



Building an Interprofessional Continuing Education Program

Colleen Nichols, MD – Presenter

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SITUATION

- Healthcare providers are expected to be a part of/function within high-performing teams that provide patient-centered care with high stake outcomes
- 5% of AAH CE considered interprofessional
= few internal opportunities to learn together as a team
- **WE HAD A VISION:** Build an Interprofessional Continuing Education Program aligned with professional and organizational priorities

But where/how do we start???

SOLUTION

Formed IPEC with leadership buy-in to start the conversation!

1. Developed systematic needs assessment across professions
2. Created an evaluation tool to monitor effectiveness

Needs Assessment

8 Gaps/Data Sources → 30 Topics Identified ↓	National/State Topics Hot Topics Regulatory Guidelines				Required Education for Licensure / Certifications				AAH Strategic Priorities			
Priority Rankings: 0=NA; 1=Low; 2=Medium; 3=High	APC	Nurse	Pharm	Phys	APC	Nurse	Pharm	Phys	APC	Nurse	Pharm	Phys
Opioid	3	2	3	3	3	1	1	3	3	1	3	3
Antimicrobial Stewardship	3	1	3	2	1	1	0	1	3	1	3	3
Cultural Consideration	3	2	2	3	1	1	0	1	3	1	3	3

Gaps/Data Sources → Rankings: 3 high priority, 2 med priority, 1 low priority, 0 not applicable	National/State Topics; Hot Topics; Regulatory; Guidelines				Required education for licensure/certifications				AAH Strategic Priorities (internal/transform the core)				Identify by Leaders (incl profession, specialties, etc.)				Performance/Educ Gap (incl profession specific)				System Existing Data: Patient Safety Events (MIDAS), Quality / Top 5 / AHRQ SOPS / Engagement; Report Cards				Health Inequities/social determinants of health				Have a Champion				Total			
	APC	Nurse	Pharm	Phys	APC	Nurse	Pharm	Phys	APC	Nurse	Pharm	Phys	APC	Nurse	Pharm	Phys	APC	Nurse	Pharm	Phys	APC	Nurse	Pharm	Phys	APC	Nurse	Pharm	Phys	APC	Nurse	Pharm	Phys				
Opioid	3	2	3	3	3	1	1	3	3	3	1	3	3	3	1	1	1	3	1	1	2	1	3	3	1	2	3	3	3	1	2	3	20	9	17	22
Antimicrobial Stewardship	3	1	3	2	1	1	0	1	3	1	3	3	3	1	3	3	1	1	1	3	2	1	1	1	3	1	3	1	17	8	16	15				
Cultural Considerations	3	2	2	3	1	1	0	1	3	1	3	3	3	1	1	3	2	2	2	2	2	2	3	3	3	3	1	1	3	20	13	14	20			
Obesity Management	2	1	1	2	0	1	0	1	2	1	1	2	2	1	2	2	3	1	1	3	1	1	3	3	3	1	2	1	2	3	15	10	11	15		
Vaccination Hesitancy	3	1	2	2	0	1	0	1	2	1	2	1	1	1	1	2	2	1	1	2	1	2	2	1	2	1	2	3	13	9	11	13				
Hand Hygiene Compliance	2	3	2	1	0	1	0	1	3	3	3	3	3	2	3	3	1	2	1	3	3	1	1	1	1	3	1	3	3	16	16	14	16			
STAAR	2	2	2	2	0	1	0	0	3	3	3	3	3	2	3	3	3	2	2	3	3	3	3	3	3	2	3	3	2	2	3	20	18	16	20	

Lessons Learned



- **Increased** IP education by 30% over 4 yrs
- **Joint** needs assessment identified 6 key areas of focus for 2021 with minimal added effort
- **Impact:**
 - 53% respondents (out of 1,982) cited an improvement in team communication;
 - 42% improved their ability to work in a team

Defining the Value Equation for GME

What Leaders' Value and the Evidence
of GME's ROI for Our System

Deborah Simpson PhD, Leah Delfinado MD, David Hamel MD, Wilhelm Lehmann MD,
Joanna Lewis MD, Tricia La Fratta MBA, Michael Malone, MD, Colleen Nichols MD,
Jill Patton DO, Roxanne Smith MD, Kathryn Agard, Mary Joyce Turner RHIA, MJ,
Jacob Bidwell MD, Thomas Hansen MD, MBA, MS





Return/Valued Benefits



Investment (Cost)

= ROI 

PURPOSE: To DEMONSTRATE THE RETURN ON INVESTMENT TO OUR SYSTEM FOR INVESTING IN GME

- To identify what system leaders' value regarding our GME programs
- To compare that to what GME leaders' value
- To identify associated evidence

Process: Stakeholders & Analysis

3 Questions

1. When asked to **advocate value GME** – What highlight?
2. What wish **others valued** about GME?
3. **Evidence** use (wish) to support value GME to our org?

