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A Family Medicine Residency Program's Value Equation in a new Era of National Graduate Follow-up Data

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Disclosures

- None of the presenters have any disclosures to report.

Session outline

- What IS the value equation?
- What sort of information is included?
- If you have seen one program you have seen one program – but a few categories: university, THC/CHC, community-owned, corporate
- What data exists – locally, regionally, nationally – to tap into?

Objectives

Upon completion of this session, participants should be able to...

- define what data they have available to them (National Graduate Follow-up data as well as locally available data) and what information can be mined from the data
- demonstrate how data can be combined into a format that tells a compelling story to sponsors
- articulate how different “value” variables may be of interest to different sponsors types (e.g. corporate versus community health centers)

Many thanks to Judy Pauwels, MD, for the use of some resources she has put together (including the template we are sharing with you all)!!


$$\text{VALUE} = \text{BENEFITS}/\text{COST}$$

What benefits do our programs bring to their institutions & communities?

What are the key costs of a family medicine residency program?

Finances: What does your sponsor value? Knowing the bottom lines

Net Revenue as a Sponsor Value

- Revenue
- Expenses
- Contribution margin
- Productivity/performance data
- Staffing models to benchmark



Cost Control as a Sponsor value

- Percentage low or no pay served at outpatients
- Avoidable ER visits
- Avoidable hospitalizations and readmission
- Case management of high utilizers

Market Share or access to care value

- Panel size
- Time to first new patient appointment
- Time to 3rd established patient appointment

Finances: essential basic data

Revenue

- The two largest
 - *Patient care reimbursements (FMC, inpatient, and other locations)*
 - *Federal funding (Medicare GME), Medicaid GME, other federal sources (HRSA, VA, AHECs, etc.)*
- Other
 - *Other service reimbursements (administrative roles, etc.)*
 - *State funding*
 - *Grants, foundation support, other sources*

IMPACTED BY: *payor mix, patient volume, service contracts, RVU production, billing and collection efficiencies (deductions, write-offs, AR, etc.)*

Finances: essential basic data

Expenses

- The big one
 - Salary, benefits, retirement for faculty, staff, residents

- Other
 - Variable operational expenses (supplies, pharmacy, IT, insurances)
 - Fixed operational expenses (building, maintenance, equipment)
 - “Indirect” expenses or “overhead”: other costs not directly on the budget sheets but contributing to the support of the program (human resources, IT, administration, billing, utilities, etc.)

IMPACTED BY: faculty number and structure, staffing models of clinics, allocations of institutional overhead, FPC and residency expenses

Finances: essential data

■ Contribution Margin

- Revenue of the program minus the cost of the program, not including system allocated “indirect” costs

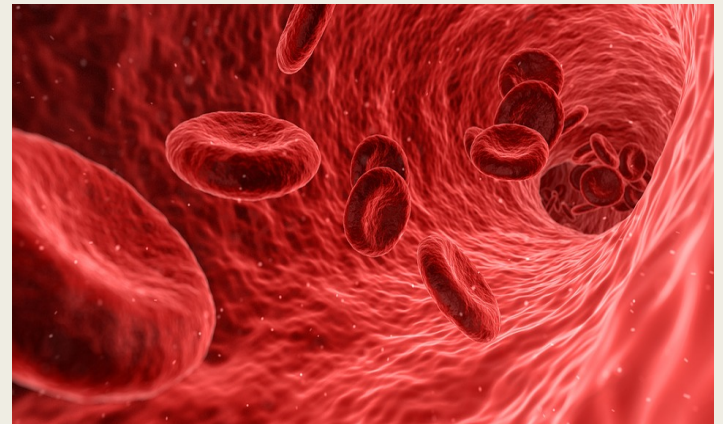
“you can bleed but not hemorrhage”

■ Productivity

- *Direct patient care activities*
- *Indirect patient care activities (precepting, research, conferences, etc.)*

■ Staffing models

- *Impacts expenses and revenues as noted*



Other benefits: essential data

Net Revenue:

- Direct “downstream” revenues from referrals and catchment area

Cost containment

- Direct patient care services provided – inpatient and outpatient
- Underserved or other mission-based care – safety net, specialty access (HIV, OB, etc.); “unclogging” of emergency room

