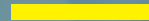


Introduction to Just in Time Teaching (JiTT) Infographics

Using technology to enhance professional
development



Alice Fornari EdD, RDN
afornari@northwell.edu

Associate Dean, Zucker SOM at Hofstra/Northwell
Vice President, Faculty Development, Northwell Health



David Orner, MPH
Research Coordinator
Northwell Health

KEY FACTS

The largest integrated health system New York State

19 Hospitals

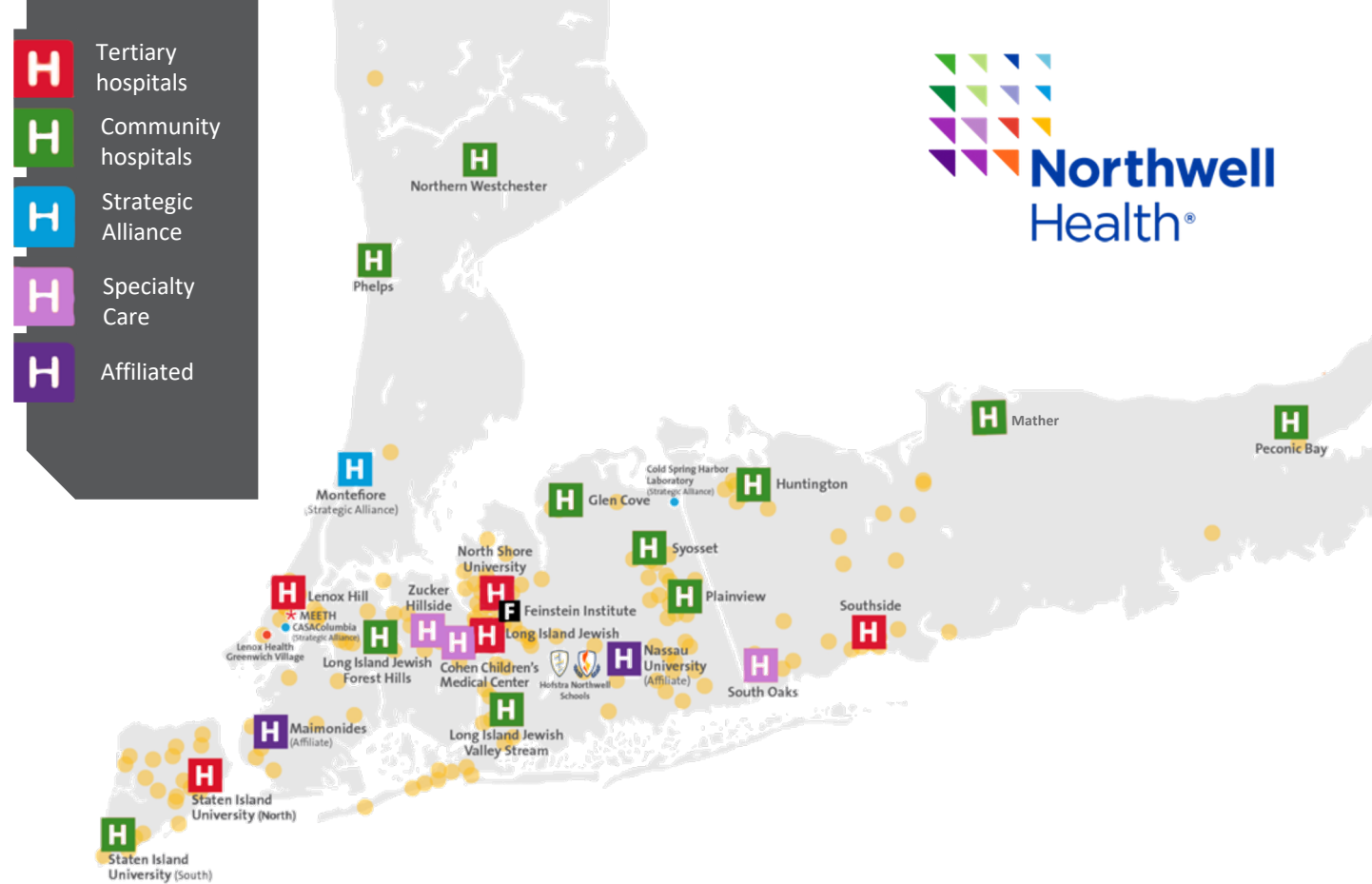


750+ Ambulatory facilities

~2,000 trainees and fellows



in 120 programs



Five tertiary hospitals

- Lenox Hill Hospital
 - Manhattan Eye, Ear & Throat Hospital
- Long Island Jewish Medical Center
- North Shore University Hospital
 - Sandra Atlas Bass Heart Hospital
- Southside Hospital
- Staten Island University Hospital, North

Three specialty care hospitals

- Cohen Children's Medical Center
- South Oak's Hospital
- Zucker Hillside Hospital

11 community hospitals

- Glen Cove Hospital
- Huntington Hospital
- Long Island Jewish Forest Hills
- Long Island Jewish Valley Stream
 - The Orthopedic Hospital
- Northern Westchester Hospital
- Mather Hospital
- Peconic Bay Medical Center
- Phelps Hospital
- Plainview Hospital
- Staten Island University Hospital, South
- Syosset Hospital

Four Affiliated hospitals

- Boca Raton Regional Hospital, FL
- Crouse Health, NY
- Maimonides Medical Center, NY
- Nassau University Medical Center, NY

Strategic alliances

- CASAColumbia, NY
- Cold Spring Harbor Laboratory, NY
- Epworth HealthCare, Richmond, Australia
- Karolinska Institute
- One Brooklyn Health
- OPKO Health BioReference Laboratories
- Rothman Institute
- University of Notre Dame
- Western Connecticut Health Network
- Yale New Haven Health

Presentation Learning Objectives

Explain

A newly designed, technology-assisted resident and faculty development program, Just in Time Teaching (JiTT) Tools, content, logistics and outcomes.

Engage

Participants to include technology-assisted faculty development in their toolbox to meet the needs of faculty and trainees in busy clinical roles.



BACKGROUND

Trainees spend up to **25%** of time **teaching** medical students

Medical students **credit 1/3** of their **clinical knowledge** to teaching from trainees as important teachers

Therefore many trainee programs considers teaching skills such as Resident as Teacher (RAT) a core competency



Though many times trainees

feel unprepared

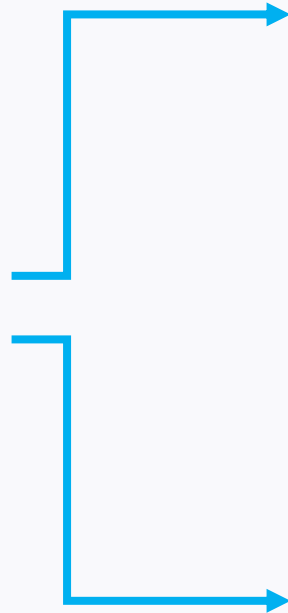
Unsure...

What to teach? And When and How to teach it?

Why it matters?



Better Medical Education



Satisfaction with role
Professional identity
formation



Improvement of
Quality of Care



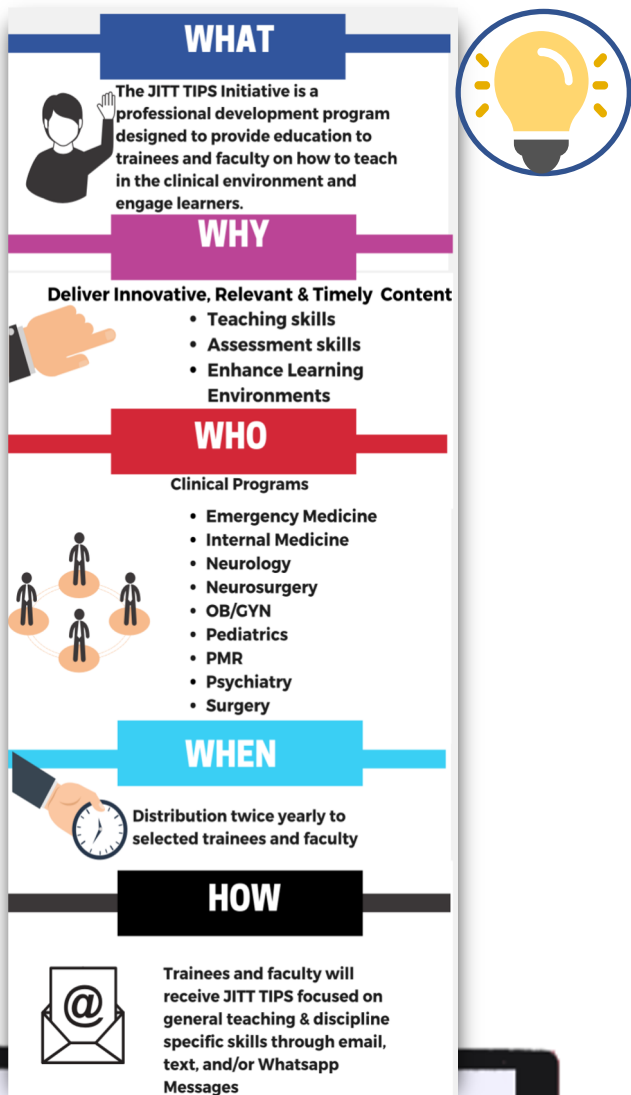
Medically



Productivity



Social



INTRODUCTION

Just in Time Teaching (JiTT) Infographic APP

A practical teaching approach that is readily integrated for trainees & faculty to be used in their daily clinical teaching .

