HEALTHY COMMUNITIES
Improving Hypertension Care in Myanmar and Vietnam
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Healthy Communities began in January 2017, when international non-government organization Population Services International (PSI) and biopharmaceutical company Pfizer Inc. partnered to expand access to quality hypertension products and services in Myanmar and Vietnam. The project addressed care along each step of the consumer journey – Awareness, Screening, Diagnosis, Management, and Control – with the vision of incubating sustainable and scalable hypertension treatment models. Activities in Phase I (January 2017 – June 2018) uncovered market gaps and trends that informed the project’s priority activities under Phase II (July 2018 – September 2019).

Acknowledging that health impact occurs at the point of blood pressure control, and that treatment adherence is a key point of drop-off in the consumer journey but evidence supporting treatment adherence approaches is lacking, Phase II’s vision was refocused:

Through Healthy Communities activities and coordination of lessons from the community of practice, best practices for efficient and effective provision of quality hypertension services and treatment adherence support are identified and adopted by health care providers and policymakers, driving national progress towards universal health coverage (UHC).

Aligned with the project themes of sustainability, best practices, and evidence generation, this report highlights the important successes and lessons learned throughout Healthy Communities in Myanmar and Vietnam, plotted along the consumer journey.
ABOUT PSI

Population Services International (PSI) is a global health network of nearly 50 local organizations dedicated to improving the health of people in the developing world. Partnering across sectors and harnessing the power of markets, PSI provides life-saving products, services, and communications that empower vulnerable populations to lead healthier lives.

PSI/Myanmar has operated since 1995 and is one of the largest international non-governmental organizations in the country. PSI/Myanmar provides primary care services in 212 townships through the Sun Quality Health (SQH) franchise network, which is comprised of more than 1,250+ private medical doctors trained and monitored by PSI/Myanmar. SQH delivers quality public health services in the areas of family planning, sexual and reproductive health, malaria, tuberculosis, cervical cancer, gender-based violence screening, hypertension, and diabetes. Providers are supported by PSI through capacity building, commodities and equipment provision, medical record keeping improvements, and marketing and quality assurance services. PSI establishes referral linkages between primary care providers and private and public hospitals.

PSI/Vietnam is a nonprofit organization affiliated with PSI and registered in Vietnam since 2005. PSI/Vietnam implements programs through the private sector in collaboration with public sector partners to address cardiovascular disease prevention/hypertension, HIV/AIDS, malaria, reproductive health, and sanitation. In 2013, PSI/Vietnam began the franchise network Good Health, Great Life (GHGL), supporting independent clinics through training, quality assurance, job aids and other service delivery tools, and public health communications. As of August 2019, Vietnam’s GHGL network is comprised of 14 clinics in Hanoi, 32 in Thai Nguyen, 77 in Dong Nai, 75 in Dong Thap.
PROGRAM CONTEXT

Non-communicable diseases (NCDs) are the leading cause of global mortality, accounting for 71% of deaths, the large majority of which occur in low- and middle-income countries.\(^i\) Fifteen million of these deaths are “premature,” occurring between the ages of 30 and 69 years, during the most economically productive years of a person’s life thereby curtailing economic growth in countries where the chronic disease burden is high. NCDs have outpaced traditional global health areas like maternal and child health and communicable diseases to be the world’s largest contributor of disability-adjusted life years (DALYs).\(^ii\)

Cardiovascular disease (CVD) causes more NCD-related deaths than any other condition and is responsible for one-third of all deaths worldwide.\(^iii\) Hypertension, or persistently elevated blood pressure, is the single most important risk factor for CVD, causing roughly 50% of cases.\(^iv\) Blood pressure control through hypertension management is therefore crucial for reduction of CVD rates and progression towards global and national health goals.

Approximately one in three adults in low- or middle-income countries has hypertension, and rates are increasing.\(^v\) In Myanmar, estimates of hypertension prevalence range from 26% to more than 35%.\(^vi\) In Vietnam, 25% of the adult population is estimated to have hypertension.\(^vii\) In both countries, CVD is a top contributor of overall and premature death. Management of hypertension is critical to preventing progression to CVD; however, in Myanmar and Vietnam, hypertension awareness, diagnosis, and treatment rates are low.

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\(^iii\) Ibid.


