

Understanding Key Principles (& Math) that Link Team Effectiveness & Staffing Plans

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May 30, 2019



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- **Billing and Coding for Advance Care Planning: How to Document Services Correctly to Reflect your Productivity**

Tuesday, June 11 at 12:30pm ET

- **BRIEFING: Key Findings From the Latest CAPC Research on Attitudes and Perceptions of Palliative Care**

Thursday, July 18 at 12:30pm ET

→ Virtual Office Hours:

- **Improving Team Effectiveness *today***

Thursday, May 30 at 4:00pm ET

- **Marketing to Increase Referrals**

Monday, June 10 at 12:30pm ET

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Overview

- Introduction to useful business math to help with growth staffing plans
- Scenario building with micro data (local) to compare to macro data (RegistryTM)
- Principles that strengthen approaches to budgeting

Questions I dread...

- What is a good RVU target for palliative care?
- How many consults should an MD see each year?
- What is the right staffing model?
- What is the benchmark for x, y, z?

My answer

“It depends...”

Some Examples of Variation

Variables	Why it matters
Size & Complexity of site (s)	Consider an 80 bed well run community hospital & a 1000 bed AMC covering 5 city blocks...how long does it take to get to each new consult? Find the referring MD? For small places: Minimum critical mass = some down time
Volume of training & teaching	Fellows (net positive?), Residents (important but time consuming), complexity of systems, more handoffs, fewer full time clinical ftes, etc.
Culture	Private attendings? Big hospitalist groups? +/- of "ownership" of patients, engagement of specialists, continuity options in community, focus on FFS only
IDT within team and in site	Some places have good resources in SW, Spiritual Care, Pain, Ethics, Care Management, Administrative Support....Some teams have great IDT karma
Complexity of Team, Leadership Q	Same FTEs can = different # of people (many pieces and handoffs), Lack of smooth systems reduces effectiveness. Chaos increases burnout & reduces capacity.

Our Focus Today

“Know Thyself” – Leadership skills to better manage within the team, use the math to help de-mystify discussions, and to reduce chaos.

- This helps the team make good decisions, be self aware, and
- Sets you up well for budgets and planning



Micro & Macro Data



Example:

We should be able to grow by 1000 additional patients to be in top quartile nationally (Macro)...

We have identified these priority opportunities with oncology, SICU, and telemetry and will focus on them for growth (Micro)

Using Macro Data: Registry as Source

Home Registry Information Participate Metrics & Resources

Registry Sign In

National
Palliative Care
Registry™

Mapping Community
Palliative Care

The National Palliative Care Registry™ is building a profile of palliative care teams, operations and service delivery.

1,336

Participating Programs

1,766

Care Settings

2.57M

Initial Patient
Consultations

The Registry is FREE and open to all palliative care programs across the continuum of care.



Submit data to the Registry to receive a premium listing on the Provider Directory for patients and families
(Check to see if your program is listed!)

<https://registry.capc.org>

Impact Calculator

Palliative Care Impact Calculator Results

Table 1 Summary of Estimated Financial Impact: Direct Cost Savings	Table 2 Penetration Rate and Staffing: Your Program vs. National Palliative Care Registry™	Table 3 Average Cost Per FTE Based on a Sample of IDT Staffing Mix	Table 4 Estimated Billing Revenue Per Episode of Care	Table 5 Total Direct Cost Savings
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1 Summary of Estimated Financial Impact: Direct Cost Savings

DESCRIPTION	ESTIMATE USING YOUR DATA
Estimated Average Cost per FTE Including Benefits with IDT Mix ⓘ	\$160,000
Estimated Team Costs (Staffing FTE x Average Cost) ⓘ	\$800,000
Estimated Billing Revenue (Part B Professional at CMS 2017 Rates) ⓘ	\$336,610

Input Values

Hospital's inpatient admissions:

Projected volume of palliative care episodes:

Planned interdisciplinary team members:

2 Penetration Rate and Staffing: Your Program vs. National Palliative Care Registry™

Higher penetration rates are associated with higher staffing. For more information, see the [National Palliative Care Registry™](#) and the recent publication: [How We Work: Trends and Insights in Hospital Palliative Care](#).

