



GEMS+

THE GREATER MEKONG SUBREGION ELIMINATION OF MALARIA THROUGH SURVEILLANCE

ANNUAL REPORT 2020



GEMS+

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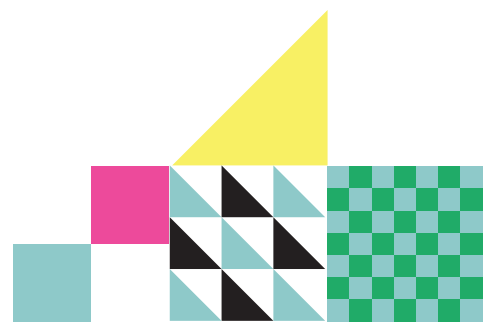
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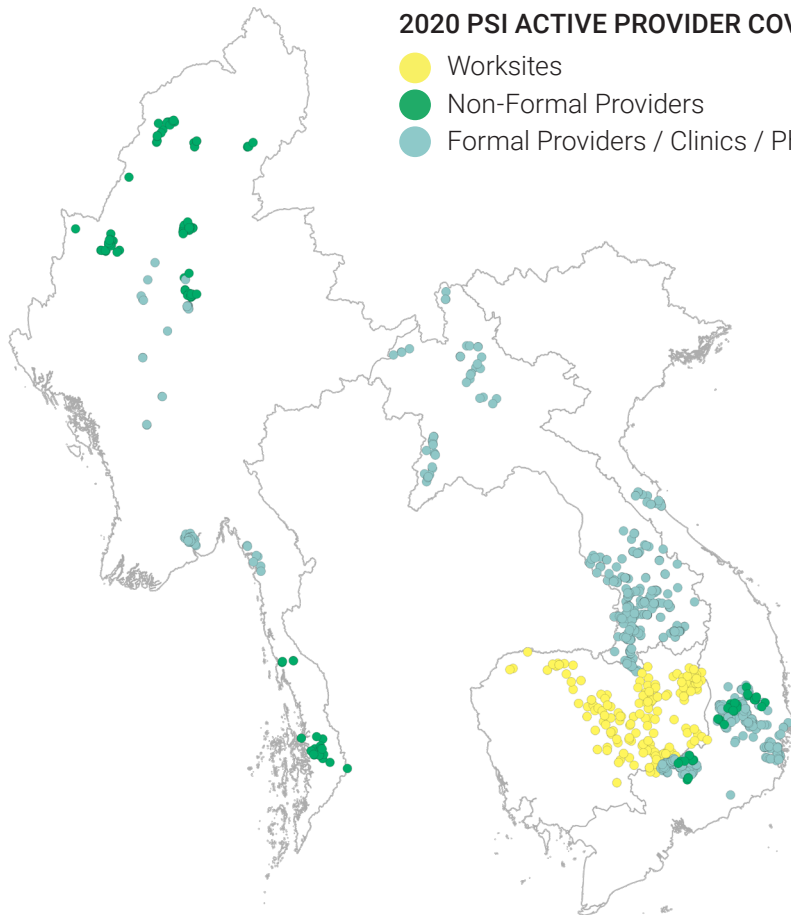




GEMS+ NETWORK COVERAGE

2020 PSI ACTIVE PROVIDER COVERAGE

- Worksites
- Non-Formal Providers
- Formal Providers / Clinics / Pharmacies



GEMS+

THE GREATER MEKONG SUBREGION ELIMINATION OF MALARIA THROUGH SURVEILLANCE

PSI's GEMS+ program strengthens private sector case management and surveillance to accelerate malaria elimination in Cambodia, Lao PDR, Myanmar, and Vietnam. This annual report shares the 2020 calendar year's results, the first year of GEMS+, during which PSI consolidated its private sector networks in preparation for transitioning ownership and management to national malaria programs (NMPs).



INTRODUCTION

Countries in the Greater Mekong Subregion (GMS) are successfully reducing the burden of malaria.¹ Since 2010, there has been a reported 86% decline in cases and 97% decline in deaths. Between 2019 and 2020 alone, the GMS region experienced a 47% decline in malaria cases. In the GMS, 40-78% of the population first seek health care in the private sector,² so to achieve malaria elimination, sustained private sector engagement is needed throughout the region.

The Greater Mekong Subregion Elimination of Malaria through Surveillance (GEMS+) program supports national malaria programs in Cambodia, Lao PDR, Myanmar, and Vietnam to integrate the private sector into national malaria elimination strategies, surveillance systems, planning, and management structures.

In the initial phase of GEMS programming (2016 – 2019), Population Services International (PSI) supported a diverse private sector network of 25,000 outlets to provide quality case management and timely case reporting into national health management information systems. Over four years, the PSI-supported network tested over 3.5 million suspected cases and detected nearly 100,000 malaria cases. In the final year of the program, the GEMS private sector network detected between 1.3 – 18.7% of the national caseload in the four countries.³

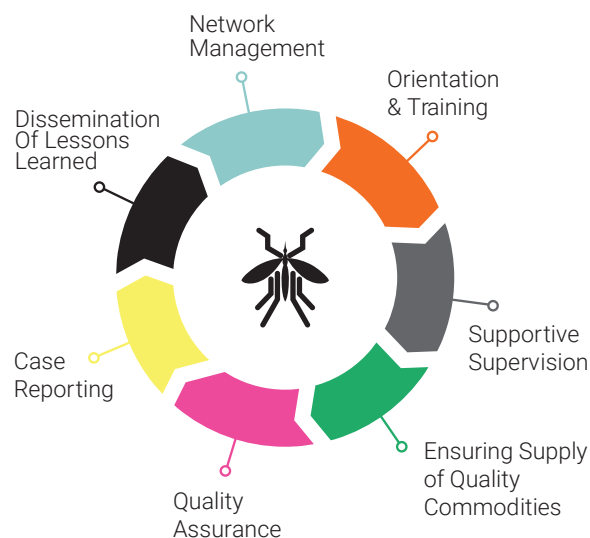
The GEMS+ program, a 3-year follow-on to GEMS, represents an ambitious investment with the primary objective of transitioning private sector malaria programs to government oversight by the end of 2022.