GOAL

Providing faculty and trainees with "teaching tips" via email or text message that contain evidence based knowledge just in time for learners to join the clinical team.

Utilize JITT Tools

In clinical post graduate training programs with trainees and faculty



Recognition

Clinical teams will recognize JITT Tools as a learning resource for teaching in a busy clinical environment



Enhance the overall quality of learning environments for junior trainees and students, as well increased confidence & skills for trainees and faculty.

NEEDS ASSESSMENT



Select for each graduate program a trainee & faculty ***champion*** for ongoing collaboration & to assess program culture



SELECT

Identify specific characteristics trainees believe contribute to successful clinical teaching in their specialty.



IDENTIFY

Select trainees & faculty from clinical specialties who interact with learners during clinical learning years



INTEGRATE

Determine if electronically distributed infographics promote education, enhance confidence, and positively influence learning environments.



ENGAGE

Quantitative and qualitative feedback to determine short- and long-term impact of infographics as a JITT tools.



MEASURE

SELECTED PROGRAMS

NEUROLOGY

Including Physical
medicine and
rehabilitation (PM&R)



**INTERNAL
MEDICINE**



OB/GYN

PEDIATRICS



PSYCHIATRY

SURGERY

Includes Neurosurgery
and Vascular Surgery



OTHER

Includes Family
and Emergency
Medicine

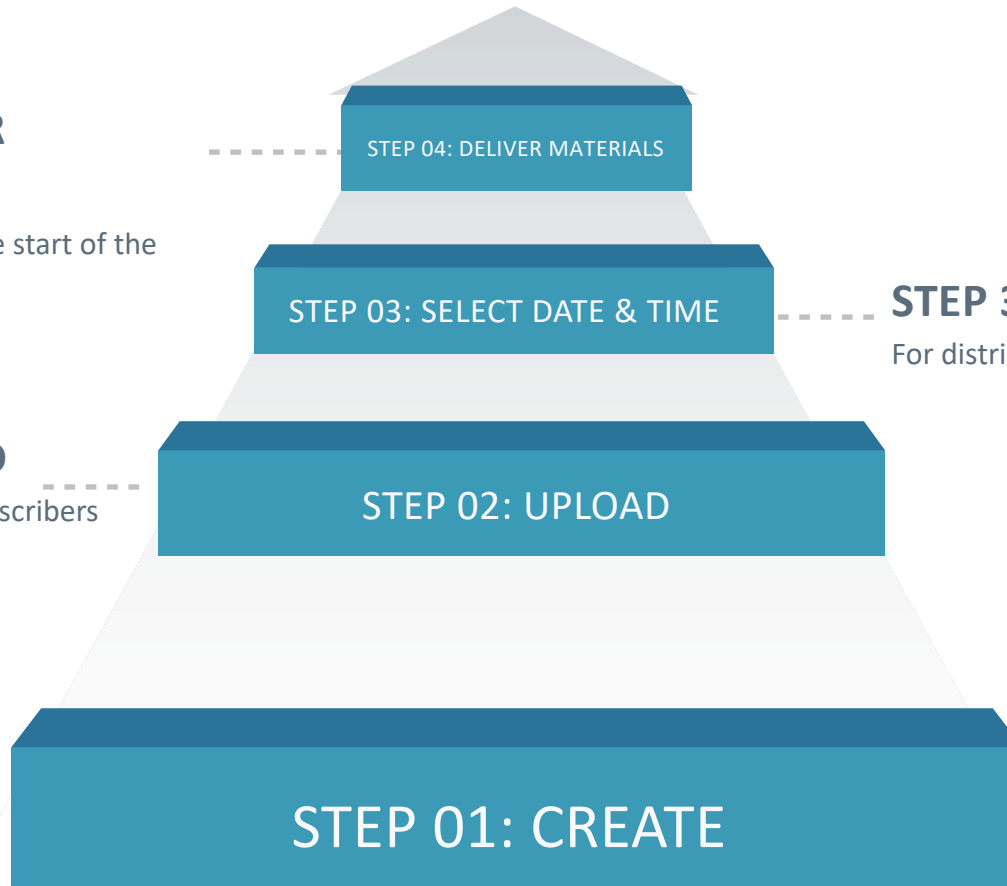
STEPS TO IMPLEMENTATION

STEP 4: DELIVER MATERIALS

Via email/text before the start of the clinical sessions

STEP 2: UPLOAD

A distribution list for subscribers



STEP 3: SELECT DATE & TIME

For distribution

STEP 1: CREATE

A template for your evidence-based teaching tips

Social Media Modalities to deliver material



Foundational Teaching Tools

Teaching topics include:

- ❖ Bedside Teaching with the Learner and Patient
- ❖ Bedside Teaching: A Directed Observation Technique
- ❖ Expectations and Goals: Set these with a Learner
- ❖ Feedback and Coaching: "SFED" (Ask/Tell/Ask)
- ❖ Learning Huddle to Prepare to Teach
- ❖ Psychological Safety in the Clinical Environment
- ❖ Questioning as an Effective Teaching Skill
- ❖ "RIME" Framework for Clinical Education
- ❖ Social Determinants of Health: The 5 Micro Skills or LANES to Precept
- ❖ Socratic Method Technique as a Teaching Skill
- ❖ The 5 Micro Skills: Precept with Limited Time



