

Directors of Clinical Services Meeting

Réunion des directeurs des services cliniques

Guideline Host app: supporting access to local guidelines at the point-of-care

Guideline Host is a mobile application developed to make it easy for healthcare practitioners to access locally relevant clinical information at the point-of-care.

Guideline Host was developed specifically of the Pacific context. Benefits for healthcare practitioners and Ministries of Health include offline-first functionality; free download; easy navigation and bookmarks; creatinine clearance calculator; reduced costs for guideline printing. Data on guidelines usage offer new opportunities to monitor and improve guideline implementation.

Therapeutic Guidelines continues to invest in the app to deliver new features requested by users (e.g. geolocation, statistics on uptake across different professional groups).

Guideline Host app has been successfully implemented in Fiji, Solomon Islands and Vanuatu. It may also be an effective tool to improve access to guidelines and support guideline implementation and training in other Pacific Island countries and territories.

1. BACKGROUND

Therapeutic Guidelines is an independent not-for-profit organisation. Its aim is to promote the quality use of medicines, which it does through the development, publication and sale of *Therapeutic Guidelines*: a leading source of independent, evidence-based, practical treatment advice to assist practitioners with decision making at the point-of-care.

Therapeutic Guidelines supports the quality use of medicines and the development and distribution of guidelines in the Pacific region. Working in partnership with Ministries of Health and other organisations to support and build local capacity in guideline development, guideline implementation and other quality use of medicine activities.

Guideline Host is a key part of Therapeutic Guidelines' integrated support for guideline implementation in Pacific countries. Guideline Host is a mobile application developed to make it easy for healthcare practitioners to access local guidelines at the point-of-care. Guideline Host also provides data on guideline usage to support Ministries of Health to target guideline implementation and training activities.

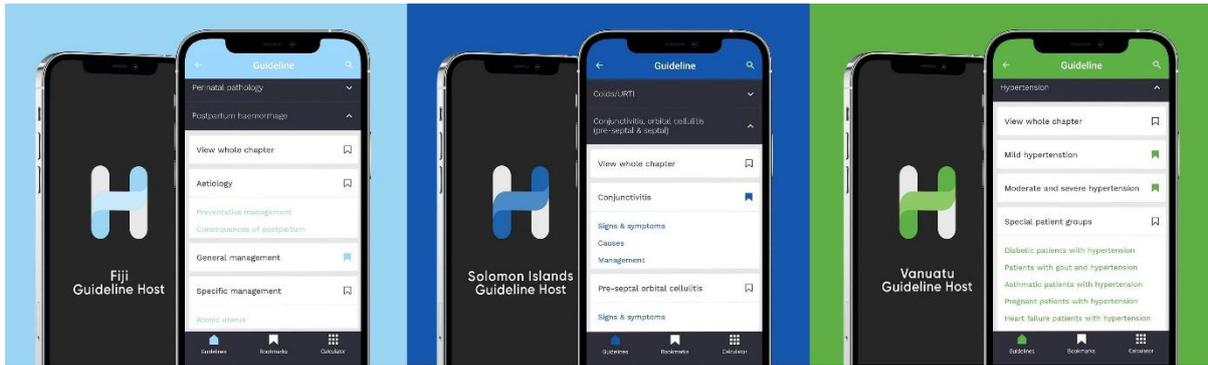
2. PROGRESS AND ACHIEVEMENTS

2.1 Successful Guideline Host app implementation in Fiji, Solomon Islands and Vanuatu

Guideline Host was developed specifically for the Pacific context. Features benefit both healthcare practitioners and Ministries of Health:

