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Children's Hospital Graduate Medical Education (CHGME)

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Summary

The Children's Hospital Graduate Medical Education (CHGME) program provides direct financial support to children's hospitals to train medical residents and fellows. The program is administered by the Health Resources and Services Administration (HRSA) within the Department of Health and Human Services (HHS) and is authorized in Section 340E of the Public Health Service Act (PHSA). CHGME receives annual discretionary appropriations and received $299.3 million in FY2017. The program is currently funded under the FY2018 continuing resolution (P.L. 115-96) until January 19, 2018. The program's appropriations are authorized through FY2018.

Hospitals typically receive support for graduate medical education (GME) through Medicare, and those payments are provided to hospitals based on their Medicare patient volume. Because the Medicare program is used primarily by people who are over the age of 65, and children's hospitals treat primarily people below the age of 18, children's hospitals have low Medicare patient volume and receive few Medicare GME payments.

Prior to the CHGME program, advocates argued that the lack of direct federal support for GME in children's hospitals impeded the development of the pediatric workforce. Program proponents argued that children's hospitals, rather than general hospitals, are more likely to have the patient volume necessary to train pediatric subspecialists. Since the program was created in 1999, the size of the pediatric subspecialty workforce has increased. The CHGME program supports the training of nearly half of general pediatricians and more than half of all pediatric subspecialists. In the most recent year for which final training data are available (FY2015), the program provided financial support to more than 6,800 medical residents and fellows. In FY2017, the program supported training at 58 free-standing children's hospitals located in 29 states, the District of Columbia, and Puerto Rico.

As part of its potential reauthorization of the program, Congress may evaluate a number of related policy issues. These include, but are not limited to, whether the program size is appropriate (i.e., whether the current number of residents trained is appropriate to meet the current and future workforce needs), whether the program's level of support per resident is appropriate, and whether the volume and type of information that the CHGME program collects is appropriate and being utilized effectively.

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The Children's Hospital Graduate Medical Education (CHGME) program provides direct financial support to children's hospitals—those that treat primarily patients below the age of 18—to train medical residents and fellows. The program is administered by the Health Resources and Services Administration (HRSA) within the Department of Health and Human Services (HHS) and is authorized in Section 340E[1] of the Public Health Service Act (PHSA).[2] CHGME receives annual discretionary appropriations, which are authorized through FY2018. The use of discretionary appropriations to fund CHGME differs from other federal sources of GME support. For example, Medicare—the largest source of graduate medical education (GME) payments—is mandatory.[3] More information on other GME programs and how programs interact is available in CRS Report R44376, *Federal Support for Graduate Medical Education: An Overview*.

This report describes the CHGME program's (1) purpose and structure, (2) history, and (3) authorizations and appropriations. It also provides select program data, including the number of hospitals supported under the program, their location, the amount of funding they receive, and the number of residents trained. Finally, the report discusses alternative sources of GME funding available and some issues that Congress may consider as part of the program's reauthorization.

CHGME Purpose and Program Structure

As detailed in the text box below, the CHGME program provides direct financial support to children's hospitals to train medical residents and fellows.

Medical Residents and Fellows

"Medical resident" refers to medical school graduates training in a specialty who, after the completion of such training, are eligible to become board certified in that specialty. In the case of CHGME, the majority of support provided is for pediatric residents.

"Fellow" refers to medical school graduates who have completed their residency training and are pursuing additional training, called a fellowship, after which they are eligible to become board certified in a subspecialty. In the case of CHGME, such fellows would be individuals training in pediatric medical subspecialties (such as pediatric cardiology or pediatric gastroenterology) or pediatric surgical subspecialties (such as pediatric trauma surgery or pediatric cardiothoracic surgery). Pediatric subspecialists are qualified to provide patient care or conduct research in an organ-specific area of medical or surgical care for children.

Both residents and fellows must be training in a program accredited by either the Accreditation Commission for Graduate Medical Education or the American Osteopathic Association. The two accreditors are currently transitioning to a single accreditation system, which is scheduled to be fully implemented in July of 2020.

Source: CRS analysis of 42 U.S.C. § 256e and CRS Report R44376, *Federal Support for Graduate Medical Education: An Overview*. For information on program accreditation and the transition to a single accreditation system, see American Osteopathic Association, "The Single GME Accreditation System," http://www.osteopathic.org/inside-aoa/single-gme-accreditation-system/Pages/default.aspx.

The CHGME program provides GME funds to "free-standing children's hospitals," which are hospitals that have a patient population that is primarily under the age of 18. Free-standing children's hospitals specialize in treating children, but are not part of a larger hospital system. For example, a general teaching hospital may offer pediatric training as part of its integrated services, or perhaps as part of a dedicated children's center, but such a center would receive Medicare

[1] 42 U.S.C. §256e.

[2] 42 U.S.C. §§201 et seq.

[3] The Medicare program provided an estimated $11.3 billion in GME payments in FY2013; see CRS Report R44376, *Federal Support for Graduate Medical Education: An Overview*.

GME support as part of the larger hospital's GME programs. Such a center would not be considered to be a free-standing children's hospital, and, therefore, would not be eligible for CHGME.

Hospitals eligible to participate in CHGME must have a Medicare Provider Agreement, and must be excluded from the Medicare Inpatient Prospective Payment System (IPPS).[4] In addition, CHGME-eligible hospitals must operate programs that train pediatricians, or pediatric medical or surgical subspecialists, and these programs must be accredited (see text box above for definitions).[5] The 2013 program reauthorization, discussed below, expanded the program to make additional hospitals eligible for a subset of the program's appropriation.[6] These newly eligible hospitals were defined as (1) free-standing; (2) having a Medicare payment agreement and being excluded from the Medicare IPPS; (3) having an inpatient population composed predominantly of individuals under 18 years of age; and (4) having an approved medical residency training program, but not one qualified to receive Medicare GME payments.[7] The Government Accountability Office (GAO) examined the newly eligible programs and found that the new programs included one psychiatric hospital and three hospitals that had not previously participated in the program.[8]

Program Origins

The CHGME program was created in the *Healthcare Research and Quality Act* of 1999 (P.L. 106-129), which authorized payments to children's hospitals for FY2000 and FY2001 to support medical residency training. Medicare—which provides approximately $11.3 billion to support residency training[9]—is the largest supporter of medical residency training, but the level of Medicare support at any hospital is based on the volume of services that the hospital provides to Medicare beneficiaries. Because the Medicare program is used primarily by people who are over the age of 65, and children's hospitals treat primarily people below the age of 18, children's hospitals have low Medicare patient volume and receive few Medicare GME payments.