SYSTEM LEADERS

15-20 min Semi Structured
Interviews (29/31) [Jun-Oct 2019]

GMEC LEADERS (PDS, DIO, ETC.)

GMEC Attendees: Dyads/Triads
(N=33) [Feb 2020]

Analysis – Qualitative for Value Themes (Q1-2)

Convened GMEC Wrkgrp to Identify Evidence x Theme
(Q3) [Summer 2020; N=12]

GME VALUE 5 THEMES BY SI'S & GMEC LEADERS

SI LEADERS
RANK

GMEC
RANK

#1: PATHWAY FOR PHYSICIAN RECRUITMENT - THE BUSINESS CASE - ITS VALUE & COST-EFFECTIVENESS

1

2

- Highlight the business case of retention - from trainee to employed...Faster to credential ... already know so get better candidates

GME **ROI**↑ EVIDENCE

GME VALUE THEMES X EVIDENCE BY SI'S & GMEC LEADERS

SI LEADERS
RANK

GMEC
RANK

#1: PATHWAY FOR PHYSICIAN RECRUITMENT - BUSINESS CASE - ITS VALUE & COST-EFFECTIVENESS

1

2

- Financial analysis – cost savings of replacement recruiting
- GME Workforce Aligned with System Needs [Pipeline = System Needs]
- Quality of “Internal Recruit” – Short Term [Pre-Screen for “Stars”] and Long Term



Return/Valued Benefits

Investment (Cost) = ROI ↑

#2: GME'S CULTURE OF CONTINUOUS LEARNING MOVES US TO HIGH RELIABILITY

- GME CONTINUOUSLY INNOVATES | PILOTS INITIATIVES within the System (> Med Ed) through collaborations & projects
- LEARNERS “TEACH” US: “Disseminators” of New info; New Eyes/Ears; Speak Up as we are all learners; #/Type QI Projects w Impact
- BROADER PURPOSE: Opportunities to “Learn & Teach” – extending patient care by educating the next generation with ↑ Engagement, Faculty Retention and Job Satisfaction; and Hub for leadership development (#GME leaders → organizational roles)

#3: PRESTIGE/REPUTATION/STATURE – IDENTIFIED AS ORG THAT TRAINS FUTURE PHYSICIANS

2

3

- REGIONAL-NATIONAL RANKINGS of GME vs Non GME Sites (eg, Top 100 hospitals) & Faculty (Best Doctors)
- ACGME SURVEY DATA with Benchmarks [Overall + by Program]
- SCHOLARLY ACTIVITY: Benchmark # x type – impact (externally) with emphasis on its value to patient care

#4: COMMUNITY & PROFESSIONAL EXPECTATIONS TO EDUCATE FUTURE DOCTORS AND PROVIDE CARE

4

5

- DIVERSITY: Who we employ as faculty/staff in medical education, GME matriculates and graduates, and patients
- ALIGNMENT OF GME ACTIVITY = COMMUNITY NEEDS Assessment through project (highlight with 2-3 bullet points)

#5: EXCELLENCE INTEGRATED HEALTH CARE SYSTEM - QUALITY OF CARE WITH AGILE WORKFORCE

5

4

- ACCESS/WORKFORCE – Actual Numbers (Residents)
- COST BENEFIT of residents / fellows compared to other clinicians (eg attendings, hospitalists, NP)
- SYSTEM QUALITY METRICS: Patient experience; clinical metrics

PATIENT & PROVIDER PERCEPTIONS OF RAPID TELEHEALTH IMPLEMENTATION DURING COVID-19

AIAMC CONFERENCE
LAHEY HOSPITAL & MEDICAL CENTER (LHMC)

March 2021– Presented by Amanda Solch

Other authors: Ryan Seibert, Sheri Keitz,
Aubrey Podell, Yuxiu Lei

Beth Israel Lahey Health 
Lahey Hospital & Medical Center

Background and Significance

What Happened?

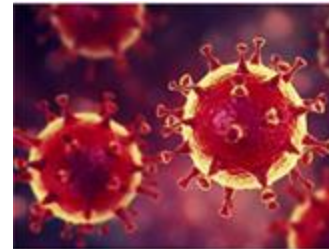
Week of March 9, 2020:

