

STANFORD SLEEP MEDICINE RESPONSE TO COVID-19

Baseline

Comprehensive sleep management of 90 different sleep disorders

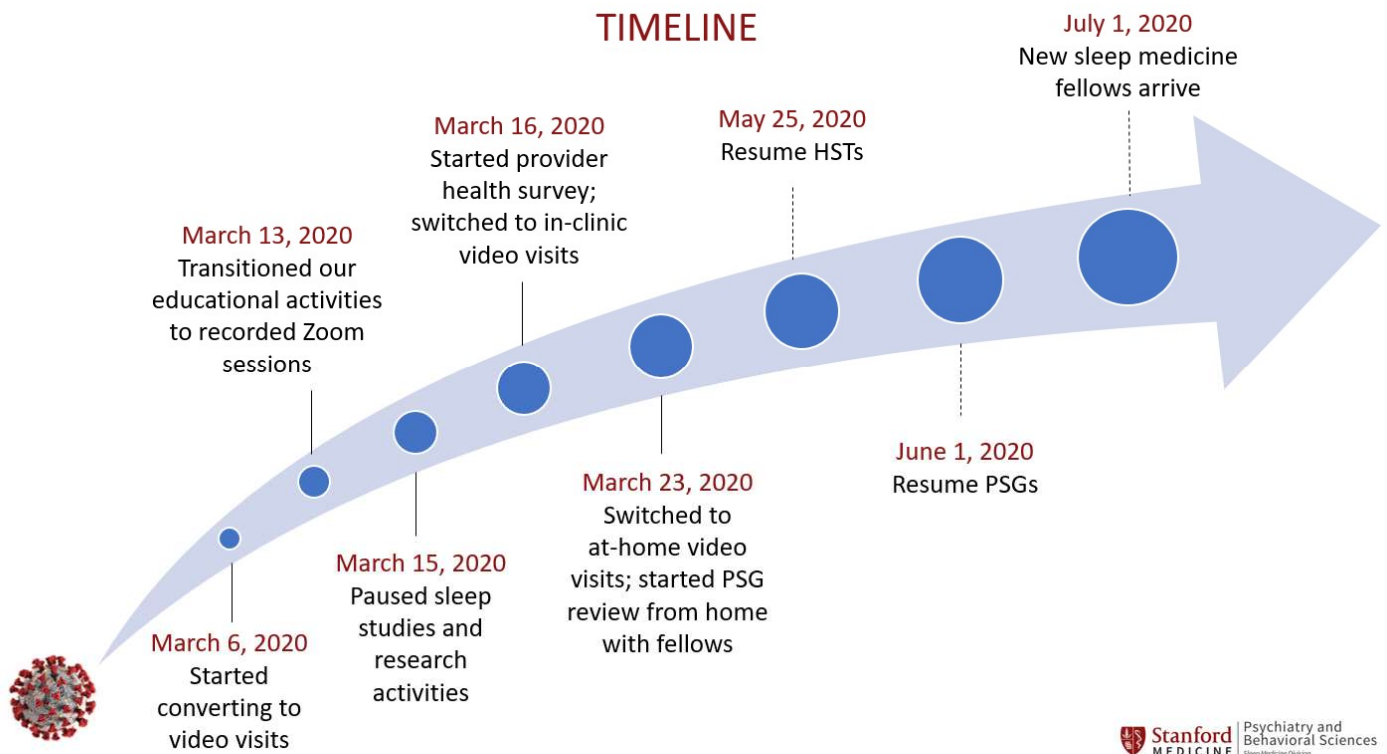
- 15,340 patient visits per year
- 3,271 polysomnograms (PSGs, in-laboratory sleep studies) per year
- 1,565 home sleep tests (HSTs) per year

Clinical and Research Expertise

- 13 clinical and 5 basic science faculty members; hiring up to 3 new physicians
- Faculty members with specialized expertise in sleep apnea, insomnia, circadian disorders, narcolepsy, parasomnias, movements disorders, and pediatrics
- 2 nurse practitioners, with one new nurse practitioner starting in June

Full-service sleep medicine testing capability

- 18 bedrooms and 20 home sleep testing devices
- 26 sleep technologists capable of conducting nighttime and daytime tests
- 15+ clinical research studies integrated in the sleep laboratory setting



March 6, 2020

Clinical: Started converting more in-person patient visits to video visits for our attending-only clinics.

