Effects of Potential Federal Funding Cuts on Graduate Medical Education: Results of a Survey of Designated Institutional Officials

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Abstract

Background Proposed reductions in federal funding for physician education may affect the United States' ability to produce the number of physicians needed to provide care.

Objective Using a survey similar to that used by the ACGME in 2011, we assessed designated institutional officials' (DIOs) perceptions of the impact of potential GME funding reductions.

Method In August 2013, we sent a survey link to all DIOs of ACGME-accredited institutions (N = 678). A 9-item survey asked how future federal funding would affect the number of residency programs in their institutions under 4 different funding scenarios: stable funding, and reductions of 10%, 33%, and 50%. We also asked about changes in the number of residency positions during the last 2 years.

Results The response rate was 47.9% (325 of 678 DIOs); respondents represent 58.9% of accredited institutions with more than 1 program. Most respondents reported no change or an increase under the stable funding scenario. Under a 33% funding reduction, an estimated 17 379 (14.8% of all current) positions would be lost, and a 50% reduction would result in a loss of 33 562 positions (28.6%). Primary care specialties (eg, family medicine, internal medicine) would be most affected under the greatest funding reductions.

Conclusions The findings of the 2013 survey are consistent with 2011 data, with DIOs projecting significant reductions in programs and positions under more severe budget cuts. DIO comments highlighted reduced optimism (compared to data obtained in 2011) about the effect of funding cuts and concerns about the impact of reductions on patient care and health care personnel at teaching institutions.

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Introduction

Proposed reductions in federal support for graduate medical education (GME) are likely to have an effect on institutional decisions about the size and composition of their physician training programs, as shown in an Accreditation Council for Gradaute Medical Education (ACGME) study from 2011.[1] At that time, we surveyed 680 designated institutional officials (DIOs), seeking to understand the potential impact of reductions in federal reimbursement for GME. These reductions were recommended by the Joint Select Committee on Deficit Reduction (the "Super Committee").[2] The Medicare Payment Advisory Commission (MedPAC) indicated that approximately 50% of indirect GME reimbursements were not "empirically justified."[3]

In the 2011 ACGME survey about the impact of GME financing changes on teaching institutions, we asked DIOs about the effects of a range of budget scenarios on their GME programs and trainees. Results showed that impacts for extensive federal budget cuts would be drastic and severe. A 50% reduction of funding was projected to result in closure of approximately 2500 (approximately 28%) programs, and loss of 33 000 positions.[1] This shortfall would be particularly stark considering the need for an increased pool of US residency positions required to accommodate the number of US medical graduates expected to increase over the next several years.[4]

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Since that time, US federal budget constraints continue, as do proposed funding cuts. Congress and the current administration are considering potential reductions in GME reimbursement. In addition to these budgetary constraints and proposals, changes under the Patient Protection and Affordable Care Act also will likely place new demands on GME. The projected need for additional physicians and medical services will require an increase in total physician production.[4] Similarly, the adequacy of the pool of GME entry positions available to graduates of US allopathic medical schools, osteopathic medical schools, and graduates of international medical schools desiring to matriculate in ACGME-accredited residency programs remains in question.[5]

To assess the effects of potential budget reductions, as well as to understand institutional responses to reductions during the intervening period since the 2011 budget discussions, in the summer of 2013 we again surveyed US DIOs about the effects budget reductions could have within their institutions.

Method

The ACGME contacted all DIOs (N = 678) of ACGME-accredited residency and fellowship programs by e-mail on August 5, 2013, and requested that they complete a survey to assess how changes in GME funding might affect their sponsored training programs. Reminder e-mails were sent at approximate 2-week intervals, and the survey closed on September 13, 2013. The reminder e-mails urged all respondents to participate and stressed the importance of each DIO's response. DIOs were assured that individual institutional responses would not be shared.

A 128-bit secured website, which ensured the safe transfer of information, provided access to the survey. During the reporting window the DIOs could change their responses at any time. This permitted review of the questions with other institutional leadership before committing to the final submitted responses.

