



# Global Missions Health Conference

**TELEHEALTH IN MEDICAL MISSIONS**

2023 GMHC

# Improving Healthcare Outcomes in Medical Missions via Telehealth

# Introductions



## Roosevelt Fenelus

CrossClinic, Founder and President

## Hau Liu, MD

Endocrinologist

Consult Bridge, Consultant Coordinator



## Jeff Lee, MD

Pediatrician

Consult Bridge, Founder



# Agenda



**What is telehealth and its use in medical missions?**



**Data and research on Telehealth**



**Example Applications of Telehealth in Medical Missions**



# What is Telehealth in **Medical Missions**

Support Locally, Mobilize  
Globally

# What is telehealth?

- Pre & Post Covid-19
- The history of telehealth
- The global information technology landscape
- The opportunities of telehealth for medical missions
  - Proper patient health records
  - Continuity of care & Follow-ups
  - Remote consultations for both missionaries & patients
  - Continuing education and knowledge sharing globally

# Challenges for Providers & Patients

- Inadequate information technology infrastructure
- Language and educational barriers
- Economical & logistical barriers
- Access to quality healthcare
- Maximizing the gift of healthcare
  - managing demanding job schedules
  - high traveling cost for medical missionaries
  - moving from output to patient outcomes



# Data and Research in **Medical Missions**

Support Locally, Mobilize  
Globally



Systematic Review

## **The effectiveness of teleconsultations in primary care: systematic review**

**Sara Carrillo de Albornoz<sup>a,\*</sup>, Kah-Ling Sia<sup>a</sup> and Anthony Harris<sup>a</sup>**

<sup>a</sup>Centre for Health Economics, Monash Business School, Monash University Level 5, Building H, Caulfield Campus, 900 Dandenong Road, Caulfield East VIC 3145, Melbourne, Australia

“Teleconsultations via telephone or videoconference are an effective alternative to face-to-face consultations for many patients attending primary care and mental health services. Teleconsultations have the potential to deliver time-efficient and lower-cost interventions at a distance while improving access to healthcare.”

2021 Jul 19. doi: [10.1093/fampra/cmab077](https://doi.org/10.1093/fampra/cmab077)

Original Research | October 2023

## Telemedicine Versus In-Person Primary Care: Treatment and Follow-up Visits

Mary Reed, DrPH , Jie Huang, PhD, Madeline Somers, MPH, MS , Loretta Hsueh, PhD , ... [See More +](#)

"Ongoing telemedicine use is fairly effective in having limited return office visits, low emergency visit rates, and very low hospitalization rates compared to office visits."

*Annals of Internal Medicine*. 2023; 176(10):1349-1357.

# Example: World Telehealth Initiative

## Telehealth in low-resource areas



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**8.6M**

**people die annually from treatable conditions.** 3.6 million receive no healthcare, and 5 million receive substandard healthcare.

**50%**

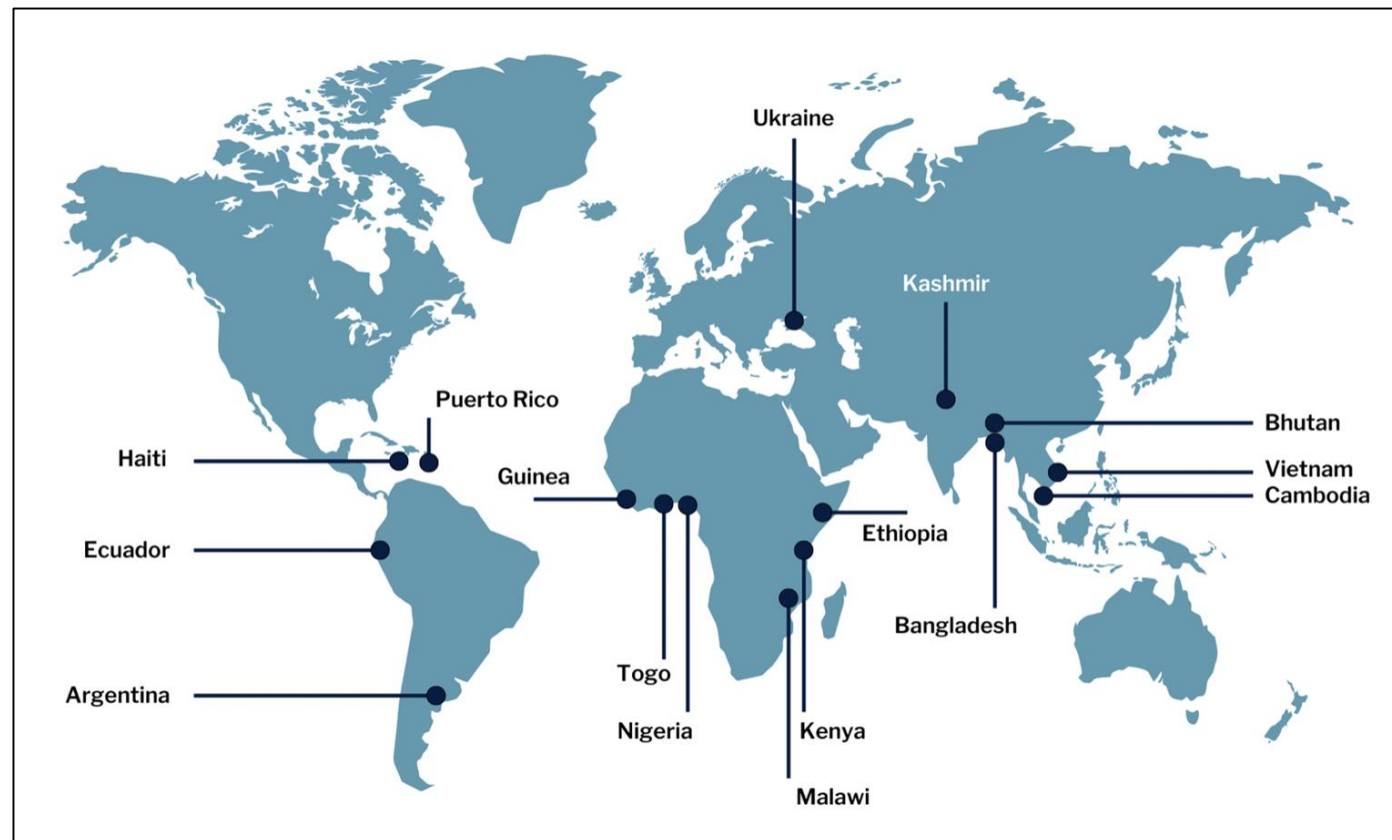
**of the world lacks access to essential health services.** Communities in Sub-Saharan Africa and Southern Asia are the most affected.

**15M**

**additional healthcare workers will be needed by 2030** to meet the demands of the global population.

**As a leader in philanthropic virtual care, World Telehealth Initiative envisions a world where all people have access to quality healthcare.**

World Telehealth Initiative provides sustainable medical expertise to the world's most vulnerable communities to build local capacity and advance core health services, through a network of volunteer healthcare professionals supported with state-of-the-art technology.



# 2023 Survey of Front-Line Medical Missionary Workers to Better Understand their Needs

## Medical TeleConsultation Survey

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We want to understand how to better serve your medical specialty consultation needs through a virtual teleconsultation platform. Your responses to the below questions will help us improve connecting clinical practitioners in the field to qualified medical specialists around the world.