- 3,000-4,000 in person ambulatory visits a day



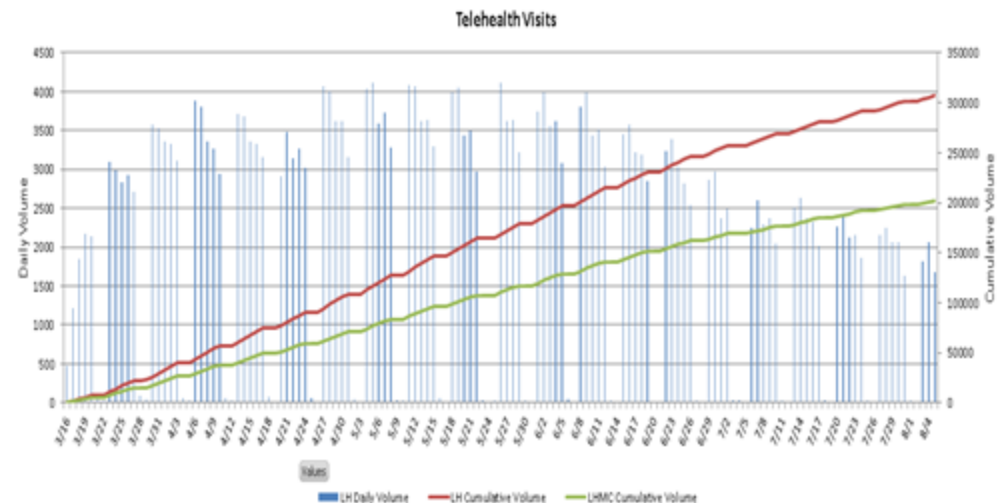
Week of March 23, 2020:

- Only emergency in-person visits
- 2,000-3,000 telehealth visits a day



Aim Statement:

To assess patient and provider perceptions after rapid telehealth implementation during the COVID-19 public health emergency.



Survey Methods: April-May 2020

Provider & Patient Surveys

Providers: Self-administered web-based survey.

- 46% response rate (348 /753)
- 73% MD/DOs; 27% APs
- 29 different depts. (primary care, specialty, surgical)

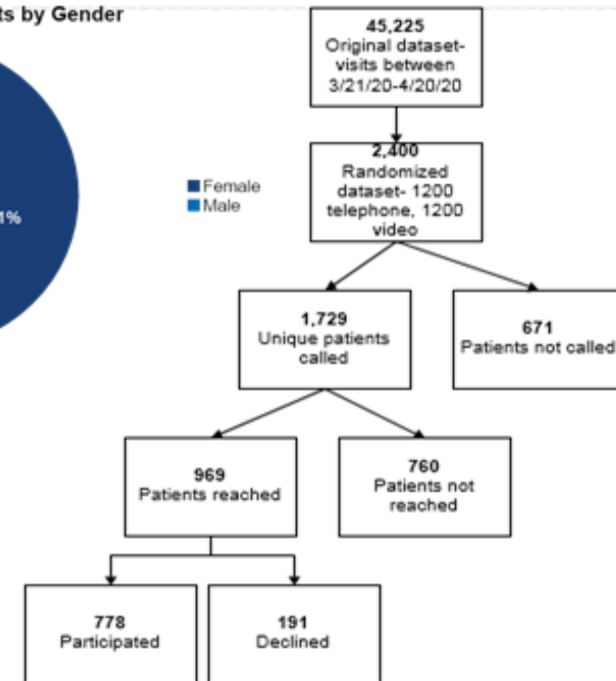
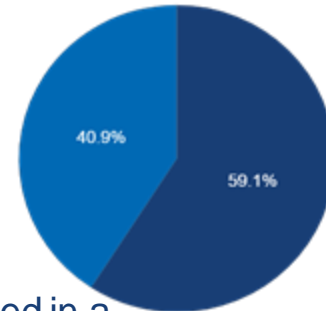
Patients: Random selection of telehealth patients participated in a telephone survey administered by 6 surveyors on Google Form.

- 80.3% response rate (778/969)
- Subanalyses on demographic information (age, gender, race/ethnicity, visit modality (telephone v. video))

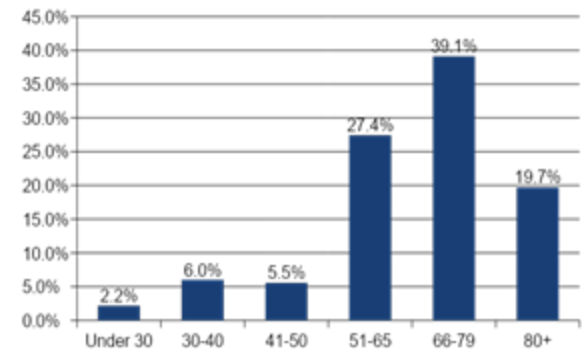
Domains: relationship-based care, technical and operational considerations, COVID-19-related issues, overall satisfaction, and willingness for future visits

- Open-ended comments about visit experience were collected and categorized into themes.
- **Primary Outcomes:** 1) Overall satisfaction, 2) Willingness to participate in future