March 9, 2020

Research: All clinical research coordinators started working from home.

March 12, 2020

Clinical: In addition to patient symptom screening by our call center when verifying scheduled appointments and by our front desk, we added an extra layer of screening in which our MAs started screening patients' symptoms and body temperature when rooming patients.

March 13, 2020

Educational: Transitioned our face-to-face Friday lectures (i.e., 3 or more 1-hour lectures by local and national speakers each Friday), journal clubs, and case conferences to Zoom sessions (which now are also recorded for later review).

March 15, 2020

Clinical: Halted all our in-laboratory and home sleep studies, due to the close contact between our sleep technologists and our patients during the hookup of the sleep and respiratory monitoring equipment.

Research: All non-essential in-laboratory research activities halted or postponed.

March 16, 2020

Clinical: Qualtrics survey with built-in branching logic developed and implemented to conduct daily checks of COVID-19 symptoms with our providers and to automatically generate recommendations based on their responses.

Clinical: Realizing that at least 5 patients had passed through our enhanced screening process that started on March 12, we implemented video visits with providers conducting their Epic video visits from the clinic or from their homes:

Weeks	Total Visits	Video Visits	Non Video Visits
February 17	283	3	280
February 24	388	6	382
March 2	363	10	353
March 9	345	15	330
March 16	246	245	1

March 17, 2020

Community: Disseminated our sleep medicine division's best practices to the American Academy of Sleep Medicine <https://aasm.org/coronavirus-sleep-clinic-medical-director-clete-kushida/> and World Sleep Society <https://worldsleepsociety.org/information-regarding-novel-coronavirus/>

March 23, 2020

Clinical/Educational: Since the Epic video visit platform does not currently support 2 providers logging into a patient visit from home, we converted our fellow-attending precepting visits to Zoom video visits, while implementing a new workflow using the visit status colored dots in the Epic schedule and text messages to coordinate these visits between fellows, attendings, and staff. Our providers started using either Doximity app or *67 to mask provider cell telephone numbers for video visits that needed to be converted to telephone visits.

Clinical/Educational: Added functionality to our sleep study collection/analysis platform, enabling our physicians to review sleep studies at home by VPN. Additionally, implemented our sleep study educational review from home, so that our attendings can now review prior sleep studies Monday-Thursday 8-9 am with our fellows using our sleep study platform and Zoom.

March 28, 2020

Clinical/Educational: Training materials and validation data disseminated to attendings, fellows, and sleep technologists for new sleep study scoring/review processes for raw data collected from disposable home sleep test devices.

April 21, 2020

Clinical: Survey distributed to faculty to assess their preferences for in-person patient visits, video visits from the clinic, and video visits from home for the month of June.

May 25, 2020

Clinical: Target goal for resumption of home sleep tests using disposable sleep devices.

June 1, 2020

Clinical: Target goal for resumption of in-laboratory sleep studies, with the following safeguards for patients and sleep technologists in place:

- Personal protective equipment (PPE) available for all sleep technologists.
- COVID-19 and serum antibody testing for sleep technologists prior to returning to work.
- Multiple points of symptom screening and body temperature screening for patients, and patient COVID-19 testing 48-72 hours before PSG.
- Negative pressure room conversion for PSG bedrooms.
- Approval of PAP interface prototype for reducing in-room spread of COVID-19 for PAP titrations.

Research: Target goal for resumption of clinical research.

July 1, 2020

Educational: Initiate video visit protocol for education of clinical fellows during patient encounters at the start of the new fellowship class.