Healthy Communities was designed to facilitate movement along the consumer journey, from awareness to either routine screening (if blood pressure is normal) or successful, continuous blood pressure control (if diagnosed with hypertension). In this instance, the consumer is the general adult population 40 years and older.

Consumer engagement occurs in different places for different people, and Healthy Communities explored multiple ways of connecting with consumers at different stages of their unique journey. For some, the entire journey from awareness to control occurs at the health facility; for others, awareness and screening is attained through community services and other channels, and their formal engagement with health care providers begins at diagnosis. Wherever engagement begins, consumers should have access to trusted information, multiple care access points, and skilled medical providers who provide quality hypertension services throughout their journey.

Based on lessons learned during Phase I, Phase II’s emphasis shifted from service delivery at the front end of the consumer journey (Awareness, Screening, Diagnosis) to evidence generation and pilot interventions at the points of greatest impact (Management and Control). Activities supporting each step of the journey continued throughout the project.
Since 2012, PSI has used social marketing and social franchising techniques to boost private sector contributions to CVD prevention through hypertension detection and management in Vietnam. Healthy Communities increased the scale, quality, and sustainability of these contributions, while testing innovative communications campaigns to support treatment adherence and blood pressure control.
“Numbers that Matter Most” Public Awareness Campaign

During Phase I, PSI used targeted consumer research to design visuals for the multi-channel public education campaign, “Numbers that Matter Most.” The campaign promoted blood pressure screening and included sets of messages specifically targeting men or women. In addition to 40 billboards in each of the four Healthy Communities provinces (Hanoi, Dong Thap, Dong Na, and Thai Nguyen), the campaign included signs outside pharmacies, a blood pressure and treatment tracking book for patients, clinic referral cards for individuals screened with elevated blood pressure at events and pharmacies, clinic posters, promotional materials hung from pharmacy ceilings, and buttons worn by health care providers encouraging patients to ask about their blood pressure. The Ministry of Health (MoH) endorsed and disseminated the campaign through its website, the official communication channel from the MoH to the general public.

“The numbers on your child’s exam matter to you. Have you checked your blood pressure number? Check your blood pressure today, to be a strong family provider tomorrow.”
"1 out of 4 adults in Vietnam has hypertension - the leading cause of stroke. Check your blood pressure today, to be a strong family provider tomorrow."

Referral cards for individuals screened at events

Signs placed outside pharmacies

Pharmacy ceiling dangler asking, "Do you know the number that matters most?"
New creative concepts were tested with a sample of target consumers. Once revised to reflect consumer feedback, they were placed on 30 billboards in each of Hanoi, Dong Thap, and Dong Nai provinces (Thai Nguyen was no longer included in the project in Phase II).
PSI piloted a pharmacy engagement model for hypertension screening. Private sector pharmacy operators were trained in blood pressure measurement and appropriate practices for referring a client to additional care; quality of these services was monitored throughout. This pilot illustrated a role for nontraditional health service providers as a means to capture historically difficult-to-reach populations – in this case, men who are unlikely to seek care through the formal health sector.

PSI held 234 community screening events during Phase I. By analyzing yield (% of total individuals screened who presented with elevated blood pressure) from each screening event, PSI deliberately selected locations for future screening events in order to reach more individuals with hypertension.

IDENTIFYING NEW CHANNELS TO IMPROVE REACH AND EFFICIENCY OF SCREENING
DIAGNOSIS & MANAGEMENT

Health Care Provider Training and Quality Assurance

A total of 380 doctors within PSI/Vietnam’s franchised Good Health, Great Life (GHGL) network of health care providers were trained in hypertension detection and management according to national and international best practices, and data reporting mechanisms. Following analysis of quality assurance (QA) data collected after training sessions, additional training was tailored to reinforce content areas with lower QA scores. Tools for clinical reference and services reporting were developed or updated to support trained providers and improve efficiency of data collection. PSI collaborated with the National Heart Institute, the National Non-Communicable Disease Department within the MoH, and Pfizer global medical teams to develop the tools.

