



EXECUTIVE SUMMARY

APRIL 1 , 2024

In 2023, our overall strategic plan was to broaden the reach of GLAP through 1) virtual GLAP programming in Latin America and 2) expanding GLAP to Africa.

Latin America:

Following GLAP's initial establishment in Costa Rica and Mexico in 2020, the GLAP program experienced significant growth through the replication of its courses by local teams. This expansion enabled GLAP to impact the laparoscopic training of over 70 surgical residents and enhance the teaching abilities of more than 30 surgeon educators within 3 years. Additionally, as a result of their involvement with GLAP, all participating sites now have surgeons who have attended the 2022 and 2023 SAGES conferences, presented abstracts at these conferences, and became members of SAGES. In 2024, two new sites (Monterrey, MX and El Salvador) will be starting the GLAP program. The leadership at the Monterrey site will be assumed by a surgeon who received education about the GLAP program in Guadalajara, Mexico. This further demonstrates the cascading effect of training local surgeons, enabling them to integrate GLAP into their educational programs and broaden its influence.

1. Costa Rica: The local team has now replicated and held their own onsite GLAP course 4 times (2022-2023).
 - a. Impact: They have trained a total of 47 residents (general surgery, urology, ped surg) and 19 attending educators.
 - b. Plan for 2024: Hold 2 more GLAP courses on their own. 15 surgeons plan to take the FLS test in 2024.
2. Guadalajara, Mexico: The local team has now replicated and held their own virtual GLAP course 3 times (2021-2023).
 - a. Impact: trained a total of 24 ped surgery residents and 12 attending educators.
 - b. Plan for 2024: Hold 1 more GLAP course on their own.
3. Monterrey, Mexico: **NEW SITE**
 - a. Lead educator is a surgeon from the Guadalajara GLAP group.
 - b. Plan for 2024: onsite GLAP to be held May-August by local team (for 12 residents + 5 surgeon educators)
4. El Salvador: **NEW SITE**



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- a. Plan for 2024: Virtual GLAP to be held May – August by GLAP faculty from US and Costa Rica (for 12 residents + 7 surgeon educators)

Africa:

Much of 2023 was dedicated to laying the groundwork for the expansion of the GLAP program into Africa. We have cultivated a strong relationship with COSECSA, the largest surgical educational institution in sub-Saharan Africa. Through collaborative planning sessions held onsite at the COSECSA 2023 annual conference in Addis Ababa, we have developed a strategy to integrate FLS training into the formal COSECSA curriculum and devised a plan for COSECSA to conduct remote FLS testing on their own at future COSECSA annual conferences. Additionally, we conducted a condensed GLAP course in Addis Ababa, where we provided laparoscopic simulation training to 53 Ethiopian surgeons. We also conducted a feasibility trial of remote FLS testing and grading. Out of 23 surgeons who took the FLS test, 65% successfully passed. Among these Ethiopian surgeons exposed to GLAP, 3 surgeons are now SAGES members, and one of them is coming to SAGES in Cleveland.

In addition, GLAP is a recipient of the 2024 SAGES Research Grant for the study titled: “Impact of Global Laparoscopic Advancement Pro Training Program on Fundamental of Laparoscopic Surgery (FLS) Test Passing Rate among COSECSA Trainees and Members in Sub-Saharan Africa Countries.” This study, to be conducted over the next 2 years, will allow GLAP to provide the GLAP Pro program to 45 COSECSA members of 3 Sub-Saharan countries, and provide FLS testing at no-cost to 90 COSECSA members. The collaboration associated with this study will enhance our partnership with COSECSA and guarantee sustained synergistic relationship between SAGES and COSECSA.

Main Achievements of 2023

1. Incorporation of FLS into COSECSA online training curriculum – COSECSA has selected a committee to devise the best strategy to include FLS modules and simulation practice into their online curriculum. They are proposing a tiered learning structure of FLS. PGY 1-2 will learn FLS online modules, while senior residents will learn the hands-on skills portion.