Prior to the program's inception, advocates argued that the lack of direct federal support for GME in children's hospitals impeded the development of the pediatric workforce because children's hospitals, rather than general hospitals, are more likely to have the patient volume necessary to train pediatric subspecialists.[10] To operate an accredited training program, a hospital must have sufficient patient volume to ensure that residents receive the full measure of training in a given field. As such, children's hospitals are more likely to have the range of cases necessary to train

[4] Social Security Act 1886(d)(1)(B)(iii).

[5] U.S. Department of Health and Human Services, Health Resources and Services Administration, "Children's Hospital Graduate Medical Education Payment Program," http://bhpr.hrsa.gov/childrenshospitalgme/index.html.

[6] Specifically, it permitted the newly eligible hospitals to receive GME payments from up to $7 million from an amount that was up to 25% of the total amount of the CHGME appropriation that exceeds $245 million.

[7] 42 U.S.C. §254e(h).

[8] U.S. Government Accountability Office, *Physician Workforce: Expansion of the Children's Hospital Graduate Medical Education Payment Program*, 18-66R, October 31, 2017.

[9] 42 U.S.C. §254e(h).

[10] The American Academy of Pediatrics, the major professional association for pediatricians, released a 2000 report detailing shortages in pediatric subspecialties and calling for additional financial support for training and research. See Alan Gruskin et al., "Final Report of the FOPE II Pediatric Subspecialists of the Future Workgroup," *Pediatrics*, vol. 106, no. 5 (November 2000), pp. 1224-1244. The Academy released another workforce statement in 2013, which also called for more training. See Committee on Pediatric Workforce, American Academy of Pediatrics, "Pediatrician Workforce Policy Statement," *Pediatrics*, vol. 132 (July 29, 2013), pp. 390-397.

pediatric subspecialists who focus on specific pediatric conditions or types of surgery in children.[11] Since the CHGME program began, the size of the pediatric subspecialty workforce has increased.[12] Despite these increases, some children lack access to pediatric subspecialty care (see text box). Moreover, some children's hospitals report physician vacancies and difficulties hiring in certain subspecialties.[13] Researchers have found that some geographic areas have a shortage of pediatric subspecialists, leading some children to seek care with subspecialists who focus on adults, which may adversely affect the care the children receive.[14]

Access to, and the Geographic Distribution of, the Pediatric Subspecialty Workforce

Although the size of the pediatric subspecialty workforce has increased since the CHGME program began, some geographic areas do not have access to these providers. Researchers have found that areas with higher percentages of the population below the federal poverty level have less access to subspecialty care and that there are fewer pediatric subspecialists in the Mountain States (Arizona, Colorado, New Mexico, and Utah) and West North Central States (Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota). Less is known about the implications of lack of access on children's health. One study examined this issue in Pennsylvania and found that children who lived in counties without pediatric subspecialists have higher rates of emergency room visits, but it did not otherwise find differences in diseases burden (e.g., differences in days of schools missed). The authors speculate that general pediatricians in areas without pediatric subspecialists may compensate for this shortage by managing patients' conditions in cases where they would otherwise refer to a subspecialist. The authors speculate that it might be possible to ameliorate geographic and overall shortages by training general pediatricians to manage patients' specialty conditions more effectively.

Sources: Michelle L. Mayer, "Disparities in Geographic Access to Pediatric Subspecialty Care," *Maternal and Child Health Journal*, vol. 12, no. 5 (September 2008), pp. 624-63 and Kristin N. Ray et al., "Supply and Utilization of Pediatric Subspecialist in the United States," *Pediatrics*, vol. 133, no. 6 (2014), pp. 1061-1069.

HRSA's program data indicate that CHGME plays a significant role in training nearly half of the pediatric physician workforce. HRSA data from the 2014-2015 academic year (the last year of final data available) show that 48% of pediatricians and 53% pediatric subspecialists trained at children's hospitals received CHGME support.[15] The CHGME program also plays a role in training other physician types, as medical residents in nonpediatric-focused specialties may rotate through children's hospitals for a period of time during residency.[16]

CHGME Authorization and Appropriations

The program was created in the *Healthcare Research and Quality Act* of 1999 (P.L. 106-129), which authorized payments to children's hospitals for FY2000 and FY2001 to support medical resident training. The program's appropriations were then reauthorized through FY2005 in the

[11] Both general hospitals and children's hospitals may have sufficient patient volume to train general pediatricians.

[12] See House Consideration and Passage of S. 1557, *Congressional Record*, daily edition, vol. 160 (April 1, 2014), pp. H2782-H2784.

[13] Letter from American Pediatric Association et al. to Honorable Tom Harkin, Honorable Jerry Moran, Honorable Jack Kingston, Honorable Rosa DeLauro, Chair and Ranking Member, Labor-HHS-Education Subcommittee, December 19, 2013.

[14] Kristin N. Ray et al., "Use of Adult-Trained Medical Subspecialists by Children Seeking Medical Subspecialty Care," *Journal of Pediatrics*, vol. 176 (September 2016), pp. 173-181.

[15] U.S. Department of Health and Human Services, Health Resources and Services Administration, *Justification of Estimations for Appropriations Committees, FY2018*, Rockville, MD, pp. 131-132. The 2014-2015 academic year began on July 1, 2014, and concluded on June 30, 2015.