The survey consisted of 9 questions that asked DIOs how future federal funding would affect the number of residency programs within their institutions. Four different funding scenarios were presented: stable funding, funding reduced by 10%, by 33%, and by 50%. No effort was taken to separate reductions in Medicare "Indirect" GME Reimbursement from Medicare "Direct" Reimbursement. Another question, asking about changes in their programs during the last 2 years, was also included to serve as a baseline, and as follow-up to the ACGME DIO survey from 2011.

DIOs were asked to provide responses for each residency program (by specialty) within their institution. Response options for the questions were: Increase, No Change, < 10% Decrease, 10–24% Decrease, 25–50% Decrease, > 50% Decrease, and Program Closure.

Using the DIOs' responses to estimate effects of funding reductions on the number of residency positions, response categories were assigned a discrete numerical value corresponding to the midpoint of the response range. For example, the category "10–24% reduction" was assigned a percentage reduction of 0.17. Thus, for this option, we estimated a 17% reduction in the number of residency positions in the respondent's program. We then extrapolated the sample's responses to all institutions. Thus, all data reported below show the potential effects of funding reductions on all US residency positions and specialties.

Additional questions in the survey asked whether discussions of potential loss of federal GME funding had occurred within their institutions and what alternative mechanisms their institution might use to fund residency positions should funding be lost.

Finally, the survey allowed for open-ended comments: "Do you have comments regarding the impact of changes in federal government GME funding on patient care in your primary or affiliated teaching institutions?"

Results

The response rate for this survey was 48% (325 of 678 DIOs); 228 (70%) of the respondents were from institutions sponsoring more than 1 program, representing a 58.9% response rate for that group. The 325 institutions sponsor 61.5% of all accredited programs, and 61.8% of all US residency positions in academic year 2012.

Of the sample, 83% (270 DIOs) reported being engaged in discussions with their senior leadership regarding the effects of potential GME funding reduction.

Respondents were predominantly from general teaching hospitals (58%) or medical schools/health science centers (16%), which is representative of the entire ACGME sponsoring institution population (60% and 13% for these 2 types of institutions, respectively).

TABLE 1 shows the DIOs' reports of changes in residency positions under each scenario: changes during the past 2 years, the effects if funding remained stable, and the effects of the 3 budget reduction scenarios.

Most respondents reported no change (75%) or an increase (20%) in the number of residency positions in the past 2 years. A similar pattern emerged for the "stable funding" scenario: 86% reported anticipating no change, 11% anticipated increases in residency positions.

Interestingly, under the 10% and 33% reductions, a relatively large percentage of DIOs anticipated no change at 68% and 38% respectively. Under the 33% reduction

TABLE 1 **Percentage of Designated Institutional Officials Responding for Each of the 5 Scenarios**

	In Past 2 Years	Assuming Stable Funding	Assuming 10% Funding Cut	Assuming 33% Funding Cut	Assuming 50% Funding Cut
Increase (of any size), %	20.0	11.0	2.6	1.5	0.9
No change, %	75.0	86.0	68.0	38.0	25.0
Less than a 10% decrease, %	2.7	2.2	19.0	16.0	9.6
10–24% decrease, %	1.5	1.1	8.6	21.0	18.0
25–50% decrease, %	0.4	0.1	0.8	14.0	24.0
Greater than 50% decrease, %	0.2	0.1	0.2	1.9	8.9
Program Closure, %	1.0	0.3	1.2	6.8	14.0

scenarios, 21% anticipate losing between 10% and 24% of their residency positions, 38% of DIOs anticipate no change, and almost 7% report the likelihood of program closure.

At the 50% reduction in funding, DIOs report more losses of positions: 24% anticipate a 25%–50% decrease in positions, and 14% anticipate closing programs (which would be a 100% decrease, or the loss of all positions).

FIGURE 1 illustrates the percentage of specialty and subspecialty positions affected under each scenario.

Programs' positions appear to be most affected at a 50% reduction, wherein both specialty and subspecialty programs would each lose approximately 5% of their programs. We estimate the specific size of these reductions below.

TABLE 2 shows the effect on number of residency positions, by scenario. Omitted from these calculations were any estimates of an increase in the number of positions.