- 1 APLMA, Progress in times of a global pandemic: APLMA Leaders' Dashboard 2020, aplma.org/blogs/progress-in-times-of-a-global-pandemic-aplma-leaders-dashboard-2020
- 2 See Bennett et al. Malar J (2017) 16:252, DOI 10.1186/s12936-017-1901-1, ncbi.nlm.nih.gov/pubmed/28615026
- 3 Cambodia 1.3%, Lao PDR 9.2%, Myanmar 8.3%, and Vietnam 18.7%. GEMS Annual Report 2019 available on psi.org/gems

HOW WE OPERATE

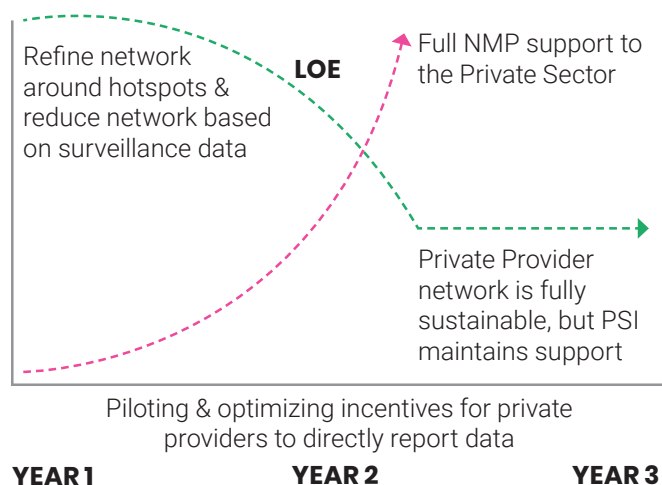
At its core, the GEMS+ program provides a comprehensive package of support to private sector outlets to ensure quality malaria case management and timely case reporting for integration into national health management information systems (HMIS). The GEMS+ network includes registered private clinics and pharmacies in all countries except Cambodia, as well as non-formal private outlets (POs) such as mobile drug vendors, drug shops, and general retail stores in Myanmar. In Vietnam, community malaria champions (CMCs) are a resource for testing and referral, and they are included in the GEMS+ provider network. In Cambodia, where private health providers are not authorized to provide malaria services, Mobile Malaria Workers (MMWs) are stationed on private worksites and in forest-fringe communities.

The key components of private sector engagement and support include: 1) Provider network management; 2) comprehensive training; 3) ensuring uninterrupted malaria commodity supply; 4) monitoring quality of care through provider assessment; 5) routine supportive supervision; and 6) support to report malaria case data that is integrated into national surveillance systems.



With private sector engagement established, GEMS+ works to transition oversight of a refined network of private providers to national malaria programs (NMPs). This is achieved by supporting NMPs to prioritize private outlets to complement public sector facilities in malaria elimination activities. Priority outlets are identified using criteria such as access to target groups, local malaria endemicity, provider performance, epidemiological and routine program monitoring data reported into the District Health Information Software 2 (DHIS2),⁴ and provider willingness to participate in national malaria programming.

Successful integration of the private sector into national malaria programs requires the development of national policies and strategies, allocation of resources by the government dedicated to the private sector program, and sustained engagement of transitioned providers. Building on the initial GEMS project, GEMS+ collaborates with NMPs to develop transition strategies and standard tools to ensure that quality malaria case management and reporting will sustainably continue through a refined private sector network that is owned and integrated into each country's national strategy and management structure.



GEMS+ represents a significant step in integrating private sector malaria case management into national oversight, ensuring national ownership of a network of providers that are often under-utilized in the malaria elimination response. The GEMS+ project advances the elements of the PSI Global Strategy⁵ aimed at shaping mixed health systems to enable target populations to access quality healthcare wherever they choose.

Over the course of GEMS+, PSI will gradually reduce direct support to the private providers as national malaria programs increasingly assume ownership and oversight of private sector engagement. This will result in increased integration of private sector malaria interventions into broader national health systems.

REGIONAL INSIGHTS

The GEMS+ program was launched in April 2020 amidst the COVID-19 global pandemic, which presented significant challenges for the implementation of malaria control activities. The pandemic era ushered in new ways of working on malaria with programs like GEMS+ striving to mitigate its negative impact on malaria elimination. As the pandemic intensified, government-imposed restrictions compelled GEMS+ country teams to rapidly adapt implementation strategies to reduce service interruptions and maintain quality of care. Building on the legacy of the GEMS, GEMS+ leveraged established digital health tools as a vital mechanism for maintaining routine malaria surveillance and supportive supervision.

Despite the unprecedented challenges of 2020, GEMS+ successfully shifted PSI's GMS malaria programming focus from private sector network expansion and support to network refinement and scale-down in order to facilitate the transition of private sector oversight to the NMPs in Cambodia, Lao PDR, Myanmar, and Vietnam. Despite significant challenges to operating within the COVID-19 context (i.e., social distancing, stay-at-home orders, travel restrictions, etc.), malaria trends continued to decline in the GMS region.⁶ Within all four countries, GEMS+ worked diligently to manage and provide high-quality support to the private sector network, while engaging national and subnational malaria programs to strategically integrate the private sector into the public health systems.

⁴ dhis2.org/about

⁵ psi.org/approaches





⁶ World Health Organization (WHO), Countries of the Greater Mekong ready for the "last mile" of malaria elimination, *Bulletin #9*. December 2020.

NETWORK PERFORMANCE





In 2020, GEMS+ supported 2,065 active private outlets in the GMS. Together, this regional network conducted a total of 196,252 rapid diagnostic tests (RDTs) across four countries and detected 1,147 positive cases, which were reported into national

surveillance systems. The GEMS+ private sector network detected 1.2% of the nationally reported caseload in Myanmar, 1.6% in Cambodia, 6% in Lao PDR, and 18.6% in Vietnam.^{7, 8, 9, 10}

2020 TESTING & OUTLETS OVERVIEW

	CAMBODIA	LAO PDR	MYANMAR	VIETNAM	REGIONAL
 # Of Active Private Sector Outlets	83	429	808	745	2,065
 Fever Cases Tested	9,749	61,124	80,334	45,045	196,252
 2020 Tests (National)	628,691	576,301	3,075,207	1,795,858	6,076,057
 GEMS+ Private Sector % Of 2020 Tests Nationally	1.6%	10.6%	2.6%	2.5%	3.23%

2020 CASE DETECTION OVERVIEW

	CAMBODIA	LAO PDR	MYANMAR	VIETNAM	REGIONAL
 Cases Detected	126	216	537	268	1,147
 Positivity Rate	1.29%	0.35%	0.67%	0.59%	0.58%
 2020 Positives (National)	7,897	3,496	46,372	1,442	59,207
 GEMS+ Private Sector % Of 2020 Positives Nationally	1.6%	6.2%	1.2%	18.6%	1.9%

