Cultural sensitive Community capacity building for prevention and control of NCDs

GACD number SU 02

Presentation Workshop
Community based NCD prevention and control: what can we learn from research in South East Asia?
European Public Health Conference 2021

Zinzi Pardoel & Vitri Widyaningsih

Scaling-Up NCD Interventions in South-East Asia (SUNI-SEA) project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825026.

Background

- In Southeast Asia, screening for NCDs and promoting healthy behaviour in Community-based health interventions (CBHIs), aiming to reduce health risk behaviours

- CBHIs an effective way to modify behavioural change and increase the prevention, management and care of NCDs.

- CBHIs promote health effectively when tailored to sociocultural aspects linked to health perception, for instance the local language, religion and traditions.

Objectives

- To develop a checklist for contextual adaption of CHBIs based on a conceptual framework

- And a guideline for application of the checklist

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Methods

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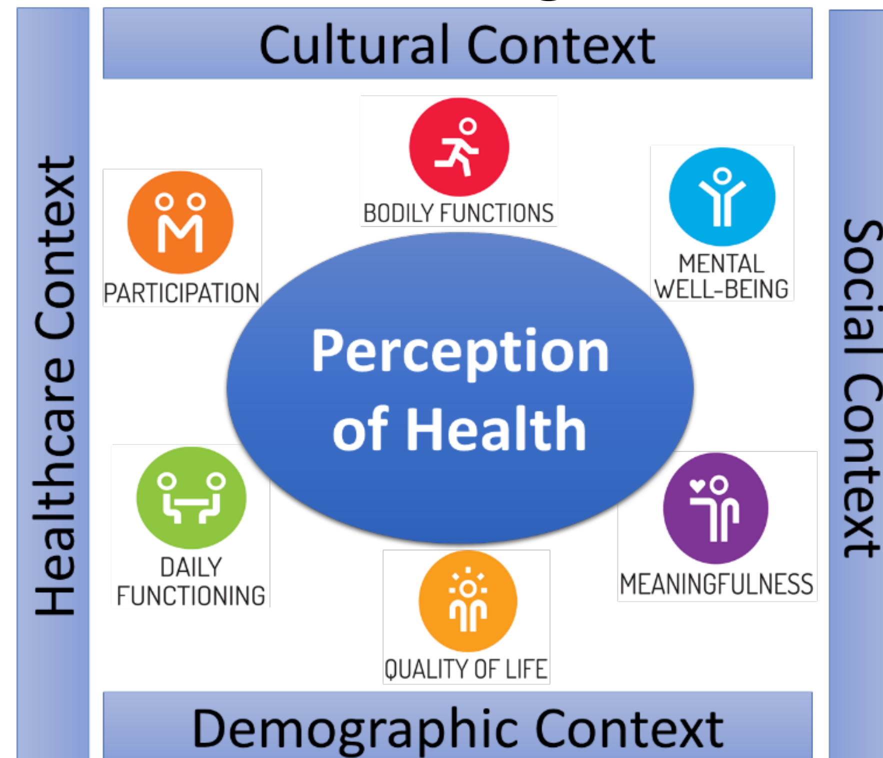
1. Development of a checklist for mapping cultural and contextual aspects: A **literature review** based on the conceptual framework of positive health and its determining contexts



Methods

2. Development of a guideline for application: **Participatory Action Research approach**, shaping co-creation, e.g. collaborative knowledge generation by academics working alongside other stakeholders.

Co-creation by (n=28):

Informal meetings, e-mail consultation, stakeholder meetings and a expert review meeting with stakeholder involved in frontline development, research, implementation of CHBIs and country directors of NGOs

The guideline was **pilot-tested.**

Results

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Development of a checklist for mapping cultural and contextual aspects

Results

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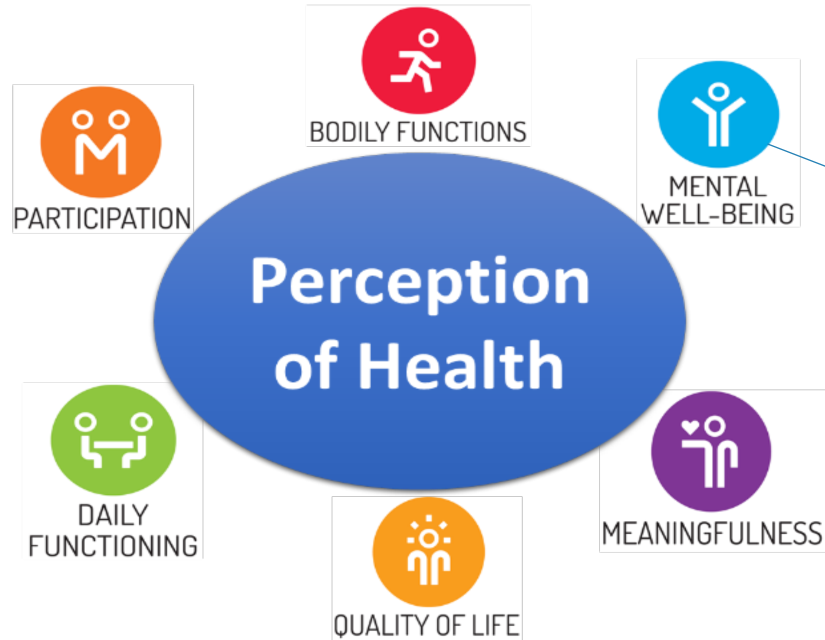