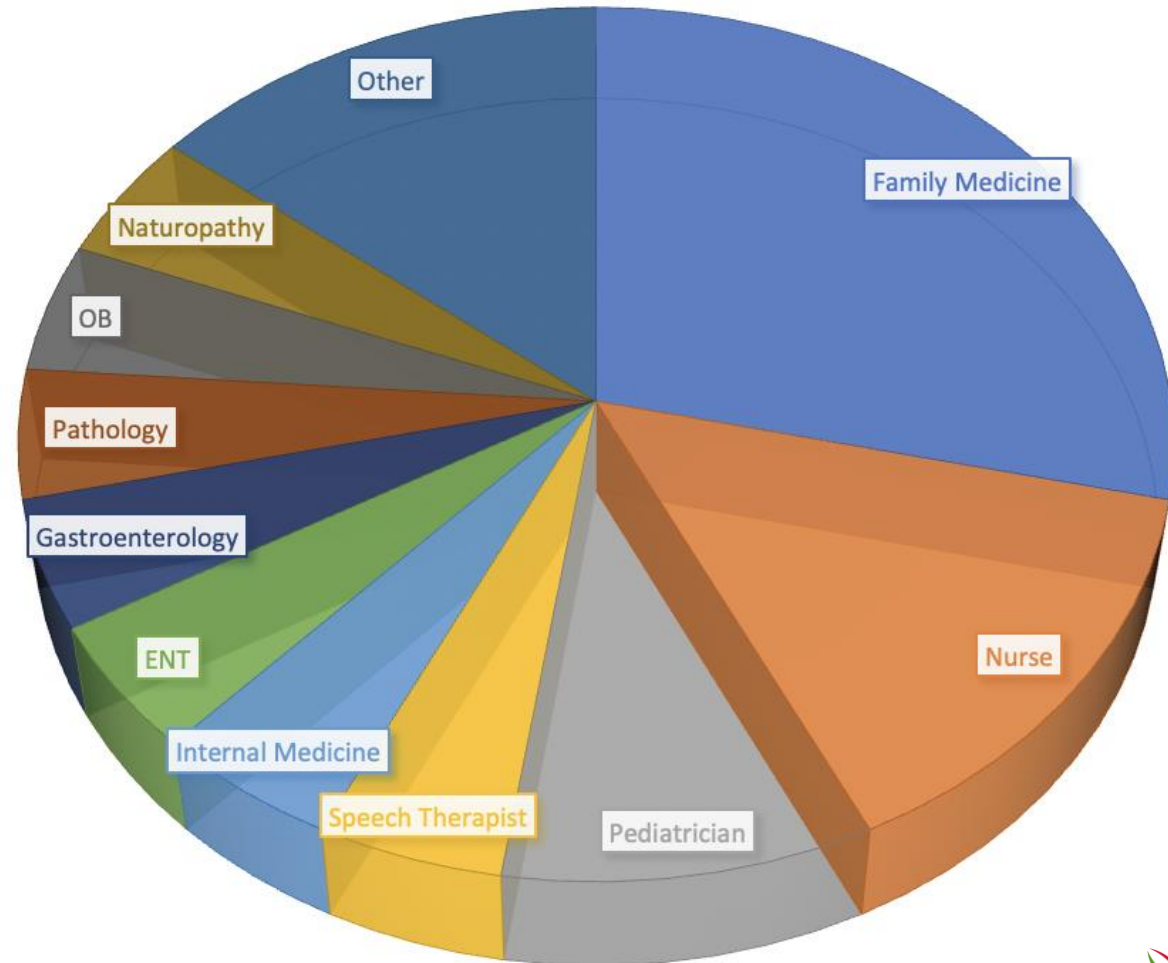
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# Respondents' Location and Specialty (n=88)

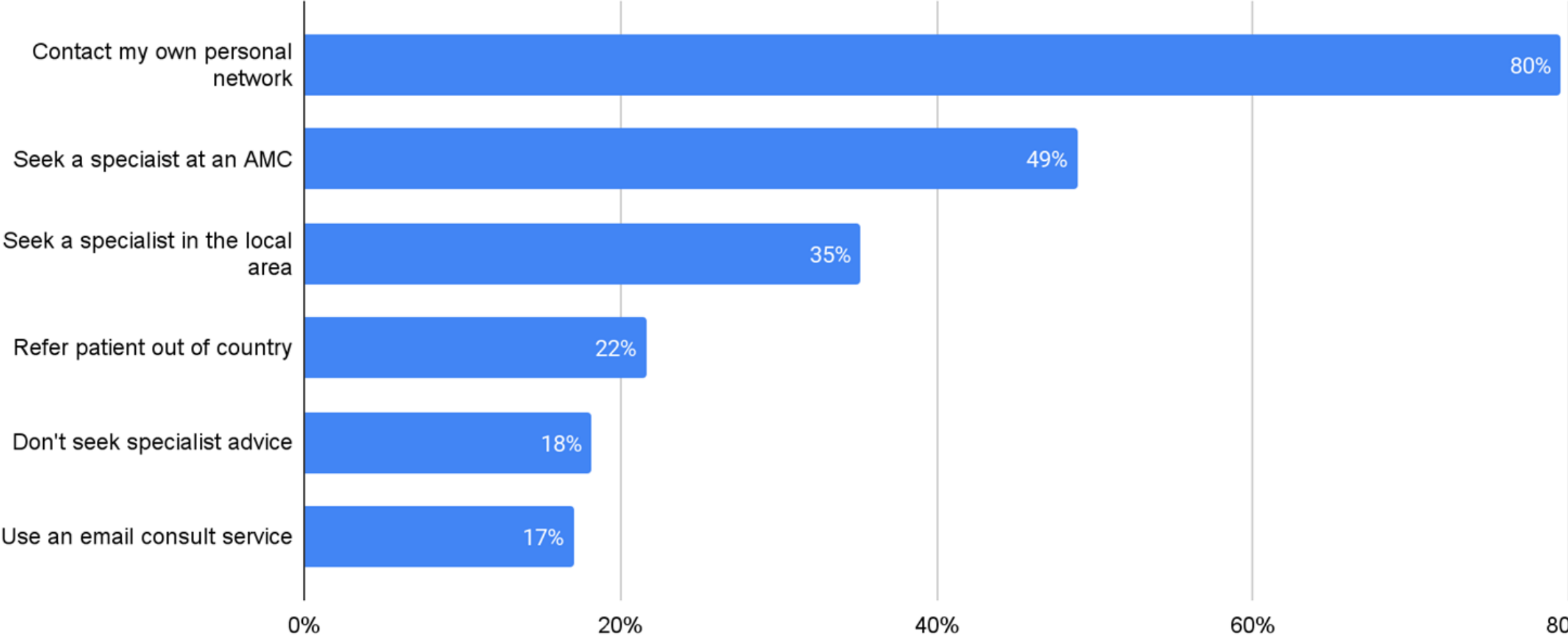
## RESPONDENTS' LOCATION

USA	4	Malayasia	1
Ethiopia	3	Central Asia	1
Bangladesh	2	Far East	1
Nigeria	2	Middle East	1
Afghanistan	2	Cameroon	1
Malawi	2	Ecuador	1
Madagascar	2	Zambia	1
Pakistan	2	Peru	1
Nepal	2	Ghana	1
UAE	2	Senegal	1
Kenya	1	New Zealand	1
Niger	1	Papua New Guinea	1
South Sudan	1	Botswana	1
Zambia	1	South Africa	1
Angola	1	Mauritius	1
Liberia	1	Phillipines	1
Ghana	1	Angola	1
Cambodia	1	Kyrgyzstab	1
Bolivia	1	France	1
Mongolia	1	Iraq	1