Survey Respondents by Gender



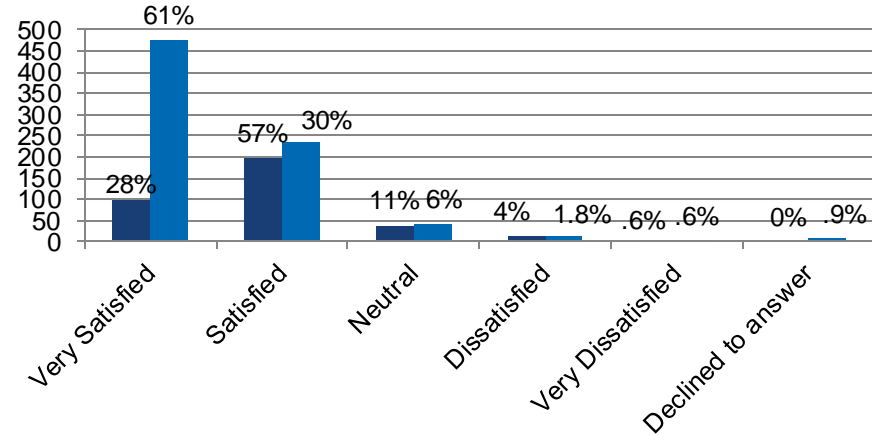
Survey Respondents by Age



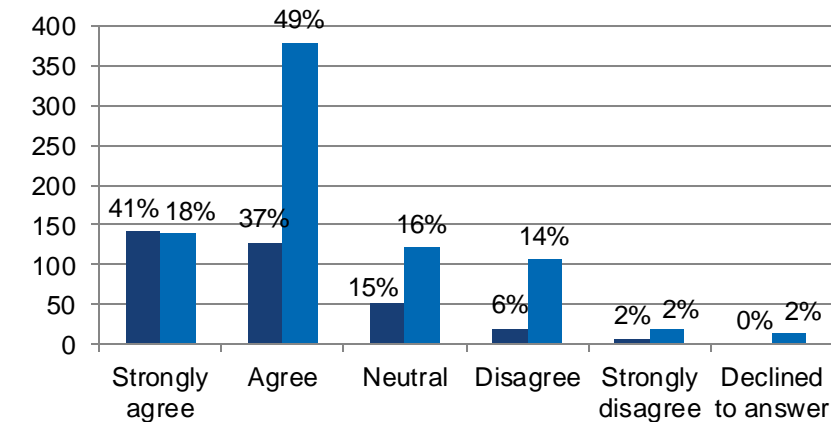
Results

Telehealth Satisfaction

Satisfaction with Quality of Telehealth Visit



Choose to have a Future Telehealth Visit



Subanalyses:

- Older patients most likely to use telephonic visits (72 phone v. 63 video median age, $p=.001$)
- Video visits had more satisfaction than phone (94.4% v. 88.4%, $p=.0097$)

■ Provider n=348
■ Patient n=778

“Logistics were better. I didn’t have to worry about the 25 min. commute or get daycare for my kids”.- Patient

“For some patients, if under normal circumstances burden of taking time from work, coming to Lahey, may have ultimately led them to cancel their appointment or no show. However, the ease of telehealth possibly made them more likely to attend.”- Provider

“The most important positive of telehealth is that it decreases isolation in this public health crisis. My patients have been profoundly grateful for my being there for them at a time when they feel alone and disconnected in so many other ways”. -Provider

Discussion Now What?

One of the largest surveys for patient and provider perceptions of telehealth during COVID-19 pandemic. Telehealth is an essential tool for providers and patients in providing and receiving care during COVID-19.



- Telehealth garnered high satisfaction and supported relationship-based care.
- Large majority of participants willing to choose telehealth for future visits.
- Older patients rely on telephone for visits, which is a highly effective form of virtual care.

Needed for Care Beyond Pandemic: Additional investment in pre-visit workflow support/staffing to help improve access, increase volume and innovate in care

Healthcare Career Exposure to a Diverse High School Student Population During the COVID Pandemic

Lauren Knowles, MSN, RN, FNP-BC

Anne Mosenthal, MD, FACS

Jalil Afnan, MD, MRCS

Eric Tolo, MD

Beth Israel Lahey Health 
Lahey Hospital & Medical Center

Background and Significance

- Under represented cultures in medical staff
 - 13% of US population is Black* – 5% of providers identify as black**
 - 18% of US population is Hispanic* - 5.8% of providers identify as Hispanic**
 - Discrepancy has been identified for years yet little has been done to change it.
 - In order to change the makeup of the healthcare workforce we have to look beyond hiring measures and foster aspiration towards a career in healthcare at an early age.



* U.S. Census Bureau (2019). *QuickFacts United States*. Retrieved from <https://www.census.gov/quickfacts/fact/table/US/PST045219>

** *Diversity in the Physician Workforce: Facts and Figures 2017*. Association of American Medical Colleges, 2017. Available at www.aamcdiversityfactsandfigures.org Accessed February 10th, 2021

Objectives

- Create a virtual shadow program targeting under represented students
 - Create this opportunity for students in their own home eliminating need for transportation and days out of work.
 - Provide a safe shadowing opportunity during COVID-19 pandemic
- Bolster interest in medical careers and expose students to various opportunities
- Connect students to “medical mentor” for ongoing questions and needs