[16] Ibid.

Children's Health Act of 2000 (P.L. 106-310). That law also made changes to the program's payment methodology and reporting requirements. The program was unauthorized, but it received appropriations in FY2006. It was then reauthorized for a third time in the *Children's Hospital GME Support Reauthorization Act of 2006* (P.L. 109-307), which reauthorized the program from FY2007 through FY2011. The most recent reauthorization occurred in 2013—in the Children's Hospital Reauthorization Act of 2013 (P.L. 113-98)—which authorized appropriations from FY2014 through FY2018. The 2013 reauthorization broadened the definition of hospitals eligible to participate to include children's psychiatric hospitals and hospitals that had not been able to participate in the program for technical reasons (i.e., those that HRSA had determined did not technically meet the statutory definition in PHSA Section 340E).[17]

The CHGME program has received funding since its inception, despite a lapse in authorization in FY2006, FY2012, and FY2013. **Table 1** presents funding and authorizing history from FY2000-FY2018. Funding for FY2018 is provided through January 19, 2018, under a continuing resolution (P.L. 115-96).

Table 1. Children's Hospitals GME Funding and Authorizing Legislation

Fiscal Year	Appropriation (in millions)	Authorizing Legislation	Authorized Level
2000	$40.0	P.L. 106-129	$280 million
2001	$235.0	P.L. 106-129	$285 million
2002	$284.9	P.L. 106-310	Such sums as may be necessary
2003	$290.1	P.L. 106-310	Such sums as may be necessary
2004[a]	$303.2	P.L. 106-310	Such sums as may be necessary
2005	$300.7	P.L. 106-310	Such sums as may be necessary
2006	$296.8	Authorization Expired	Not applicable
2007	$297.0	P.L. 109-307	$330 million
2008	$301.6	P.L. 109-307	$330 million
2009	$310.0	P.L. 109-307	$330 million
2010	$316.8	P.L. 109-307	$330 million
2011	$268.4	P.L. 109-307	$330 million
2012	$265.2[b]	Authorization Expired	Not applicable
2013	$251.2	Authorization Expired	Not applicable
2014	$264.3	P.L. 113-98	$300 million
2015	$265.0	P.L. 113-98	$300 million
2016	$294.3	P.L. 113-98	$300 million
2017	$299.3	P.L. 113-98	$300 million
2018[c]	$—	P.L. 113-98	$300 million

[17] See House Consideration and Passage of S. 1557, *Congressional Record*, daily edition, vol. 160 (April 1, 2014), pp. H2782-H2784.

Source: CRS Analysis of Congressional Justifications FY2006-FY2018 from the Health Resources and Services Administration. See U.S. Department of Health and Human Services, "Office of Budget: Archive of Past Budgets" at http://archive.hhs.gov/budget/docbudgetarchive.htm.

Notes:

a. P.L. 108-490 amended how newborn infants were counted for indirect GME expenses beginning in FY2005.

b. The President's Budget for FY2012 did not request funding for this program.

c. P.L. 115-56 provided appropriations for the beginning of FY2018 (through December 8, 2017) at the FY2017 funding level, less 0.6791%, as required by the continuing resolution. Subsequent continuing resolutions, (P.L. 115-90 and P.L. 115-96) continued funding at this level. See CRS Report R44978, *Overview of Continuing Appropriations for FY2018 (P.L. 115-56)*.

CHGME Payments

CHGME payments are structured similarly to Medicare GME payments. In both programs, hospitals receive two types of payments: direct and indirect. Direct payments are intended to cover the salary and benefits of residents and their supervisors, as well as other costs associated with operating a residency training program, including space and administrative support. Indirect payments are made to hospitals to offset the cost a hospital incurs from training residents; for example, for the extra tests they order as part of their training, and for the reduced productivity of hospital staff.[18] The CHGME program uses formulas to derive hospital-specific payment amounts similar to those used in the Medicare program (see text box).

Children's Hospital Graduate Medical Education Payments

Direct Graduate Medical Education (DGME) Payments: The amount determined by fiscal year for direct expenses associated with operating an approved GME program. It is a formula of the per resident amount (PRA) multiplied by the average number of full-time equivalent residents training in approved medical residency training programs.

PRA: The per resident amount (PRA) is hospital specific. It is a rolling average of resident counts using three years of cost report data, weighted by the number of full-time primary care (i.e., pediatric) and non-primary care residents (i.e., pediatric subspecialty). The amount is calculated using expenses allowed under Section 1887(h)(2) of the Social Security Act, as calculated using hospital cost reports from FY1997. The amount is further standardized to account for wage- and nonwage-related expenses and geographic differences in wages. The PRA is updated annually by the consumer price index for urban consumers.

Indirect Graduate Medical Education (IME) Payments: IME payments are for the indirect expenses associated with the treatment of more severely ill patients and the additional costs of teaching residents in an approved GME program. IME is calculated by taking into account the case mix of a children's hospital and its ratio of residents to beds (not including those occupied by healthy newborn infants). The IME amount is based on a rolling average of residents-to-beds, calculated over the three most recently filed Medicare cost reports.

Capped Amount: The total amount of both types of payments is capped because payments cannot exceed the program's annual appropriation. CHGME recipients are required to report certain information, and amounts received

[18] Medicare Payment Advisory Commission's *June 2009 Report to Congress: Improving Incentives in the Medicare Program*, Chapter 1, at http://www.medpac.gov/chapters/Jun09_Ch01.pdf and *June 2010 Report to Congress: Aligning Incentives in Medicare*, Chapter 4, at http://medpac.gov/docs/default-source/reports/Jun10_EntireReport.pdf?sfvrsn=0; and Committee on the Governance and Financing of Graduate Medical Education; Board on Health Care Services and Institute of Medicine, *Graduate Medical Education That Meets the Nation's Health Needs*, ed. Jill Eden, Donald Berwick, and Gail Wilensky (Washington, DC: National Academies Press, 2014). Both of these reports also note the possibility that, in some cases, residents (particularly those in later years of training) may generate revenue for the hospital where they are training. Other research has also found that hospitals using residents may have lower costs per case with similar outcomes when compared to similar cases that did not have residents participating in their care. See Jose A. Perez et al., "Comparison of Direct Patient Care Costs and Quality Outcomes of the Teaching and Non-Teaching Hospitalist Service at a Large Academic Medical Center," *Academic Medicine*, 2017 (published online ahead of print).

for DGME under the CHGME program can be reduced by up to 25% for failing to report.