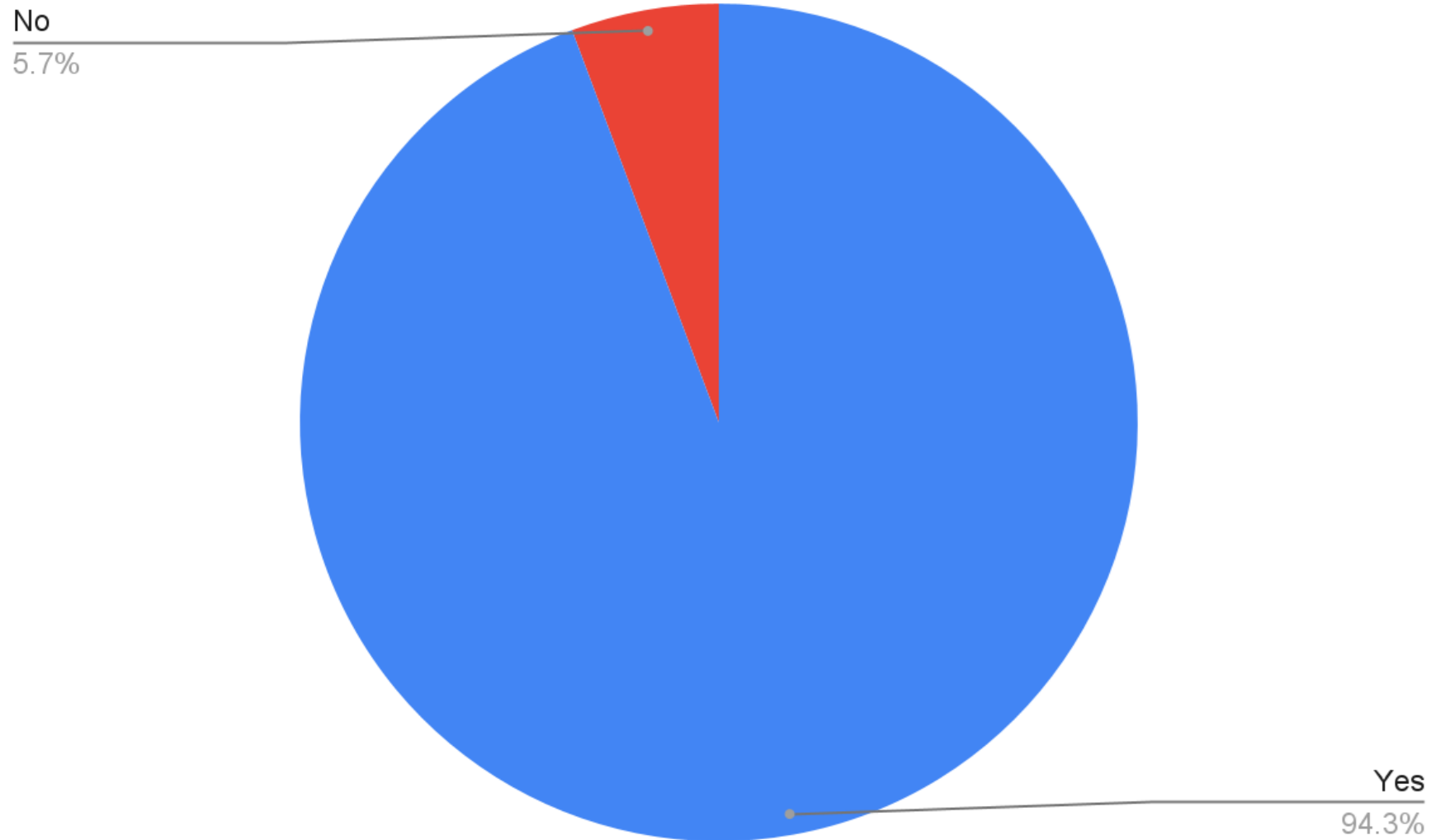
## RESPONDENTS' SPECIALTY



# Currently what do you do if you need access to medical specialists that may not be immediately available in your practice area?

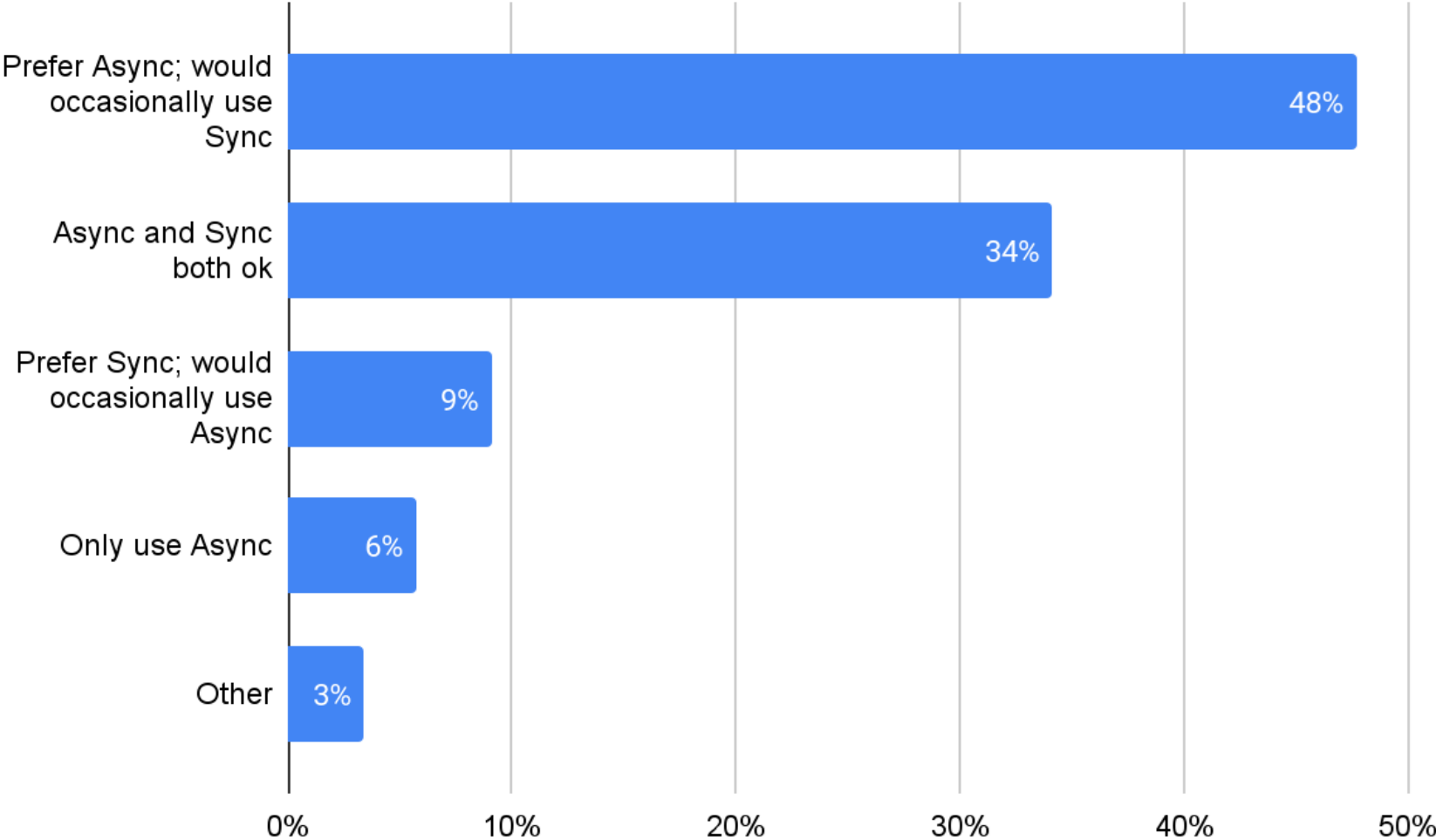


Would having access to a virtual consultation platform that connects you to vetted network of medical specialists be helpful to you?