Methods

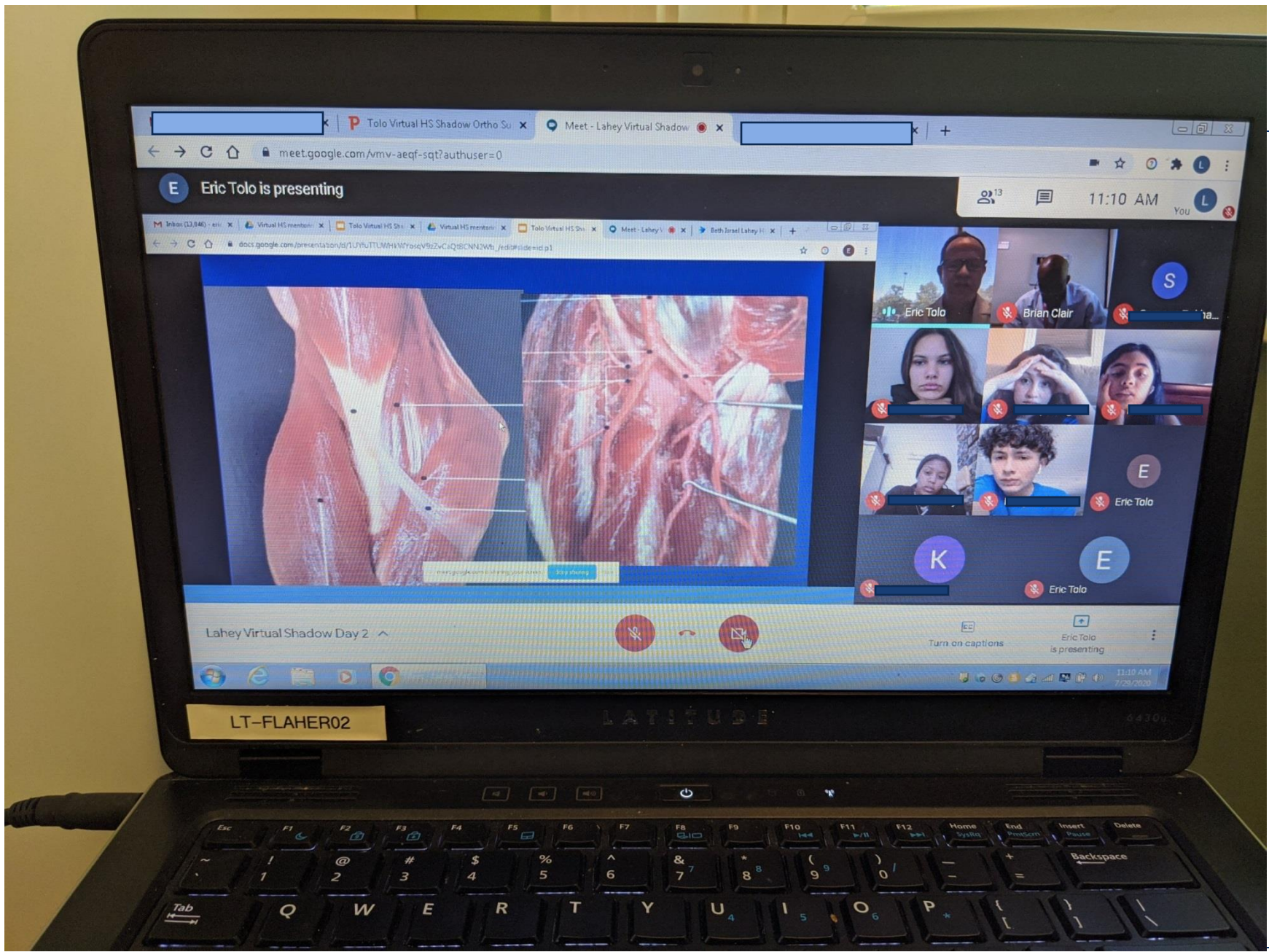
- A convenience sample of 6 high school students from one school
- Community listed as 6th most diverse community in Massachusetts and in the bottom 5% per capita income in the state
- 6 - 2 hour live sessions via online video platform
- Students were able to participate in case studies, prerecorded surgery and virtual tours
- Medical Staff was live for question and answers throughout the program
- Students participated in a pre and post intervention survey



Results

- Overall increased interest in pursuing a career in the medical field
- A better understanding of the jobs available in healthcare and required education pathway
- Connection to medical providers for future questions and career advice

“ I really enjoyed this whole experience. You opened my eyes to so many different things and helped me learn about stuff I didn't even know existed in the medical field”



Enhancing Value-Based Care with Walk-in Clinic Hours: A PCP Intervention to Decrease Low Acuity Emergency Room Over-Utilization