Staffing has been increasing to accommodate higher volume. It is important to plan for the staffing you will need, and to recognize that the comparative data is from 2015 and includes many programs with open positions and capacity challenges. Therefore, we recommend focusing on and planning for staffing in the top quartile to optimally deliver timely and effective care. Timely and effective care is necessary to achieve the best cost savings and impact on other high-value goals.

Penetration Quartile	Penetration Ranges	Median Penetration Rate (Consults/Admissions)	Median IDT FTEs per 10,000 Admissions
Quartile 1	(0.1 - 2.8%)	2.2%	1.4
Quartile 2	(2.9 - 4.0%)	3.5%	2.0
Quartile 3	(4.1 - 5.6%)	4.8%	2.1
Quartile 4	(5.7 - 22.1%)	8.2%	3.6
Overall Median		4.1%	2.1
Your Program		3.3%	1.7

Use this to model comparative performance Baseline vs. Budgeted (Scenarios)

Caution & Opportunity

- Registry™ data is by definition a “lagging indicator” – it reports what programs were actually doing 1-2-3 years ago.
- You are hopefully evaluating “now” and projecting forward.
- Most programs are growing/hiring/stressed/still evolving

Thus, it is not a “benchmark” for the future!



Next Sections

- Simple operational metrics
- Team mix
- Comparing 2 sites with different team and volume
- Ways to look at productivity
- Pros and Cons – Tradeoffs
- Leverage factors: Weeks worked & weekly consult volume
- wRVUs (basic example)
- Wrap up

Useful Measures Over Time

Costs:

- $(\text{Direct costs} - \text{billing revenue}) / \text{Patients} = \text{cost per "episode of care" or "per consult"}$
 - This is the cost to compare to expected benefits or savings
- Average cost per FTE

Effectiveness / Productivity?

- Consults per IDT FTE
- Consults per MD + NP (or per MD?)
- F/U visits (billable and non-billable)

Quality & Impact:

- Early, Appropriate, Timely, Thorough,
- New Impact through Added Capacity

Team Mix & Costs Change with Growth



Example: Impact of Team Mix on Ave. Cost per FTE.						
<i>Salary rates are placeholder estimates.</i>						
Staffing Roles	Est. Full Time Salary	Sal + benefits	Site #1 FTE	Site # 1 Total Staff Costs	Site #2 FTE	Site #2 Total Staff Costs
Benefit rate		29%				
Physician	\$220,000	\$283,800	2.0	\$567,600	2.5	\$709,500
Nurse Practitioner	\$105,000	\$135,450	1.5	\$203,175	3.0	\$406,350
Nurse Coordinator	\$85,000	\$109,650	0.0	\$0	1.0	\$109,650
LCSW / Social Work	\$60,000	\$77,400	0.5	\$38,700	3.0	\$232,200
Chaplain	\$60,000	\$77,400	0.5	\$38,700	2.0	\$154,800
Pharmacist	\$100,000	\$129,000	0.0	\$0	0.0	\$0
Total Staffing FTES and Cost			4.5	\$848,175	11.5	\$1,612,500
Weighted Average cost per fte				\$188,483		\$140,217
Percentage Change in Cost per FTE between 2 Scenarios						-26%