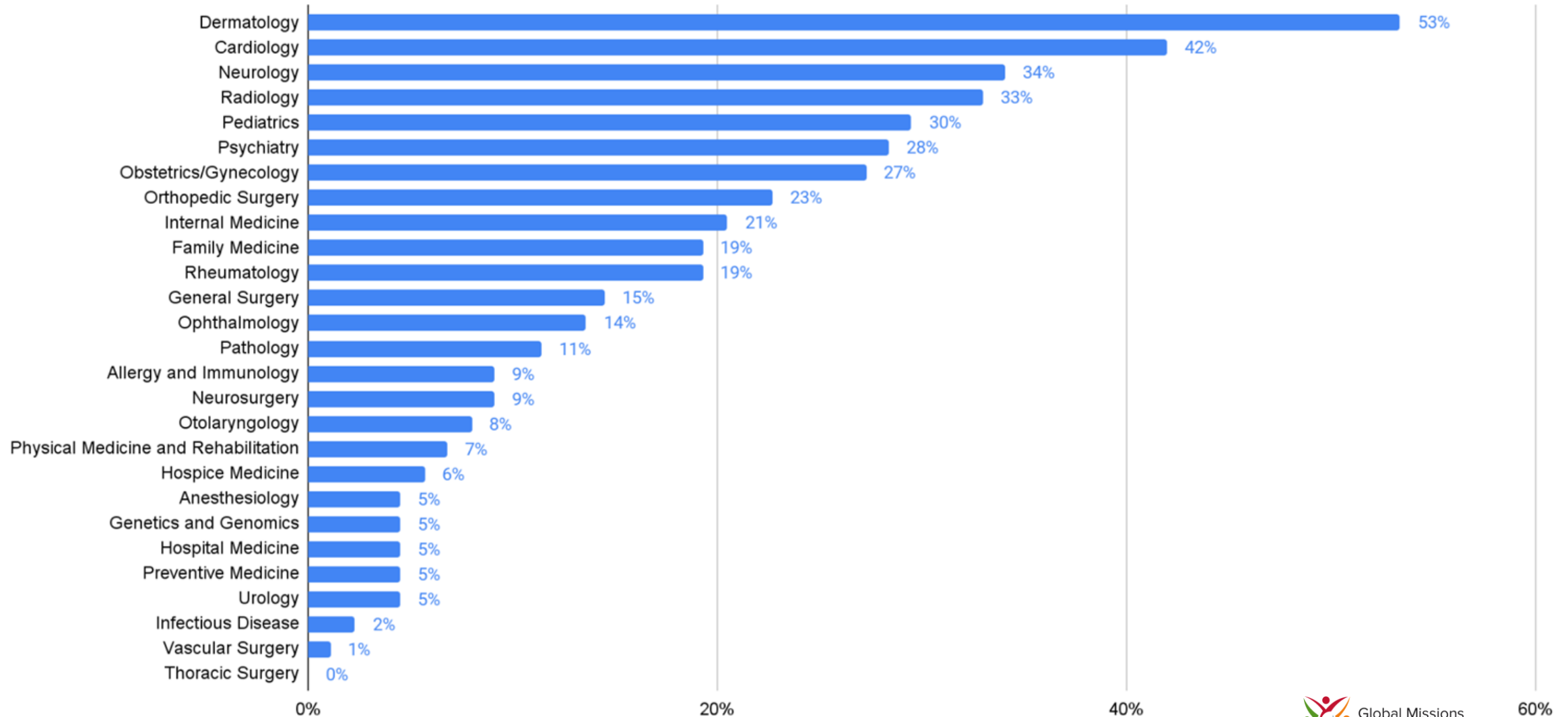




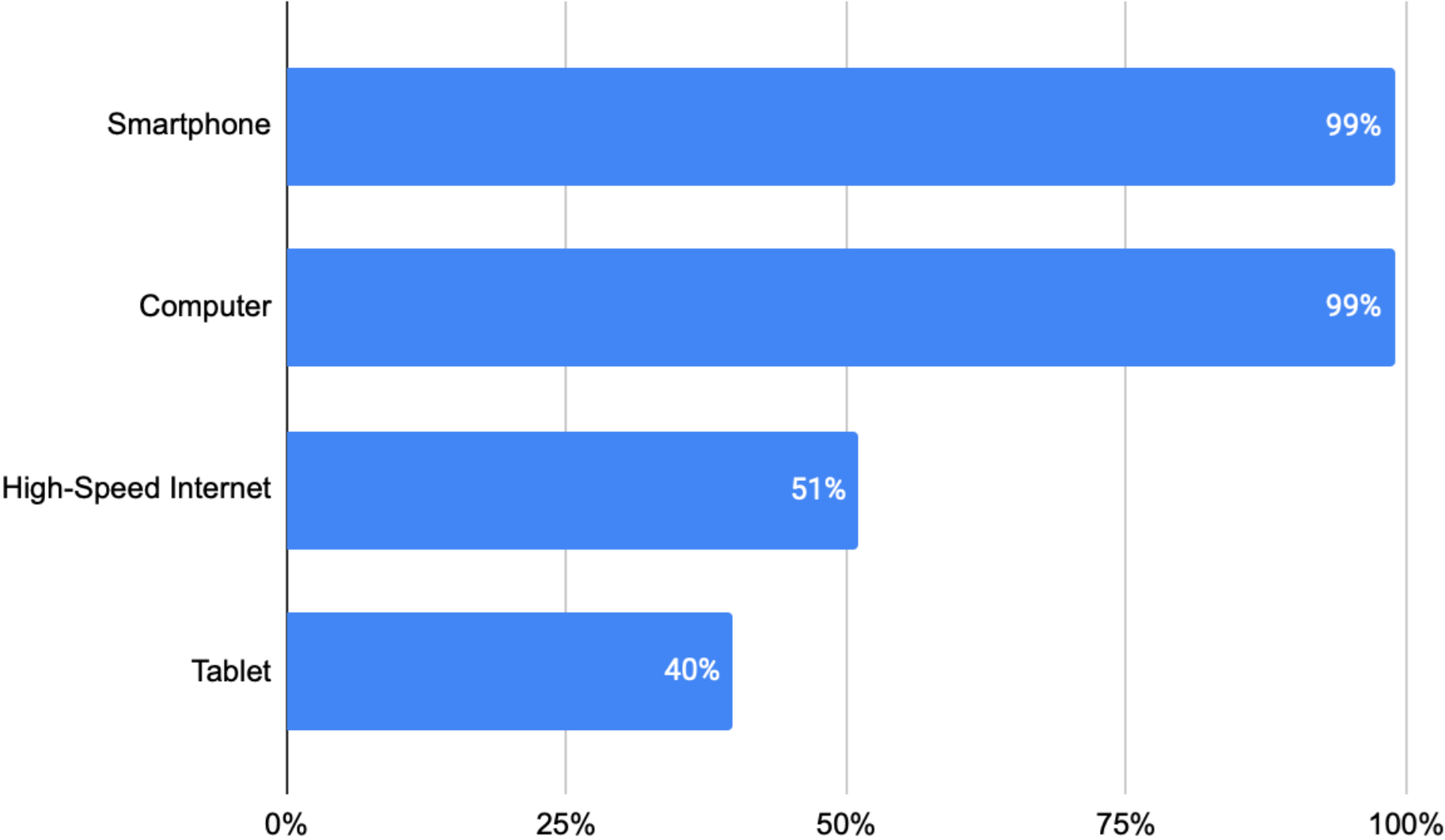
# In using a virtual consultation platform, which consultant communication method would you prefer (select one)?



