record for most tests administered per shift increased from 55 for one lane to 112 for two lanes (figure 1).

Conclusions Lessons learned here about heat safety, pathogen safety, and hot zone training can be applied to all drive thru testing sites. With this ongoing pandemic, it is wise to look for ways to improve test sites as well as potential vaccination sites.

9 RHEUM SERVICE: IMPROVING VIRTUAL CARE DURING COVID-19

Joseph Carson, Stephanie Gottheil. *London Rheumatology; Western University, Canada*

10.1136/bmjopen-2020-IHI.9

Background During COVID-19, rheumatology outpatients need timely access to care while social distancing. Video consults have potential to improve virtual assessments, however, some patients and providers are apprehensive about using this technology.

Objectives Provide delightful and effective video consults for 90% of new patients by July 1.

Methods We redesigned video appointments to create a seamless virtual experience. PDSA Series 1 identified improvement opportunities with a process map, fishbone, and driver diagram. PDSA Series 2 tested and implemented change ideas: digital appointment confirmations, reminders, and forms; video consults with limited pre-call testing; digital reports, requisitions, and messaging. PDSA Series 3 refined changes by decreasing reminders, increasing pre-call tests, and adding backup video platforms. Outcome measures were: 1)% consults by video, 2)% requesting more video appointments. Process measures were: 1) pre-call tests completed, 2) technical difficulties. Our balance measure was% virtual diagnoses modified after in-person visits. We collected data over ten weeks and emailed anonymized patient surveys one week after video consults. We analyzed data with run charts and descriptive statistics.

Results We scheduled 135 new consults: 120 (89%) video, 14 (10%) phone, and 1 (1%) office. Twenty-one patients (16%) did not own a video-enabled device. Pre-visit, 12 patients (10%) participated in pre-call testing. Video consults were initiated for 97% of scheduled patients; of these, 6% suffered technical difficulties, requiring a switch to phone or another video platform. Surveys were completed after 40% (48/120) of video visits: 68% of patients wanted another video appointment; 28% were 'not sure'; 4% declined. Virtual diagnoses stayed the same for 84% (32/38) of patients with follow-up in-person assessments.

Conclusions While video consults proved effective for most patients, sociodemographic and technological barriers prevented others from participating. Next steps include improving access to video-enabled devices and providing more pre-visit training to reduce these barriers.

10 USE OF MANAGERIAL EPIDEMIOLOGY BY HEALTHCARE LEADERS IN AMBULATORY SETTINGS

Chantelle Schenning. *Walden University, United States*

10.1136/bmjopen-2020-IHI.10

Description Despite many health reforms, the United States continues to struggle with limited healthcare access, exponential healthcare costs, and poor quality of care. Overcoming these challenges requires healthcare leaders' effective navigation of industry transformation towards population health and a shift in patient volume to ambulatory healthcare settings. Research has demonstrated that the use of managerial epidemiology, an application of epidemiology tools and principles to management decision-making within healthcare organizations, can better serve the health of the population and could improve the triple aim of inadequate access, high costs, and poor quality. However, the adoption of this practice is weak and its utilization by current healthcare leaders has not yet been studied. Diffusion of innovation theory framed this qualitative study to understand the perspectives of ambulatory healthcare leaders on using managerial epidemiology within their leadership approach as well as understand the spread of this practice and associated barriers. Twelve healthcare leaders participated in semistructured interviews. Findings from open-axial coding of the interview data indicated managerial epidemiology is critical and validated the importance of managerial epidemiology for impacting the triple aim, population health, and overall system performance. Additionally, this study provided steps to accelerate the adoption and highlighted the use of managerial epidemiology during a pandemic, which has worldwide implications for improving health and performance of healthcare globally therefore promoting social change.