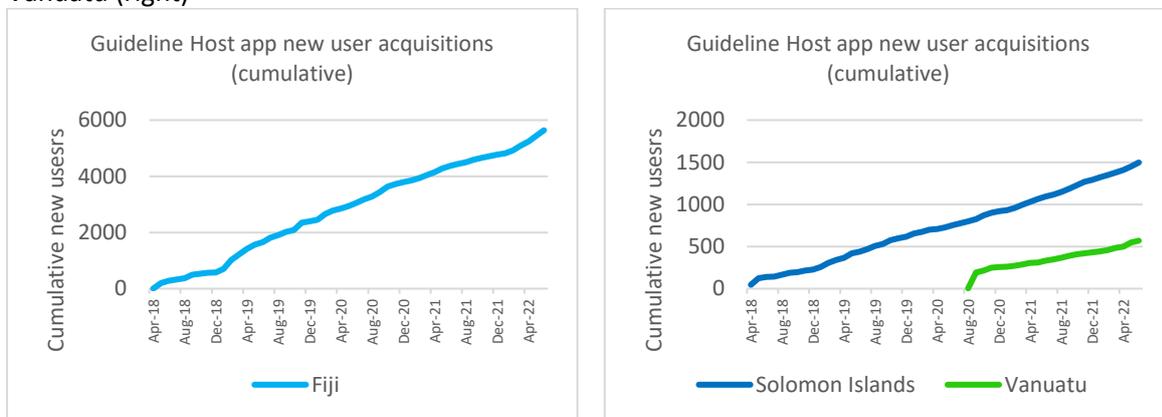
- Offline first functionality
- Free download (Android and Apple)
- All local resources in one place (guidelines, EML, drug information)
- Easy navigation (chapters, search, bookmarks)
- Creatinine clearance calculator
- Reduced printing and dissemination costs
- Data on guideline usage: guideline, chapter and sub-chapter views

Each country app contains local or locally endorsed guidelines. New guidelines are added as they are published to ensure that the apps remain current and relevant to users, with the Ministry of Health deciding which resources are added. Country Guideline Host apps are individualised with country flag, colours and logo and have been successfully implemented in Fiji, Solomon Islands and Vanuatu.



Apps for each country continue to gain new users, demonstrating growing engagement and increasing relevance for different user groups as new content is added.

Figure 1: Cumulative Guideline Host app new user acquisitions for Fiji (left) and Solomon Islands and Vanuatu (right)



2.2 New features and additional analytics capacity showing engagement with guideline content

In response to user feedback (in-person surveys, in-app surveys, personal correspondence) a bookmark function and creatinine clearance calculator were added in January 2021. In mid-2021, additional analytics capability was added to capture usage data. Data is captured on views of guidelines, guideline chapters and sub-chapters. This information may be useful to both target and monitor response to guideline implementation activities.

Engagement with app content is increasing, as shown in data from Fiji Guideline Host. This new data provides an opportunity to identify gaps in guideline coverage or use. Differences in the frequency of views between individual resources may correlate to the size of the target audience, for example, antibiotic guidelines are relevant across all specialties of medicine. However, they may also reveal user groups with higher or lower guideline adherence and/or reflect users' perception of the currency, relevance or usability of different resources.

Figure 2: Fiji Guideline Host app guideline views (all guidelines combined)