7 CNM National Data, January – September 2020, (WHO: medb-gms.org). Accessed February 7, 2021.

8 HMIS, Lao PDR National Data, January – December 2020, (hmis.gov.la). Accessed January 22, 2021.

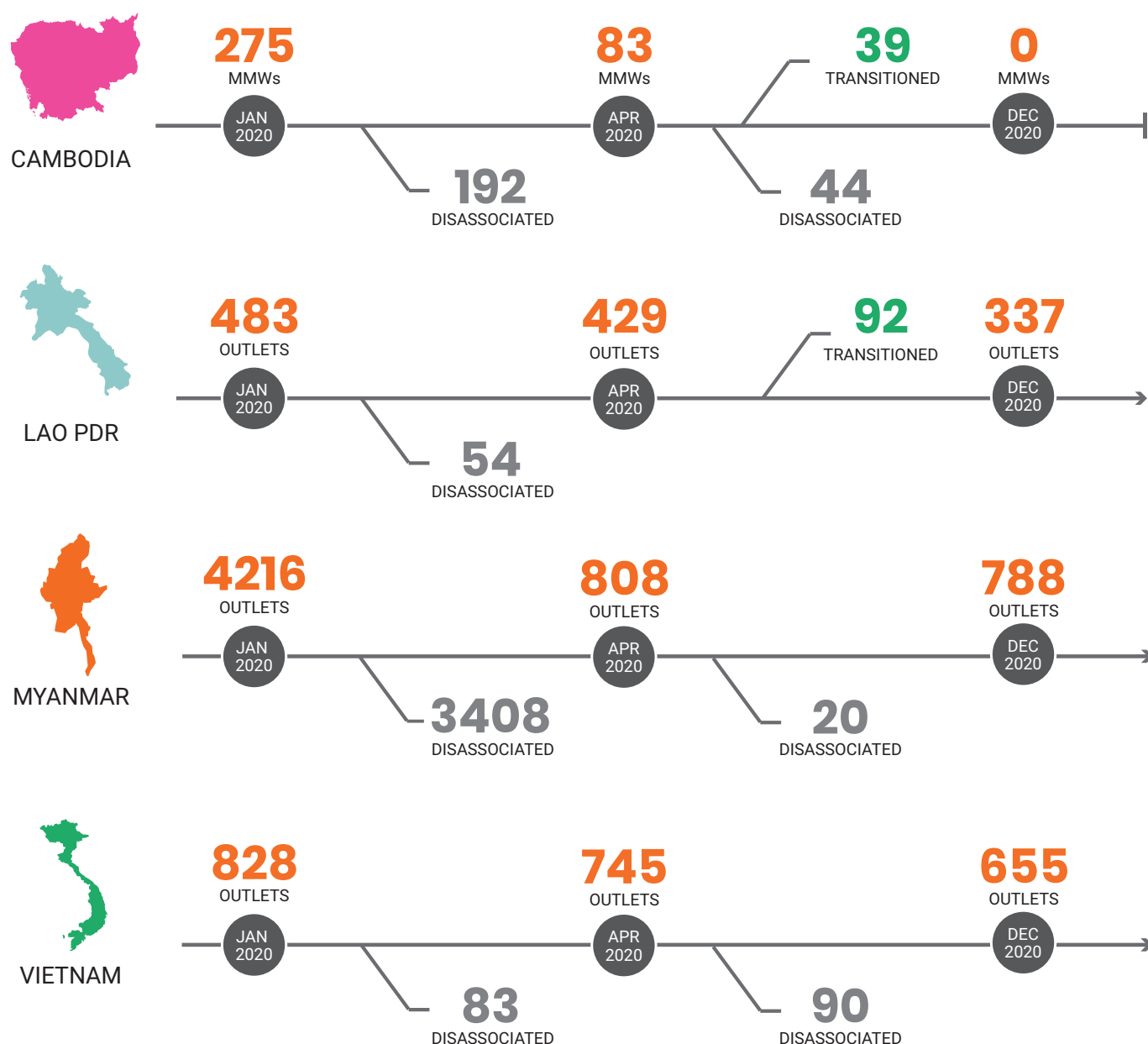
9 NMCP National Data, January – November 2020.

10 RAI, January – December 2020, (raifund.org/en/results). Accessed April 27, 2021.

NETWORK REFINEMENT & TRANSITION

GEMS+ NETWORK TRANSITION TIMELINE

- Mobile Malaria Workers (MMWs) / Outlets currently part of the network
- Outlets disassociated from the network
- Outlets transitioned to National Malaria Program (NMP)



Private sector networks are dynamic in nature and require annual refinement. In addition to identifying priority private outlets to transition to NMPs, the refinement process for GEMS+ included disassociating (i.e., discontinuing support) for outlets that no longer met the criteria established in partnership with NMPs for inclusion in a refined private provider network.

Starting the year with 5,802 private outlets in the PSI-supported network, GEMS+ disassociated 3,737 outlets in the first quarter of 2020 that were inactive, closed, or no longer met criteria for inclusion in national programs. By April, GEMS+ managed an active network of 2,065 private outlets. GEMS+ disassociated an additional 154 outlets from the network and ultimately transitioned 131 private outlets

into NMP oversight by the close of the year, including 39 Mobile Malaria Workers (MMWs) in Cambodia and 92 formal private outlets in Lao PDR. Within the four countries where GEMS+ operates, PSI Cambodia is the first to fully transition its entire network to government oversight, compile standard operating procedures and lessons learned for private sector engagement into a comprehensive toolkit,¹¹ and phase out of the GEMS+ program. Though no outlets fully transitioned out of the GEMS+ network in Myanmar, 27 private outlets were trained in an expanded disease management portfolio and aligned with the national Integrated Community Malaria Volunteer (ICMV) system. Similarly, the transition strategy in Vietnam involved engaging the NMP in jointly leading private sector network support activities (i.e., training, quality assurance, and supportive supervision) to facilitate transitioning the outlets in year two of GEMS+.

SURVEILLANCE HIGHLIGHTS

All private sector data generated by GEMS+ supported outlets are shared with NMPs in different ways, including submitting monthly reports and real-time short messaging service (SMS) notification. Integration into national surveillance systems is carried out by public sector staff; in the case of Lao PDR, private sector data integration is automated through a monthly data push into the national HMIS. Routine data quality audits, which measure data completeness, accuracy, timeliness, integrity, confidentiality, and precision, yielded scores ranging from 90% to 99.7%.¹² Operating within the pandemic context necessitated the expansion of the use of digital tools for case reporting through chatbots using popular messaging applications, such as Facebook Messenger in Lao PDR and Myanmar and Zalo in Vietnam.