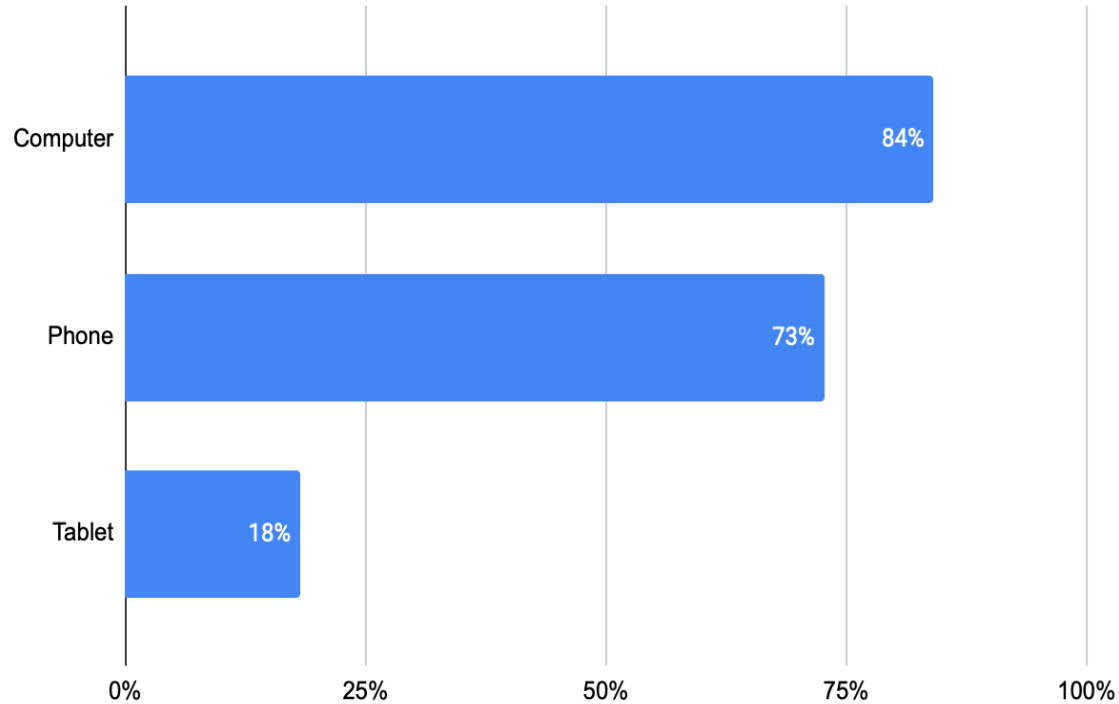
# What specialty would be most useful to you for virtual consultations? (please select up to 5 specialties)



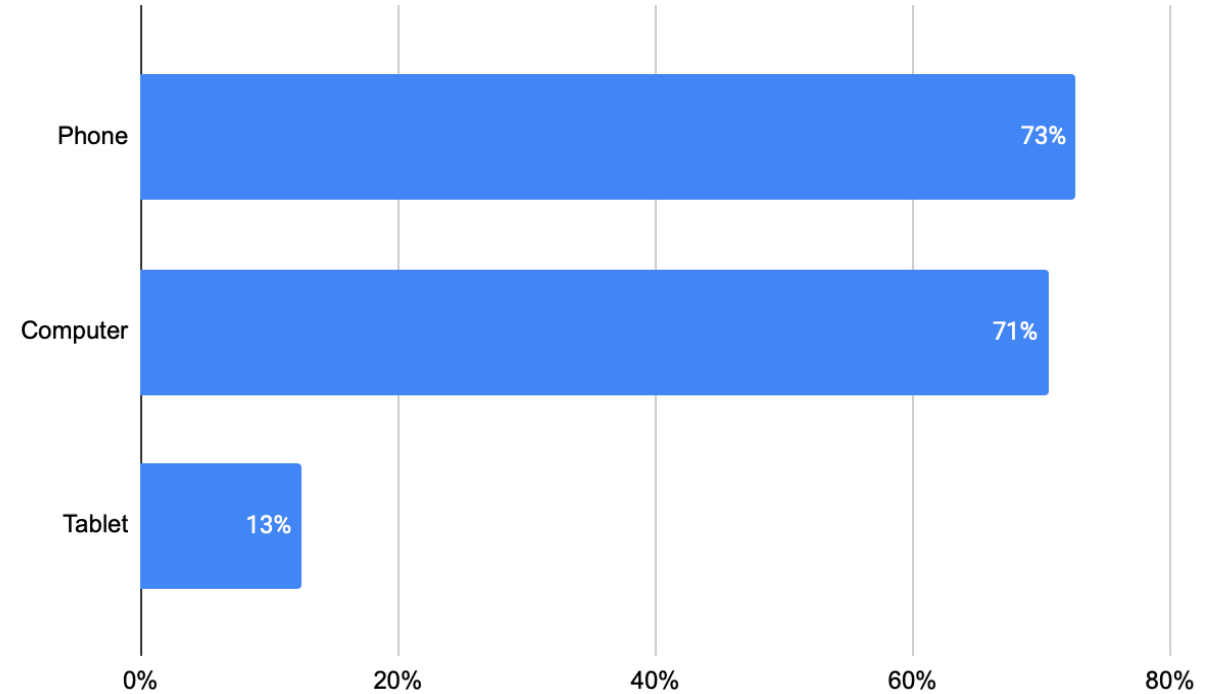
# Please select all items you have access to:



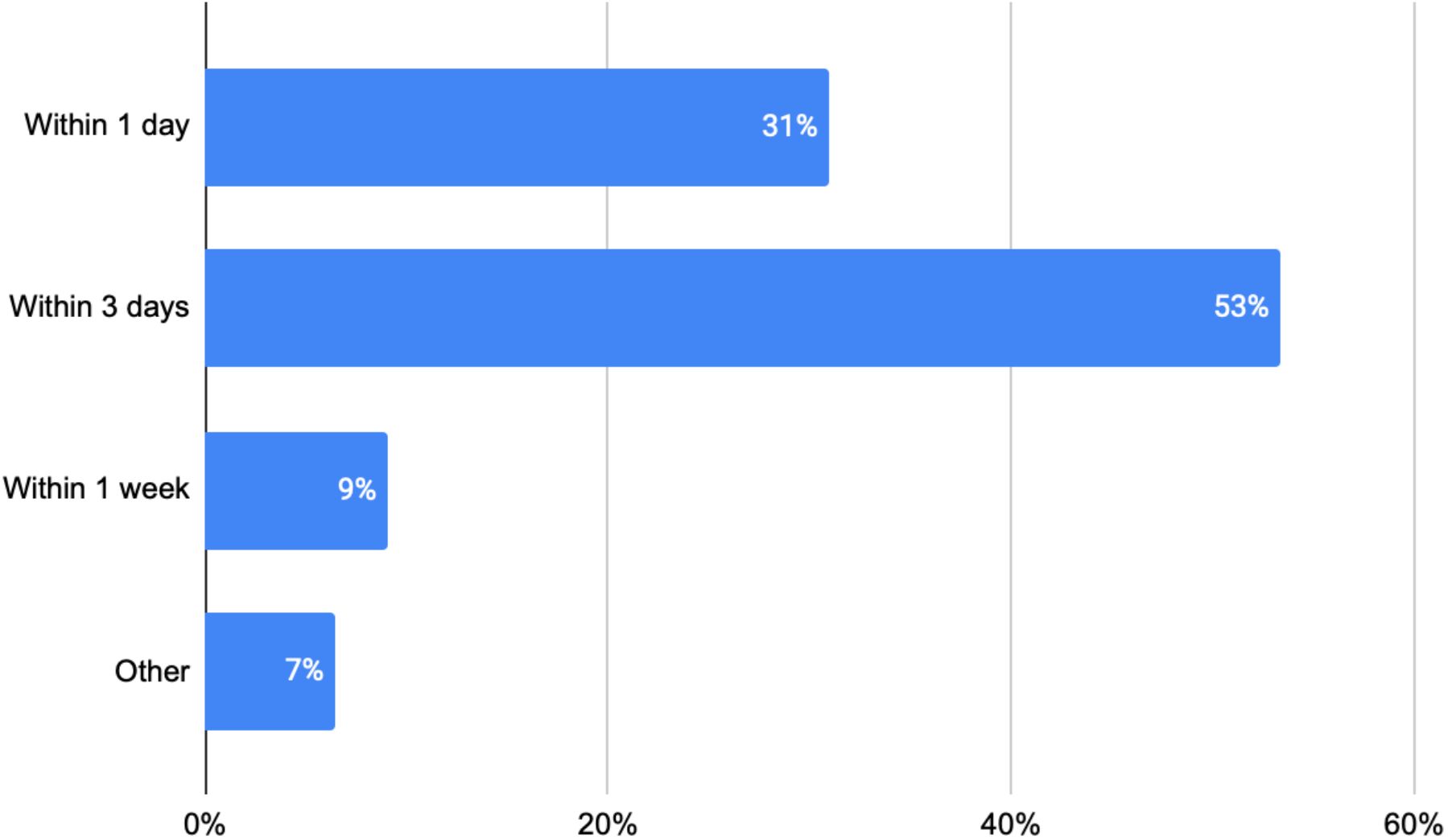
What modalities would you prefer to submit consults on (select all that apply):