11 FRAMING EQUITY, DIVERSITY & INCLUSION EFFORTS ACROSS THE CONTINUUM OF MEDICAL EDUCATION USING IHI MODEL FOR IMPROVEMENT

Deborah Simpson. *Advocate Aurora Health, USA*

10.1136/bmjopen-2020-IHI.11

Background Medical education (ME) must create equitable, diverse, and inclusive (EDI) training environments for our learners, faculty, and staff and equitable care for the patients they serve. As ME leaders spanning students to CME and libraries, we are accountable for addressing structural 'isms' in all forms (eg, race, gender-identity, religion).

Objectives Our purpose is to be intentional and public in our actions to address EDI across the continuum of medical education using the IHI Model for continuous improvement. We have 3 specific objectives, one each at the micro, meso, and macro levels.

Methods Each education department leader provided their current EDI activities and focal areas for future work along with proposed measures. These interventions were then reviewed to identify actionable interventions and associated metrics across the ME continuum seeking to use existing data for longitudinal tracking when possible. The document was shared and discussed with key stakeholders with iterative revisions to develop and assure plan engagement and support.

Results Four actionable EDI education-related categories were agreed upon: (1) purpose & culture; (2) recruitment and retention; (3) curriculum and program structure; (4) evaluation and assessment (figure 1). Within each category 2–3 specific PDSA interventions were identified for action within

ACADEMIC AFFAIRS EQUITY, DIVERSITY, INCLUSION – EDUCATION (EDI-Ed) ACTION PLAN

Abstract 11 Figure 1

PURPOSE: To be intentional and public about addressing the equity, diversity and inclusion (EDI) across the continuum of medical education using IHI Model for continuous improvement.

EDI-EDUCATION AIM STATEMENTS:

1. Micro: To create diverse, equitable and inclusive working environments associated with AAH Academic Affairs (student, resident, continuing education).
2. Meso: To achieve equity, diversity, and inclusion in all AAH Academic Affairs sponsored learning environments – encompassing F2F, virtual and live classrooms, clinical learning sites, recruitment and retention.
3. Macro: To achieve health equity for all populations we serve utilizing evidence-based data driven strategies, including the role of intersectionality in the care of subpopulations (eg, look at whole patient considering the unique composition of patient from gender, age, LGBTQ, race to SES and other pertinent variables).

Abstract 11 Figure 2

MEASURES:

1. PROCESS
 - 1.1. Be accountable to ourselves, our learners, staff and patients → make our timelines and work public
2. OUTCOMES
 - 2.1. System and Accreditation Metrics ranging from Engagement Survey and Survey on Patient Safety to Accreditation surveys (eg, ACGME fac/res survey) focuses on specific items with national benchmarks.
 - 2.2. Learner Evaluation tools each for teachers, formal curriculum sessions and rotation each with added item(s) specific to Equity, Diversity and Inclusion including narrative comments (eg, microaggressions)
 - 2.3. NRMP Applicant tracking data (apply, interviewed, rank, join)
 - 2.4. Employment/retention statistics to reflect the communities we serve
 - 2.5. Best Workplaces for Equity Diversity, Inclusion (specific items with national benchmarks)
 - 2.6. Resident/Fellows Well Being Index quarterly results by selected demographics (eg, race, ethnicity, sexual orientation, religion)
3. BALANCING
 - 3.1. To monitor existing measures to ascertain if there are adverse changes and investigate (eg, a rise in unprofessional behavior reporting may be an asset or a challenge).