Under a 33% decrease in funding, an estimated 17 379 (15% of all current) positions would be lost; a 50% reduction in GME funding would result in a loss of 33 562 positions (29%).

Because of the large number of positions in the specialties compared to subspecialties, and to assess the areas where funding reductions would have the greatest impact, we restrict our analyses below to the specialties.

The most commonly selected specialties (those identified as having positions reduced) under each scenario are

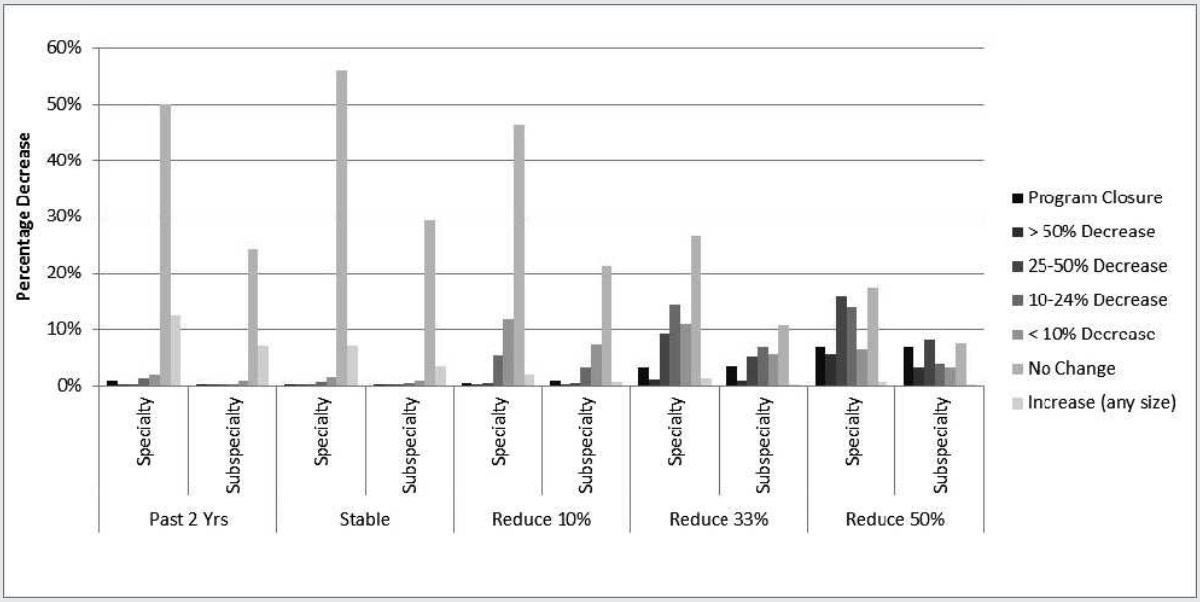

FIGURE 1 **Percentage of Institutions Affected by Budget Reductions, by Specialty and Subspecialty**

TABLE 2 **Number of Positions Lost: Totals, Means, Minimums, and Maximums**

Scenario	Type of Specialty	Total Number of Residency Positions Lost	Mean Lost (per Specialty)	Minimum Lost (for Any One Specialty)	Maximum Lost (for Any One Specialty)
Stable Funding	Core Specialty	705	24	0	282
	Subspecialty	294	13	0	164
10% Reduction in Funding	Core Specialty	3169	109	2	833
	Subspecialty	1367	62	0	788
33% Reduction in Funding	Core Specialty	13 034	449	13	3078
	Subspecialty	4346	198	0	2351
50% Reduction in Funding	Core Specialty	25 425	877	25	5514
	Subspecialty	8137	370	0	4269

shown in FIGURE 2. Also shown are the total positions lost from all the other specialties combined.

The largest number of positions lost would occur in the primary care specialties: at a 50% funding reduction approximately 12 000 positions would be lost across family medicine, internal medicine, and pediatrics. Anesthesiology would also be greatly affected, losing approximately 900 positions at 33% funding reduction and approximately 1500 positions at a 50% reduction.

We next examined the number of positions lost as a function of size of specialty. FIGURE 3 shows the specialties, as defined by rank order of the percentage of specialty, that would be most affected by these reductions. More than 5 specialties are listed in FIGURE 3, as the top specialties were not the same for each scenario.

