	*
WA	0	No	No	
ID	0	No	No	
WA	n/r	n/a	n/a	
MT	0	No	No	Yes
WA	0	No	No	
WA	0	No	RTT, 1 fellowship	
WA	0	No	1 fellowship	
WA	>6	2	1 fellowship	
WA	0	No	No	
WA	0	No	No	
WA	0	No	No	Yes

UWFMN—University of Washington Family Medicine Network

RTT—rural training track

FPC—family practice center

FQHC—federally qualified health center

n/r—not recorded, n/a—not applicable

this time there was only an 11.9% increase in associated clinical volumes. Outpatient revenue was the largest source of clinical revenue and was stable as a percentage of total patient revenue across the decade, at 87% in 2003 and 85.2% in 2010. Programs increased gross billing per visit an average of 94% while reported net collections per visit increased only 44% over the decade (charges increased more than payment), indicating larger write-offs.

Changes in patient payor mix potentially could affect the overall revenue from patient care. Table 3 summarizes aggregate payor information for each of the five data sets.

A few programs reported specific capitation contracts for only one of the years; this category was insufficiently answered to report separately. While the inter-program variation in patient payor profiles was high, few dramatic aggregate payor changes were noted over 10 years. Notably, the average uninsured patient visits rose from 8% of visits to 12% of visits primarily due to the conversion of three programs to FQHC status.

Other Revenue

Additional sources of program revenues included state funding, including both long-term line items and specific time-limited allocations;

grants from other sources, including Health Resource Service Administration grants, research grants, or other grants such as from institutional or other foundations; and community health center grants for support of patient care. Medical student education through residency programs is not directly paid for by the University of Washington, so does not contribute to revenues. The largest percentage increases in overall revenues were in this “other” category, where the median program increased 148%; this primarily resulted from three programs with grants associated with a change to an FQHC structure to the program, or large state grants to support primary care education in the state.

Total Revenue

Table 4 summarizes the changes in total revenue, excluding Medicaid GME, as well as total federal GME, net patient care revenue, and other revenue. Due to the extreme variability related to “other” revenue described above, only the medians are presented for that category. Total mean revenue, excluding Medicaid GME, increased 59.3% from 2000–2010.

Expenses

Expenses have traditionally been the most difficult element to analyze in training program finances. Because of individualized contractual relationships between academic institutions and clinic sites, each program may have reported indirect costs, building and maintenance costs, and operational expenses differently, and even within programs, expense reporting varied from year to year. Indirect costs consisted of those program costs not directly allocated to the program but paid by the institutional sponsor; these varied from building and maintenance costs to human resources, information technology, billing, and other operations costs. On the other hand, programs more easily reported compensation expenses. Table 5 summarizes the aggregate measures for

Table 2: Total GME Program Revenues, Not Including Medicaid GME, 2000 to 2010

Year	Mean # FTE Residents Over DME Cap	GME/Program Resident FTE			DME as a Percentage of GME
		Mean	Median	Range	
2000		\$76,898	\$74,439	\$45,074–\$127,507	37.6
2003		\$90,586	\$89,154	\$38,366–\$175,061	35.0
2006	4.3	\$98,414	\$95,277	\$43,571–\$176,923	31.7
2008	5.3	\$106,721	\$116,791	\$41,944–\$177,878	31.1
2010	5.4	\$112,739	\$112,354	\$52,778–\$197,118	27.9
Change 2000–2010		46.6%	50.9%		

n=12 programs

FTE—full-time equivalent

“GME”—IME + DME

IME—indirect funding, DME—direct funding

Table 3: Average Payor Mix of FPC Patients, 2000 to 2010

	2000	2003	2006	2008	2010
% Medicare FFS (mean, range)	16.8% (9%–30.8%)	16.9% (6%–38%)	18.6% (5%–36%)	18.7% (4%–40.8%)	16.2% (3.2%–32.4%)
% Medicaid FFS (mean, range)	24.5% (14%–50%)	28% (5%–47%)	27.6% (3%–46%)	25.8% (7%–54%)	22.5% (3%–45.5%)
% self-pay or uninsured (mean, range)	8% (3%–17%)	7% (3%–24%)	11% (2%–63%)	11% (1%–59%)	12% (1%–51%)
% commercial FFS (mean, range)	30% (14.9%–55%)	28.2% (12.6%–58%)	30% (11%–64%)	29% (14%–63%)	26.2% (10%–52%)

Note: Mean values reported, total % does not add to 100% because less common types of reimbursement were excluded, n=12 programs.

FFS—fee for service

total expenses and the largest categories of defined expenses.

Average total compensation increased by 80.1%, resulting from both a 26.5% increase of total employees on payroll and increased salary per FTE, averaging 29.1% for staff and 41.9% for faculty. By comparison, average total compensation for family medicine faculty nationally increased an average of 21.7% during this period; western region faculty salaries have remained at 97% of national averages throughout this period.²⁰ Compensation remained the most significant part of overall expenses at 73.2% in 2010, relatively stable over all five

data sets. In contrast, FPC and program operations expenses increased 68.9%, while building and maintenance expenses only increased on average 36.2%, and indirect expenses decreased 68.6%. This change in expenses indicated a shift of allocation for several programs from indirect to direct expense reporting.