What modalities would you prefer to conduct a video consult with (select all that apply):



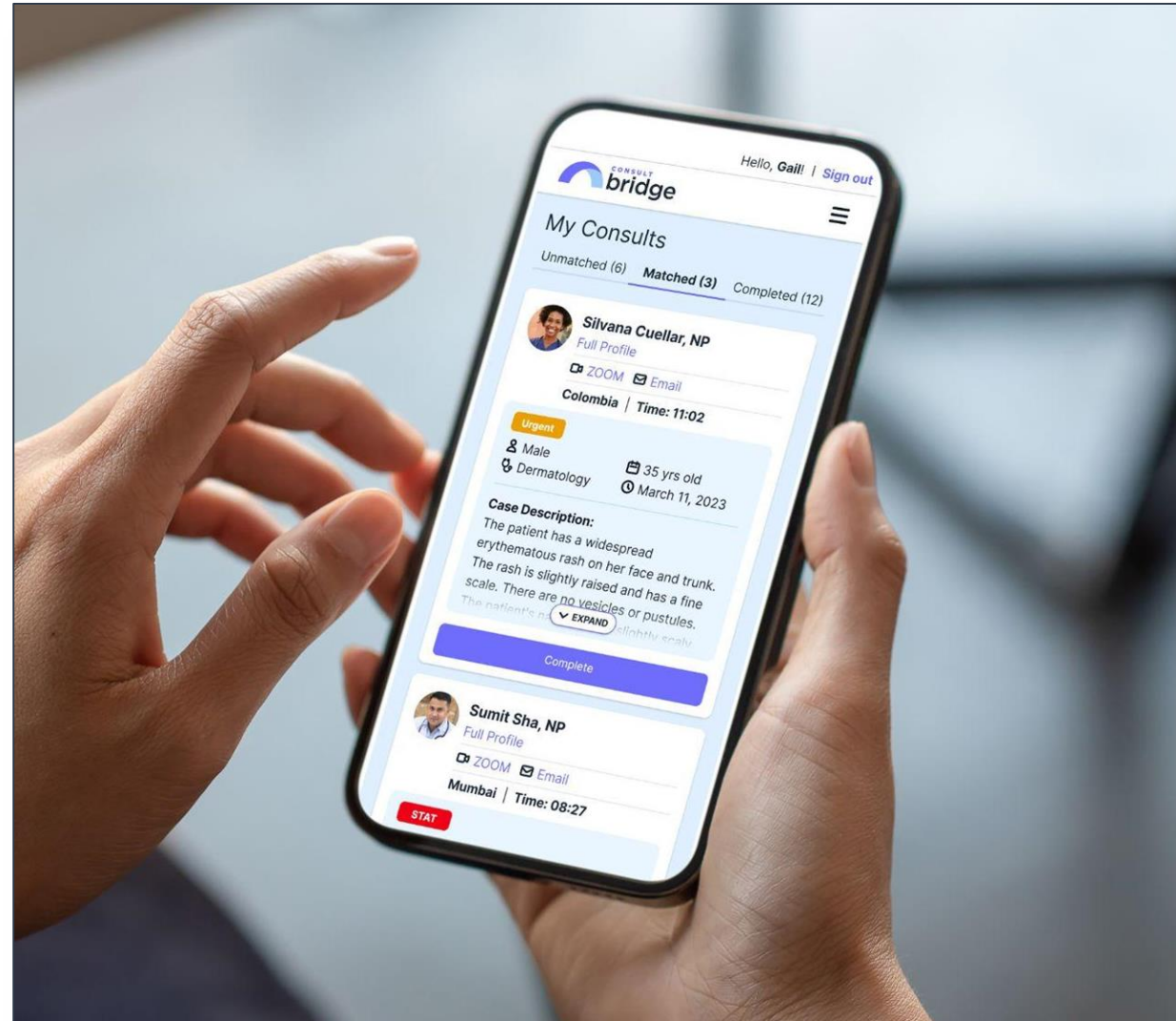
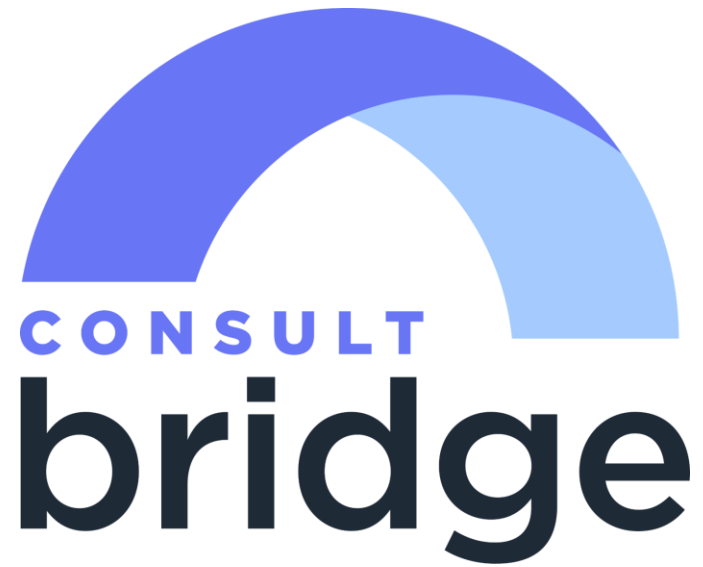
# What would you consider to be a helpful timeframe for a consultant to respond to a consult request? (select one)





# Technology Examples in **Medical Missions**

Consult Bridge & The Cross  
One Platform



# What Is Consult Bridge?

A tele-consultation platform that virtually connects medical missionaries with medical subspecialists just using smartphones and computers.