In addition to reporting, in elimination areas in Lao PDR, Myanmar, and Vietnam, providers participate in case notification protocols, with high levels of timely completion. PSI Myanmar also supported the NMP in 2020 to carry-out case investigations in the private sector.



In all four countries, national restrictions on domestic travel and stay-at-home orders fluctuated throughout the year, which influenced GEMS+ approach to providing supportive supervision and supplying stock to the regional network. When prolonged periods of lock-down hindered in-person supportive supervision, PSI Myanmar maintained contact with the network through telephone calls, SMS, and popular messaging apps. Once initial restrictions on travel and gatherings loosened in Lao PDR and Vietnam, PSI co-led supportive supervision visits with the NMP to prepare the private outlets for transition. Additionally, GEMS+ used geographic, supply, and caseload data to identify and preemptively deliver buffer stock to private providers to prevent stock-out. In Lao PDR, PSI coordinated supply delivery to the private sector via national and subnational mobile units.

Despite these challenges, across the GEMS+ regional network, private outlets in all four countries met quality of care targets. 88% of the network scored above the 80% minimum standard on quality assessments, measured by PSI's Health Network Quality Improvement System (HNQIS).

11 Private Sector Engagement in Malaria Case Management toolkit available on psi.org/gems

12 90% in Cambodia, 99.7% in Lao PDR, 96% in Myanmar, and 97.2% in Vietnam.



CAMBODIA HIGHLIGHTS

In Cambodia, where private health providers are not authorized to provide malaria services, PSI-supported Mobile Malaria Workers (MMWs) are stationed on private worksites and in forest-fringe communities. From January through September, the GEMS+ network conducted 9,749 tests, identified 126 positive cases, and detected 1.6% of the national caseload. While PSI's proportion of national caseload detection increased from 1.2% in 2019 to 1.6% in 2020, this was in line with an overall national malaria case reduction. Overall national caseload for January - September decreased from 26,258 in 2019 to 7,897 in 2020 for the same period.

Starting the year with 275 MMWs in the private network in Cambodia, GEMS+ disassociated 192 MMWs between January and April that no longer met the criteria established in partnership with the Center for Parasitology, Entomology and Malaria Control's (CNM) for inclusion in a refined private provider network. From April - September, GEMS+ managed an active network of 83 MMWs who worked in alignment with CNM's Volunteer Malaria Worker (VMW) system, after which an additional 44 MMWs were disassociated, and a refined network of 39 MMWs transitioned into the VMW system.



9,749
FEVERS TESTED



126
CASES DETECTED

1.6%

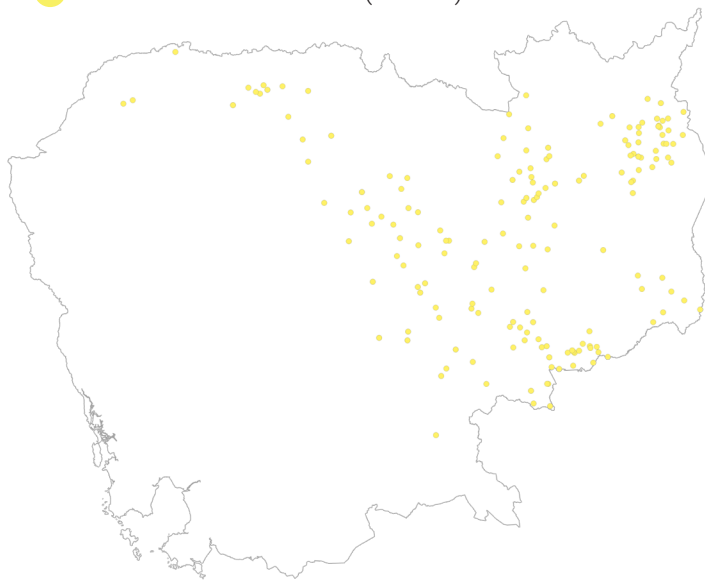
Of total fevers tested
in country (public,
private, MMW/VMW)

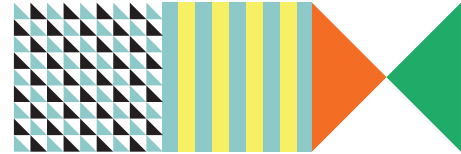
1.6%

Of national reported
caseload detected
through PSI's networks

GEMS+ NATIONAL PROVIDER NETWORK

● Mobile Malaria Workers (MMWs)





TRAINING, SUPPLY, SUPERVISION

To lay the foundation for transition into the government's VMW system, MMWs received training in national case management guidelines during monthly joint-supervision visits with PSI Cambodia and provincial- and operational district health center staff. In June, the government assumed responsibility for stock distribution during monthly supervision visits.

QUALITY ASSURANCE (QA)

PSI Cambodia exceeded its quality-of-care (QoC) target with 96.8% of MMWs meeting the satisfactory QoC score. The high scores can be attributed to seasoned experience of MMWs in the network, as well as continued effective use of the standardized tools (i.e., provider monitoring forms) which PSI field staff use during supervisory visits to focus feedback on areas of weakness identified in previous quality assessments. For example, gaps in treatment and counseling due to low positive cases and carelessness of providers were the common areas for improvement in 2020. As part of the strategy to transition QA responsibilities to CNM, PSI Cambodia developed malaria case management and quality assurance standard operating procedures. CNM applied PSI's lessons learned from the HNQIS app towards the development of its own QA app.

REPORTING

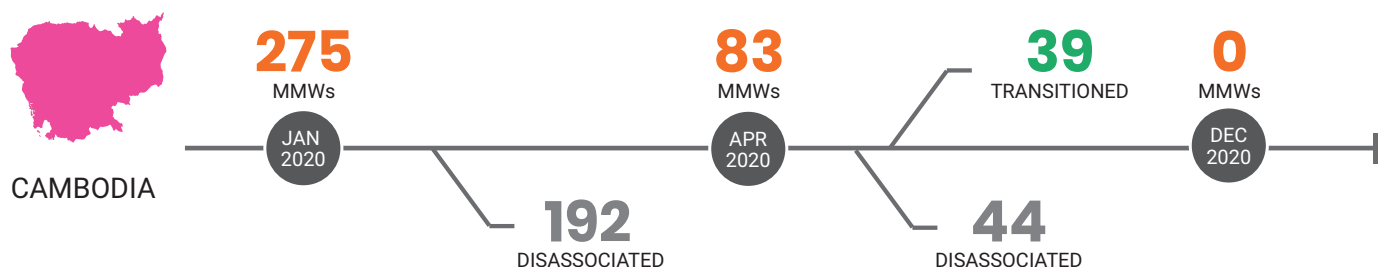
100% of the testing and case data were reported from MMWs to PSI in a timely manner, and nearly 65% of the reported caseload data submitted to the government health centers were integrated into the CNM MIS. Disruptions to the operating environment delayed some data flow and reporting in the first two quarters of the year when health centers and operational districts did not enter data into the national HMIS.