**BEST PRACTICES IN HYPERTENSION MANAGEMENT**

**PREferred DRUGs IN SPECIFIC CONDITIONS**

<table>
<thead>
<tr>
<th>CONDITION</th>
<th>Diuretic</th>
<th>EED</th>
<th>ACEI</th>
<th>OR</th>
<th>ARB</th>
<th>CCB</th>
<th>ALDO ANTI</th>
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<td>Heart Failure</td>
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<td>Chronic Kidney Failure</td>
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</tbody>
</table>

1. Hydrochlorothiazide (DIUR) is the preferred diuretic drug. DIUR has contraindications in persons with genetic.
2. ARB is contraindicated in heart failure.
3. ACEI or ARB administration upon evaluation of blood test results for creatinine and potassium. ACEI and ARB contraindicated in pregnancy or women who may become pregnant and those with progressive renal or dialysis renal artery stenosis.
4. CCBs contraindicated in heart failure.
5. CCBs and ARB should be considered as monotherapy if dialysis or for a period of up to 1 year following a severe acute myocardial infarction.
6. ACEI or ARB should be considered as monotherapy if dialysis or for a period of up to 1 year following a severe acute myocardial infarction.

**DIAGNOSIS & MANAGEMENT**

**Diagnosis and treatment reference tool for health care providers, based on national and international guidelines**
Improving Quality of Care through Digital Tools

PSI’s digital QA tool, HNQIS, was updated to include a hypertension module. HNQIS is a tablet-based tool to improve quality of health services in private health care networks and manage and achieve health impact at scale. HNQIS is broken up into four distinct parts: Plan, Assess, Improve, and Monitor. Quality Assurance Officers bring the HNQIS app with them when they conduct quality assessments with health care providers and use the app to track how providers are delivering care to patients and their rates of improvement, and to schedule and prioritize additional monitoring.

Hypertension Medication Market Assessment

Healthy Communities built on previous PSI hypertension work in Vietnam, so the market assessment was targeted to address specific gaps in market intelligence and to complement the consumer and provider insights already in-hand. PSI carried out a retail scan of 96 private clinics and pharmacies in three provinces to collect data on the antihypertensive medication market. The scan revealed a fragmented market with highly variable prices. Availability varied by drug class: calcium channel blockers (CBBs) and angiotensin-converting enzyme (ACE) inhibitors were widely available; conversely, angiotensin receptor blockers (ARBs) and combination drugs were rarely available, with availability decreasing as price increased.
Blood Pressure Evaluation Study

PSI undertook the Blood Pressure Evaluation Study to document blood pressure levels and retention in treatment among clients diagnosed with hypertension at private sector GHGL clinics trained by PSI.

Out of 256 study participants, 32% attained blood pressure control by the third month; 75% by the sixth month. These control rates are promising relative to global averages – only 25% to 40% of individuals with hypertension on pharmacological treatment reach desired blood pressure levels.\(^i\) The evaluation highlights the potential for private sector, primary care health providers to contribute to improvements in cardiovascular outcomes by effectively managing hypertension among their clients.

Adherence Support

Using insights from the Blood Pressure Evaluation Study and aligning with Phase II’s emphasis on treatment adherence and blood pressure control, PSI developed a public awareness campaign to promote healthy lifestyle and treatment adherence.

The Patient Passport was designed to supplement information provided by the doctor to the patient and to empower those with hypertension to manage their condition. Using insights from consumers, doctors, and the Ministry of Health, the Patient Passport includes pictures and easy-to-follow treatment adherence guidance.

An opt-in text messaging campaign reminded individuals with hypertension to adhere to their treatment plan and make healthy lifestyle changes.

A napkin box distributed through affiliated clinics to individuals with hypertension includes messaging supporting treatment adherence, tips for healthy cooking, and other suggestions for managing hypertension.

“Is he safe from stroke?” promotional materials address the misconception that an individual with hypertension can sense when their blood pressure is high, and this is when they should take medication. Messages encourage treatment adherence and emphasize that hypertension is a “silent killer,” often presenting with no symptoms at all.
KEY ACHIEVEMENTS

60,396 ADULTS diagnosed with hypertension

62,586 ADULTS following a hypertension treatment regimen

220 PHARMACISTS trained in hypertension screening and referral

380 DOCTORS trained in hypertension detection and management

2,271 ADULTS referred for additional care by pharmacists

77,040 INDIVIDUALS reached through communications campaigns (billboards, bus ads)

740,753 INDIVIDUALS reached through information and education materials placed at private clinics and pharmacies
PSI performed an in-depth analysis of the hypertension market and identified gaps and opportunities for improvement. Subsequent Healthy Communities activities were designed to address these weaknesses and strengthen the hypertension market.
SUMMARY ASSESSMENT FINDINGS

PRODUCTS
The medication market was diffuse and highly fragmented. Prices for the same medication class varied widely across manufacturers and quality assurance was dubious. While common hypertension drugs tended to be available, they were often not affordable as daily, long-term treatment. Combination drugs had the highest prices and lowest availability.