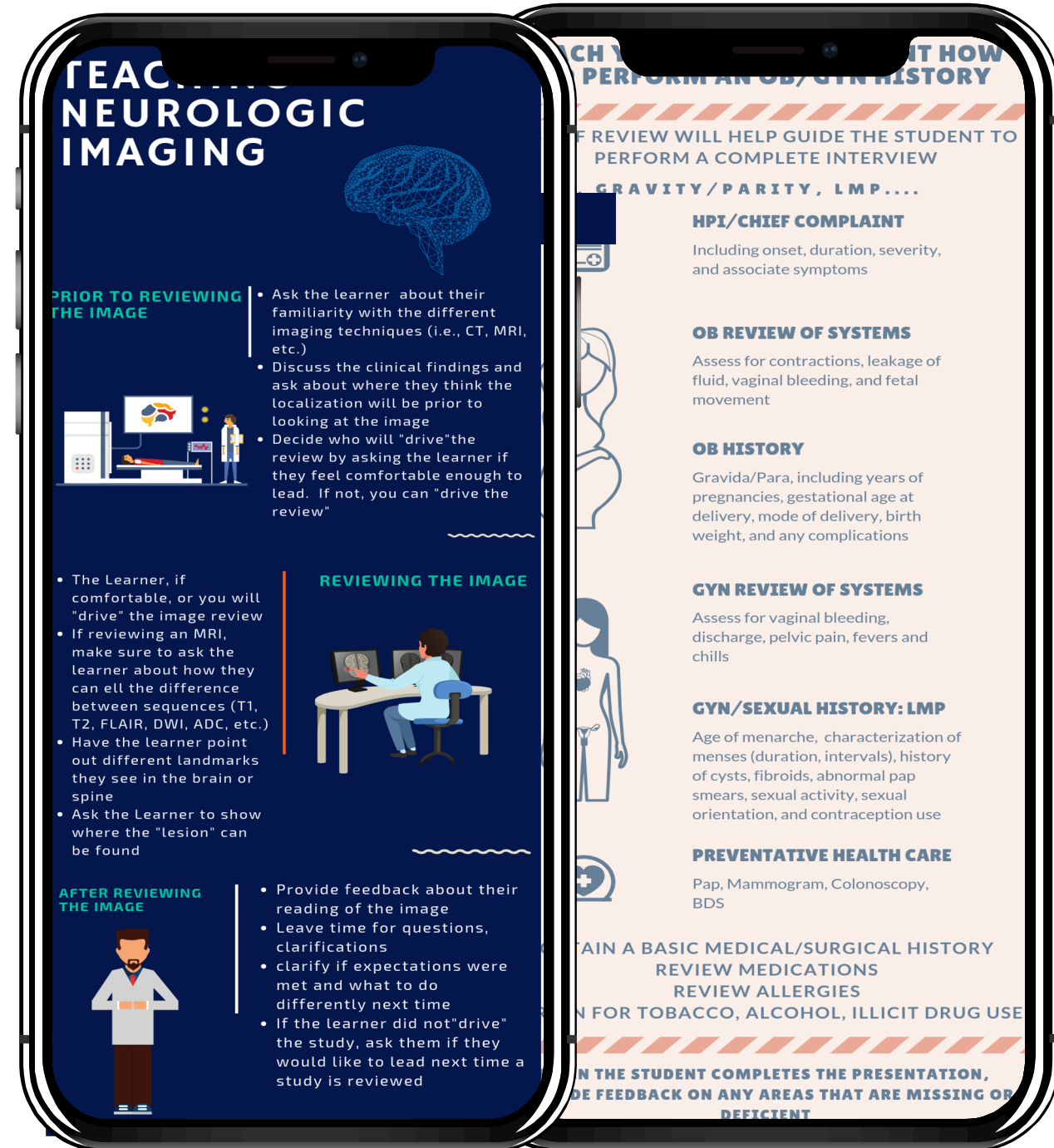
<https://www.canva.com/>



SPECIALTY SPECIFIC JITT Tools

Teaching topics include:

- ❖ How To Perform an OB/GYN History
- ❖ How To Teach To Evaluate for Rupture of Membrane/Amniotic Fluid
- ❖ Teaching Neurologic Imaging
- ❖ Teaching the Neurologic Exam
- ❖ How To Teach Conducting Abdominal Exam for Surgery
- ❖ Teaching to Prepare a Student for the Operating Room
- ❖ Teaching Functional History
- ❖ How To Deliver Challenging News
- ❖ Teaching in the Operating Room
- ❖ Bedside Teaching for Mobility Assessment
- ❖ Teaching Manual Muscle Testing
- ❖ Teaching How to Conduct PM&R Consults
- ❖ Teaching Family centered Rounds with Patients and Families
- ❖ Teaching Pre-Family Centered Rounds Outside of the Room
- ❖ Teaching Psychotherapies
- ❖ A Framework for teaching the Biosocial Formulation
- ❖ Using the Socratic Method in Teaching
- ❖ Teaching Abdominal Imaging
- ❖ How to Interpret an Abdominal Image



Trainee Engagement (%) by Clinical Specialty per week

Data collected for cycle 6 was collected between

August until October 2020

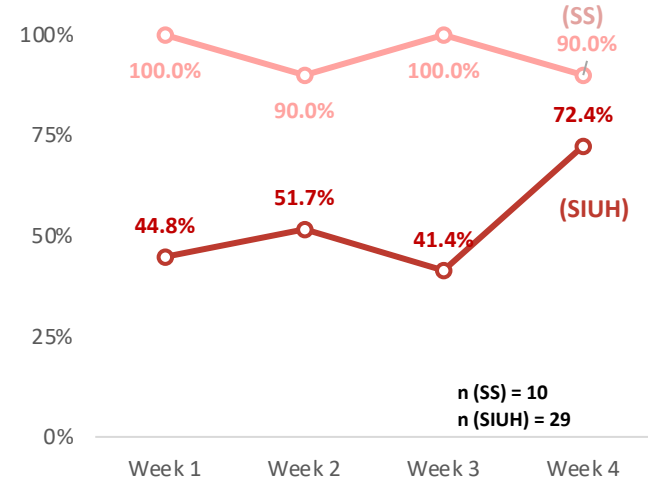
N = 553

Trainees were sent JITT
infographics via email

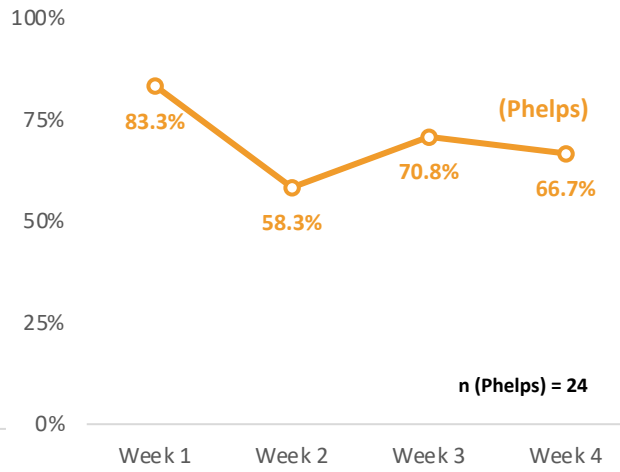
70.5 %

of all clinical specialty trainees
opened 50% or more JITT
Infographics sent.