FTE Cap: HRSA determined each participating hospital's "cap" based on the hospital's number of full-time equivalent residents training as of 1996 (the base year). Hospitals that did not have a "cap" at that time, could receive one by affiliating with another hospital or by beginning a new residency training program. Hospitals FTE counts reflect the hospital's number of residents training in the hospital and at certain non-hospital sites throughout the hospital's fiscal year. FTE counts may exceed the number of individual residents in a training program because some periods of a resident's training may not count for purposes of the cap. As such, the number of residents a hospital trains generally exceeds its cap.

Payment Processes: Hospitals are paid monthly on an interim basis with amounts withheld to ensure that hospitals are not overpaid. Final amounts are determined based on hospital cost reports; at that time, payments are adjusted, and any overpayment to a hospital is expected to be returned.

Source: CRS Analysis of 42 U.S.C. § 256(e)(c) and 42 U.S.C. § 256(e)(d).

Despite similarities in the structure of Medicare GME and CHGME payments, there are two noteworthy funding differences between the two programs and a third difference in the reporting requirements for the two programs. First, the CHGME program is a discretionary program, with funds drawn from the Treasury. Congress must appropriate funds annually in order for hospitals to receive CHGME payments. In contrast, Medicare GME payments are mandatory and are drawn from the Medicare trust funds.[19] As a result, Medicare GME funds do not need to be appropriated annually and do not need to be reauthorized.

A second difference is that CHGME spending is limited by the size of the annual appropriation. Given this, if CHGME appropriations do not increase, adding new hospitals to the program would result in a reduction in the amount of funds that existing hospitals receive.[20] Conversely, Medicare GME funds flow to a hospital based on the size of its approved residency training programs, the number of Medicare-recognized residents, and its Medicare inpatient volume. Distributing Medicare GME funds to one hospital does not affect the Medicare GME funds paid to another.

A third difference between Medicare GME and the CHGME program is that, in statute, hospitals that receive CHGME support are required to report to HRSA the number of residents they train by specialty; such hospitals may be penalized—in the form of reduced DGME payments—for failure to report. In contrast, the Center for Medicare & Medicaid Services (CMS)—which administers the Medicare program—does not require its programs to report data on the trainees supported with Medicare funds.[21] Additionally, HRSA is required by the CHGME statute to aggregate the data it receives from GME programs and report on

1. the types of residency training programs (by specialty);
2. the number of residents supported in each specialty;
3. the training programs that hospitals operate that provide care to diverse and underserved children;

[19] GME funds are drawn from the Medicare Part A (Hospital Insurance) trust fund.

[20] This constraint means that adding new hospitals or hospital types to the program may reduce existing funding available to children's hospitals that currently participate in the program. It would also mean that hospitals that seek to expand their training programs by adding residents could result in lower levels of support per resident at other CHGME-supported hospitals.

[21] Committee on the Governance and Financing of Graduate Medical Education; Board on Health Care Services; Institute of Medicine, *Graduate Medical Education That Meets the Nation's Health Needs*, ed. Jill Eden, Donald Berwick, and Gail Wilensky (Washington, DC: National Academies Press, 2014).

4. changes in training programs from the prior year (including curricula changes); and
5. the number of graduates of a hospital's residency training programs that practice within the service area where they trained.[22]

CMS does not have similar reporting requirements for Medicare GME, nor does CMS generally collect the component data that would be required to compile such a report. [23] The 2013 CHGME reauthorization also included authorization for a quality bonus system, whereby hospitals that meet established standards are eligible for additional payments. This system is currently under development.[24] No similar system exists for Medicare GME payments; however, expert groups, including the Institute of Medicine (now National Academy of Medicine), recommend that some Medicare GME be awarded based on program performance.[25]

CHGME Eligible Hospitals and Payment Distribution

As discussed above, the CHGME program provides GME funds to free-standing children's hospitals. According to HRSA, when the program first began in FY2000, there were 60 hospitals eligible. In FY2001, the program supported residents training at 57 of these 60 hospitals.[26] In FY2017, the most recent year of final data available, the program supported training at 58 free-standing children's hospitals located in 29 states, the District of Columbia, and Puerto Rico.[27] (See the **Appendix** for a list of hospitals that received CHGME and the amount of payments they received).

More than half of states have an eligible free-standing children's hospital that receives CHGME payments. These states are geographically dispersed. Residents in states with no CHGME-funded hospitals may benefit from the program by traveling to receive services at a CHGME supported

[22] 42 U.S.C. § 256(e)(b)(2)(B).

[23] The lack of data on the residents supported with Medicare GME payments has been raised as a critique of the program by the Medicare Payment Advisory Commission (MedPAC), among others. See Medicare Payment Advisory Commission's June 2009 Report to Congress: Improving Incentives in the Medicare Program, Chapter 1, at http://www.medpac.gov/chapters/Jun09_Ch01.pdf, and Medicare Payment Advisory Commission, Graduate Medical Education Financing: Focusing on Educational Priorities, Report to the Congress: Aligning Incentives in Medicare, Washington, DC, June 2010, http://www.medpac.gov/documents/Jun10_EntireReport.pdf.

[24] Department of Health and Human Services, Health Resources and Services Administration, "Proposed Standards for the Children's Hospital Graduate Medical Education Quality Bonus System," 82, No. 198 *Federal Register* 48102-48103, October 16, 2017.