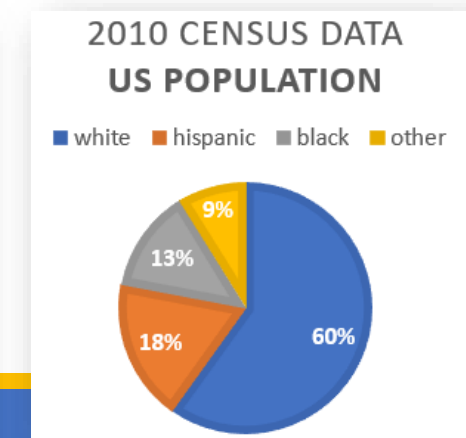
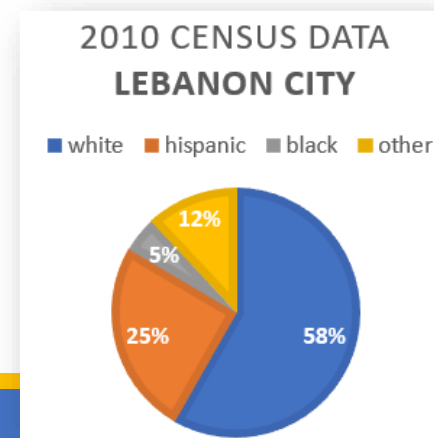
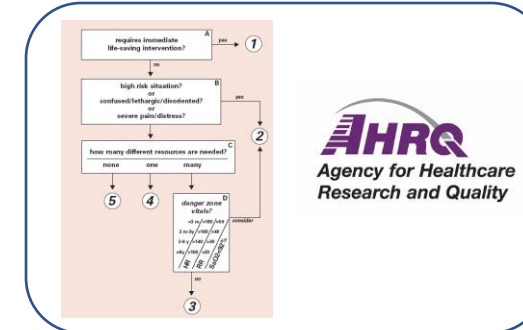
Derek Baughman, MD; Abdul Waheed, MD, FAAFP;
M. Nausherwan Khan, MD; James Nicholson, MD

WellSpan Good Samaritan Hospital Family Medicine Residency Program *Lebanon, PA*

Methods

Inclusion criteria:

1. Established N 4th St FM patient (visit within last 3 years, according to Medicare's definition¹)
 2. **ESI²** level 4 or 5 (low acuity) visit to Good Samaritan Hospital ED
 3. Only established patients were eligible to be seen at walk-in clinic
- Predominantly Caucasian with Hispanic and Black minorities (*approximately 25,000*³)
 - Distribution of race patterns the US population⁴



1. Dept. of HHS Centers for Medicare & Medicaid Services. (2017). Evaluation and Management Services [Ebook] (p. 18).
 2. Agency for Healthcare Research and Quality: Emergency Severity Index scoring⁷
 3. http://www.lebcountry.org/depts/Planning/Documents/2010_Census_Municipal_Fact_Sheets.pdf
 4. <https://www.census.gov/quickfacts/fact/table/US#>

Results

Gross numbers of total EDU increased (HA, LA, and adjusted LA)

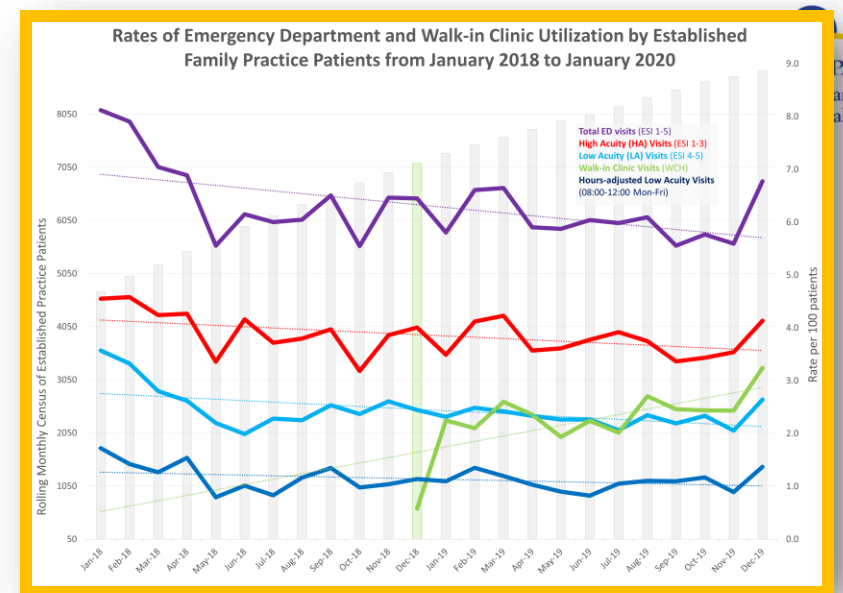
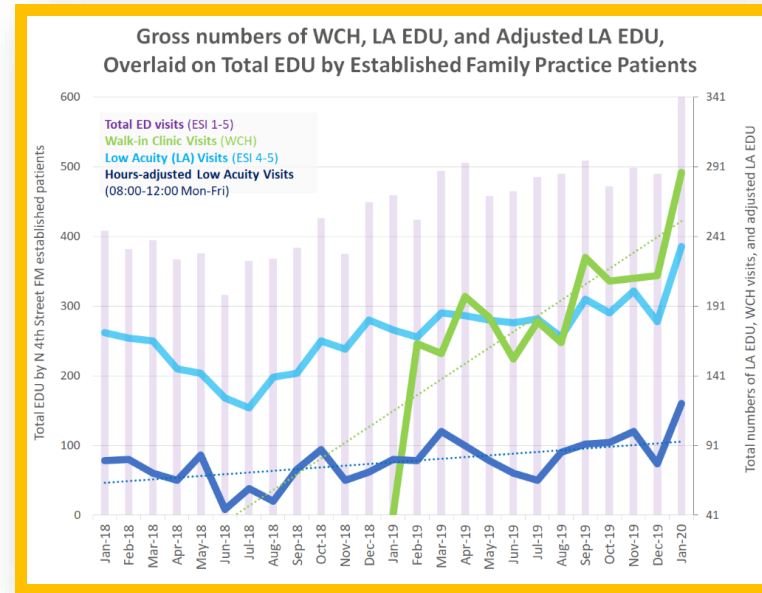
Walk-in clinic visits increased