2 Sites: What are the Tradeoffs?

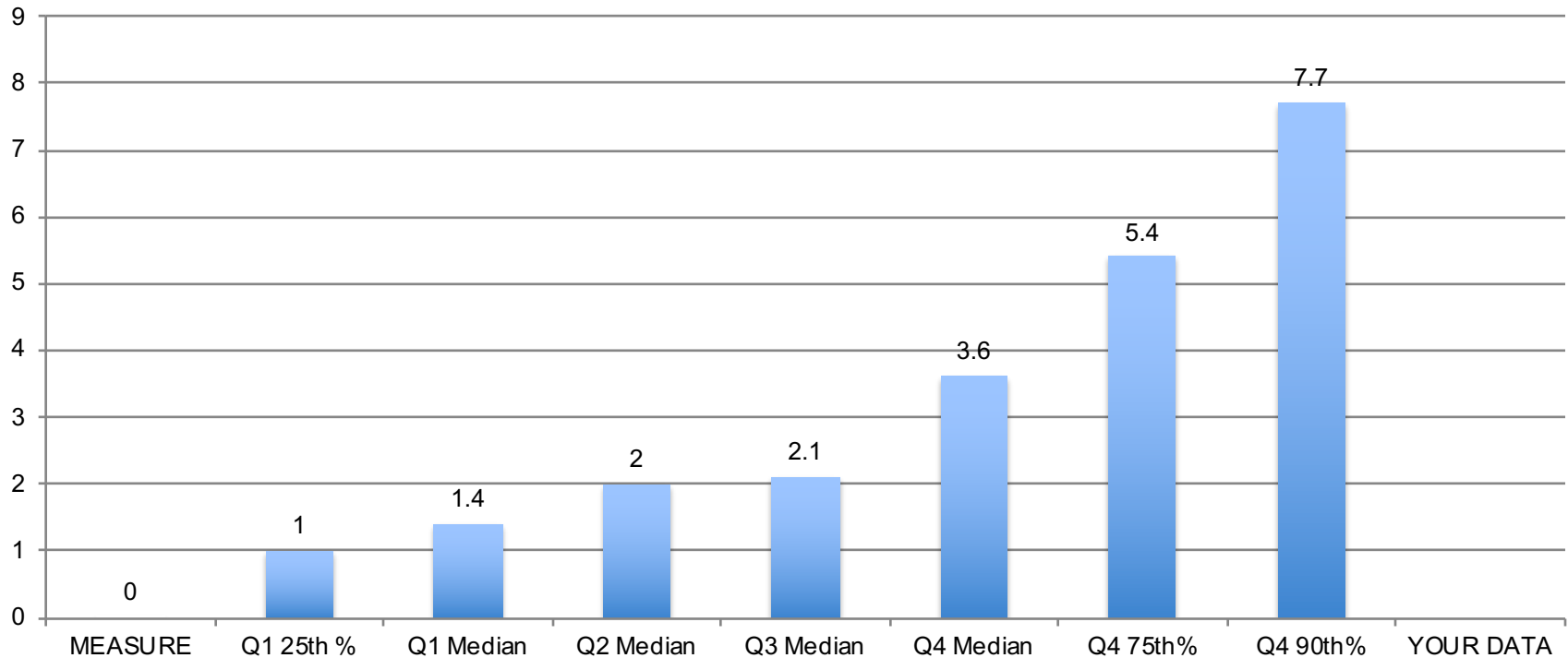
Comparisons & Stats	Site 1	Site 2	Change
Total Annual inpatient Admissions	30,000	30,000	=
Total Inpatient Palliative Care New Patients (Consults)	1,000	2,000	↑ 200%
Total IDT FTEs	4.5	11.5	↑ 255%
Penetration Rate (Consults/Admissions)	3.3%	6.7%	↑
Penetration Rate Quartile**	Q2 (below midpoint)	Q4 (top quartile)	
IDT FTEs per 10,000 Admissions	1.5	3.8	↑
Staffing per 10,000 Quartile**	Q 1 (lowest)	Q4 (top quartile)	
Ave. Cost per Consult (FTE cost/volume)	\$ 848.18	\$ 806.25	↓
Est. Billing Rev per Consult*	\$ 340.00	\$ 340.00	=
Ave. Cost per Consult Net of Billing	\$ 508.18	\$ 466.25	↓

*Assumption that Team 1 has higher % MD, but Team 2 has more f/u.