[25] Committee on the Governance and Financing of Graduate Medical Education; Board on Health Care Services; Institute of Medicine, *Graduate Medical Education That Meets the Nation's Health Needs*, ed. Jill Eden, Donald Berwick, and Gail Wilensky (Washington, DC: National Academies Press, 2014).

[26] U.S. Department of Health and Human Services, Health Resources and Services Administration, Justification of Estimations for Appropriations Committees, FY2004, Rockville, MD at http://archive.hhs.gov/budget/docbudgetarchive.htm.

[27] Hospitals in the following 21 states did not have hospitals that received CHGME payments in FY2017: Alaska, Idaho, Iowa, Indiana, Kansas, Kentucky, Maine, Mississippi, Montana, New Hampshire, New Mexico, Nevada, North Carolina, North Dakota, Oklahoma, Oregon, South Carolina, South Dakota, Vermont, West Virginia, and Wyoming. See Health Resources and Services Administration, Children's Hospital Graduate Medical Education Program, Program Data at http://bhpr.hrsa.gov/childrenshospitalgme/data/index.html. In prior years, hospitals in New Mexico and South Carolina have received CHGME funding.

hospital or by receiving treatment from a pediatrician who trained at one. The extent to which this occurs is unknown.

The 10 states receiving the highest amount of CHGME payments in FY2017 were generally states with large populations. Among the 10 states, all had at least one large children's hospital that received more than $5 million annually in CHGME payments (e.g., Children's Hospital of Philadelphia in Pennsylvania and Boston Children's Hospital in Massachusetts). **Table 2** presents the 10 states that received the highest payment amounts under this program.

Table 2. Children's Hospital GME Funding in FY2017, by State

State Name	Number of Hospitals Receiving Payments	Funding Level	Rank
California	7	$38.9 million	1
Pennsylvania	3	$38.8 million	2
Ohio	6	$28.3 million	3
Texas	7	$22.6 million	4
Massachusetts	2	$21.3 million	5
Michigan	1	$12.5 million	6
Washington, D.C.	1	$12.1 million	7
Missouri	2	$11.6 million	8
Washington	2	$9.8 million	9
Illinois	2	$9.7 million	10

Source: CRS Analysis of Health Resources and Services Administration, Children's Hospital Graduate Medical Education Program, Program Data at http://bhpr.hrsa.gov/childrenshospitalgme/data/index.html.

Notes: For the purposes of this table the District of Columbia is included as a state. Were it to be excluded, the state where hospitals received the next highest CHGME payment (following Illinois) would have been Alabama ($7.8 million).

CHGME Residents Trained

Table 3 presents the number of residents that received CHGME support since the program's inception in FY2000. The number of residents trained has steadily increased, but the program's appropriation has varied over time. Given this, the amount of funding awarded to support each individual resident has also varied. In addition, the table shows that the number of hospitals that participate in the program has fluctuated over time; in some years, CHGME funds are awarded to fewer hospitals that, on average, are training more residents. Note that the 2013 reauthorization added new hospitals to the program, but it reserved a portion of the program's appropriation for these new hospitals to mitigate decreases in payment amounts for hospitals that were already participating in the program.

Table 3. Number of Residents Trained and Hospitals Receiving CHGME Awards FY2000-FY2011

Fiscal Year	Number of Residents Trained	Number of Hospitals	Appropriation (in millions)
FY2000	4,820	55	$40.0
FY2001	4,665	59	$235.0
FY2002	4,303	60	$284.9
FY2003	N/A	61	$290.1
FY2004	4,892	61	$303.2
FY2005	5,103	61	$307.7
FY2006	5,243	60	$296.8
FY2007	5,406	57	$297.0
FY2008	5,600	56	$301.6
FY2009	5,840	56	$310.0
FY2010	6,040	55	$316.8
FY2011	6,185	55	$268.4
FY2012	6,015	55	$265.2
FY2013	6,535	54	$251.2
FY2014	6,698	54	$264.3
FY2015	6,877	57	$265.0
FY2016	N/A	58	$294.3
FY2017	N/A	58	$299.3

Source: N/A=not available. CRS Analysis of Congressional Justifications FY2000-FY2018 from the Health Resources and Services Administration. See U.S. Department of Health and Human Services, "Office of Budget: Archive of Past Budgets" at http://archive.hhs.gov/budget/docbudgetarchive.htm. FY2016 and FY2017 funding information is from the HRSA's FY2017 Operating Plan at https://www.hrsa.gov/about/budget/operating-plan.html and from HRSA's Data Warehouse at https://datawarehouse.hrsa.gov/tools/findgrants.aspx.

Other Sources of GME Funding for Children's Hospitals

CHGME funds are one source of medical residency training support at children's hospitals. Other sources exist, including patient care or other revenue, Medicaid, state and local funds, and private donations.[28] However, CHGME payments are the only source for which a specific amount can be quantified.

[28] For a general overview of Medicaid, see CRS Report R43357, *Medicaid: An Overview*. For information about Medicaid GME payments, see Medicaid section in CRS Report R44376, *Federal Support for Graduate Medical Education: An Overview*. Some pediatric fellows may conduct research as part of their training program; federal research grants, including those from the National Institutes of Health (NIH), may offset some or all of the costs associated with such research, including the fellow's salary. In this case, while a children's hospital may receive research funding to support fellows, the funding would not be for medical training. Information on the total amount of (continued...)