NETWORK TRANSITION

The transition process in Cambodia was a phased approach developed in close collaboration with the government across national, provincial, and community levels. The transition plan utilized malaria burden stratification to disassociate the MMWs with low or no cases in order to focus support on MMWs in the highest burden areas. PSI Cambodia also worked with CNM to identify the financial resources required to sustain network support from the Global Fund Regional Artemisinin-resistance Initiative (RAI3E). Next, PSI, along with CNM leadership, presented the transition plan to Provincial Health Department (PHD) directors. CNM's active participation in meetings at the provincial level was crucial to securing PHD buy-in and engagement in the transition process and the ultimate integration of MMWs into the VMW structure.

PSI Cambodia is the first country to fully transition its network under government oversight, produce a set of standard operating procedures (SOPs) for private sector engagement in malaria elimination, and phase-out of the GEMS+ project.

- # Mobile Malaria Workers (MMWs) currently part of the network
- # Outlets disassociated from the network
- # MMWs transitioned to National Malaria Program (NMP)





LAO PDR HIGHLIGHTS

From January–December, the GEMS+ network conducted 61,124 tests, identified 216 positive cases, and detected 6.18% of the national caseload, down from 9.2% in 2019. The reduction in case detection and contribution to national case load was influenced by the closure of private outlets during a COVID-19 induced lockdown in March, April, and May. The reduction in cases is also consistent with reduction in malaria cases in Lao PDR. Data from the Center for Malaria Parasitology and Entomology (CMPE) shows that the national case load decreased from 6,687 confirmed cases in 2019 to 3,496 in 2020.¹³

PSI Laos worked closely with the CMPE, World Health Organization (WHO), and Provincial Health Offices (PHOs) to develop two models of private sector support aligned with the national strategy. Those outlets in high burden areas and with high caseloads provide full malaria case management services (i.e., testing, treating, and tracking), while private outlets seeing few cases and in low burden settings refer all suspected malaria cases to the local public sector providers. Starting the year with 483 outlets in the PSI-supported private network, GEMS+ disassociated 54 outlets between January and April that were closed, inactive, or no longer met the criteria established in partnership with CMPE for inclusion in a refined private provider network. From April onward, GEMS+ managed an active network of 429 registered private clinics and pharmacies largely located in the high burden south. At the close of the year, 92 private outlets transitioned into the CMPE system.



61,124
FEVERS TESTED

10.6%

Of total fevers
tested in country
(public, private)



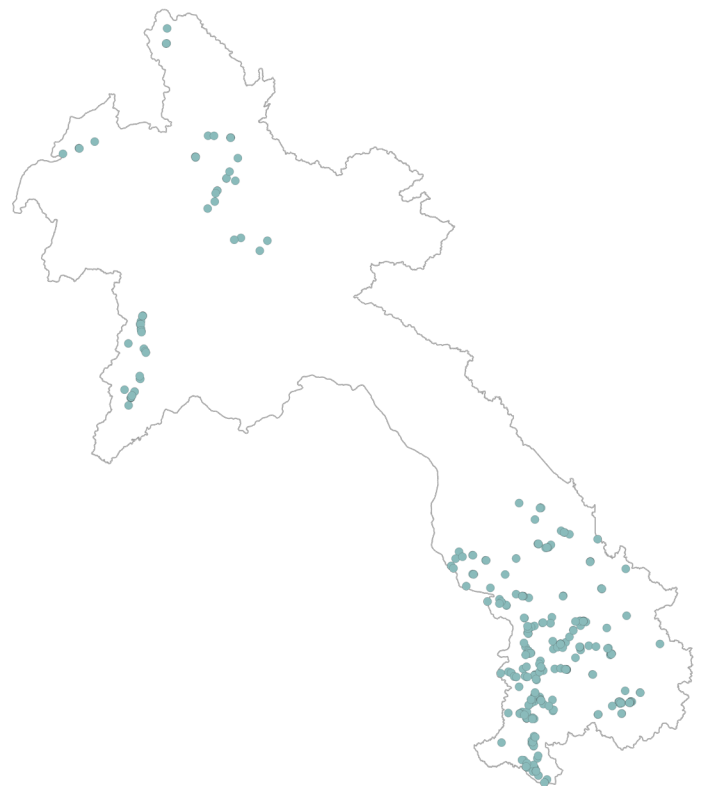
216
CASES DETECTED

6.2%

Of national reported
caseload detected
through PSI's networks

GEMS+ NATIONAL PROVIDER NETWORK

● Formal Providers / Clinics / Pharmacies



¹³ HMIS, Lao PDR National Data, January – December 2020, (hmis.gov.la/dhis-web-commons/security/login.action). Accessed January 22, 2021.

TRAINING, SUPPLY, SUPERVISION

Brief restrictions on domestic travel and in-person gatherings interrupted trainings and supportive supervision visits early in the year. During this lockdown period, PSI Laos coordinated supply delivery through district health offices to the network. Once the travel ban was lifted, GEMS+ recovered quickly, engaging CMPE in co-leadership of malaria case management trainings.

To ensure government ownership of supportive supervision, GEMS+ provided a budget to support CMPE, along with provincial and district health offices, to conduct supportive supervision visits to inspire outlets to contribute to the national malaria program. From October to December, PSI Laos accompanied district health office staff each month to renew contracts with the outlets and provide supportive supervision on malaria counselling, testing, treatment, referrals for serious cases, reporting via Facebook Messenger chatbot, and paper-based reporting. Of the 92 outlets transitioned, 16 in high burden settings will provide testing and treatment and will be supported by the public system. Those 76 outlets in low burden settings will refer suspected cases to the public sector, and support from the government will be limited to periodic monitoring that coincides with supportive supervision visits to public health centers located within close vicinity. There is some concern about how these outlets will manage without consistent supportive supervision after handover to the government, though their caseloads are minimal. GEMS+ plans to pilot a mechanism for tracking private sector referrals to the public sector in Year 2.