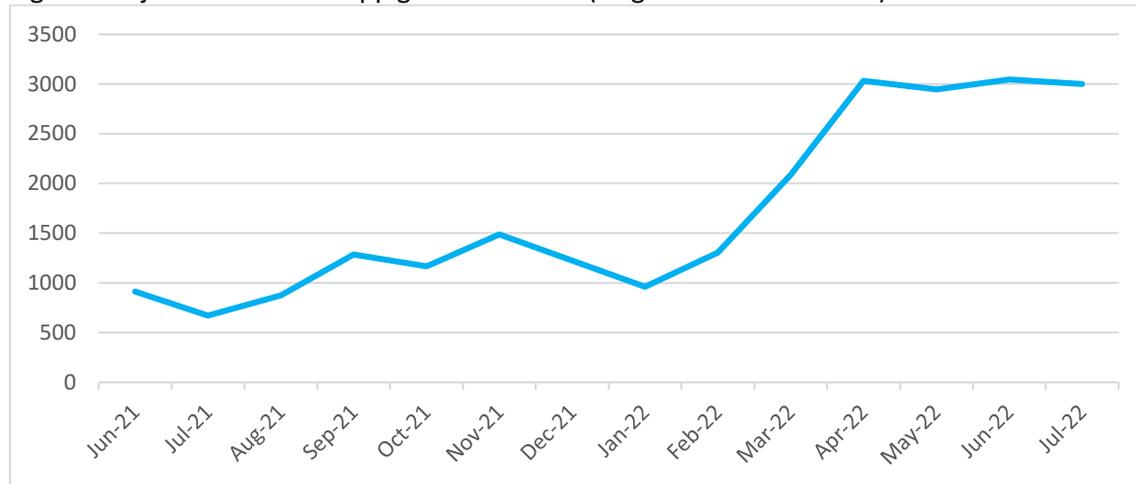
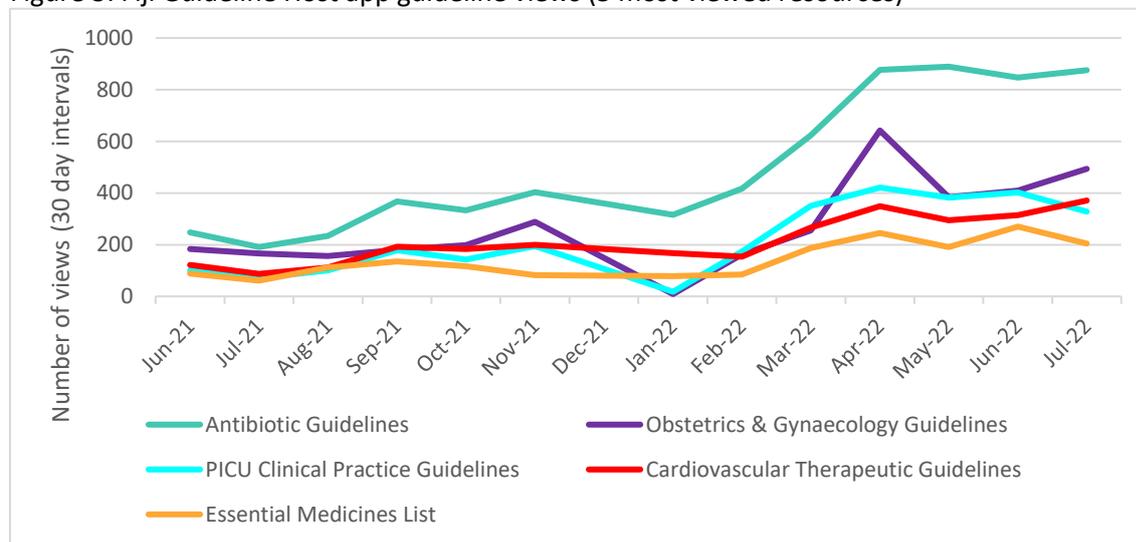


Figure 3: Fiji Guideline Host app guideline views (5 most viewed resources)



3. CHALLENGES

Offline-first functionality and low barriers to access were key priorities in the development of Guideline Host. However, this limits the ability to collect information on who is using the app and where it is being used within the healthcare system.

Anecdotal reports have indicated that uptake is lower in remote regions compared to major centres. Previous awareness activities have included using key champions to promote the app within their networks, word-of-mouth, posters at major health facilities, and social media posts. Future awareness activities will need to improve reach to healthcare practitioners in small or isolated centres. This will require better integration with Ministry of Health activities and greater collaboration with formal and informal professional networks.

Therapeutic Guidelines is also exploring technology solutions to capture data on user groups (eg nurses, doctors, pharmacists) and locations (eg major vs peripheral centres) while maintaining low barriers to

access and use. This additional information could assist Ministries of Health to better target guideline implementation and training activities.

Guideline views cannot be assumed to correlate with adherence to guideline recommendations. However, usage information can be combined with other quality indicators, such as the results from drug usage evaluations (audits). Frequency of views for guidelines/topics or differences between user subgroups could also be used to target monitoring activities.

Lack of central oversight for guideline development has resulted in new guidelines being missed when updating app content which reduces healthcare practitioner access to important information.

Guideline Host provides information on guideline usage that was previously impossible to capture. While there are some challenges in applying this information, there are also new opportunities for Ministries of Health to better understand how local guidelines are used and to apply this information to improve monitoring, implementation and development of local guidelines.

4. FUTURE DIRECTIONS

4.1 Recommendations for governments:

- Consider whether a Guideline Host app would be a useful tool to improve the use of medicines in your context, based on the experiences in Fiji, Solomon Islands and Vanuatu where Guideline Host:
 - Makes it easy for healthcare practitioners to access locally relevant clinical information where it is needed — at the point-of-care
 - Provides data on guideline usage to better inform guideline implementation, training and monitoring activities.
- Consider whether there are additional features that could be added to improve the Guideline Host app user experience; or other information that could be captured to make usage data more useful for Ministries of Health.

4.2 Recommendations for development partners:

For partners supporting development of guidelines or other clinical resources in a country with an existing Guideline Host app:

- Consider whether the resource should be added to the app early in the development process and initiate communication with the National Medicines and Therapeutics Committee or equivalent
- Consider including funding for addition of the resource to the app in the development budget.