Some have suggested that the availability of other sources of GME funding lessens, or obviates, the need for the CHGME program. For example, the Office of Management and Budget in a 2003 CHGME Program Assessment stated that the program was performing adequately, but noted that the program is "fundamentally duplicative of other Federal, state, and private efforts."[29] The assessment went on to say that children's hospitals have higher profit margins than other hospitals, which could lead to more revenue available to support training programs. The assessment concluded with a recommendation to more closely track the accountability of children's hospitals receiving payments under the program and to assess whether the program should be continued.[30]

More recent data suggest that children's hospitals are still operating at higher profit margins than other hospital types. These data also suggest that despite these hospitals having tax-exempt status, some provide little charity care.[31] Given that profits in a nonprofit hospital are intended to be reinvested in the hospital,[32] these funds are a potential source of GME support. However, no systematic data exist on the use of hospital revenue to support GME. Given that these data do not exist, the Congressional Research Service cannot determine whether, and to what extent, hospitals use their own revenue to support GME. Despite data showing the impact of the CHGME program on pediatric residency training, it is not clear whether the pediatric workforce would have increased without the program's explicit support, because many of the available funding sources existed prior to the program's inception. Similarly, it is not possible to know whether the increased workforce size could be attributable to training supported by other funding sources available to children's hospitals.

Another source of GME funding for children's hospitals is Medicaid reimbursements, but data are limited regarding the extent to which these funds are used. Medicaid is a joint federal-state program in which states operate their own program under federal oversight. States may choose to use Medicaid funds to support GME, but not all states choose to do so. Data on states' use of Medicaid funds to support GME are scarce. There are two sources of information about Medicaid GME payments: the Association of American Medical Colleges (AAMC) and CMS-64 data. The information from these two sources is significantly different, and both sources have limitations.

AAMC—the organization that represents medical schools and teaching hospitals—conducts a biannual survey of state Medicaid program GME payments. The most recent survey, released in 2016, examined 2015 payments and found that 42 states and the District of Columbia provided payments for either direct or indirect GME under Medicaid. The survey found that the number of states providing this support had declined since 2005, but that the same number of states provided support in 2013 as in 2015. The actual dollar amount, estimated at $4.26 billion, had increased

(...continued)

research funding that children's hospitals receive, or the percentage of that amount used to support pediatric subspecialty training, is not available. For more information about NIH research grants in general, see CRS Report R41705, *The National Institutes of Health (NIH): Background and Congressional Issues*.

[29] ExpectMore.Gov, "Program Assessment: Children's Hospital Graduate Medical Education Payment Program," 2003, http://georgewbush-whitehouse.archives.gov/omb/expectmore/summary/10001063.2003.html.

[30] Ibid.

[31] Gilbert M. Gaul, "Growing Size and Wealth of Children's Hospitals Fueling Questions about Spending," September 25, 2011, *Kaiser Health News*, http://www.kaiserhealthnews.org/Stories/2011/September/26/Childrens-Hospitals-Part-One.aspx; and Gilbert M. Gaul, "Nonprofit Children's Hospitals Get Valuable Tax Exemptions but Many Provide Little Free Care," *Kaiser Health News*, September 25, 2011, http://www.kaiserhealthnews.org/Stories/2011/September/26/Childrens-Hospitals-Charity-Care.aspx.

[32] There have been ongoing issues raised with respect to nonprofit hospitals; see CRS Report RL34605, *501(c)(3) Hospitals and the Community Benefit Standard*.

since 1998, when it was between $2.3 and $2.4 billion.[33] The analysis was not specific to children's hospitals, so the total amount awarded to children's hospitals would be less than the $4.26 billion total.

CMS administers the Medicaid program, and its data differ from that of AAMC. CMS started collecting expenditure data for Medicaid GME payments in FY2010 in the CMS-64 data.[34] According to these data, 30 states and the District of Columbia reported making Medicaid GME payments through the fee-for-service delivery system in FY2016, and those payments totaled $1.9 billion, with the federal government paying 61% of that amount.[35] These expenditure data are lower than those that AAMC found. This discrepancy may occur for a number of reasons. For example, CMS-64 data include only fee-for-service payments and do not include payments made through state-managed care plans. In contrast, the AAMC survey indicates that 17 states (and the District of Columbia) made payments under managed care, and AAMC includes these data in state totals.[36]

Concluding Observations

Appropriations for the CHGME program are authorized until the end of FY2018. As part of its potential reauthorization of the program, Congress may evaluate a number of related policy issues. These include, but are not limited to, whether the program size is appropriate (i.e., whether the current number of residents trained is appropriate to meet the current and future workforce needs) and whether the program's level of support per resident is appropriate. The 2013 reauthorization included a number of program changes that Congress may consider revisiting, including the addition of new hospitals to the program and the development and reporting of quality data. Payments for the newly added hospitals are currently limited to a subset of the CHGME budget. Congress may consider whether this limitation is appropriate and, if so, whether the amount of funds available for newly eligible hospitals is appropriate.

The CHGME program collects and reports a number of data elements on the residents trained. Congress may consider whether the currently reported data are sufficient, or whether additional or less data are needed. In current statute, program payments are tied to the reporting of certain data, with some additional payments available through a quality bonus system. Congress may consider whether the program's reauthorization should include additional funds for meeting certain quality targets, or whether penalties should be applied to programs that fail to meet certain targets.

[33] Tim M. Henderson, *Medicaid Direct and Indirect Graduate Medical Education Payments: A 50-State Survey*, Association of American Medical Colleges, Washington, DC, April 2010, and Tim M. Henderson, *Medicaid Graduate Medical Education Payments: 50-State Survey*, Association of American Medical Colleges, Washington, DC, 2016.

[34] States submit the CMS-64 form to the Centers for Medicare & Medicaid Services on a quarterly basis, and the CMS-64 form is a statement of expenditures for which states are entitled to federal Medicaid matching funds. States are required to provide supporting documentation for total Medicaid expenditures.

[35] Because states have been reporting this information for only six years, the Medicaid GME payments made through the FFS delivery system may be underestimated. This is at least partially because some states include Medicaid GME adjustments in the base inpatient rates, which makes it difficult to report Medicaid GME payments separately. Also, this figure does not include Medicaid GME payments made through the managed-care delivery system. (Centers for Medicare & Medicaid Services, FY2016 CMS-64 data, as of April 11, 2017.)