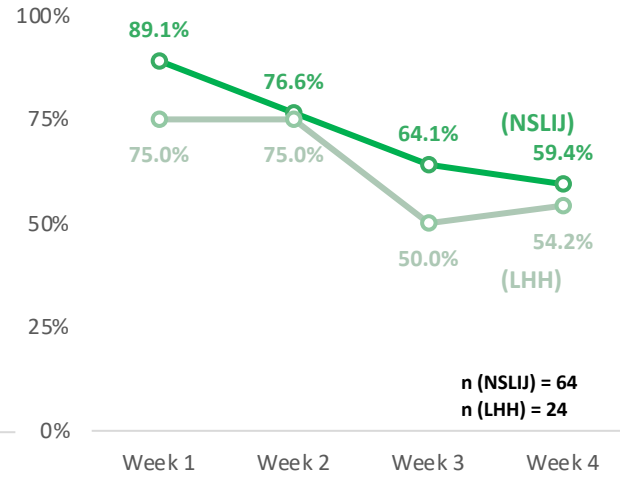
Emergency Medicine



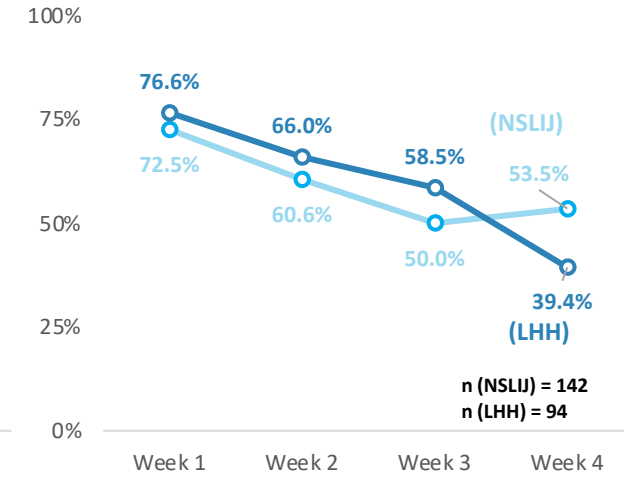
Family Medicine



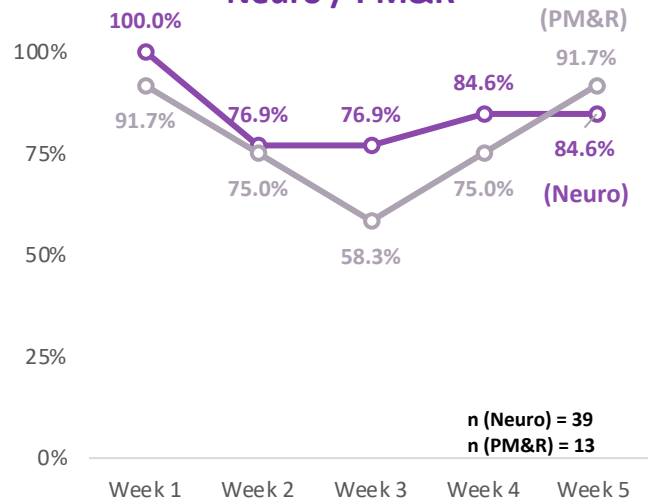
General Surgery



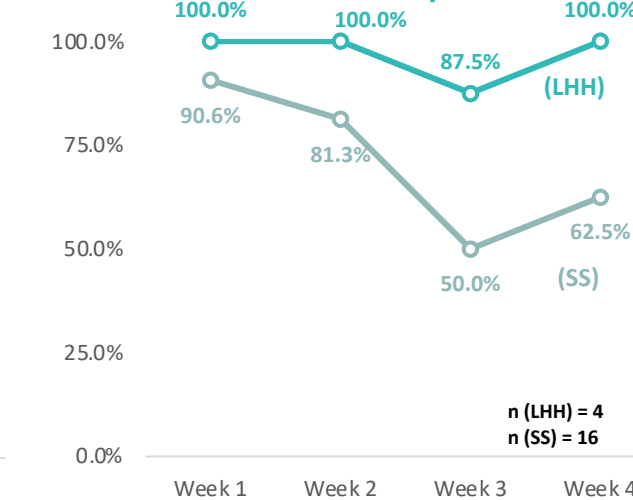
Internal Medicine



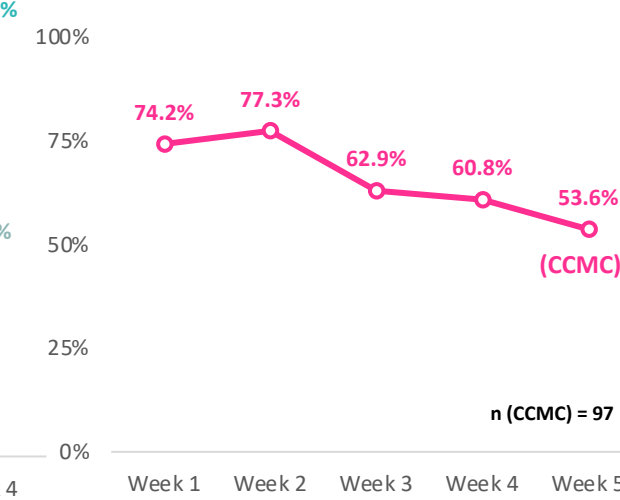
Neuro / PM&R



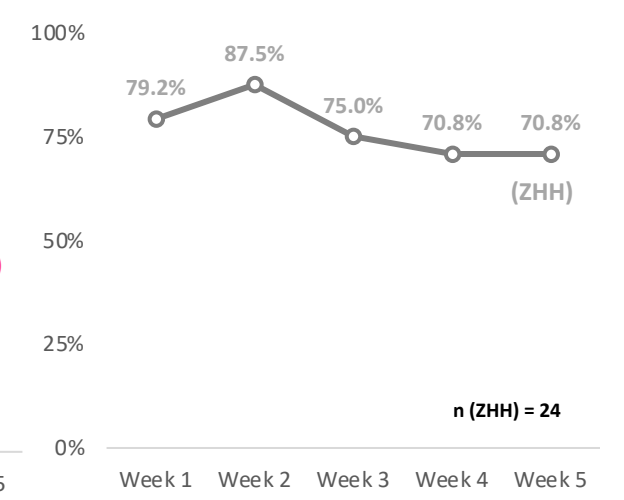
OB/GYN



Pediatrics



Psychiatry



Faculty Engagement (%) by Clinical Specialty per week

Data collected for cycle 6 was collected between

August until October 2020

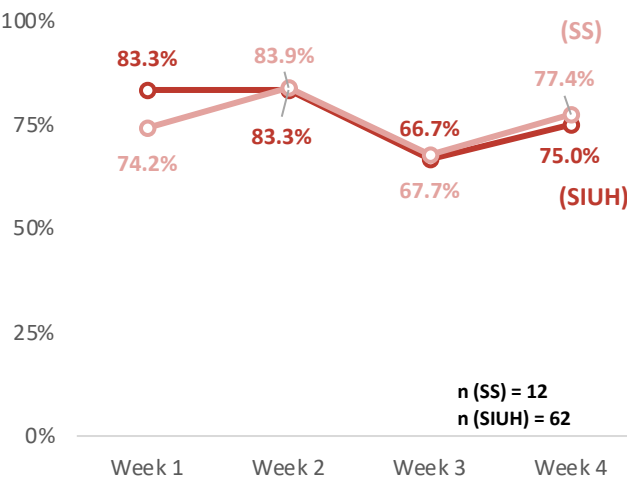
N = 404

Trainees were sent JITT
infographics via email

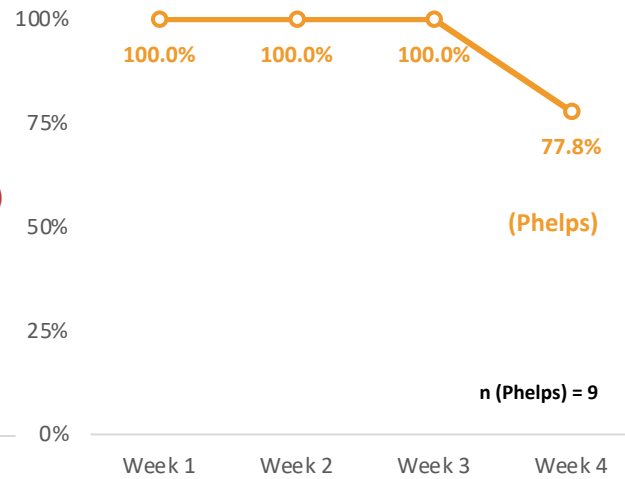
55.9 %

of all clinical specialty trainees
opened 50% or more JITT
Infographics sent.