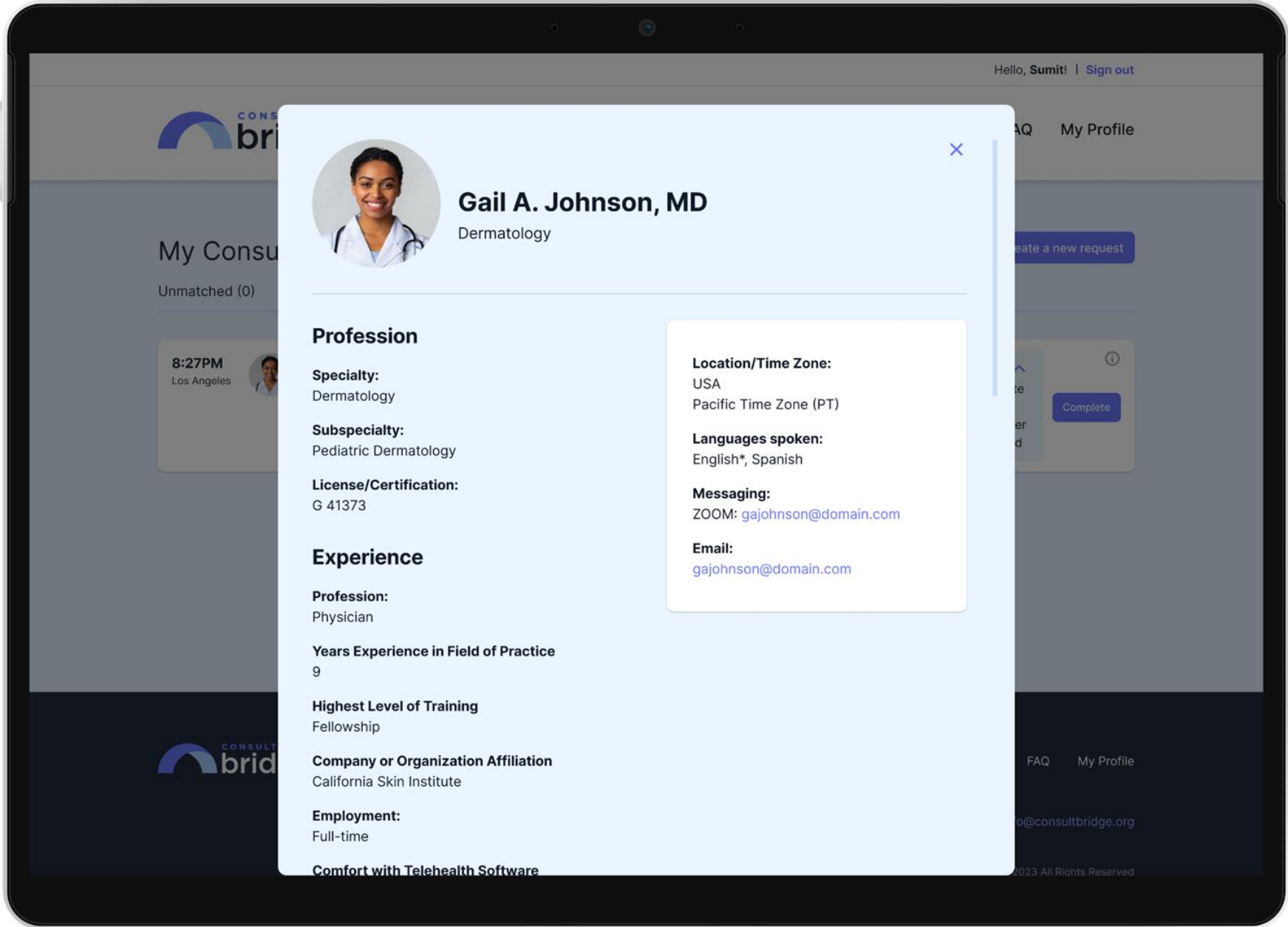


## The Vision

- 1) Provide medical missionaries with access to a network of board-certified specialists.
- 1) Create a convenient, high-impact, way for medical subspecialists to engage in Kingdom work.







My Consult

Unmatched (0)

8:27PM

Los Angeles



FAQ My Profile

[Create a new request](#)

[Complete](#)

FAQ My Profile

@consultbridge.org

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**Gail A. Johnson, MD**

Dermatology

**Profession**

**Specialty:**  
Dermatology

**Subspecialty:**  
Pediatric Dermatology

**License/Certification:**  
G 41373

**Experience**

**Profession:**  
Physician

**Years Experience in Field of Practice**  
9

**Highest Level of Training**  
Fellowship

**Company or Organization Affiliation**  
California Skin Institute

**Employment:**  
Full-time

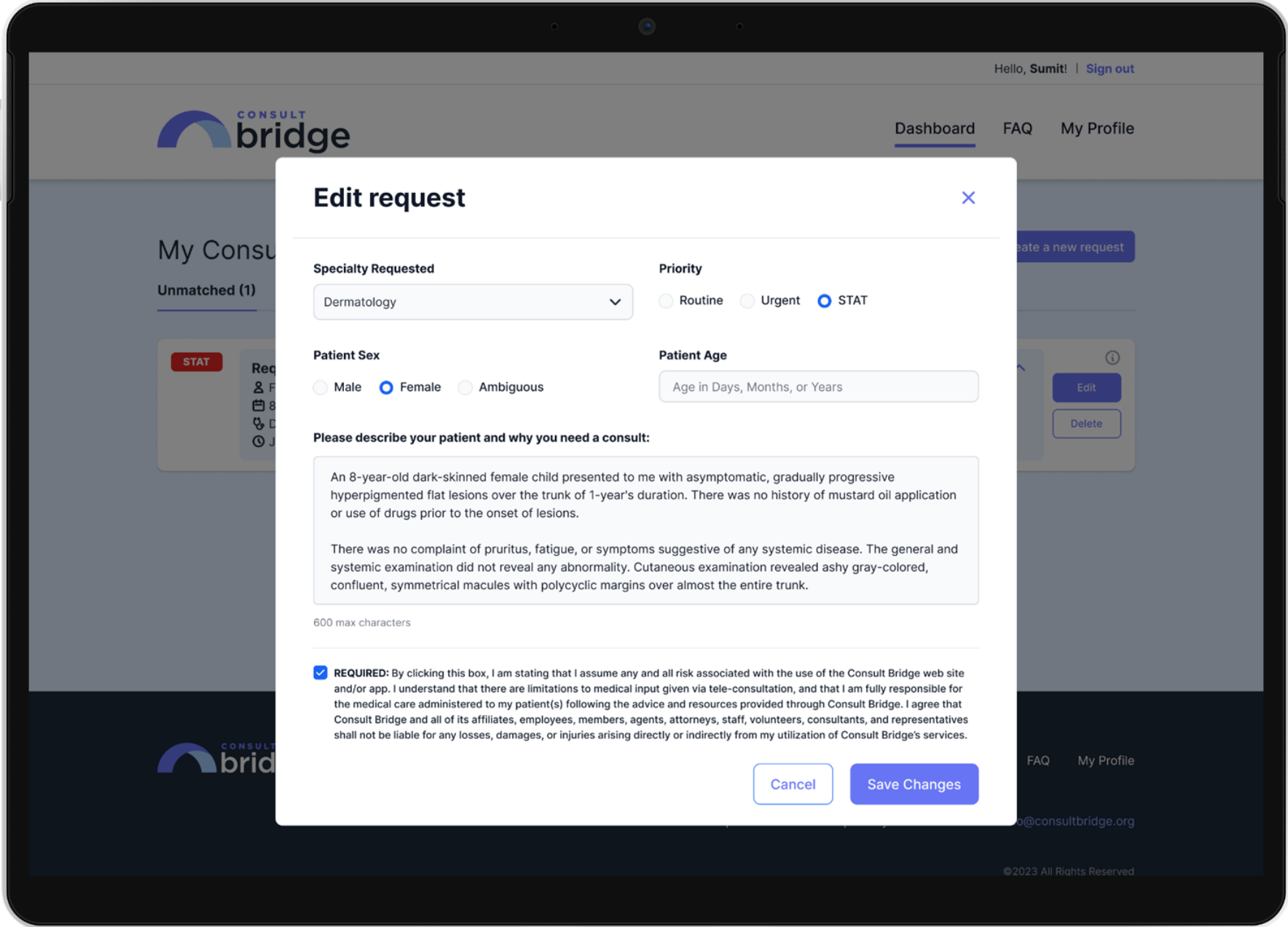
**Comfort with Telehealth Software**

**Location/Time Zone:**  
USA  
Pacific Time Zone (PT)

**Languages spoken:**  
English\*, Spanish

**Messaging:**  
ZOOM: [gajohnson@domain.com](mailto:gajohnson@domain.com)

**Email:**  
[gajohnson@domain.com](mailto:gajohnson@domain.com)



### Edit request



**Specialty Requested**

Dermatology

**Priority**

Routine  Urgent  STAT

**Patient Sex**

Male  Female  Ambiguous

**Patient Age**

Age in Days, Months, or Years

**Please describe your patient and why you need a consult:**

An 8-year-old dark-skinned female child presented to me with asymptomatic, gradually progressive hyperpigmented flat lesions over the trunk of 1-year's duration. There was no history of mustard oil application or use of drugs prior to the onset of lesions.