Average total expenses increased 79.6% over the 10 years.

Malpractice

Malpractice expense increased significantly for many programs during these years. The greatest impact was the dissolution after 2000 of the Network's self-insured system,

which had previously provided malpractice insurance for all Network programs. Subsequently, individual programs were forced to find malpractice insurance through other sources. These sources included self-insurance through their own sponsoring institutions, federal tort claims act, or purchase by programs through regional brokers that varied by state. The nine programs with a reported malpractice expense reported a median increase from \$183,542 to \$266,360 (2006–2010), a 45% increase, but the amounts paid by the programs varied from \$0 for self-insured systems to more than \$1 million for one program purchasing

Table 4: Total and GME Revenues, Not Including Medicaid GME, 2000 to 2010

	Total Revenue		GME Revenue	
	Absolute	% of Total	Absolute	% of Total
2000	\$4,484,927	45.4	\$1,825,930	45.4
2003	\$5,271,301	46.9	\$2,315,378	46.9
2006	\$6,312,699	41.8	\$2,279,298	41.8
2008	\$6,877,503	40.5	\$2,590,514	40.5
2010	\$7,145,231	41.8	\$2,683,188	41.8
Change 2000–2010	59.3%		46.9%	

Note: mean values
n=12 programs

Table 4a: Net Patient Care and Other Revenues, 2000 to 2010

	Net Patient Care Revenue		Other Revenue	
	Absolute	% of Total	Absolute	% of Total
2000	\$1,918,788	47.7	\$275,119	6.1
2003	\$2,155,616	43.7	\$462,400	9.4
2006	\$2,595,010	47.6	\$576,629	10.6
2008	\$3,211,892	50.2	\$590,613	9.2
2010	\$3,048,738	47.5	\$681,854	10.6
Change 2000–2010	58.9%		147.8%	

Note: mean values reported except for “other revenue,” where median values are reported.
n=12 programs

insurance independently. Because of the extreme variability of these amounts, malpractice expenses have not been included in any data analysis.

Cost Per Resident

We defined the cost per resident by using the following definitions:

- “Revenue per resident excluding Medicaid GME.” Medicaid GME was excluded as discussed above.
- “Expense per resident excluding malpractice.” Malpractice costs were also excluded as discussed above.

Using these definitions, Table 6 shows the mean and median expense and revenue per resident for the five data sets, as well as the range of values among the 12 programs. Table 7 shows the mean and median cost per resident (total expense excluding malpractice, minus total revenue excluding Medicaid GME) as well as

the range of values among the 12 programs.

Of note, the cost per resident remained relatively stable over the 10-year period, with a 3.1% overall increase to an average of \$27,260/resident/year although the median decreased 30.1% to \$18,310. The extremely wide range of values increased in spread over the 10 years. Three Network programs reported in 2010 that revenue per resident exceeded expense per resident; two of these programs converted during this decade from residency-based clinics to FQHC status with enhanced reimbursements and grants, and the other program successfully captured additional GME slots so that they remained at or below the resident GME cap as they expanded their program. The most expensive programs experienced a large shift in costs from indirect to direct expense

accounting by the sponsoring institution.

Satellite Programs: Cost Implications

Five programs in 2010 reported the existence of satellite residency sites, and four provided some additional information. Three of those four could not separate the direct expenses with regard to the satellite site; one paid a contract fee directly to the satellite site. Patient revenues from satellite sites were not included in program revenues. Because of incomplete information, these sites could not be independently analyzed.

Discussion

The UWFMRN financial benchmarking data demonstrate the difficulties in creating financial accounting models for residency education, due to the disparate methods of reporting and hidden financial relationships of programs. However, this detailed survey does clarify certain trends of WWAMI family medicine residencies, and the consistency in programs and methods over time add legitimacy to the findings. Viewed over 10 years, the average expense of residency education for these programs increased an average of 62.6%, to \$338K per resident, compared with a 26.9%²¹ inflation rate. During the same time, overall residency revenue increased an average of 74.7%. Although mean GME per resident funding was in-line with national all-program per-resident GME amounts (approximately \$100,000/resident in 2008),²² GME funding among programs was highly variable; the ongoing survival of the lowest-funded programs points to the creative funding solutions often required by fiscal pressures. These WWAMI residencies cared for a vulnerable segment of the population, with greater than half of all patient care provided to publicly insured or uninsured patients. Programs that were successful in obtaining FQHC status, increasing their residency GME slots, or obtaining other significant funding such as state grants were the most financially stable.