[36] This number is from the 2015 AAMC survey. Tim M. Henderson, *Medicaid Graduate Medical Education Payments: 50-State Survey*, Association of American Medical Colleges, Washington, DC, 2016.

Appendix. Children's Hospitals that Received CHGME

Table A-1 presents the most recent data on hospitals that participate in the program, the state in which they are located, and the amount of CHGME funding they received.

Table A-1. Children's Hospitals that Received CHGME Support, FY2000-FY2017

(in millions of dollars, alphabetical by state)

Name of Hospital[a]	State	FY2000-FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	Total FY2000-FY2017
Children's Hospital of Alabama	AL	$55.88	$4.39	$4.42	$4.07	$3.96	$4.21	$4.75	$5.18	$86.86
University of South Alabama Children's	AL	$19.35	$2.54	$2.50	$2.39	$2.40	$2.35	$2.61	$2.59	$36.73
Phoenix Children's Hospital	AZ	$18.29	$1.73	$1.59	$1.56	$1.88	$2.10	$2.65	$2.69	$32.49
Arkansas Children's Hospital	AR	$74.42	$6.79	$6.58	$6.17	$6.55	$6.51	$7.20	$7.28	$121.50
Valley Children's Hospital	CA	$6.94	$0.63	$0.64	$0.60	$0.49	$0.51	$0.54	$0.54	$10.89
Children's Hospital and Research Center at Oakland	CA	$75.80	$7.14	$7.12	$6.03	$7.09	$6.71	$8.16	$8.37	$126.42
The Children's Hospital of Los Angeles	CA	$100.49	$9.06	$9.23	$9.05	$9.07	$9.46	$11.22	$11.91	$169.49
Rady Children's Hospital-San Diego	CA	$39.84	$3.98	$4.41	$3.68	$3.68	$3.51	$4.14	$4.30	$67.54
Children's Hospital of Orange County	CA	$23.35	$2.26	$2.35	$2.16	$2.29	$2.10	$2.29	$2.29	$39.09
Lucile Salter Packard Children's Hospital at Stanford	CA	$62.27	$6.10	$6.33	$6.01	$6.83	$6.57	$7.72	$7.80	$109.63
Long Beach Memorial Medical Center (Miller Children's Hospital)	CA	$33.97	$3.82	$3.69	$3.34	$3.26	$3.24	$3.44	$3.68	$58.44
Children's Hospital Colorado	CO	$68.90	$6.28	$6.29	$6.11	$6.22	$5.97	$6.73	$6.07	$112.57

Name of Hospital[a]	State	FY2000-FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	Total FY2000-FY2017
Connecticut Children's Medical Center	CT	$37.07	$2.80	$2.89	$2.58	$2.64	$2.61	$2.83	$2.86	$56.28
Alfred I. duPont Institute of the Nemours Foundations	DE	$35.82	$2.87	$2.87	$2.85	$3.15	$3.05	$3.67	$3.59	$57.87
Children's National Medical Center	DC	$127.26	$12.35	$11.72	$11.34	$12.26	$11.05	$11.80	$12.08	$209.86
Johns Hopkins All Children's Hospital, Inc.	FL	$28.65	$2.06	$2.19	$1.99	$1.72	$2.04	$2.28	$2.33	$43.26
Variety Children's Hospital	FL	$54.84	$4.55	$4.59	$4.46	$4.55	$4.66	$5.29	$5.46	$88.40
Egleston Children's Hospital at Emory University	GA	$50.36	$4.48	$4.37	$4.22	$4.53	$4.77	$5.46	$5.54	$83.73
Scottish Rite Children's Medical Center, Inc.	GA	$8.12	$0.95	$1.16	$0.93	$1.23	$1.06	$1.01	$0.95	$15.41
Kapiolani Medical Center for Women and Children	HI	$34.21	$3.34	$3.37	$3.25	$3.56	$3.62	$4.00	$3.96	$59.31
Ann & Robert H. Lurie Children's Hospital of Chicago	IL	$93.72	$7.90	$8.44	$7.91	$8.72	$8.18	$9.74	$9.56	$154.17
La Rabida Children's Hospital	IL	$2.41	$0.20	$0.18	$0.13	$0.19	$0.17	$0.19	$0.18	$3.65
Children's Hospital-New Orleans	LA	$32.53	$4.17	$4.13	$4.12	$4.28	$4.32	$5.01	$5.28	$63.84
Mt. Washington Pediatric Hospital	MD	$0.03	0	0	0	0	0	0	0	$0.03
Kennedy Krieger Children's Hospital	MD	$2.74	$0.21	$0.23	$0.25	$0.27	$0.25	$0.28	$0.33	$4.56
Franciscan Hospital for Children, Inc.	MA	$0.21	$0.20	$0.17	$0.16	$0.13	$0.13	$0.18	$0.23	$1.41
Children's Hospital Corporation-Boston	MA	$213.88	$17.71	$18.02	$18.01	$17.80	$17.39	$20.41	$21.12	$344.34