**Stats from National Palliative Care Registry™ & CAPC Impact Calculator <https://www.capc.org/impact-calculator/>

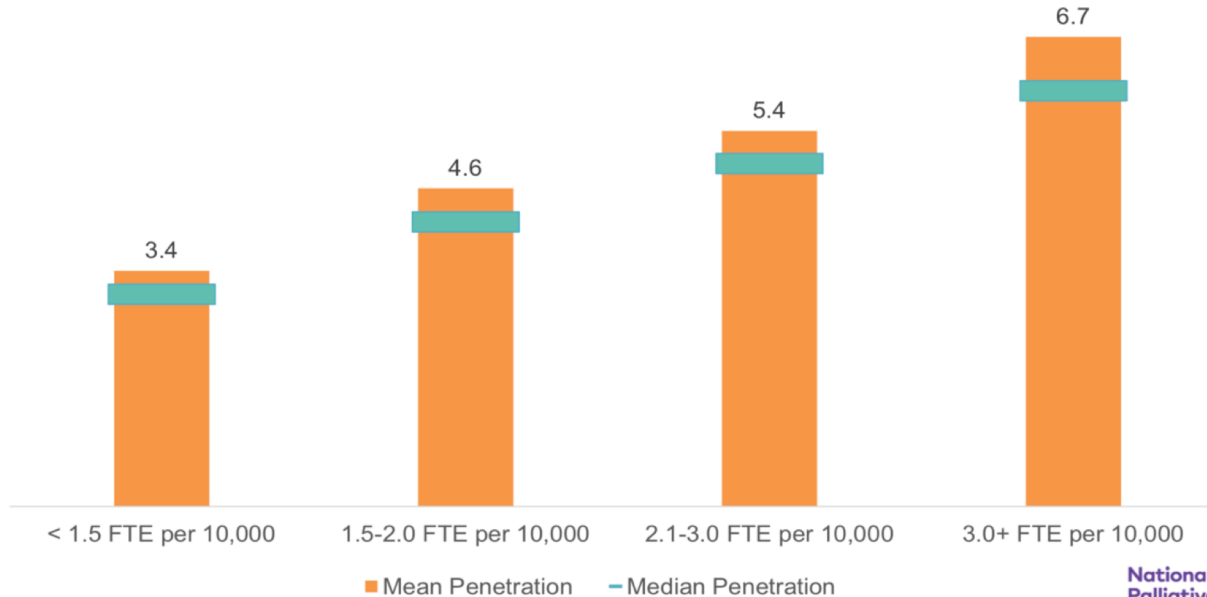
Registry™ Data: Observations?

**IDT FTEs per 10,000 Admissions
by Penetration Quartiles
from 2016 National Registry (2015 data)**



2018 Report on 2017 Data

More adequately staffed programs see a larger percentage of annual hospital admissions



Based on: Interdisciplinary Palliative Care Team FTE per 10,000 Hospital Admissions

National
Palliative Care
Registry

https://registry.capc.org/wp-content/uploads/2018/07/2017_Findings_Slides.pdf

Different Views of Workload or Productivity



Consults per FTE Patterns	Site 1	Site 2	Comparison
Total MD + NP FTEs	3.5	5.5	
Total IDT FTES	4.5	11.5	
Consults per MD + NP FTE	286	364	↑
Consults per IDT FTE (all)	222	174	↓
Consults per WEEK (site 2 is twice the vol)	19	38	
Consults per WEEK per MD + NP FTE *	5.5	7.0	

**Assumes 52 weeks; actual staff available will be less given leave.*

Factors Impacting Smaller Teams

PROs	CONs
Easier to communicate across team about patients	Talking to yourself; lack of IDT perspective
Scheduling is more simple	Full coverage is much harder; GAPS in coverage; less options to adjust to very busy days or weeks
Often “split the list” – divide and conquer	Handoffs when you go off service are more disruptive
Don’t need much formality of process	Unrecognized variation across team, possibility of new team member stress
Founder/leader credibility	Harder to introduce new team members for handoffs or new referrals
Easy to see everyone is busy and utilized	Lack of capacity for proactive outreach & dedicated presence, roles