What is notable is the variability of the specialties most affected across the different scenarios. While transitional year and nuclear medicine positions would be greatly affected under all of the funding reduction scenarios, family medicine and internal medicine are most greatly affected under the more drastic funding reductions. Pediatrics, while losing a large number of positions (as shown in FIGURE 2), is not among the top 5 specialties affected under any of the scenarios (FIGURE 3).

When asked about alternative mechanisms for funding residency positions, the most commonly selected response was private philanthropy, with 52% of DIOs selecting this option. Other likely potential alternatives to fund residency positions included community or hospital support (48%); new state or local government support (40%); faculty practice private plan support (37%); corporate sponsorship (30%); and direct billing of patients (28%). Approximately 15% of DIOs said that they would not be able to find other funding support.

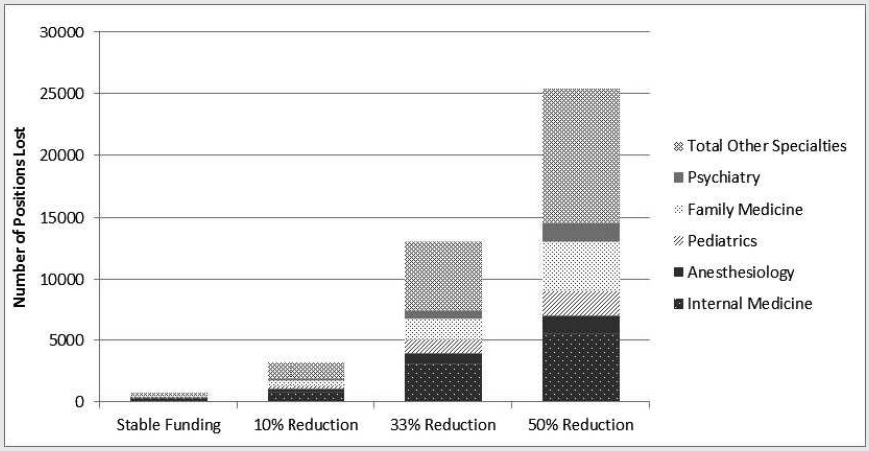

FIGURE 2 **Total Positions Lost in Specialty Programs for Each Scenario**

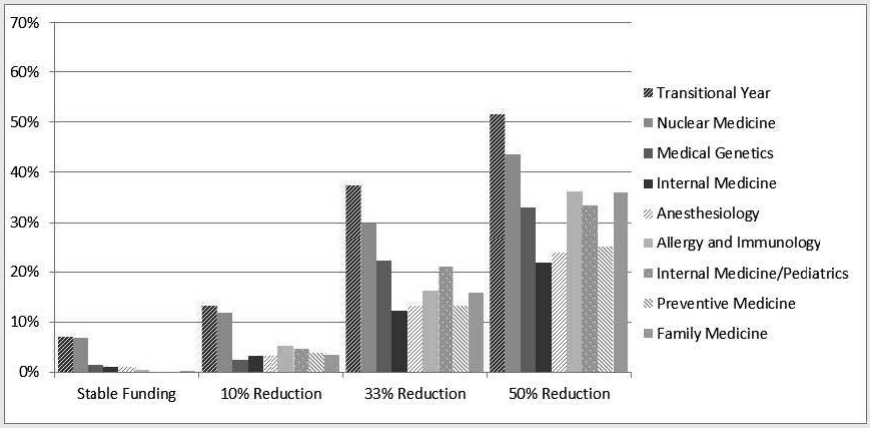

FIGURE 3 **Potential Reductions in Residency Positions, Shown as a Percentage of the all Positions in Each Specialty**

Of the 325 respondents, 196 (60%) had comments. These comments were content coded, with some comments falling into more than 1 category.

Beyond the common theme of funding cuts having a very negative impact on residency education, the most common theme in these comments were the effect these cuts would have on patients (36% of DIOs mentioned). Almost half of those comments (46%) were about the impact on the uninsured and the underserved. Another main theme, mentioned by 15% of DIOs, was the impact funding cuts would have on personnel other than residents.