QUALITY ASSURANCE (QA)

In line with regional trends across GEMS+, 92.3% of the network in Lao PDR achieved a satisfactory QoC score. Common errors made by the few providers failing to achieve a minimum score of 80% included carelessness during the screening process, failure to provide enough counselling, and failure to safely dispose of the lancet immediately after testing. Next year, GEMS+ will pilot the HNQIS tool in the public sector. Results from the pilot will determine whether CMPE will adopt the HNQIS app into its QA management system or if CMPE will choose to deploy a different tool.

REPORTING

All GEMS+ network testing and case data was fully integrated into national malaria statistics. PSI worked with CMPE to ensure accurate village information was included in the data sent to the national HMIS for positive malaria cases seen in the GEMS+ network. This required updating the Facebook Messenger chatbot to label districts and villages according to the standard geocoded reference list used in the national HMIS, as opposed to entering free text which was inconsistent and prone to data entry errors.

NETWORK TRANSITION

PSI Laos transitioned 92 private outlets to the NMP at the close of 2020. The transition strategy in Lao PDR was thoughtfully designed to engage the government at the national level in co-owning elements of private sector support. Using performance and Annual Parasite Index (API) data, PSI Laos and CMPE identified 21% of the GEMS+ private sector network in 8 northern and 2 southern districts to transition under government oversight. Additionally, CMPE actively engaged in co-facilitating trainings and jointly conducting QA and supervision visits with PSI Laos, which served to prepare both the NMP and providers for handover.

- # Outlets currently part of the network
- # Outlets disassociated from the network
- # Outlets transitioned to National Malaria Program (NMP)





MYANMAR HIGHLIGHTS

GEMS+ managed an active network of 808 private sector outlets across two service delivery channels in Myanmar:

1. Sun Quality Health Network, who are qualified physicians, typically working in a clinic setting, and
2. Non-formal Private Outlets that consist of mobile drug vendors, drug shops, and general retail stores.

As GEMS transitioned to GEMS+, community health service providers were disassociated from the GEMS+ network. Starting the year with 4,216 outlets in the GEMS+ private network, PSI Myanmar disassociated 3,408 outlets from January – April and an additional 44 outlets at the close of the year that were inactive, closed, or no longer met the criteria for inclusion in a refined private provider network.

The GEMS+ network in Myanmar conducted 80,334 tests, identified 537 positive cases, and contributed to 1.16% of national caseload detection. Case detection was lower than the program target for 2020. This was in part due to operating within the pandemic context, which resulted in disruptions to private provider services and changes to health seeking behaviors. For example, nearly 60% of outlets in the Sun channel temporarily closed at some point in 2020. Among the service delivery channels, positivity rate is highest among non-formal private outlets (2.3%) and lowest among the formal Sun outlets (0.9%).



80,334
FEVERS TESTED

2.6%

Of total fevers tested in country (public, private)



537
CASES DETECTED

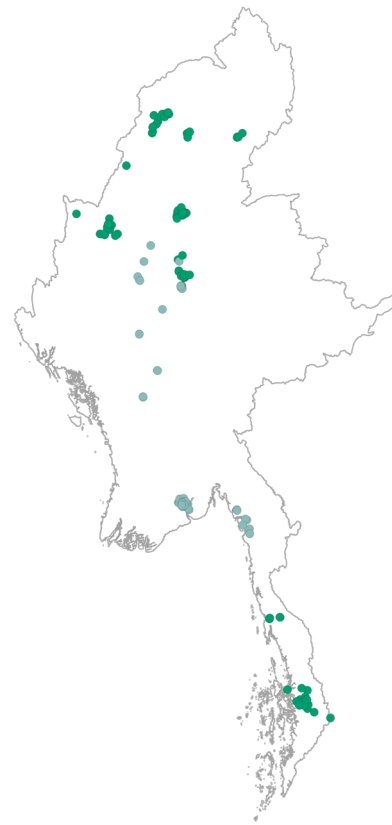
1.2%

Of national reported caseload detected through PSI's networks

GEMS+

NATIONAL PROVIDER NETWORK

- Physicians / Clinics
- Non-Formal Private Outlets





The higher positivity rate among non-formal outlets is attributed to higher numbers of testing suspected cases within high-risk communities and mobile testing (when travel was permitted). Myanmar experienced an unusual increase in *P. vivax* malaria cases from June–August in Kachin state and Thaninthayi regions. While these are outside GEMS+ provider operating areas, the PSI Myanmar team worked with the National Malaria Control Programme (NMCP) to conduct outbreak investigation and response including, reactive case detection, long-lasting insecticidal net distribution, and communication to raise awareness.

TRAINING, SUPPLY, SUPERVISION

National restrictions on travel and in-person gatherings essentially delayed planned refresher training activities until December. During mandated lockdowns, in-person malaria elimination activities were restricted to case investigation only. Some program activities such as provider training and a mystery client survey could not be implemented. However, PSI Myanmar continued to provide supportive supervision to providers remotely through phone calls and in-person visits when permissible. Commodity supply was monitored remotely and innovative arrangements such as the use of commodity drop-off points were used to minimize contact but maintain uninterrupted 3-month commodity supply during lockdown.

QUALITY ASSURANCE (QA)

The overall provider network met program targets to achieve a satisfactory QoC score, with some variation among the service delivery channels. 98% of the Sun channel achieved a satisfactory QoC score, which is attributed to the high levels of education and experience among providers in this service delivery channel. In the non-formal private outlet channel, 79% of providers achieved a satisfactory score.