walk-in clinic visits numbers exceeded total LA visits just 6mo after implementation

Established office census nearly doubled

Rates of low acuity EDU decreased; rates of walk-in clinic increased

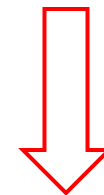
Rates of Total low acuity EDU decreased by 1.5%



Date	Total High Acuity (ESI 1-3)	Total Low Acuity (ESI 4-5)	Adjusted LA EDU visits*	Gross ED visits (established patients)	Rolling Census (established patients)	Gross Walk-in Visits	Rate of HA (per 100 est pts)	Rate of LA (per 100 est pts)
Jan-18	236	172	80	408	4423		5.3	3.9
Feb-18	214	168	81	382	4705		4.5	3.6
Mar-18	229	166	71	395	4998		4.6	3.3
Apr-18	221	146	66	367	5211		4.2	2.8
May-18	233	143	84	376	5460		4.3	2.6
Jun-18	191	125	45	316	5691		3.4	2.2
Jul-18	247	118	60	365	5937		4.2	2.0
Aug-18	228	140	51	368	6133		3.7	2.3
Sep-18	241	143	74	384	6351		3.8	2.3
Oct-18	260	166	88	426	6547		4.0	2.5
Nov-18	215	160	66	375	6759		3.2	2.4
Dec-18	268	181	72	449	6945		3.9	2.6
Jan-19	285	174	81	459	7118	41	4.0	2.4
Feb-19	255	169	80	424	7304	164	3.5	2.3
Mar-19	308	186	101	494	7478	157	4.1	2.5
Apr-19	322	184	91	506	7615	198	4.2	2.4
May-19	277	181	80	458	7761	183	3.6	2.3
Jun-19	286	179	71	465	7917	153	3.6	2.3
Jul-19	303	182	66	485	8033	180	3.8	2.3
Aug-19	321	169	86	490	8192	165	3.9	2.1
Sep-19	313	196	92	509	8356	226	3.7	2.3
Oct-19	286	186	93	472	8498	209	3.4	2.2
Nov-19	297	202	101	499	8655	211	3.4	2.3
Dec-19	310	180	78	490	8760	213	3.5	2.1
Jan-20	366	234	121	600	8855	287	4.1	2.6
Total 2018	2,783	1,828	838	4,611				
average 2018	232	152	69.8	384	5,763		4.1	2.7
Total post intervention	3,929	2,422	1,141	6,351		2,387		
average	302	186	87.8	489	8,042	184	3.8	2.3

*LA EDU by established patients counted only for the 08:00-12:00 Mon-Fri timeframe

	2018	2019	total
acute EDU	1828	2422	4250
total EDU	4611	6351	10962
	39.64%	38.14%	-1.51%





Cost savings analysis

Average low acuity ED visit per WellSpan Medical group: **\$437**

Average low acuity outpatient visit: **\$91.**

Average total monthly costs for low acuity visits:

- ED: \$81,416
- walk-in clinic: \$16,709

Extrapolation: in 2019, our walk-in clinic cost savings: **\$825,902**

(if all the walk-in's had gone to the ED instead)

date	ESI 4	ESI 5	total LA ED visits	Average level 1 ED visit (\$437) ¹	total WCH visits	Ambulatory tier 1 (\$91) ²
01 2018	160	12	172	\$75,164		
02 2018	164	4	168	\$73,416		
03 2018	148	18	166	\$72,542		
04 2018	130	16	146	\$63,802		
05 2018	123	20	143	\$62,491		
06 2018	112	13	125	\$54,625		
07 2018	99	19	118	\$51,566		
08 2018	125	15	140	\$61,180		
09 2018	128	15	143	\$62,491		
10 2018	149	17	166	\$72,542		
11 2018	144	16	160	\$69,920		
12 2018	169	12	181	\$79,097		
01 2019	158	16	174	\$76,038	41	\$3,731
02 2019	155	14	169	\$73,853	164	\$14,924
03 2019	176	10	186	\$81,282	157	\$14,287
04 2019	164	20	184	\$80,408	198	\$18,018
05 2019	162	19	181	\$79,097	183	\$16,653
06 2019	173	6	179	\$78,223	153	\$13,923
07 2019	169	13	182	\$79,534	180	\$16,380
08 2019	159	10	169	\$73,853	165	\$15,015
09 2019	180	16	196	\$85,652	226	\$20,566
10 2019	169	17	186	\$81,282	209	\$19,019
11 2019	185	17	202	\$88,274	211	\$19,201
12 2019	166	14	180	\$78,660	213	\$19,383
01 2020	221	13	234	\$102,258	287	\$26,117
Total 2018-2019	3888	362	4250	\$1,857,250	2387	\$217,217
average 2018	138	15	152	\$66,570		
total 2019	2237	185	2422	\$1,058,414	2387	\$217,217
average 2019	172	14	186	\$81,416	184	\$16,709