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2. COSECSA is now engaged and aims to have all their trainees be eventually FLS certified in the next 5-10 years. COSECSA is planning to purchase FLS testing equipment this year. At the 2024 COSECSA annual conference, GLAP will train an onsite invigilator who will learn how to run the FLS test, and who will be able to conduct remote FLS testing at all future COSECSA conferences.
3. Confirmation that remote FLS testing and remote grading of technical skills can be performed successfully in Africa.
4. Strengthen SAGES relationship with COSECSA through collaboration on the research study funded by SAGES Research Grant. By closely collaborating on the implementation of this study, GLAP/SAGES will foster a robust relationship with COSECSA leadership, thereby securing the long-term presence of SAGES in Africa and facilitating the expansion of FLS testing across the African continent.



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GLAP PRO PROGRAM DETAIL:

The GLAP program will consist of 1) an online curriculum followed by 2) the on-site one-week hands-on simulation training in FLS skills.

On-line Curriculum:

The online curriculum will be accessible 6 months prior to the on-site course, via a personalized online account. It will entail Part 1-3, and participants will need to pass a multiple-choice quiz after completing each part prior to advancing to the next section:

1. *Part 1:* FLS standard online modules (13 modules)
2. *Part 2:* Supplemental FLS curriculum – in-depth video presentations of each module covered in the FLS online modules. These presentations will not only provide a more comprehensive discussion of the topic, but also provide context-relevant knowledge and recommendations specific to surgeons practicing in LMICs. There will also be case-based presentations and multiple-choice question assessments.
3. *Part 3:* Additional educational modules that are procedure-specific (laparoscopic appendectomy, cholecystectomy, and common laparoscopic urological and gynecological procedures).

The on-line curriculum will also include a tutorial on how to build a cardboard low-cost simulator to practice the FLS skills during this 6-month period.

On-site Course

The hands-on on-site course will include 4 days of FLS lectures on FLS tips-and-tricks and proctored hands-on FLS simulation skills training. Each participant will get 20 hours of supervised



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FLS skills practice, where participants will have immediate feedback and suggestions for improvement on their performance.



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FINANCING OF GLAP PRO EXPANSION

Sources of funding:

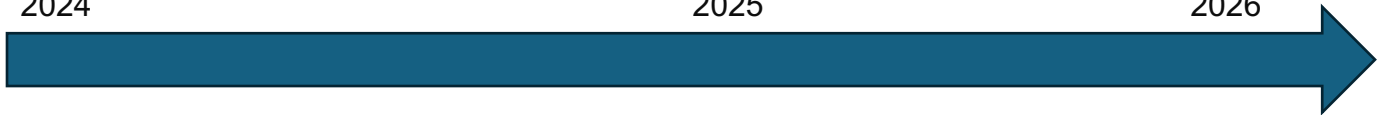
- The Global Affairs annual budget (\$30,000 non-admin cost) allows for 1.5 full trip (6 SAGES Faculty) to Africa.
- 2024 SAGES research grant (\$30,000) allows for one additional trip to Africa.

Timeline for rollout of GLAP Pro:

2024

2025

2026





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**AUG-
NOV**

GLAP Pro
online
course for
Uganda

NOV:

GLAP Pro
onsite course
for **Uganda**

**Funded by
2024 Global
Affairs**

DEC:

COSECSA
Annual Conf

- Conduct FLS testing for control group of GLAP Pro study
- Train invigilator for future remote FLS testing
- Strengthen partnership with COSECSA

**Funded by
2024 Global
Affairs**

FEB

GLAP Pro
onsite
course for
Ethiopia

**Funded by
2024
SAGES
Research
Grant**

DEC

COSECSA
Annual Conf

- Complete all FLS testing for GLAP Pro study
- Strengthen partnership with COSECSA

GLAP Pro onsite
course for
Namibia

**Funded by 2025
Global Affairs**