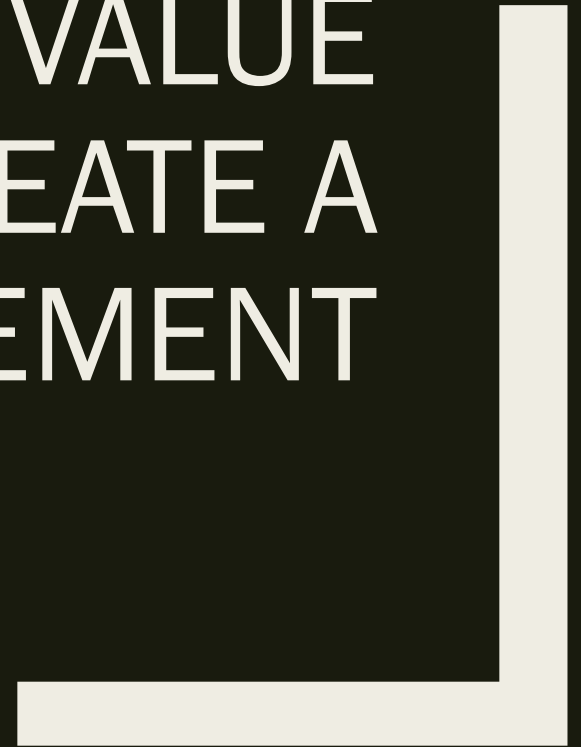
Market Share and Access to Care

- New providers from graduates
 - *Commitment to community, familiarity with institution, Reduced recruiting costs and costs of replacing providers*

Mission or Quality Benefit

- Learning environment increases quality of care in institution, encourages evidence-based practice and adoption of new knowledge, regional CME, research/scholarship
- Community involvement and “goodwill”

USING THE “VALUE EQUATION” TO CREATE A WORTH STATEMENT



You've seen one program... you've seen one program.

- Who is your audience/who are your stakeholders?
 - *What does your sponsor value?*
- What is the goal of your presentation?
- May need to start with “GME 101”!
- Remember to tell stories when time allows!
- How transparent are you with the data – to be truthful but to also show your program in the best light

Different sponsors may want different things...

University

- Divide sponsoring institution in salary service to university and non-university, ie Academic vs Production work
- Scholarship

Teaching health center/Community health center-sponsored

- Short and long term graduate retention
- Under-resourced Lives served, scope of services provided, and grants met

Community Owned

- Method to always have accurate Medicaid and Medicare numbers for IME and DME match (or “most recent”)
- Definition of measurable data for intangible worth: downstream revenue to hospital and subspecialists, value of care for underserved (commercial physicians don’t want to touch/safety net), changes culture for staff at hospital – if feel they are part of academic teaching institution – potentially changes retention of this staff

Corporate

- Sponsoring orgs ask “how many of your graduates settle in the footprint of my organization; did they choose us or someone else/competition, why did they choose someone else; how long did they stay with us if they did stay?” (can you show you are saving money through your grads by having longer retention, greater scope, etc.)

DATA NEEDED

SOURCES: National & nationally published data

Amount and locations of workforce (in institution & community)

National Grad Survey: available in RTM for all ACGME-accredited programs

[Graham Center “footprint mapper”](#)

Fagan EB, Finnegan SC, Bazemore AW, Gibbons CB, Petterson SM. Migration after family medicine residency: 56% of graduates practice within 100 miles of training. *Am Fam Physician*. 2013;88(10):704.

Scope of practice of workforce produced

National Grad Survey: available in RTM for all ACGME-accredited programs

Revenue ratio for FM and other specialties

Merritt Hawkins Inpatient/Outpatient Revenue Survey:

https://www.merritthawkins.com/uploadedFiles/MerrittHawkins/Surveys/Merritt_Hawkins-2016_RevSurvey.pdf

Economic benefit of FP in a community

Retained graduates provide \$1.5M/yr of economic impact, including 6 additional jobs, to the community served by the hospital; also consider savings from unnecessary hospitalizations
- Tripp Umbach, May 2014, IUSOM/Marian/IHA/ISMA for Indiana Residency Expansion Task Force.

Downstream revenues

Saultz JW, McCarty G, Cox B, Labby D, Williams R, Fields SA. Indirect institutional revenue generated from an academic primary care clinical network. *Fam Med*. 2001;33(9):342–345.

Avoidable ER visits

Some state and local agencies track this data; e.g. Washington Health Alliance

Family Medicine residency productivity and staffing

Lesko S, Hughes L, Fitch W, Pauwels J. Ten-year trends in family medicine residency productivity and staffing: impact of electronic health records, resident duty hours, and the medical home. *Fam Med* 2012;44(2):83-89.