Abstract 11 Figure 3

INTERVENTIONS THE CROSS CONTINUUM OF MEDICAL EDUCATION USING PDSA CYCLES FOR IMPROVEMENT: ↓

CULTURE/PURPOSE	1.	Create “Midas” like incident report category for microaggressions/ racism/ sexism/ homophobia from patients, learners, teachers and staff
	2.	Enact existing system and Academic Affairs EDI related policies with truly significant and impactful interventions for violations focusing on value and behavior change
	3.	GME Programs include EDI elements within their required ACGME mission statements
RECRUITMENT & RETENTION	4.	Faculty and Staff of all Academic Affairs Units in 5 years reflect population you serve
	5.	GME in 5 years, GME programs (residents, fellows, faculty) reflect population serve
CURRICULUM & PROGRAM STRUCTURE	6.	Every Educ Offering must consider REAL-G (race, ethnicity, age, literacy, gender identity) and EDI-Educ
	7.	Performance Improvement: All QI/Change Initiatives must include EDI-E
ASSESSMENT & EVALUATION	8.	Scripting Sessions Microaggressions: If inappropriate comment EDI - what do you say if you or “Upstander”
	9.	All assessments & evaluations must include EDI related item(s) (learners, team members)
	10.	EDI Competency Milestones – Student → CME

Abstract 11 Figure 4

the upcoming year (e.g., scripting sessions on microaggressions, inclusion of EDI items on all medical education evaluations, assessments, and QI projects) (figures 2, 3, and 4). Support has been strong and widespread across all medical education stakeholders with PDSA implementation cycles already initiated including metrics tracking.

Conclusions As medical educators, it is imperative that we work to address individual and structural EDI 'isms' that limit the potential of our trainees, faculty, programs and ultimately the care of our patients. Aggregating actions using IHI model for improvement across medical education creates opportunity for synergies and impact beyond what any individual department (UME, GME, CME) can do alone.

12

IMPLEMENTATION OF INDEX TESTING FOR HUMAN IMMUNODEFICIENCY VIRUS IN A RESOURCE RESTRAINED SETTING: LESSONS FROM MALAWI DEFENCE FORCE HEALTH FACILITIES

¹Adson Nantchito, ²Dixon Jimmy-Gama. ¹Malawi Defence Force Health Services, Malawi; ²Project Concern International Institute, Malawi

10.1136/bmjopen-2020-IHI.12

Background Malawi adopted UNAIDS 90-90-90 concept for fast tracking HIV case finding, linkage to care, and achieving viral suppression towards HIV epidemic control by 2020. However, the first 90 indicators particularly HIV yield were

Abstract 12 Table 1 HIV testing performance by modality of testing from 2018 to 2019

HTS MODALITY	OCT TO NOV 2018		JAN TO MARCH 2019		APR TO JUN 2019		JULY TO SEPT 2019	
	HTS TST (N)	HTS POS(N/%)	HTS TST (N)	HTS POS(N/%)	HTS TST(N)	HTS POS(N/%)	HTS TST(N)	HTS POS(N/%)
Index Facility	8	1(13%)	132	43(33%)	186	58(31%)	17	1(6%)
TB	7	1(14%)	15	3(20%)	28	4(14%)	15	1(7%)
VCT	1366	136(10%)	1678	120(7%)	1789	121(7%)	1950	91(5%)
Other PITC	1249	102(8%)	134	2(1%)	2341	226(10%)	1240	119(10%)
PMTCT ANC	339	36(11%)	340	21(6%)	340	39(11%)	211	4(2%)
VMMC	2325	28(1%)	2368	41(2%)	1360	21(2%)	1253	12(1%)
Inpatient	6	1(17%)	21	5(24%)	31	4(13%)	9	1(11%)
Index Comm	0	0(0%)	2024	676(33%)	1214	583(48%)	0	0(0%)
STI	62	4(6%)	177	17(10%)	108	9(8%)	82	5(6%)
OVERALL YIELD	5362	309 (6%)	6889	928 (13%)	7397	1065(14%)	4777	234 (5%)
STD DEV	799.7	47.6	908.6	205.5	822.5	178.0	701.3	42.9
MEAN	595.8	34.3	765.4	103.1	821.9	118.3	530.8	26.0

Abstract 12 Figure 1 Median HIV yield performance before and after implementing active index testing

The median rose from 25 to 58 during active index testing thereby creating a new median phase. This suggest that active index testing is a plausible approach to fast tracking HIV positive identification and linking more people living with HIV(PLHI) to antiretroviral therapy (ART)