Emotional expression is commonly considered as personal weakness, which can contribute to stigmatization of mental illness. The stigma is also grounded in the practice of Buddhism, which is predominant and considers mental illness a suffering caused by one's own misdeeds in the past. Moreover, in South-East Asia the number of persons exposed to extreme stressors is large, due to humanitarian crisis related to mainly natural disasters.	Stigmatization of mental health main issues identified and discussed Psychological stress sources identified and discussed

Results

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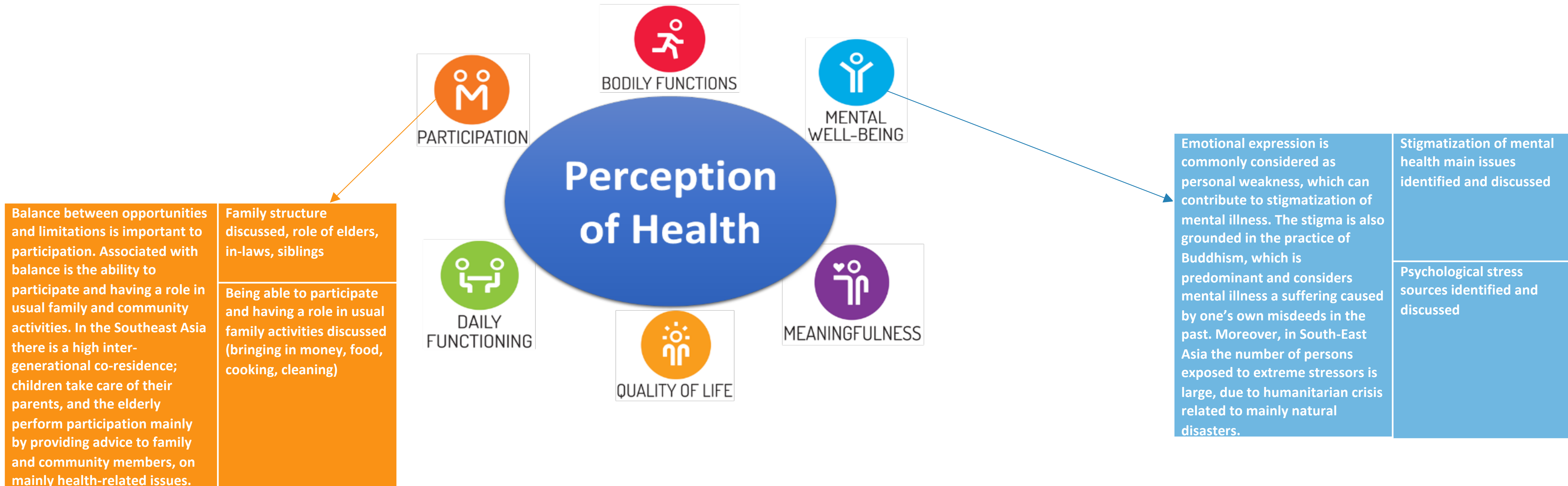

Results

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Development of a guideline for application

- Co-creation: Overlapping views and ideas from stakeholders
- Insight in culture and context of the end-users, which is especially helpful when developing a new intervention or an intervention is implemented in another area or with other target users

Results

"The guideline can be used broader, not only for a health focus or topics. For example, disaster reduction, it should also be culture and context sensitive. Often we use or reference to materials from other countries, and we forget that we have a different context and a different culture."
(Participant from The Philippines)

"When implementing a training in a rural area and then in an urban area, there are differences between the target groups. With the guideline we revised the training to make it more fitting with the local context. This can also be helpful when a training is adopted in another country."
(Participant from Vietnam)

Pilot testing in Indonesia

The checklist was used in pilot training of NCD screening for health officials and cadres

→ Pilot training was conducted in Central Java Indonesia, 16 participants (8 cadres and 8 health officials from PHC and health department)

→ Adoption of the checklist to cadres and PHC officials

FGDs was also conducted to explored their experience

→ Revisions in the training materials as well methods of training to better accommodate trainee, improve participation, and effectiveness

→ Incorporation of traditional/local wisdom for NCD management

The use of local language in the training, mixed with national language

→ Implementation of improved training materials and methods (to be conducted on December)

Thank you

Questions?