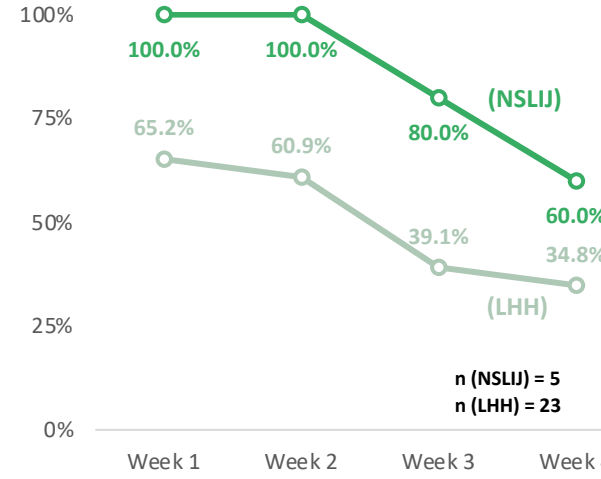
Emergency Medicine



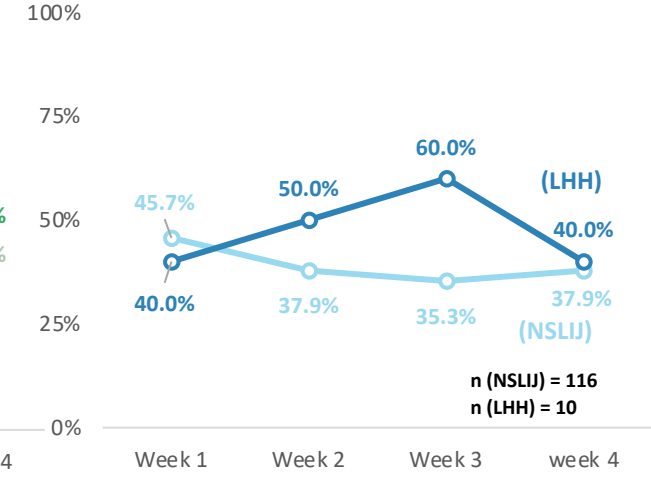
Family Medicine



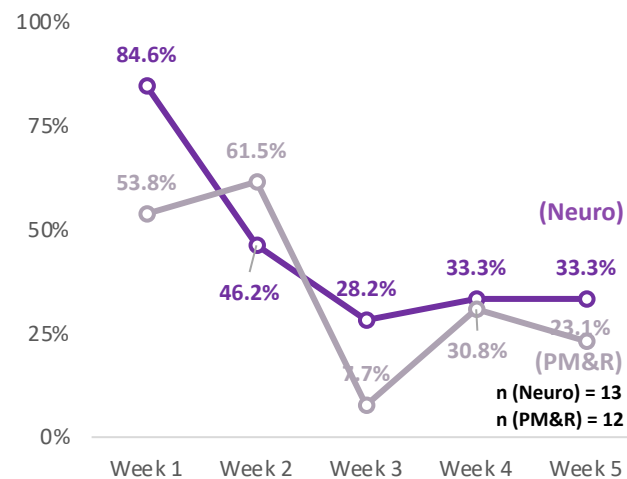
General Surgery



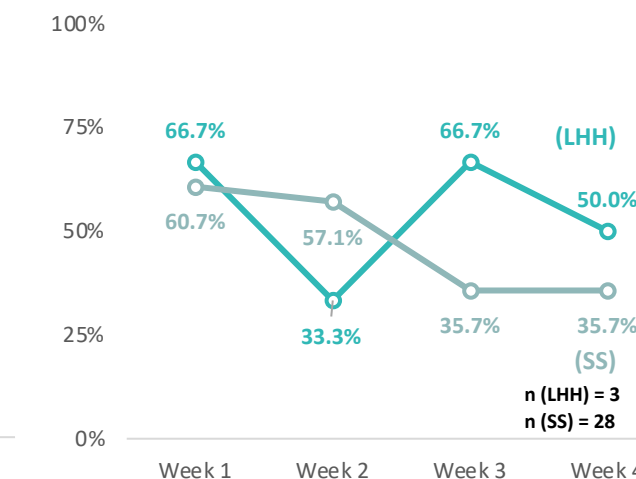
Internal Medicine



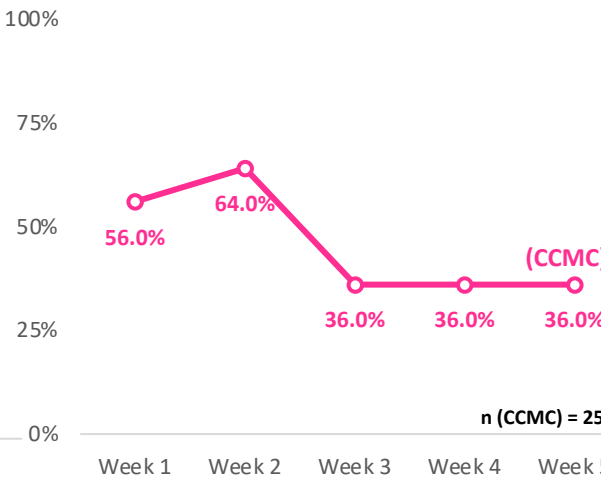
Neuro / PM&R



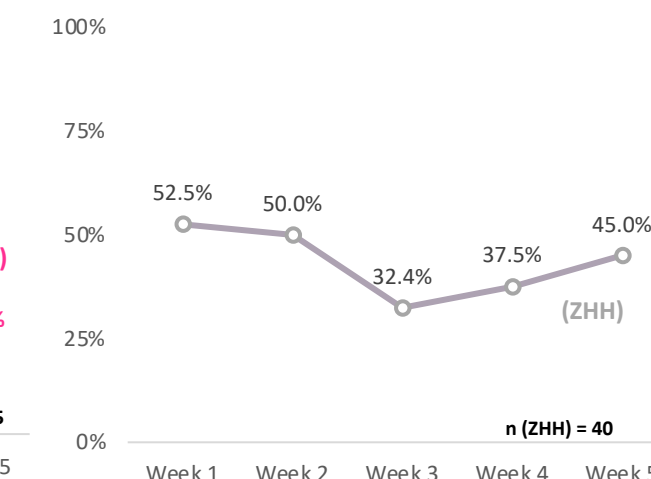
OB/GYN



Pediatrics



Psychiatry



New JiTTs

SOCIAL DETERMINANTS OF HEALTH: THE 5 MICROSKILLS OF LANES TO PRECEPT



#1 TELL & COMMIT

- TELL ME ABOUT THE PATIENT YOU JUST SAW
- WHAT SPECIFICALLY ABOUT THE PATIENT'S SOCIAL CIRCUMSTANCE HAS AFFECTED THEIR HEALTH?

#2 PROBE & PROVIDE

- WHAT QUESTIONS DID YOU ASK AS PART OF YOUR SOCIAL HISTORY THAT SUPPORTS YOUR DIAGNOSIS?
- WHAT CAN WE DO TO HELP?

#3 TEACH

- FIND A TEACHING POINT USING SDOH AND THE PATIENT'S PRESENTING ILLNESS
- ACKNOWLEDGE: "HAVE WE CONSIDERED THE PATIENT'S UNINSURED STATUS?"
- EMPATHIZE: "DO YOU THINK THE PATIENT MAY BE FRUSTRATED ABOUT UNSAFE CONDITIONS TO EXERCISE IN THEIR NEIGHBORHOOD?"
- ACTIVATION: FIND SDOH SERVICES SPECIFIC TO PATIENT'S NEEDS
- ENGAGEMENT: HAVE A SOCIAL WORKER COME IN TO DISCUSS ELIGIBILITY OF MEDICATIONS

#4 REINFORCE

- START WITH THE SOCIAL QUESTIONS TO CREATE A TREATMENT PLAN, GIVEN WHAT WE KNOW ABOUT THE SDOH AND HEALTH OF THE PATIENT

#5 FILL IN THE GAPS

- USING THE SDOH CONSIDER HOUSING AND FOOD INSECURITIES AND ASK WHAT MORE WE CAN DO TO HELP THE PATIENT

LANES GUIDING THE SDOH CONVERSATION WITH LEARNERS

(L) LINK THE PATIENT'S SOCIAL NEEDS TO THE VISIT OR HEALTH ISSUE

(A) ASSESS THE PATIENT'S KNOWLEDGE OF SOCIAL NEED AND IMPACT ON HEALTH

(N) NORMALIZE THE SOCIAL NEED BY PROVIDING COMMUNITY CONTEXT AND RELATED STATS

(E) EDUCATE THE PATIENT ON THE CONNECTION TO HEALTH

(S) SHARE INFORMATION ON RESOURCES



REFERENCES

Cadice, R. Application of One Minute Preceptor to Teaching the Social Determinants of Health. *SDOH FORUM*, V. 63, Fall 2020

Park, M. *Harvard Academic Medical Center's Teaching Hospital's Address the Social Determinants of Health*. *Academic Medicine*, Vol. 93, no. 3, March 2018

Greater New York Hospital Association, Training Primary Care Residents on Social Determinants of Health, p. 18, 2017

CONTENT BY: JOSEPH WENDEL, MD, PhD, TARIQ BIL KHALI, AHA/ACME, DO, ALSO FORMER, MD DONALD, & BARBARA A. ZUCKER, DO, MD, OF PHED ONE AT HOSPITALS AND CLINICAL, CO-EDITOR: DR. CHEN Y. WU, MD, AHA, APPA

CC BY-NC-ND

ADHERENCE HISTORY COMPONENTS TO TEACH

Ask the patient about medication and lifestyle behaviors during their clinical visit

ASSESS ADHERENCE TO LIFESTYLE MODIFICATION & MEDICATION RECONCILE

EXPLORE SPECIFIC CHALLENGES THE PATIENT HAS WITH THEIR TREATMENT PLAN



A lot of people find it challenging to take medicine or change their diet.

Use non-judgmental statements

Assess how the patient is adhering to lifestyle recommendations

Tell me about your diet? How often are you taking your medication as prescribed?

What are the most difficult things about taking your medicine or making a change in your diet?

Explore the barriers to adherence

RESPOND WITH EMPATHY: Reflection, Legitimation & Exploration

CONTENT BY: JOSEPH WENDEL, MD, PhD, TARIQ BIL KHALI, AHA/ACME, DO, ALSO FORMER, MD DONALD, & BARBARA A. ZUCKER, DO, MD, OF PHED ONE AT HOSPITALS AND CLINICAL, CO-EDITOR: DR. CHEN Y. WU, MD, AHA, APPA

CC BY-NC-ND

Interval History: Guidelines to Co-Construct



1 PREPARE

- Review facts of the patient's history
- Review aspects of the patient's life that make them unique
- Let the patient know you see them as a whole individual & not an unknown person

Good to see you again. I am looking forward to catching up with you.

2 SET THE AGENDA

- Explore to complete the patient's agenda
- Negotiate the priority of concerns and explore them one at a time

Before we catch up about your life, I want to know what brings you in today?

How is all of this impacting your life?

USE OPEN & CLOSED ENDED QUESTIONS TO GATHER INFORMATION

- Ask for "ICE" statements early on
- The skills of empathy, support, partnership & affirmation
- Obtain relevant pertinent positives & negatives through a SOS

"Subject, concerns, & explanatory model"

BEGIN WITH THE MOST IMPORTANT CONCERN & CO-CONSTRUCT THE NARRATIVE

- Be open to hearing the patient's perspective of an ongoing illness
- The patient's experience and understanding of their medical illness may be different than what's documented in the medical record

4

5

Have you seen any other doctors or been hospitalized since your last visit?

OBTAIN A MEDICAL INTERVAL HISTORY

What prescription meds, OTC, and herbal supplements are you taking?

Any surgeries since you were last seen?

6 OBTAIN A SURGICAL INTERVAL HISTORY

7 OBTAIN A MEDICATION INTERVAL HISTORY

- Explore the adherence, benefits and side effects to all medications (prescribed by you & other clinicians)

How about over-the-counter treatments like red or acupuncture?