Name of Hospital[a]	State	FY2000-FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	Total FY2000-FY2017
Vhs Children's Hospital of Michigan, Inc.	MI	$135.78	$12.59	$12.36	$11.03	$10.90	$10.95	$12.09	$12.45	$218.15
Gillette Children's Specialty Healthcare	MN	$4.88	$0.60	$0.68	$0.63	$0.57	$0.55	$0.58	$0.58	$9.07
Children's Hospitals and Clinics - Saint Paul**Error! eference source not found.**	MN	$20.45	$1.60	$1.41	0	0	0	0	0	$23.46
Children's Hospitals and Clinics - Minneapolis	MN	$11.83	$1.42	$1.51	$2.74	$2.92	$2.82	$3.22	$3.29	$29.75
St. Louis Children's Hospital	MO	$71.88	$5.78	$5.69	$5.37	$5.79	$5.58	$6.24	$6.20	$112.53
Children's Mercy Hospital	MO	$62.29	$5.22	$5.10	4.82	$5.04	$4.52	$5.19	$5.38	$97.56
Children's Hospital Medical Center-Omaha	NE	$9.21	0	$0.93	$0.89	$1.04	$1.34	$1.14	$1.07	$15.62
Children's Specialized Hospital	NJ	$0.52	$0.04	$0.04	$0.05	$0.05	$0.04	$0.05	$0.06	$0.85
Carrie Tingley Hospital	NM	$1.38	0	0	0	0	0	0	0	$1.38
Blythdale Children's Hospital, Inc.	NY	$0.73	$0.08	$0.08	$0.07	$0.08	$0.09	$0.10	$0.09	$1.32
Children's Hospital Medical Center-Cincinnati	OH	$112.89	$10.63	$8.91	$8.45	$9.32	$9.50	$10.35	$10.38	$180.43
University Hospital/Cleveland Medical Center (Rainbow Babies and Children's Hospital)	OH	$51.79	$4.61	$3.89	$3.57	$3.87	$3.91	$4.49	$4.68	$80.81
Children's Hospital Medical Center of Akron	OH	$35.83	$3.01	$2.84	$2.77	$2.96	$2.87	$3.25	$3.12	$56.65
Cleveland Clinic Children's Hospital for Rehabilitation	OH	$0.29	$0.02	$0.03	$0.03	$0.04	$0.04	$0.04	$0.03	$0.52

Name of Hospital[a]	State	FY2000-FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	Total FY2000-FY2017
Nationwide Children's Hospital	OH	$85.35	$7.34	$7.11	$6.93	$6.78	$6.73	$6.87	$7.20	$134.31
Dayton Children's Hospital	OH	$29.21	$2.46	$2.57	$2.44	$2.59	$2.63	$2.76	$2.91	$47.57
Tod Children's Hospital	OH	$9.37	0	0	0	0	0	0	0	$9.37
Children's Hospital of Pittsburgh	PA	$92.15	$8.71	$8.37	$8.24	$8.92	$9.10	$9.63	$9.62	$154.74
The Children's Hospital of Philadelphia	PA	$209.00	$17.44	$17.77	$16.53	$18.09	$17.79	$20.10	$19.60	$336.32
Temple University Children's Hospital	PA	$5.29	0	0	0	0	0	0	0	$5.29
Tenet Health System - St. Christopher's Hospital for Children, L.L.C.	PA	$67.53	$7.76	$7.16	$7.62	$8.77	$8.90	$9.41	$9.55	$126.70
University Pediatric Hospital - Department of Health	PR	$17.90	$1.44	$1.36	$1.30	$1.48	$1.38	$1.51	$1.47	$27.84
Emma Bradley Pendleton Hospital	RI	0	0	0	0	0	$0.29	$0.32	$0.31	$0.92
William S. Hall Psychiatric Institute, Columbia S.C.	SC	$0.07	0	0	0	0	0	0	0	$0.07
St. Jude Children's Research Hospital	TN	$13.22	$1.01	$1.02	$1.05	$1.04	$1.01	$1.36	$1.23	$20.94
East Tennessee Children's Hospital	TN	$0.68	0	0	0	0	0	0	0	$0.68
Cook Children's Medical Center	TX	$1.45	$0.12	$0.11	$0.11	$0.10	$0.11	$0.12	$0.11	$2.23
Driscoll Children's Hospital	TX	$19.47	$1.60	$1.60	$1.44	$1.45	$1.41	$1.80	$1.58	$30.35
Children's Medical Center of Dallas	TX	$85.39	$7.66	$7.33	$6.67	$6.20	$6.03	$6.70	$6.05	$132.03
Texas Children's Hospital	TX	$108.70	$9.10	$9.11	$8.38	$9.32	$10.78	$10.83	$10.95	$177.17

Name of Hospital[a]	State	FY2000-FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	Total FY2000-FY2017
CHRISTUS Santa Rosa Children's Hospital	TX	$6.98	0	0	0	0	0	$0.86	$0.41	$8.25
Our Children's House at Baylor	TX	$0.06	0	0	0	0	0	0	0	$0.06
Dell Children's Medical Center of Central Texas	TX	$3.30	0	0	0	0	0	0	0	$3.30
El Paso Children's Hospital	TX	0	0	0	0	0	$1.05	$1.11	$1.46	$3.62
Seton Family of Hospitals	TX	0	0	0	0	0	$1.31	$1.59	$2.05	$4.95
Intermountain Health Services/Primary Children's Medical Center	UT	$55.13	$5.00	$5.00	$4.84	$4.96	$4.86	$5.55	$5.41	$90.75
Children's Hospital of the King's Daughters	VA	$30.86	$2.48	$2.43	$2.24	$2.43	$2.31	$2.52	$2.62	$47.89
Children's Hospital-Richmond	VA	$0.40	0	0	0	0	0	0	0	$0.40
Seattle Children's Hospital	WA	$95.85	$8.63	$8.70	$7.94	$8.89	$8.32	$9.80	$9.49	$157.62
Multicare Health System (Mary Bridge Children's Hospital)	WA	$2.50	$0.28	$0.29	$0.25	$0.29	$0.30	$0.26	$0.31	$4.48
Children's Hospital of Wisconsin, Inc.	WI	$90.12	$7.77	$7.21	$6.57	$7.09	$6.96	$7.22	$7.02	$139.96
Total		**$2,846.41**	**$252.91**	**$250.09**	**$236.34**	**$249.73**	**$250.02**	**$280.66**	**$282.85**	**$4,653.68**

Source: Health Resources and Services Administration, Children's Hospital Graduate Medical Education Program, Program Data at http://bhpr.hrsa.gov/childrenshospitalgme/data/index.html.

a. In a number of cases, hospitals names have changed over the time period. In these cases, the name listed in HRSA's FY2017 grantee data is used.

b. Before FY2013, two "Children's Health Care" entities (one in Minneapolis and one in St. Paul) received funding through this program. Beginning in FY2013, only the entity located in Minneapolis received funding.

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