PEOPLE
The consumer journey map revealed a large drop-off between diagnosis and treatment and between treatment and blood pressure control. Consumer insights elucidated each step of the journey. Notably, weak referral mechanisms contributed to lower rates of diagnostic measurement and treatment planning; long-term treatment and consumer preferences for more expensive brand names resulted in unaffordable out-of-pocket costs; affordability and awareness of the need to diligently manage hypertension led to low treatment adherence rates.

PROVIDERS
Continuing medical education (CME) for quality hypertension care was not required for health providers and rarely available. There were no nationally endorsed guidelines for hypertension so doctors relied on various international guidelines of their choosing. Doctors often prescribed short doses of medication, necessitating frequent medication purchases and contributing to low adherence rates.

USING THE MARKET ASSESSMENT DATA, PSI ASSEMBLED AN “IDEAL VS. ACTUAL” CONSUMER JOURNEY CONTRASTING THE DESIRED PATH THROUGH HYPERTENSION CARE WITH THE MORE REALISTIC ROUTE AND ITS ROADBLOCKS, PRESENTED ON THE FOLLOWING PAGE.
Aware of hypertension and understands as a chronic condition
• Knows risk factors and when/where to get screened
• Recognizes hypertension as a risk factor for other serious conditions

CONSUMER

LIMITED KNOWLEDGE
• Some are aware of the association between hypertension and a high-salt diet
• Common misperception that hypertension “comes and goes”

CONSUMER

Inadequate hypertension health information from trusted sources available

CONSUMER

Some providers do not counsel effectively on the importance of adherence
• Many providers lack sufficient training on counseling

PROVIDER

Medications are often unaffordable for long-term treatment
• Wide availability of drugs available, but only a few are prescribed
• Poorly enforced regulations for dispensing medications
• Prescriptions often not required for medication purchases

CONSUMER

Most providers do not counsel effectively on the importance of adherence

PROVIDER

Providers do not counsel effectively on the importance of adherence

CONSUMER

PSI Healthy Communities
Consumer Materials

PSI designed consumer-oriented materials, including a hypertension information pamphlet for clinic waiting areas and clinic posters encouraging blood pressure screening. A small pouch emblazoned with the Healthy Communities logo and a message about blood pressure screening was also provided to clinic clients as a promotional gift.
In 2019, PSI launched the Happy Healthy Myanmar hypertension Facebook campaign targeting people 35 years and older. Over 3 months, the campaign reached 811,922 users, accumulated 904 comments, had 10,486 posts shared, and responded to or referred 84 hypertension questions sent over Facebook Messenger.
PSI hosted World Hypertension Day events throughout the project. In 2018, more than 450 people attended the outdoor celebration in Yangon. Many took advantage of the blood pressure screening services and participated in a guided exercise class. In 2019, the event’s popularity swelled, with over 1000 participants in Yangon and 650 in Mandalay. Activities included blood pressure and anthropometric assessments, guest speakers from the Regional Government and Regional Health Department, a guided exercise class, and 2.5-kilometer walkathons.
Clinical Guidelines

The hypertension market analysis revealed inconsistencies in health care provider practices and quality, in part due to lack of nationally endorsed clinical guidelines. PSI partnered with Dr. U Ko Ko, a medical doctor, professor and Head of the Endocrinology Department of the University of Medicine 2, Yangon, and representative of the Myanmar Ministry of Health and Sports (MoHS) to develop clinical guidelines for detection and treatment of hypertension in adults for private sector health providers. In collaboration with the Myanmar Medical Association (MMA), new guidelines were endorsed and disseminated in October 2018.
HEALTH CARE PROVIDER TRAINING AND QUALITY ASSURANCE

With support from the MMA and Dr. U Ko Ko, PSI hosted in-person training events for 255 health care providers in hypertension detection and management. Monthly supportive supervision visits reinforced training and a QA checklist for hypertension services was deployed. An additional 53 clinic assistants, 28 community volunteers, and 10 pharmacists were trained in hypertension screening and referral.