Factors impacting Larger teams

PROs	CONs
More diverse perspectives from IDT	More need for formal processes, meetings, handoffs to communicate & have efficient flow
Flexible roles & greater # = easier to make adjustments for “busy” days	Need for a coordinator or traffic control to organize the list, deploy, and check in
Scheduling coverage for 52 weeks and weekends can be more viable & consistent	It doesn't happen by magic; need for norms, systems, team etiquette, and management
Team can cross cover with less “founder syndrome”	Still need consistency and quality of communication, process, documentation, relationship
IDT mix allows more coverage/capacity for comparable costs, recruitment may be easier	More complicated budgeting & politics (who reports where, which dollars can fund which roles)
More f/u activity is possible	Non-billable activity may be invisible

Dilemma

- There is not a “right” answer.
- Consider the tradeoffs to optimally meet needs and manage within resources, or with additional resources.

Tradeoffs:

Weeks Worked vs. Consults per Week

Model: SAMPLE workload for a full time MD or APN fte

Weeks on service per year	40	40	35	35
Days of service per week on service	5	5	5	5
Estimate of Ave. New Consults per WEEK on service	8	10	8	10
Estimate of Ave F/U visits per new consult	2.5	2.5	2.5	2.5
Ave. Subsequent Visits per WEEK on service	20	25	20	25
Total New Patient Consults / Year / Per Provider	320	400	280	350
Difference in Annual Total Consult Volume between weekly Average of 8 vs. 10 New		80		70
Difference between 40 week vs. 35 week models			40	50
Average New Consults / "worked day" per provider	1.6	2	1.6	2
Likely RANGE of New Consults / day	0 to 4?	1 to 6?	0 to 4?	0 to 4?
Average # of f/u visits per day per provider (5 day)	4	5	4	5
Likely RANGE of f/u per day	3 to 12?	2 to 10?	3 to 12?	3 to 12?

Question

- Under what assumptions or conditions would people prefer to work more weeks with lower volume or fewer weeks with more volume?
- Could this be used to help figure out weekend coverage, also?

Which Variable Has a Bigger Impact?

Estimate of Annual Consult Capacity per MD or NP								Leverage Factors
Weeks on Service	Consults per MD or NP FTE per Week on Service							
	6	7	8	9	10	11	12	
33	198	231	264	297	330	363	396	Value of each increment of 1 additional consult per week per MD or NP provider FTE
34	204	238	272	306	340	374	408	
35	210	245	280	315	350	385	420	
36	216	252	288	324	360	396	432	
37	222	259	296	333	370	407	444	
38	228	266	304	342	380	418	456	
39	234	273	312	351	390	429	468	
40	240	280	320	360	400	440	480	
41	246	287	328	369	410	451	492	
42	252	294	336	378	420	462	504	
43	258	301	344	387	430	473	516	
44	264	308	352	396	440	484	528	
45	270	315	360	405	450	495	540	

Orange may be a caution zone - too high; concerns re f/u, reactivity, and burn out

Blue may be a sign of a small site, or have opportunity for growth

wRVUs related to Volume

Variables (it is just math)

- Coding mix, intensity, documentation
- F/U visits proportional to New
- Total New Visits

Estimate for wRVUs per “episode of care” [New + F/U] = 6 to 8 wRVUs

- At 300 New consults (+f/u) per year per provider, expected range of wRVUs is about 1800 to 2400 per year.

Different ways to Evaluate a Service or Department

- Cost Center (generates expense, not revenue) strategy – keep it as small as possible, as long as it can do its function.
- Profit Center (generates contribution margin)
Expand as long as margin is positive or until return is less than an alternative use of capital.

Food for Thought

- If "cost per patient served" is \$300-\$800 and current volume of service is at 3% of admissions,
- What is the likelihood that more patients need palliative care?
- Likelihood that "contribution margin" is positive ($>$ cost)?
 - Would growth yield Positive Financial Result?

Cautions & Practicality

- Anchor to national reference points, but lead with local specifics and examples
 - “Analysis of high risk discharges with no palliative care involvement indicate significant need on x, y, z service or unit. Here is what we propose to do, and some simple metrics to track impact.”
 - “With proposed staffing structure, we will be able to add weekend coverage, thus expediting GOC and critical work 2-3 days earlier for patients impacting LOS and inpatient mortality.”