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Strengthening community self-help clubs in Myanmar and Vietnam for health and wellbeing

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SUNI-SEA creases synergies between communities and PHC facilities

Government and NGO funding Health

Social Health Insurance Funding

Poverty Reduction Social Protection

Screening

Health Promotion Prevention

Community

Posibindu (Indonesia)
Posiandu (Indonesia)
OPSHG (Myanmar)
ISHC (Vietnam)

Lifestyle Inter-ventions

Early Diagnosis

Primary Healthcare Facility

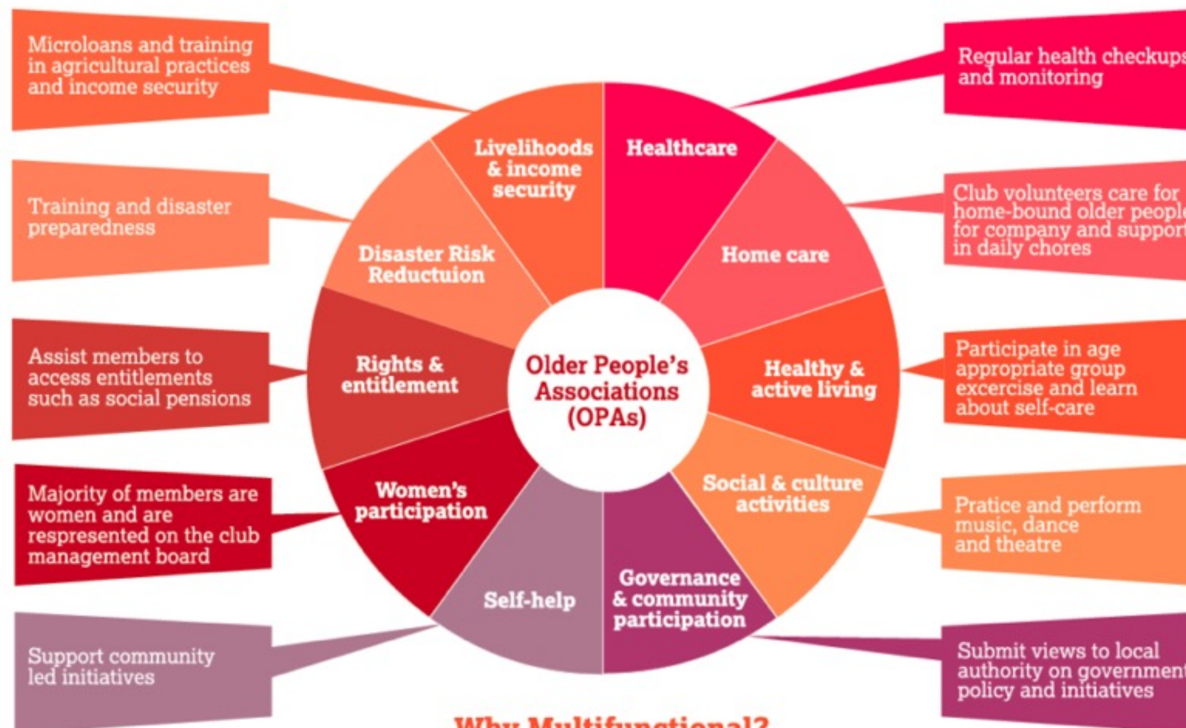
Puskesmas (Indonesia)
Township Clinic (Myanmar)
Commune Health Station (Vietnam)

Medical Treatment

Health Sector Reforms - Decentralisation

Communities play a key role in health promotion, prevention, screening for NCDs and lifestyle interventions in SUNI-SEA

In Vietnam and Myanmar ISHCs community groups are focus in project



Intergenerational solidarity clubs

- ISHGs follow the OPA model developed by HelpAge
- Clubs aim at socioeconomic resilience of members with income-generating, social contacts, care for vulnerable
- Health is an integrated part of the activities of the clubs

Self reliance as main approach in establishing ISHCs

- Guidance on composition: ensure participation of women and vulnerable groups
- Capacity building at the start up of the clubs
- Seed money for club activities, also for loans to members
- Some equipment for clubs
- Clubs manage themselves

Health related activities in clubs

- Screening by volunteers from communities: identifying risk factors and taking anthropomorphic measurements
  - Twice per year
- Joint cooking and discussing healthy foods
  - Gardening in some places
- Joint physical activities
  - Walking
  - Gymnastics