1. The average cost of a GSH emergency Level 1 visit #99281 is \$437

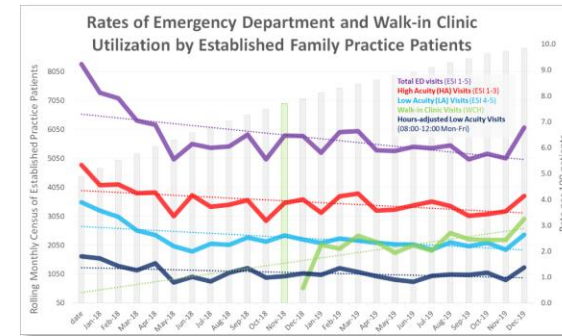
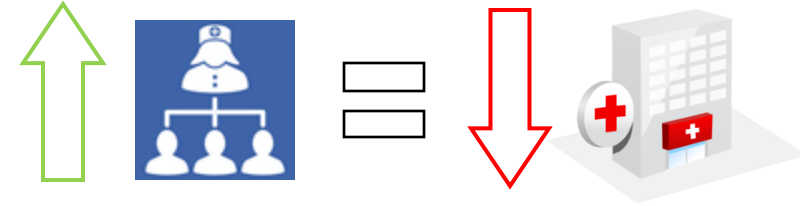
2. The average cost for a WellSpan Med Group established pt for Tier 1 visit is either \$68 (#99212) or \$114 (#99213). The average of \$68 and \$114 is \$91.

Average cost difference between WCH & LA ED visit (avg Level 1 ED visit/avg ambulatory visit):	4.9
estimated cost savings in 2019 due to WCH (total WCH visits 2019 x (\$437-\$91):	\$825,902

$\$437 \times 2387$ (#walk-in visits 2019) = \$1,043,119 vs $\$91 \times 2387 = 217,217$

Conclusion

- Increasing walk-in clinic availability might decrease rates of low acuity ED utilization by patients established at PCMHs
- We found low acuity ambulatory visits cost nearly 1/5th of comparable ED visits
- Our study supports the literature in demonstrating primary care interventions enhancing the quadruple aim in value-based healthcare systems



date	ES 1	ES 2	Total LA ED Visits (ES 1-3)	Average Level 1 ED Visits (ES 1-3)	Total WCV Visits (ES 1-3)	Ambulatory Visits (ES 1-3)
01-2018	100	10	110	\$75,566		
02-2018	104	5	109	\$75,414		
03-2018	100	10	110	\$75,562		
04-2018	100	20	120	\$80,802		
05-2018	113	20	133	\$82,491		
06-2018	112	12	124	\$79,626		
07-2018	109	10	119	\$75,166		
08-2018	105	10	115	\$75,108		
09-2018	108	10	118	\$75,491		
10-2018	109	17	126	\$77,542		
11-2018	104	10	114	\$75,020		
12-2018	109	10	119	\$75,097		
01-2019	108	10	118	\$75,038	41	\$5,731
02-2019	103	14	117	\$73,833	344	\$4,134
03-2019	106	10	116	\$75,282	137	\$54,287
04-2019	104	20	124	\$80,408	190	\$14,616
05-2019	102	10	112	\$75,097	103	\$14,616
06-2019	101	6	107	\$75,228	121	\$14,616
07-2019	108	10	118	\$75,534	130	\$14,385
08-2019	100	10	110	\$75,833	105	\$14,616
09-2019	100	10	110	\$75,822	226	\$25,366
10-2019	109	17	126	\$81,282	209	\$19,819
11-2019	105	17	122	\$80,278	211	\$19,201
12-2019	106	14	120	\$78,600	211	\$19,388
01-2020	103	10	113	\$80,228	207	\$18,117
02-2020	100	10	110	\$75,520	207	\$18,117
Year 2018-2019	106	12	118	\$75,520	2087	\$217,117
2018-2019	106	12	118	\$75,520		
2019-2020	103	10	113	\$75,520	2087	\$217,117
2018-2020	103	10	113	\$75,520	4174	\$414,234
2019-2021	102	10	112	\$75,520	184	\$18,798