There was no complaint of pruritus, fatigue, or symptoms suggestive of any systemic disease. The general and systemic examination did not reveal any abnormality. Cutaneous examination revealed ashy gray-colored, confluent, symmetrical macules with polycyclic margins over almost the entire trunk.

600 max characters

**REQUIRED:** By clicking this box, I am stating that I assume any and all risk associated with the use of the Consult Bridge web site and/or app. I understand that there are limitations to medical input given via tele-consultation, and that I am fully responsible for the medical care administered to my patient(s) following the advice and resources provided through Consult Bridge. I agree that Consult Bridge and all of its affiliates, employees, members, agents, attorneys, staff, volunteers, consultants, and representatives shall not be liable for any losses, damages, or injuries arising directly or indirectly from my utilization of Consult Bridge's services.

Cancel Save Changes



## My Consults

[Create a new request](#)

[Unmatched \(0\)](#) [Matched \(0\)](#) [Completed \(1\)](#)



**Gail A. Johnson, MD**

[Full Profile](#)

[ZOOM](#)

[Email](#)

California  
Time: 20:27

**STAT**

- Female
- 8 yrs old
- Dermatology
- June 27, 2023

### Case Description:

I have a female patient that is 8 years old. Her main complaint is a red, itchy rash on the face, neck, and chest for the past 2 weeks. The rash is worse in the evening and at night. It does not seem to be spreading, but it is making her uncomfortable. She has tried using over-the-counter hydrocortisone cream, but it has not helped. She had a history of eczema since he

[EXPAND](#)

Completed  
Jul 7, 2023



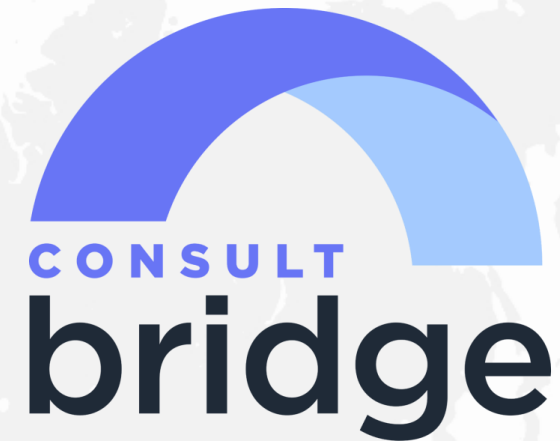
# Where We Are Today

Soft Launch (October 2023)

7 Medical Missionaries (from 6 different countries)

5 Specialties

Neurology  
Endocrinology  
HIV specialist  
Pediatrics  
Cardiology



*“This would meet a lot of needs for those serving in remote areas and seems to be an increasing felt need.”*



## The Cross One Platform



- Created to accelerate mission driven technologies, applications and systems.
- Provides a secure sets of Application Programming Interface (API) to unify the community and increase adoption of technologies in medical missions.
  - Authentication & SSO APIs
  - Data & User Management
  - Provides technical expertise to develop and launch healthcare technologies that benefits the Kingdom
- In Beta testing mode
  - 3 application integrations in progress
    - Electronic Health Records
    - Telehealth Platform
    - Community Apps



Search...



Ted



### Confirmation

Your appointment has been successfully scheduled. Please retain this confirmation for your record.

#### Questions?

Create a [support ticket](#) for help

## Consultation Confirmation

CONFIRMATION #

# 9FTWXTH

[Add to Calendar](#)

[Print](#)

30 MINUTES

### Cardiology

Nov 30, 2023, 16:00 (Douala)

CUSTOMER

TO **Ted Ovid**  
ted.ovid@gmail.com

AGENT

**Arianna Julie**  
[Learn More](#)

LOCATION

**Reunification Clinic**  
VG37+293, Bd de la Réunification, Yaoundé, Cameroon

CONTACT

**Richard Braun**

EVISIT

URL : <https://app.nulouhealth.com/visit/9FTWXTH>

Phone :

OTP : 3587



**John Doe**  
PT77334295 Male  
12 Feb 2019

- Facesheet
- Notes**
- Medical HX
- Vitals
- Rx
- Labs/Tests
- Docs
- Profile
- QR

SOAP

+Add

11/07/2023



Physical Exam

PsychHx



Evaluation Report



Add Optional Form

SOAP

CC

The patient presents with a history of chest pain and shortness of breath.

Subjective

The patient describes experiencing intermittent chest pain over the past two months. The pain is described as a squeezing sensation in the chest, primarily on the left side, radiating to the left arm. The pain is sometimes associated with exertion but also occurs at rest. Shortness of breath has been noted during episodes of chest pain. The patient reports that the symptoms have been increasing in frequency and intensity.

Objective

Vital Signs: Blood pressure: 140/90 mmHg, Heart rate: 85 bpm, Respiratory rate: 16 breaths/minute, Temperature: 98.6°F (37°C).

Physical Examination: On examination, the patient appears well-nourished. Heart sounds are regular with no murmurs or gallops. Lung sounds are clear bilaterally. No peripheral edema is observed. No jugular venous distention is noted.

Diagnostic Tests: ECG shows ST-segment depression in leads V2 to V6. Troponin levels are within the normal range.

Assessment

The patient's chief complaint, along with the history of present illness, suggests possible cardiac ischemia. ECG changes and clinical symptoms are concerning for myocardial ischemia.

The patient's vital signs, such as blood pressure and heart rate, are within acceptable limits.

Plan

The patient will be admitted to the cardiology unit for further evaluation.

A coronary angiogram will be scheduled to assess coronary artery status.

Nitroglycerin will be administered as needed for chest pain.

A cardiology consult will be obtained to discuss the patient's case and potential intervention options.

Medication adjustments may be necessary based on the findings of the angiogram.

The patient will be educated on lifestyle modifications, including a low-sodium diet, regular exercise, and smoking cessation.

Follow-up appointments will be scheduled as needed based on the results of the coronary angiogram.



CARECOMM

9.24.2023

Roosevelt Fenelus test 3:47 PM

Roosevelt Fenelus Hi Roose Check if you have got this message as text message. 3:50 PM

9.25.2023

Roosevelt Fenelus Check for new message 1:49 PM

Roosevelt Fenelus test now 4:08 PM

11.6.2023

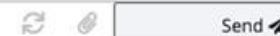
Roosevelt Fenelus Good morning, this is Dr. Smith, your cardiologist. How are you feeling today? 10:31 PM



9.26.2023

Roosevelt Fenelus testing message 11:28 AM

Type your message...



John Doe

11/07/2023

# Conclusion & Next Steps



01

New Era: Telehealth is here and missions can benefit from it.

02

Telehealth: an adjunct to, not replacement of, in-person Medical Missions

03

New Arena with many Potential Use Cases



# Questions?

To learn more about the example applications, visit:

[www.crossclinic.org](http://www.crossclinic.org)

[www.consultbridge.org](http://www.consultbridge.org)

Scan this QR code to sign up for our newsletter:





Thank You  
**For Attending.**