To give a flavor of the responses, 3 of the comments are shown below.

> The negative impact on our community will be significant in the short run, but will be small in comparison with the longer term loss of a future physician community and the loss of infrastructure to train physicians in the future. The latter will undoubtedly occur with the eventual closure of our and other programs due to such cuts.

> Generalized severe GME reductions would jeopardize the residency training programs most needed, ie, community-based primary care residencies targeted at the underserved. GME funding is absolutely critical to the continuation of our progam. The program would not survive without it.

> Reducing GME funding for primary care specialities like family medicine would be foolish. Reducing GME funding for specialities like dermatology, ortho, oto, etc, I would favor. Our limited tax dollars should support training for primary care not subspecialty care.

Discussion

It seems that DIOs are less optimistic than they were 2 years ago. The anticipated 30% increase in residency positions under stable funding conditions found in the ACGME's 2011 DIO survey did not occur; the actual increase reported in the current survey is 20%. It is noteworthy that DIOs now only anticipate an 11% increase under stable funding conditions, compared to the 30% anticipated in the previous survey. The cause for this shortfall is unclear, but uncertainty concerning future GME funding is likely to have contributed to this slowing of growth in GME positions.

Interestingly, in the face of potential cuts in federal GME funding, there is some resiliency. Under a 10% reduction in support for GME, the majority of institutions (68%) anticipate no change in their number of GME positions.

Even if some institutions are somewhat resilient to funding reductions, our data show that a 10% decrease in funding, as proposed by the administration in its 2013 budget, would result in an estimated reduction of 4535 residency positions, or 162 positions per institution. More alarmingly, under a 33% decrease in funding, an estimated 17 379 (15% of all) positions would be lost, and a 50% reduction in GME funding would result in a reduction of 33 562 positions (29%).

It is clear from our data that the effect of funding cuts would disproportionately affect different specialties. Primary care specialties (eg, internal medicine, family medicine, pediatrics) and their subspecialties would be affected most by funding cuts in terms of the number of positions lost, due in part, to their relatively large size compared with other specialties. A funding cut of 50% could effectively reduce all transitional year programs by approximately 50% and all family medicine programs by approximately 35%.

These differences by specialty may reflect the desire for DIOs to address the increased primary care specialty needs requisite under the Affordable Health Care Act. This concern is echoed in the comments made by DIOs that funding cuts would affect primary care, both in the short term and long term.

Respondents commented on the impact of funding reductions on the institutions' patient care mission. Concern for patient well-being, as well as the negative impact on other health care personnel that would occur with fewer residents on staff offers evidence that DIOs accurately see their pivotal role in the public trust.

Our study has several limitations, including its response rate. While the respondents represent nearly 70% of all residency and fellowship programs and positions, the response rate is weighted toward sponsors offering more than 1 residency or fellowship program. Thus, it may underestimate the impact on small, often rural primary care residency programs, especially in family medicine and general internal medicine. However, particularly as shown in the comments, DIOs are sensitive to the issues of primary care and the underserved.

Another limitation is that, although the DIO is the chief academic administrative officer of GME programs in each sponsor, he or she may not have full access to the range of local factors that will influence the decisions to sustain, reduce, or eliminate residency positions under a reduction in federal funding. A large majority of DIOs reported engagement with senior leadership of the sponsoring institution over questions related to funding reductions, suggesting that many sponsoring institutions have had internal discussions about the impact of significant federal funding reductions and contingency plans for changes in the complement of GME programs and positions.

Conclusions

The results of our 2013 DIO survey are largely consistent with our survey data from 2011, with DIOs projecting significant reductions in positions under more severe cuts in federal support. Notably, DIOs surveyed in 2013 were less optimistic about the impact of changes, projecting larger reductions, while actual growth in positions was significantly smaller than the growth projections reported in our 2011 survey. Funding cuts would not be applied across all specialties equally, with primary care specialties being affected if large funding cuts were enacted. DIOs' responses highlight concern about the effect of reductions in residency programs and positions on their hospital's patient care mission, on the number of physicians entering the workforce, and on other health care personnel at teaching institutions.

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