Proactive Approach: What does your leadership need to know?

- What is the “opportunity cost” of maintaining, growing, or shrinking our program?
- Are we managing current resources optimally?
- Are there compelling additional opportunities for impact that supports priorities?
- What specific local benefits will come with program expansion?

“Know Thyself”

(& why your team does what it does how it does it)

- It demonstrates accountability
- It anchors your recommendations and requests
- It makes it easier to match offers and growth with resource requirements



Ex: Using Models for Planning

Example: Multi-Year Budget for Site 1

Staffing Roles	Est. Full Time Salary	Sal + benefits	CURRENT 2019		PROPOSED 2020		PROPOSED 2021	
Benefit rate assump.		29%						
Physician	\$220,000	\$283,800	2.0	\$567,600	2.0	\$567,600	2.5	\$709,500
Nurse Practitioner	\$105,000	\$135,450	1.5	\$203,175	2.0	\$270,900	3.0	\$406,350
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Pharmacist	\$100,000	\$129,000	0.0	\$0	0.0	\$0	0.0	\$0
Total Staffing Cost			4.5	\$848,175	7.0	\$1,102,950	11.5	\$1,612,500
Weighted Average cost per fte				\$188,483		\$157,564		\$140,217
New Patient Volume (consults)				1,000		1,300		2,000
Penetration Rate (Consults/ Admissions)				3.3%		4.3%		6.7%
IDT Staffing per 10,000 Admissions				1.5		2.3		3.8
Penetration Rate - CAPC Quartile				second		third		top
IDT Staffing - CAPC Quartile				bottom		middle		top

Accountability – Business Costs

Know the basics:

- Staffing costs and reasons for mix, costs per patient served
- Revenue sources, billing
- Capacity and demand (“matching” staff to costs and volume to rationale/priorities)
- Modular options – cost out the increments of growth to maximize flexibility and realism
- Be explicit about assumptions; think like a “profit center” and tie investment to organization goals



CAPC Tools to help you

→ National Palliative Care Registry™

<https://registry.capc.org>

(comparative data on staffing, volume, characteristics, and custom reports with your data – if you participate)

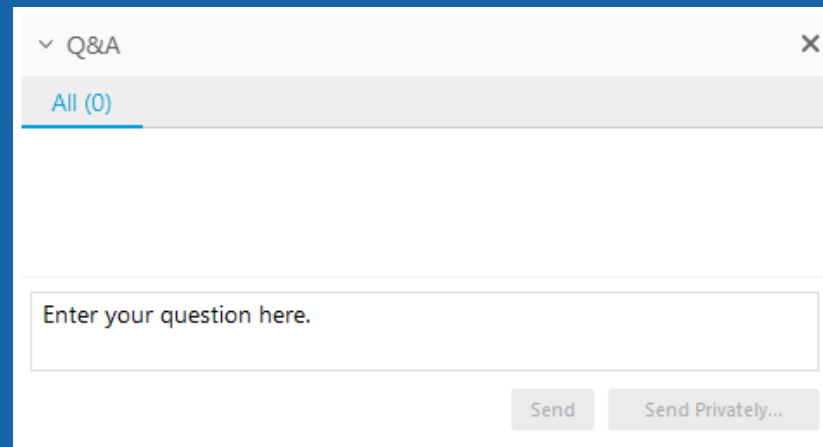
→ CAPC Impact Calculator

<https://www.capc.org/impact-calculator/>

(combines budget assumptions, Registry data, and cost savings to help evaluate/plan for growth)

Questions?

Please type your question into the questions pane on your WebEx control panel.



The image shows a screenshot of the WebEx Q&A interface. At the top, there is a header with a dropdown arrow, the text "Q&A", and a close button "X". Below the header is a list of questions, currently showing "All (0)". The main area contains a text input field with the placeholder text "Enter your question here.". At the bottom right of the input field are two buttons: "Send" and "Send Privately...".



Tipping Point CHALLENGE

**LEAD THE CHARGE
FOR CHANGE**

tippingpointchallenge.capc.org