DATA NEEDED

SOURCES: National & nationally published data

Medicare DME &
IME payments

[Graham Center GME Tables](#)

[CMS cost reports](#)

- Line # 31 on cost report (Form – CMS-2552-10) on worksheet E-4 for DGME
- Line # 29 on cost report (Form – CMS-2552-10) on worksheet E, Part A for IME
- Line # 6 on cost report (Form – CMS-2552-10) on worksheet L, Parts I-III for Capital IME

Medicaid GME

CALCULATE: Total Medicaid GME dollars in your state*/Total number of residents in your state** = Medicaid dollars per resident

**Google search: AAMC Medicaid GME payments Henderson (most recent 2013; gives amount of Medicaid dollars paid for GME per state)*

***Google search: Brotherton, S.E., and Etzel, S.I., Graduate Medical Education, JAMA (Most recent '14/'15; provides total number of residents in each state)*

Cost of training a
resident

Lesko SE, Fitch W, Pauwels J. Ten-year trends in the financing of family medicine training programs: considerations for planning and policy. *Fam Med* 2011;43(8):543-50.

Pauwels J, Oliveira A. Three-year trends in the costs of residency training in family medicine. *Fam Med* 2006;38(6):408-15.

Regenstein M, Nocella K, Jewers MM, Mullan F. The Cost of Residency Training in Teaching Health Centers. *NEJM*. 2016; 375(7).

Cost of recruiting a
FP

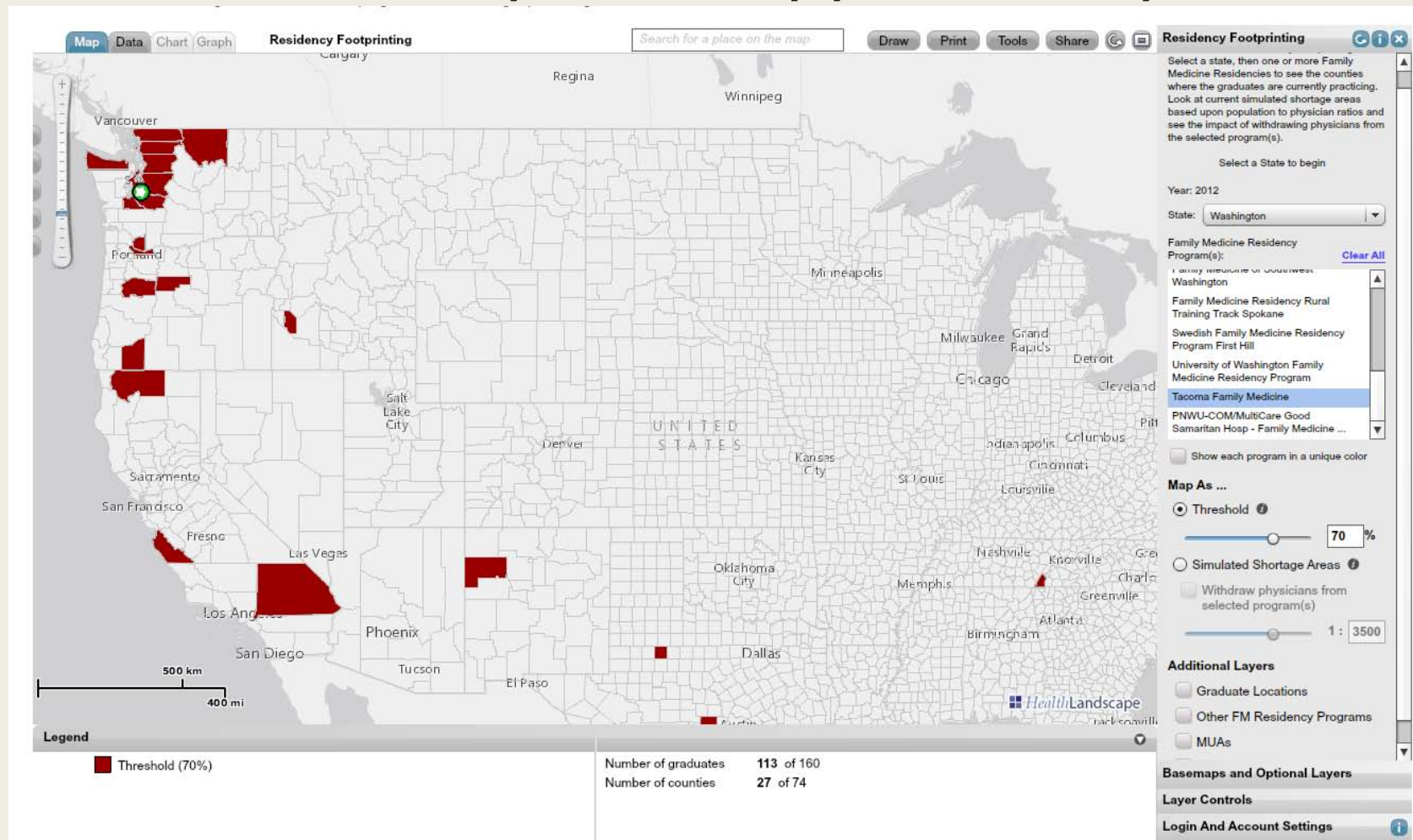
2011 Cejka Search
& AMGA physician retention survey; others