How has life been since I saw you last?

8 OBTAIN A SOCIAL INTERVAL HISTORY

- Explore specific elements of the social history as appropriate
- Look for social determinants of health

CONTENT BY: JOSEPH WENDEL, MD, PhD, TARIQ BIL KHALI, AHA/ACME, DO, ALSO FORMER, MD DONALD, & BARBARA A. ZUCKER, DO, MD, OF PHED ONE AT HOSPITALS AND CLINICAL, CO-EDITOR: DR. CHEN Y. WU, MD, AHA, APPA

CC BY-NC-ND

New JiTTs

Telehealth Visit: Tips for "Web-Side" Manner



WITH THE EXPONENTIAL GROWTH OF TELEHEALTH, IT IS VITAL THAT HEALTHCARE PROFESSIONALS EDUCATE ON THE ETIQUETTE AND PREPARATION FOR TELEHEALTH ENCOUNTERS



DRESS THE PART
Clothing choices that may not impact an in-person encounter can greatly affect the quality of a telehealth visit

- Learners should be taught to consider clothing color, patterns, and jewelry selection
- Wear a lab coat when appropriate
- Make sure your name and title is visible on the camera screen

ELIMINATE DISTRACTIONS

Check the environment for possible distractors prior to the telehealth visit

- Minimize fidgeting
- Mute microphone until the encounter begins
- Inform patients of any distractors that cannot be removed
- Avoid side conversations/testing during encounters
- Check wi-fi signal/technology
- Close all other applications, which can slow your connection
- Be sensitive to your background environment



ENSURE A PRIVATE AND SECURE AREA FOR THE VIRTUAL VISIT

Privacy becomes an even bigger concern when the patient is unable to visually see that the environment is secure

- Direct learners to inform patients that the equipment being used is HIPAA secure
- Learners must tell the patient that the visit is secure
- Both provider and patient should introduce all individuals present on their side to determine if it is acceptable for them to be present

IMPORTANCE OF NONVERBAL CUES

Nonverbal cues are important in projecting warmth, interest and concern thus enhancing the connection with patients

- Direct learners to center themselves on the screen
- Remind learners to lean in/nod & purposefully use their facial expressions
- Maintain eye contact and/or explain if there is a need to look away
 - If the camera is not positioned to focus on the provider or patient it can appear as a disinterest
- Direct learners to be aware of their own expressions; A smile on camera, for example does not appear as large as in person



VERBAL COMMUNICATION

Timing and pacing of a telehealth visit is as important, if not more, than a traditional visit

- Start the visit with small talk to break the ice, express gratitude
- Convey empathic understanding of the patient's concern
- Learners should be in tune to the tone of their voice
 - Goal is to sound confident, warm and interested
- Use partnership statements to promote collaboration
- Be clear about next steps
- Verify patient's understanding
- Let the patient and the call finish

Teaching Points and Content written by:
Alex Pomeroy, MD, PGD (Family Practice, MD)
Boston School of Medicine and Health Sciences
Creative Design: Melissa Miller

CC BY-NC-ND

TELEHEALTH VISIT: THE 5 MICROSKILLS TO PRECEPT

#1 FRAME THE SESSION

- WHAT IS YOUR PRIOR EXPERIENCE WITH TELEHEALTH?
- WHAT DO YOU KNOW ABOUT THE PATIENT (PRIOR TO THE CALL)?
- HOW WILL YOU OBTAIN CONSENT FOR THE VISIT?
- HOW WILL YOU CONDUCT THE INTERVIEW & FOCUS ON THE CHIEF CONCERN (CC)?
- HOW WILL YOU GATHER PATIENT HISTORY?
- HOW WILL YOU ASSESS PHYSICAL EXAM (PE), AS NEEDED?



#2 PROBE POST TELEHEALTH VISIT

- WHAT WAS YOUR IMPRESSION OF THE ENCOUNTER?
 - UNDERSTANDING OF CC, INCLUDING HPI
 - OBJECTIVE DATA: DIRECT OBSERVATION, VITALS, PE
- WHAT IS YOUR ASSESSMENT & PLAN?
- DO WE NEED TO SCHEDULE A FOLLOW-UP VISIT?

#3 TEACH

- IDENTIFY COMMUNICATION & CLINICAL SKILLS TEACHING POINTS
 - ADDRESS SPECIFICALLY TELEHEALTH COMMUNICATION SKILLS APPLIED TO THE ENCOUNTER (VERBAL & NONVERBAL)
- CONSIDER ASKING THE STUDENT TO PRACTICE TEACH BACK FOR A FOLLOW-UP VISIT



#4 REINFORCE BEHAVIORS OBSERVED

- ASK THE LEARNER WHAT WENT WELL
- TELL YOUR OBSERVATIONS (COMMUNICATION & CLINICAL)
- ASK THE LEARNER WHAT THEY WANT TO DO DIFFERENTLY
- PROVIDE ENCOURAGEMENT

#5 FOCUS THE LEARNER TO SELF-IDENTIFY GAPS

- KNOWLEDGE SKILLS
 - COMMUNICATION (VERBAL/NONVERBAL)
 - HISTORY
 - PHYSICAL EXAM
 - ASSESSMENT & PLAN



Teaching Points and Content written by:
Alex Pomeroy, MD, PGD (Family Practice, MD)
Boston School of Medicine and Health Sciences
Creative Design: Melissa Miller

CC BY-NC-ND

TEACHING THE PHYSICAL EXAM FOR TELEHEALTH VISITS



*GAIN CONSENT BY ASKING PERMISSION TO PERFORM THE TELEMEDICINE PE AND PARTNER WITH YOUR PATIENT TO ASSESS:

1 GENERAL APPEARANCE

- Assess for alertness, orientation, distress such as work of breathing, speech, affect and energy level
- Skin: Observe for pallor, jaundice, cyanosis, diaphoresis and evaluate skin in each system for erythema, swelling, rashes, scars or other changes
- Inspect hands and nails for rashes, color and clubbing of nails
- Observe surrounding environment which may provide information about patient's health and social determinants of health



2 VITAL SIGNS AND WEIGHT

- Guide patient to measuring their pulse to evaluate for tachycardia or bradycardia
- Ask if the patient:
 - has a thermometer to obtain temperature
 - has a BP cuff/machine at home to evaluate for hyper/hypotension
 - is in pain, and if so, use the pain scale to determine severity
 - has a pulse oximeter or app to assess for hypoxia
 - has a scale at home to see if there has been weight gain/loss



3 HEAD AND NECK

- Ask to view eyes and conjunctiva. Instruct the patient to bring their face closer to the screen and ask them to maneuver their eyelids checking for:
 - scleral icterus
 - conjunctival injection
 - discharge
 - pallor
 - hemorrhage
- To view the inside of the patient's mouth ask them to shine a light and say "Ahh". Assess for:
 - health of dentition-
 - oral ulcers
 - tonsillar exudates
 - mucosal pallor
 - moist or dry mucous membranes
- Ask to view neck to assess for:
 - accessory muscle use
 - gross/severe JVD
 - obvious goiters
 - asymmetries



4 CHEST

- Inspect for work of breathing, body habitus and asymmetry
- Ask the patient to press over areas of the chest to localize tenderness to elicit for pain



5 ABDOMEN

- Inspect for contour, distention and asymmetry
- Ask the patient to press on their abdomen to localize tenderness



6 MUSCULOSKELETAL

- Inspect for deformities and asymmetry
- Ask the patient to demonstrate range of motion of joints, comparing side to side, identify restriction and pain
- Ask patient to press area of interest to localize tenderness and/or identify point tenderness



7 NEUROLOGIC EXAM

- Assess level of consciousness, affect, speech and thought process as part of general appearance while conducting the interview
- Ask the patient to follow simple commands to assess a few cranial nerves (moves eyes while keeping head still, smile, stick out tongue)
- Have the patient walk across room normally, tandem, on heel and toes
- Assess for gross motor or sensory deficits
- Assess cognitive function with tests such as the MMSE



8 LOWER EXTREMITY

- Ask to view lower extremity for skin changes such as redness, rashes, dryness, bruising and edema
- Ask the patient if they can demonstrate bearing weight
- Ask the patient to press for tenderness and/or pitting edema



*Use as a guide, only perform components relevant to your patient's concern

Just in Time Teaching Infographic Tools Transition to App



<https://testflight.apple.com/join/hrQQzg7sv>

JiTT Categories



Ambulatory Medicine



Classroom Teaching



Ethics Teaching



Family Medicine



Emergency Medicine



Foundational Teaching Tips



Internal Medicine



Neurology



Neurology



OB/GYN



Pediatrics



Physical Medicine & Rehabilitation.