REPORTING

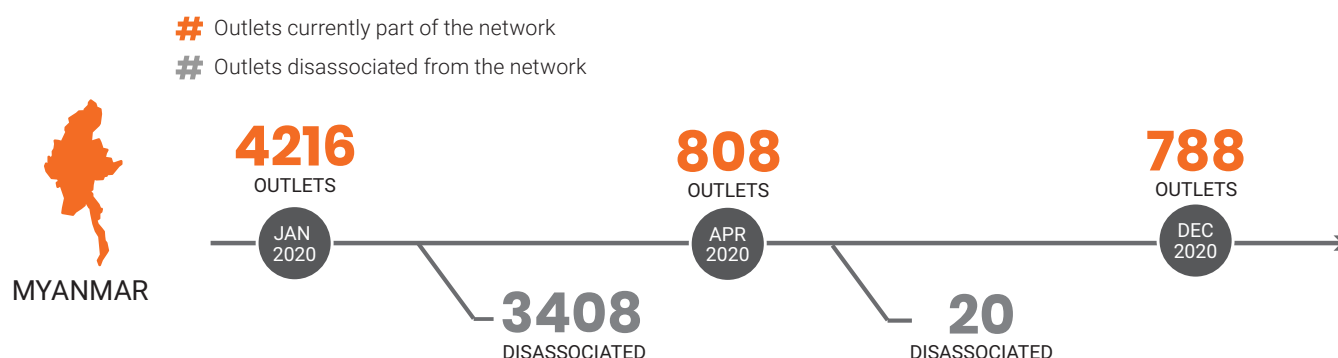
All GEMS+ testing and case data were integrated into the national surveillance system, however only 87% of the data from the private sector were reported to PSI in a timely manner. The variance is mainly due to the busy nature of the Sun channel providers, the impact of the pandemic on operations, and limited in-person contact with remote non-formal outlets that do not have access to mobile networks to send SMS notifications. In 2020, GEMS+ supported the development and successful piloting of a Facebook Messenger chatbot (similar to Lao PDR) used by the GEMS+ network to submit confirmed malaria cases. The chatbot includes automated SMS sent to local health authorities to ensure that they can rapidly follow up on each reported case. This initiative is co-funded by the Australian Government Department of Foreign Affairs and Trade (DFAT) Centre for Health Security (CHS), leveraging investments and the foundation built under GEMS and GEMS+ to improve private sector disease surveillance.

NETWORK TRANSITION

The non-formal outlets are a similar network to NMCP Integrated Community Malaria Volunteers (ICMV) system, in which some volunteers have medical trainings (e.g., auxiliary midwives), and all volunteers can provide integrated healthcare in line with government policy. NMCP and PSI Myanmar identified the ICMV system as the most suitable channel to integrate eligible non-formal private outlets. Eligibility criteria for integration included performance, willingness to participate in the government's volunteer system, and NMCP's capacity to take over network management. Location also influenced the selection of outlets to transition into the government-managed network, as national policy allows for only one ICMV per 300 households in a village.

By close of Year 1, PSI aligned 27 non-formal private outlets with NMCP's volunteer network. Though not fully transitioned, NMCP jointly provided training on the expanded disease management portfolio aligned with national strategy and supportive supervision to those providers converted to ICMVs. While progress towards full transition of providers to national oversight has been modest, 2020 featured a significant planning, advocacy, and preparatory phase. For example, within the Sun network, PSI

Myanmar and NMCP developed criteria for identifying which providers to transition using routine program implementation data and access to Mobile, Migrant, Ethnic, and Vulnerable populations. However, transition to NMCP's management oversight is being finalized as part of a comprehensive transition plan that includes working to identify the human and financial resources needed to integrate and sustain support to private providers.





VIETNAM HIGHLIGHTS

In 2020, 745 active private sector outlets in the GEMS+ network conducted 45,045 tests, identified 268 positive cases, and detected 18.59% of the national caseload. While no private outlets fully transitioned under government oversight, GEMS+ steadily refined the network to 655 private outlets by year end using data-driven targeting to identify outlets areas with high case detection.



45,045
FEVERS TESTED



268
CASES DETECTED



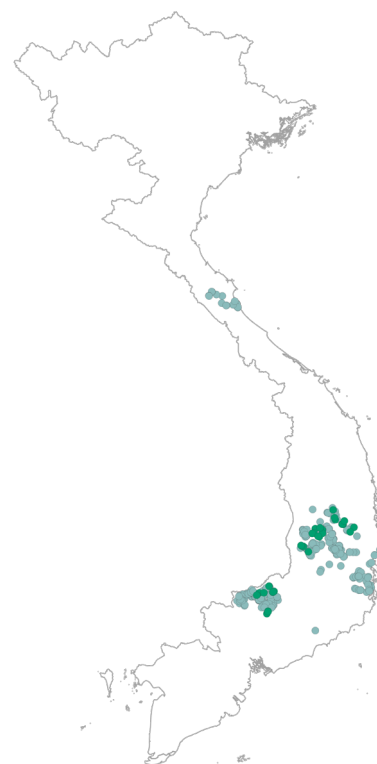
Of total fevers
tested in country
(public, private)

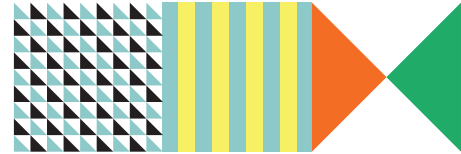


Of national reported
caseload detected
through PSI's networks

GEMS+ NATIONAL PROVIDER NETWORK

- Formal Providers / Clinics / Pharmacies
- Non-Formal Providers





ADVOCACY

Through PSI Vietnam's steady advocacy, the government's engagement in supporting and including the private sector in national case management systems exceeded expectations. A case control study was developed in collaboration with the National Institute of Malariology, Parasitology and Entomology (NIMPE), and GEMS+ secured the government's approval to pilot the distribution of Pyramax in Binh Phuoc and Dak Lak provinces, where antimalarial drugs resistance is over 10%.¹⁵ Additionally, the Ministry of Health formally incorporated the private sector into national training guidelines,¹⁶ which specifies

training on malaria for private sector, as well as RDT and antimalarial treatment distribution to private sector. PSI's advocacy efforts at the national and subnational levels contributed to the inclusion of the private sector in national training guidelines and commodity distribution mechanisms.

Building on achievements in both advocacy and engaging NIMPE to participate in private sector support, GEMS+ received approval from the Bill & Melinda Gates Foundation for an additional year of programming in Vietnam.

TRAINING, SUPPLY, SUPERVISION

The Provincial Centers of Diseases Control (CDCs) in Vietnam were very supportive and engaged in jointly providing training and supportive supervision for the GEMS+ network, with 85% of clinics trained and 92% of the entire network receiving supportive supervision. PSI Vietnam and provincial CDCs also worked closely together to ensure supply delivery to GEMS+ clinics and pharmacies and mitigate pandemic-related stock-outs.

QUALITY ASSURANCE (QA)

90% of the GEMS+ supported clinics achieved a satisfactory QoC score. A HNQIS pilot was conducted with pharmacies. Several revisions to the pharmacy pilot were needed, and the data was not included in the 90% figure in order to mitigate inconsistencies. During periods of restricted domestic travel, GEMS+ conducted supportive supervision and QA through

online channels such as phone and video calls to private clinics and doctors in place of in-person visits. When travel was permitted, GEMS+ introduced the HNQIS app to provincial CDC staff through joint visits at selected private clinics. Further training on deploying the QA tool will be provided to the provincial CDC staff in 2021, along with joint visits to private clinics and pharmacies selected to transition to government oversight.