Table 5: Overall Expenses, Not Including Malpractice Expense, 2000 to 2010

	Total Expenses		Total Compensation, All Employees		FPC and Program Operations	
	Absolute	Absolute	% of Total	Absolute	% of Total	
2000	\$4,607,433	\$3,360,543	72.9	\$916,039	19.9	
2003	\$4,468,257	\$3,660,445	81.9	\$1,326,500	29.7	
2006	\$6,185,219	\$4,641,969	75.0	\$1,493,087	24.1	
2008	\$6,647,816	\$4,640,380	69.8	\$1,291,641	19.4	
2010	\$8,273,738	\$6,052,753	73.2	\$1,546,977	18.7	
Change 2000–2010	79.6%	80.1%		68.9%		

Table 6: Expense Per Resident (Excluding Malpractice) and Revenue Per Resident (Excluding Medicaid GME)*

	Expense Per Resident			Revenue Per Resident		
	Mean	Median	Range	Mean	Median	Range
2000	\$208,075	\$205,410	\$142,630–\$275,540	\$181,645	\$183,335	\$115,633–\$240,433
2003	\$248,169	\$262,723	\$119,845–\$333,461	\$227,614	\$221,846	\$178,700–\$310,242
2006	\$301,791	\$288,343	\$141,698–\$676,326	\$261,947	\$246,588	\$154,183–\$363,796
2008	\$282,473	\$246,382	\$152,372–\$510,522	\$301,103	\$231,988	\$190,874–\$361,180
2010	\$338,421	\$306,703	\$129,897–\$652,234	\$317,248	\$279,433	\$160,802–\$501,754
Change 2000–2010	62.6%	49.3%		74.7%	52.4%	

* Using actual number of residents, and with exclusions as noted.

n=12 programs

Table 7: Cost Per Resident*

	Cost Per Resident		
	Mean	Median	Range
2000	\$26,430	\$26,198	(\$39,572)–\$77,684
2003	\$20,355	\$20,304	(\$105,234)–\$149,236
2006	\$22,691	\$20,073	(\$44,965)–\$482,654
2008	\$23,253	\$27,242	(\$227,793)–\$302,341
2010	\$27,260	\$18,310	(\$167,413)–\$410,676
Change 2000–2010	3.1%	-30.1%	

* Using actual number of residents and with exclusions as noted.

n=12 programs

These financial models also highlight the inherent difficulties in quantifying residency costs. One limitation of these data—similar to other attempts to benchmark—is the year-to-year variability in the data that could not be fully addressed

despite all efforts to standardize the questionnaire and responses and to verify data, as well as the small sample size in number of programs that prohibits more sophisticated data analysis. More importantly, it is nearly impossible to separate out

the true education costs from the clinic operating costs. What policymakers inevitably want to know is: how much “extra” does it cost to place a resident in a family practice center? The direct costs (resident salary, faculty teaching time, residency administrators, and possibly malpractice) are easier to quantify, but the indirect expenses (clinic inefficiencies and physical plant costs) are nearly impossible to tease out. This analysis unfortunately was also not able to make that crucial step. Cost comparisons with other types of residency training are difficult, due to variations in methods, but have suggested that primary care program costs are lower than surgery, radiology, emergency medicine, anesthesiology, and pathology, but include more administrative costs.²³

The financial sustainability of family medicine residency programs

is in question, not only because of threats to state and grant funding and the potential for decreased patient revenue, but due to threats to GME funding as well. Medicaid GME, not included in this analysis, is critical for many programs and is threatened to an even greater degree as state budget crises intensify. Indirect GME (IME), historically funded 2:1 compared to DME from CMS and an increasing proportion of the Network residency GME, is a tenuous funding stream. The Medicare Payment Advisory Commission (MedPAC) recently recommended cutting IME by 55%,²⁴ and re-directing those funds to a residency accountability incentive program. IME pass-through to ambulatory programs (variable and somewhat discretionary depending on the agreement with the sponsoring hospital) could shrink. Ambulatory training programs, called upon to prove their economic worth to the sponsoring institution, may not be able to quantify their “intangible” benefits²⁵ to secure institutional support. Outpatient training sites are not exempt from “indirect costs”: the best estimate to date indicates that teaching outpatient clinics of comparable size have 36% higher operating costs than non-teaching clinics, 38% of which are infrastructure costs.²⁶

Solutions to national health care workforce challenges require creative thinking. Some have argued that the IME versus DME separation may be an artificial construct,²⁷ which could be combined into total GME and then allocated according to national workforce goals. Targeted GME funding of ambulatory training sites, such as the Teaching Health Center (THC) health reform provision²⁸ and other proposals by MedPAC and the Council on Graduate Medical Education (COGME)² could stabilize and enhance funding of family medicine residencies in the future.²⁹ Conversion of more programs to FQHC status, independent of THC reforms that currently target only new programs or expansions, could also save

many programs currently struggling with low reimbursements for the high cost of care of uninsured and underinsured patients. State funding, including Medicaid GME reimbursements, needs to be closely evaluated and possibly standardized. Cost-trend analyses help identify the cost of family medicine training to assist other programs in planning, as well as point out both the financial threats to family medicine residency programs and potential funding solutions.

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