Psychiatry

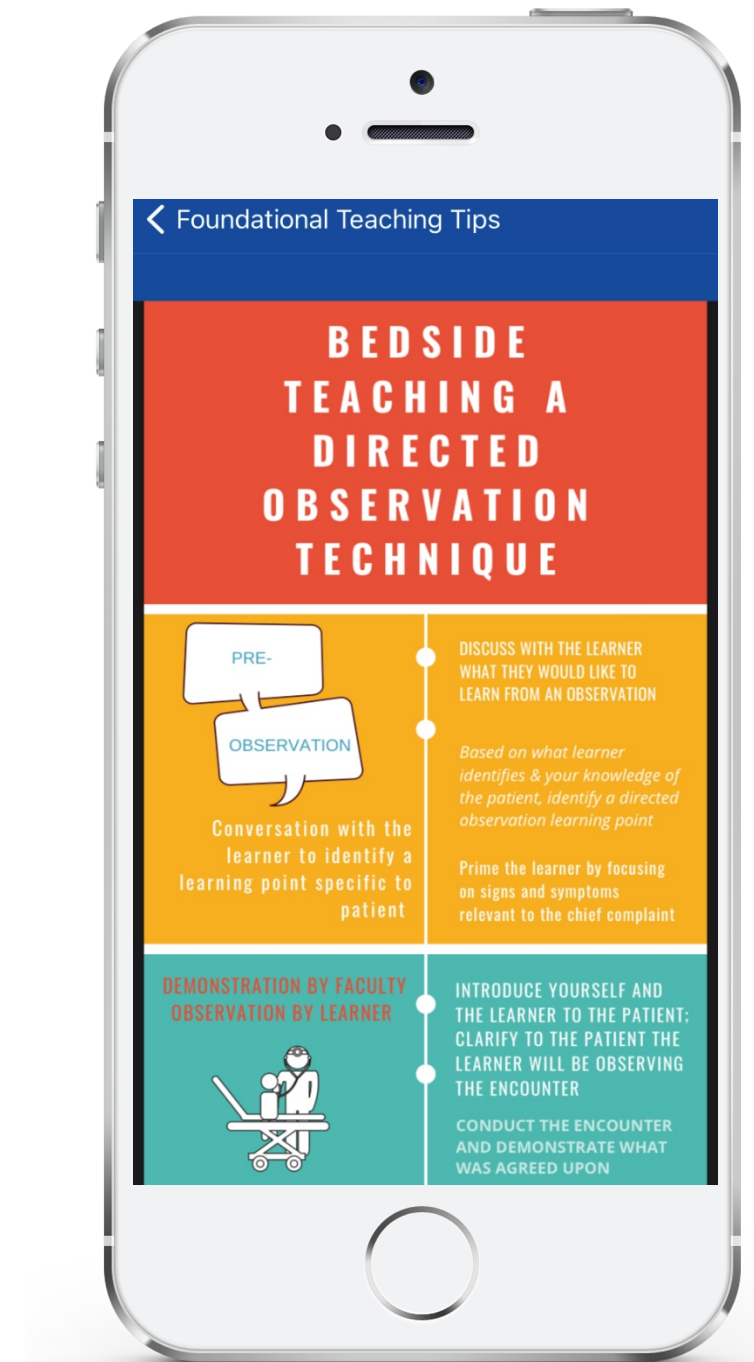
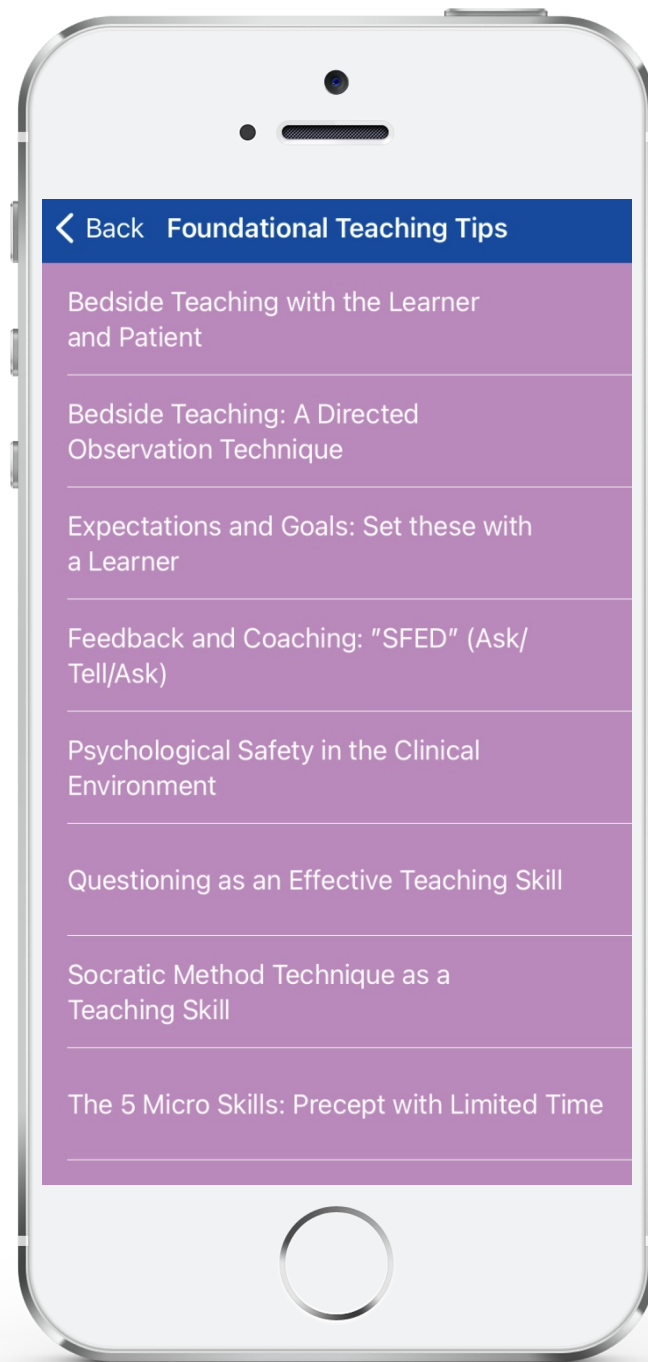


Social Justice



Surgery







Northwell Health®

Just In Time Teaching (JiTT) Tips App

Please complete the survey below. Any questions, please contact Alice Fornari, AFornari@northwell.edu

Thank you!

1) This App met my expectations.

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neither agree nor disagree
- ☐ Agree
- ☐ Strongly agree

reset

2) This App is easy to use.

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neither agree nor disagree
- ☐ Agree
- ☐ Strongly agree

reset

3) I would recommend this App to my colleagues/peers.

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neither agree nor disagree
- ☐ Agree
- ☐ Strongly agree

reset

4) Comments:






Podcast




EXPECTATIONS AND GOALS: SET THESE WITH A LEARNER



1. INTRODUCTIONS

Introduce yourself and orient your learner to the learning environment (clinicians, staff, workflow, facilities)


Elicit information about your learner; ask your about prior experiences in this clinical setting & with this patient population



2. EXPECTATIONS & GOAL SETTING


Help the learner identify expectations particular for this clinical setting

Help the learner set goals that are specific, realistic, and timely



3. WRAP UP

Address any questions and concerns to support an environment with psychological safety