ONLINE CONTINUING MEDICAL EDUCATION

Continuing medical education (CME) for hypertension is not required and hard to come by in Myanmar, and in-person trainings can be costly and take doctors away from their practice for a period of time. To expand the reach, efficiency, and convenience of trainings, PSI developed a hypertension CME module on the online platform, Degreed.

By August 2019, 83 SQH providers were enrolled in the course and 23 had completed it. Provider feedback reflects the success of the platform:

“Since Degreed is an e-learning platform, I can attend the online course anytime and anywhere I want. Especially for doctors like us who live quite far from the city, online courses are more convenient and efficient rather than going to the city to attend training and workshops.”

“The course is very simple and easy to learn. Also, the platform itself is very user-friendly.”

Screenshot of online hypertension CME module
With local tech partner Koe Koe Tech, PSI developed and launched the Sun Clinic Management Information System (CMIS) in 2017. The CMIS replaced handwritten ledgers and lengthy data record forms with a streamlined, digital interface. Providers reported that the module supports their clinical practice and decision-making because they can track the client’s control status and treatment compliance. Additionally, the CMIS easily calculates cardiovascular risk, eliminating the need for charts and calculations by hand. Hypertension is the first CMIS module; additional modules, including those for monitoring tuberculosis and anti-retroviral therapy, are planned.

Screenshots of the hypertension CMIS module
Mirroring PSI Vietnam’s adherence support strategy, PSI developed a Patient Passport specifically for the hypertension patient population in Myanmar. The Patient Passport, which provides information on hypertension and tables to track blood pressure measurements, is available from PSI-trained doctors.

PSI performed a Patient Passport evaluation among individuals with hypertension who received the Patient Passport from their doctors. Notably, blood pressure tracking rose from 19.5% to more than 62% after receiving the Patient Passport and the majority of respondents found the tool easy to use.

Cover and excerpts from the Patient Passport
ADHERENCE AND CONTROL EVALUATION

An evaluation was conducted to assess the program’s success in keeping patients in care and their blood pressure controlled. 618 patients with hypertension registered at SQH clinics were recruited as the initial cohort. Of these, 591 were included in the baseline assessment, 589 completed the first follow-up at 1 month, and 545 completed the second follow-up at 2 months.

At baseline, 582 (98.5%) participants reported a history of hypertension or high blood pressure, 39% of these patients had their blood pressure controlled. At the first follow-up, 49% of 589 patients had their blood pressure controlled; at the second follow-up, 52.5% had their blood pressure controlled. In this study, control is defined as systolic blood pressure less than 140 mmHg and diastolic blood pressure less than 90 mmHg.

Participant household socio-economic data were collected and organized into wealth quintile distributions. An association of increased adherence with increased wealth was observed, with 14.3% adherence in the lowest wealth quintile and 26% in the highest.

These results indicate increased adherence over the course of engagement with the Healthy Communities program. Association between wealth and adherence also seems to echo the issue of long-term treatment affordability identified in the patient journey. Using these insights, PSI will continue to educate and engage patients and explore ways to reduce the financial burden of long-term care.
KEY ACHIEVEMENTS

282,052 ADULTS screened for elevated blood pressure. (226,431 by SQH; 51,551 by community workers; 4,070 by pharmacy operators)

99,961 ADULTS diagnosed with hypertension by SQH providers

4,954 ADULTS referred to SQH by community workers and pharmacies due to elevated blood pressure

74,734 ADULTS following a hypertension treatment regimen

255 DOCTORS trained in hypertension detection and management
Healthy Communities yielded key insights in hypertension market dynamics, consumer and health care provider motivations, and strategies for cardiovascular health impact.

The Patient Passport has been an effective management tool in both Myanmar and Vietnam, so PSI has taken consumer and provider insights on the Patient Passport in each country and developed a global tool that can be translated and adapted for use in any of PSI’s 50+ country platforms.
For more information on Healthy Communities country platforms and activities, please contact:

**Dr. Han Win Htat, PSI Myanmar**  
hwhtat@psimyanmar.org

**Nguyen Thi Le Hoa, PSI Vietnam**  
hoanguyen@psi.org.vn

For information on partnership opportunities and PSI’s work around the world, please contact:

**Cat Normile, Corporate Partnerships, PSI**  
cnormile@psi.org