REPORTING

100% of tests and cases detected by GEMS+ were reported to provincial authorities via 24-hour notification mechanisms and monthly provincial reports. 2020 witnessed better linkages between the provincial CDCs and GEMS+, with GEMS+ data integration into the national surveillance system increasing to 41% from 21% in 2019.

¹⁵ NIMPE data, 2019.

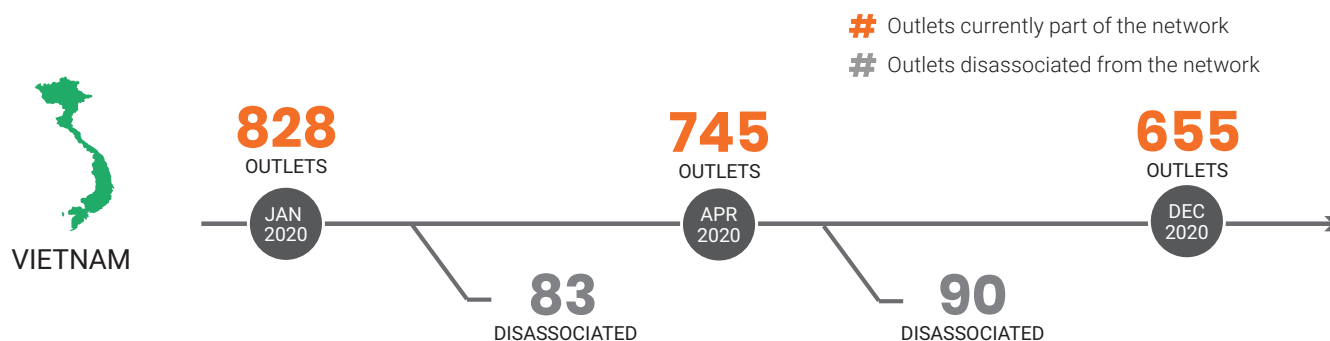
¹⁶ Ministry of Health, Decision No. 2657, Malaria Prevention and Elimination Plan in Vietnam 2021-2025.

NETWORK TRANSITION

GEMS+ made rapid progress coordinating with NIMPE and with provincial Departments of Health (DOHs) and CDCs to develop transition plans for clinics and pharmacies across 4 provinces.¹⁷ While no private outlets fully transitioned under government oversight, GEMS+ used data-driven targeting to refine the network by identifying outlets areas with high case detection. Starting the year with 828 outlets in the private sector network, GEMS+ disassociated 173 private outlets that were inactive, closed, or no longer met the criteria for inclusion in a refined private provider network.

Concurrently, GEMS+ engaged national and provincial malaria programs in co-leadership of commodity supply, training, QA, and supervision. Using the results from a provider motivation study, GEMS+ will support provincial DOHs and CDCs to co-define criteria to identify outlets to transition in 2021, including provider willingness, caseload, capacity to provide treatment, proximity to other clinics, proximity to epidemic zones, performance assessments, and commitment to work with the public sector.

17 Binh Phuoc, Dak Lak, Gia Lai, and Khanh Hoa.





LOOKING FORWARD

LESSONS LEARNED

Much like the rest of the world, the pandemic context challenged GEMS+ to be nimble and adapt programming to the shifting operating environment. Key lessons learned for initiating the handover of private sector network management to national malaria programs included:

- Identifying and supporting NMPs to secure resources (i.e., financial, HR).
- Securing NMP participation in actively engaging subnational malaria programs to integrate the private sector into local public systems.

In Myanmar, the emergence of political instability is further constraining an operating environment already significantly impacted by the COVID-19 pandemic. GEMS+ will continue offering full support to the private sector network in Myanmar as part of PSI's regular malaria programming. Further plans for network disassociation or transition will be developed as the situation unfolds.

PROGRAM EVALUATION

GEMS+ plans a more formal regional piece of research in 2021. In Lao PDR, the study aims to assess:

1. The extent to which the program is adopted by private providers.
2. The implementation of the transition process to NMP management, fidelity to the provider support model, and consistency of delivery.
3. The extent to which the transition plan under NMP oversight is maintained at the national and provider levels.

GEMS+ will use the results to inform the continued transition of the private sector network to public sector management, as well as make strategic decisions to optimize the transition implementation and achieve success in a real-world setting. Findings can be applied to other contexts where the global community of practice is exploring the role of private sector integration in achieving universal healthcare goals.

In Vietnam, the evaluation is intended to document and share the results of GEMS and GEMS+ activities in Vietnam from inception in 2015. GEMS+ will use the outcome harvesting (OH)¹⁸ methodology, which collects evidence of what has been achieved, and works backward to determine whether and how GEMS and GEMS+ contributed to the change. The evaluation is intended to identify the achievements and changes generated, produce evidence of the work carried out and validate them, and generate learning.

LEARNING AGENDA

GEMS+ will package the lessons learned and best practices generated under GEMS and GEMS+ into standard operating procedures (SOP) developed for engaging and managing private provider networks for NMPs in Lao PDR and Myanmar. In Vietnam, where PSI will phase-out of GEMS+ in 2021, the GEMS+ team will use the evaluation results to document project close-out and generate evidence outputs (i.e., such as case studies, stories of interest, etc.).

¹⁸ Developed by Ricardo Wilson-Grau, et al, in 2002. Outcome Harvesting (OH) is framed from the perspective of the International Development research Center Outcome Mapping (Earl, S. et al, 2001) and the Utilization Focused Evaluation proposed by Michael Quinn Patton (Patton, 2008, 2011).



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GEMS+ RESOURCES

- GEMS+ Malaria Surveillance Bulletin 2020
- Costing electronic private sector malaria surveillance in the Greater Mekong Subregion, published in the Malaria Journal.¹⁹
- PSI's learning brief on Adapting Private Sector Surveillance Strategies from the GMS to High-Burden Settings.
- PSI Cambodia's Private Sector Engagement in Malaria Case Management Toolkit

Stay tuned for exciting publications in 2021!

THANK YOU

The GEMS+ team is particularly grateful for the financial and technical support and continued flexibility of the Bill & Melinda Gates Foundation and for the continued partnership and collaboration of the National Malaria Programs in Cambodia, Lao PDR, Myanmar, and Vietnam, and the many committed malaria stakeholders in the region.

¹⁹ Levin et al. Malar J (2021) 20:192
(doi.org/10.1186/s12936-021-03727-w).