4. FOLLOW-UP

Exchange preferred contact information for ongoing communication


*Check to assess progress towards goals

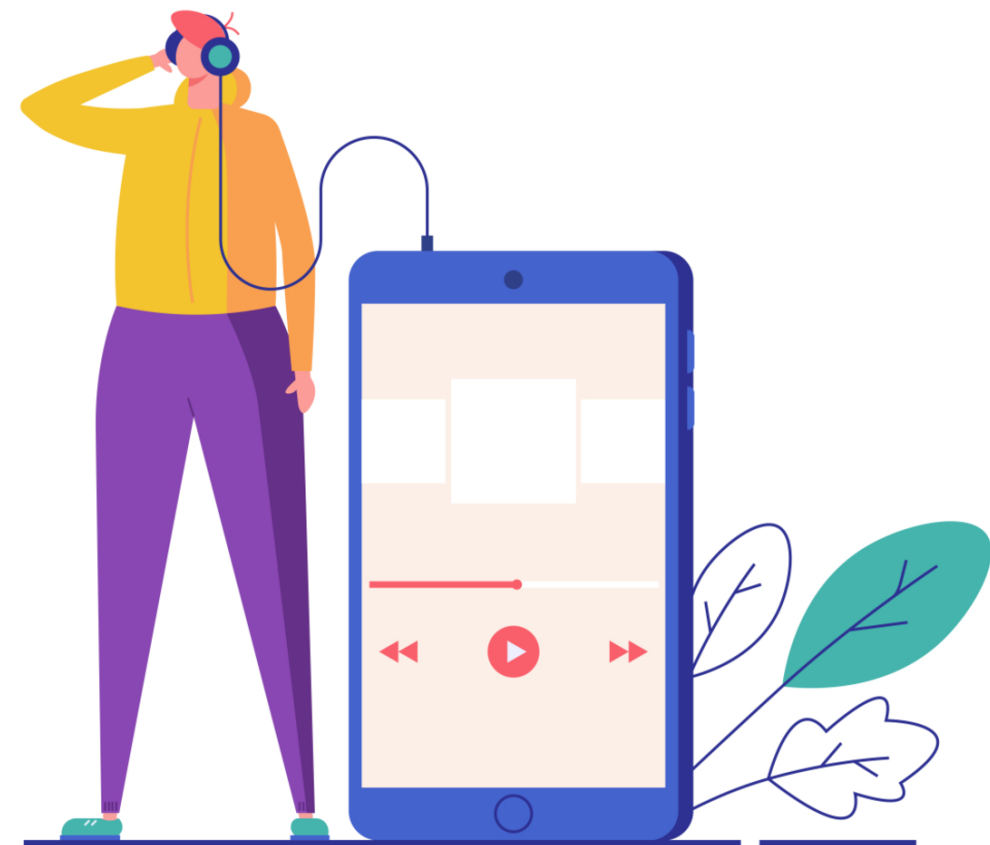
*Also use "Learning Huddle to Prepare to Teach"



[Looking for more? Give a Listen!](#)

Content by Anna Poterai, MD
Graphic Design by Melissa Kline





Next Steps



JiTT Infographic APP Usability and Feasibility Testing

- Analyze individual JiTTs for relevance based on usage



Podcast: Feasibility and Usability

Further integrate a podcast to include audio attached to each JiTT infographic

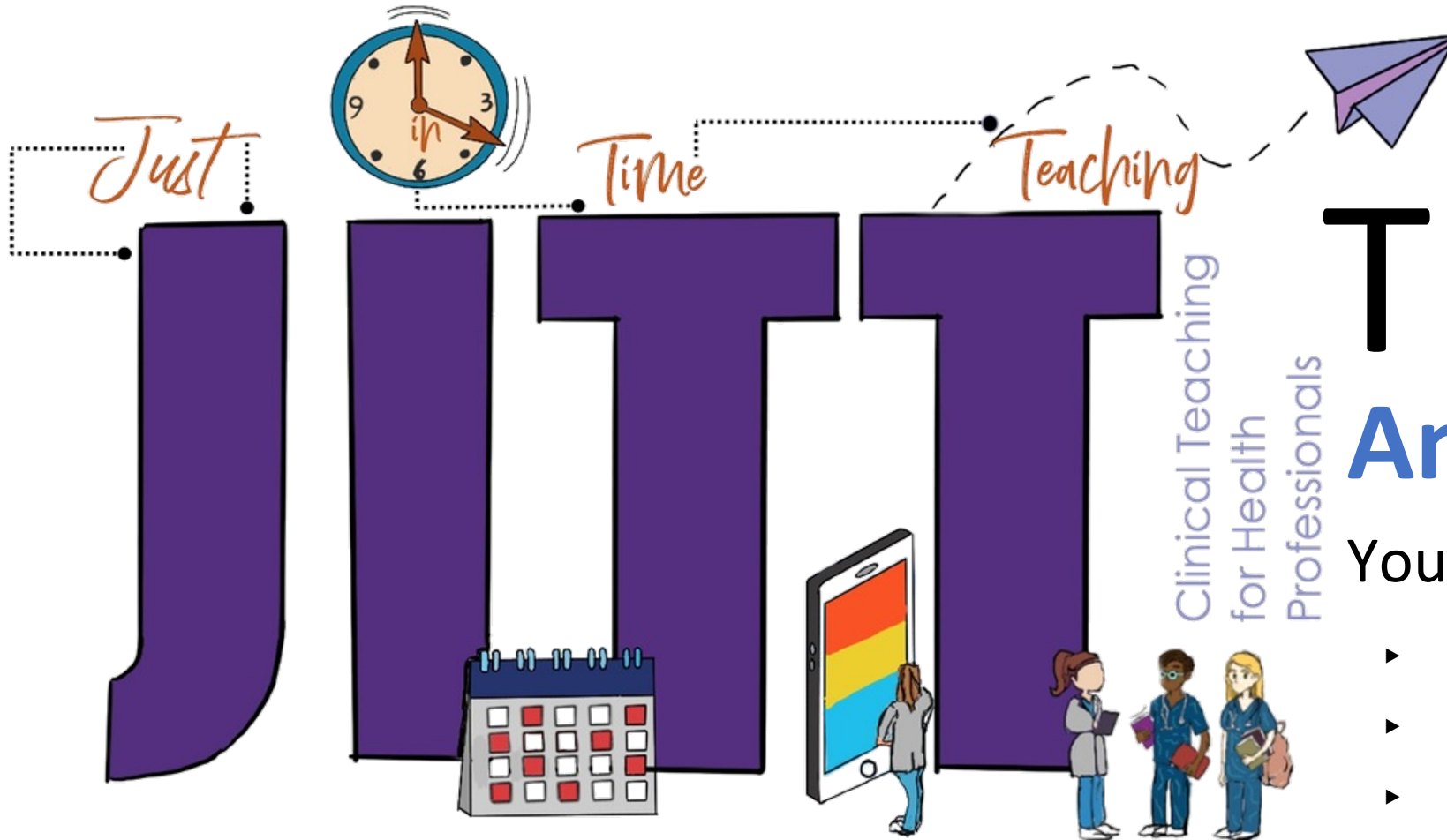


Medical Student Feedback

Ascertain medical student feedback regarding interactions with trainees. Further insight in ways to improve



Empower
champions in
programs, both
faculty and
residents as
role models, to
use APP



THANKS!

Any questions?

You can find me at:

- ▶ Alice Fornari EdD RDN
- ▶ E: afornari@northwell.edu
- ▶ T: (516) 633 1038
- ▶ Twitter @AFornari1

For viewing of JITT Tips

<http://libguides.hofstra.edu/mededresources/teachingresources>

Additional faculty development resources,

<https://medicine.hofstra.edu/faculty/facdev/index.html>

References

1. Bing-You RG, Sproul MS. Medical students' perceptions of themselves and residents as teachers, *Medical Teacher*. 14 (1992) 133–138. <https://doi.org/10.3109/01421599209079479>
1. Bree KK, Whicker SA, Fromme HB, Paik S, Greenberg L. Residents-as-Teachers Publications: What Can Programs Learn From the Literature When Starting a New or Refining an Established Curriculum?, *J Grad Med Educ*. 6 (2014) 237–48. <https://doi.org/10.4300/JGME-D-13-00308.1>
1. Seely AJE, Pelletier MP, Snell LS, Trudel JL. Do surgical residents rated as better teachers perform better on in-training examinations?11An abstract of this work was presented at the 18th Annual Meeting of the Association for Surgical Education Vancouver, British Columbia, April 24, 1998., *The American Journal of Surgery*. 177 (1999) 33–37. [https://doi.org/10.1016/s0002-9610\(98\)00306-7](https://doi.org/10.1016/s0002-9610(98)00306-7)
1. Hill A, Srinivasa S, Hawken SJ, Barrow M, Farrell SE, Hattie J, Yu TC. Impact of a Resident-as-Teacher Workshop on Teaching Behavior of Interns and Learning Outcomes of Medical Students., *J Grad Med Educ*. 4 (2012) 34–41. <https://doi.org/10.4300/JGME-D-11-00062.1>
1. Achkar MA, Hanauer M, Morrison E, Davies MK, Oh R. Changing trends in residents-as-teachers across graduate medical education, *Advances in Medical Education and Practice*. Volume 8 (2017) 299–306. <https://doi.org/10.2147/amep.s127007>
1. Montacute T, Chan TV, Chen YG, Schillinger E, Lin S. Qualities of Resident Teachers Valued by Medical Students., *Fam Med*. 48 (2016) 381–4. <https://pdfs.semanticscholar.org/d383/e25f07c82d3917bac7494c852d24d4f7cc98.pdf>