National Grad Survey report example

18 For each of the subject areas and procedures listed below, please indicate:

	Program N=5		National N=2047		Program N=4		National N=2012	
	Residency Prepared		Residency Prepared		Currently Practicing		Currently Practicing	
	Count	Pct	Count	Pct	Count	Pct	Count	Pct
Pediatric Outpatient Care:	5	100%	1885	92%	2	50%	1544	77%
Newborn Hospital Care:	5	100%	1817	89%	2	50%	490	24%
Pediatric hospital care (not newborn):	5	100%	1586	77%	2	50%	407	20%
Maternity care:	5	100%	1870	91%	2	50%	504	25%
Intensive care/ICU-CCU:	5	100%	1408	69%	2	50%	483	24%
End of life care:	5	100%	1709	83%	2	50%	1291	64%
Behavioral health care:	5	100%	1786	87%	3	75%	1769	88%
Integrative health care (e.g. acupuncture, massage therapy, etc.):	5	100%	498	24%	4	100%	366	18%
Endometrial biopsy:	5	100%	1311	64%	2	50%	502	25%
IUD insertion and removal:	5	100%	1611	79%	3	75%	801	40%
Implantable long-acting reversible contraception (e.g. nexplanon):	5	100%	1249	61%	3	75%	660	33%
Colposcopy:	5	100%	1236	60%	2	50%	292	15%
Uterine aspiration/ D&C:	0	0%	345	17%	0	0%	90	4%
Pregnancy termination:	0	0%	258	13%	0	0%	49	2%
Basic OB ultrasound (AFI, fetal presentation, placental location):	5	100%	1192	58%	2	50%	293	15%
Casting:	5	100%	988	48%	3	75%	626	31%
Joint aspiration and injection:	5	100%	1809	88%	4	100%	1499	75%
Musculoskeletal ultrasound:	1	20%	230	11%	2	50%	173	9%
Vasectomy:	5	100%	384	19%	3	75%	87	4%


Graham Center footprint mapper example



References

- Pugno PA, Gillanders WR, Kozakowski SM. **The direct, indirect, and intangible benefits of graduate medical education programs to their sponsoring institutions and communities.** J Grad Med Educ. 2010;14:154–159. doi: 10.4300/JGME-D-09-00008.1.
- Pugno PA, Gillanders WR, Lewan R, Lowe KD, Sweha A, Xakellis GC. **Determining the true value of a family practice residency program.** Fam Pract Manag. 2000;7(6):39–42.
- Schneeweiss R, Ellsbury K, Hart LG, Geyman JP. **The economic impact and multiplier effect of a family practice clinic on an academic medical center.** JAMA. 1989;262(3):370–375.
- Mitchell KB, Maxwell L, Miller T. The National Graduate Survey for Family Medicine. *Ann Fam Med.* 2015;13(6):595-96
- *See also: July 2014 annotated bibliography & articles included as resource for this presentation*



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“Dashboard items”

- Performance data:

- *Patient volumes/mo*
- *New patient visits*
- *Productivity measures:*

- *pts/ hr*

- *RVU/ visit*

- *revenues/ visit*

- *Quality measures*

- Financial summary:

- *Patient care revenues*
- *Expenses*
- *FTE's*
- *Flex expenses/ FTE*
- *Collections measures*

- Trend information

- Explain variations