Analysis of the clubs activities

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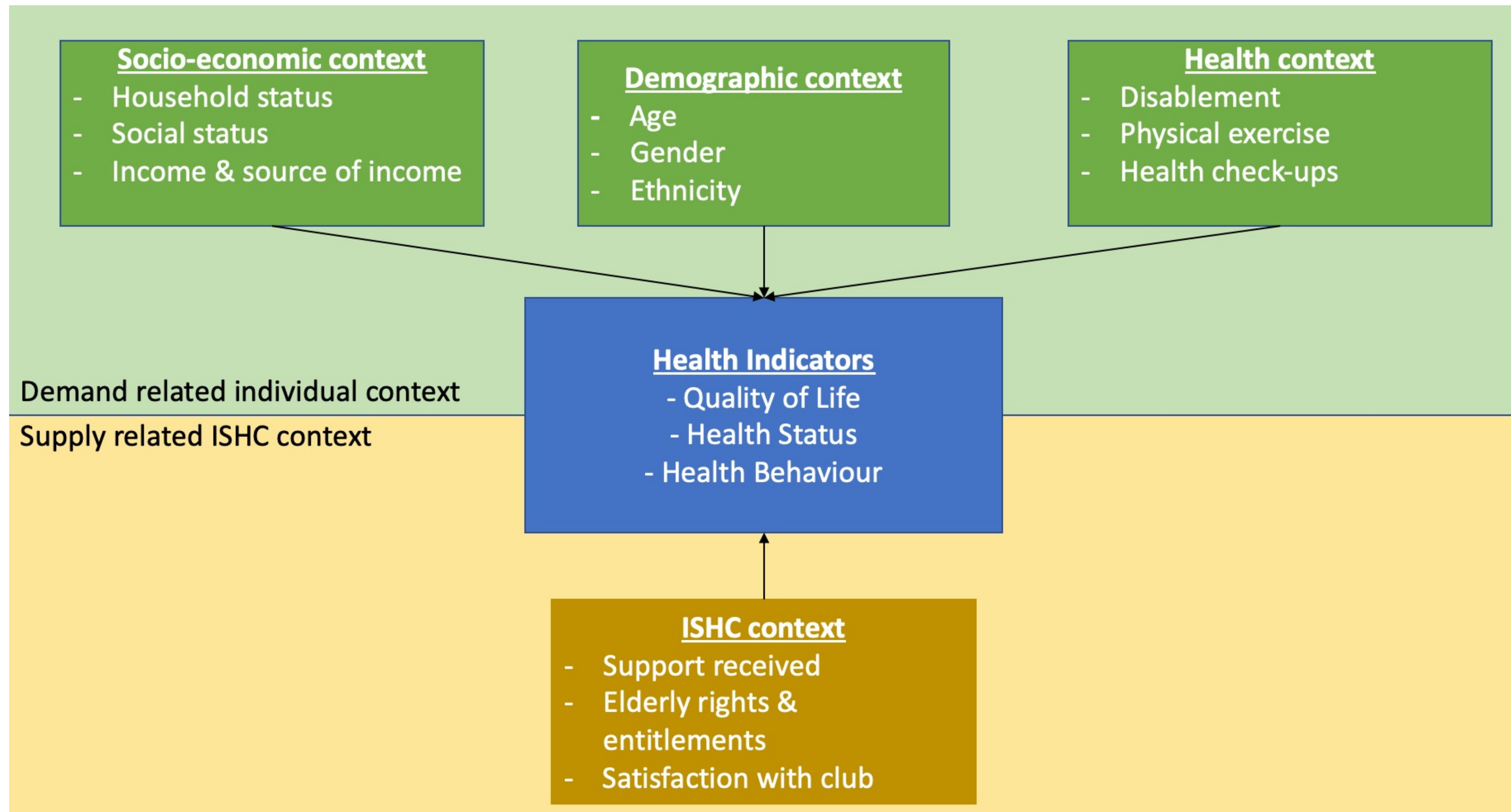

- Demand: Factors on the side of the participants, socioeconomic, demographic health needs
- Supply: Factors on the side of the clubs, what they offer to participants

Analysis of 159 ISHCs in Vietnam

8647 members, period of three years (2018, 2019,2020)

Overall: high scores for quality of life and for self-rated health status, but still better scores for people with higher socioeconomic status

Demand factors

- High participation of women, of older people, of poorer families
- High participation by people who got tangible support (e.g. loans or community care)
- It took longer for minority groups to achieve results, but in the end they achieved equally good results

Supply factors

- Integrating health activities in socioeconomic and cultural activities increases satisfaction
- More than two health checks per year does not add value
- Quality of screening, health education, and counselling requires further attention

Conclusions analysis ISHCs

- Self reliant clubs after support during start-up, is sustainable approach
  - Leadership capabilities need to be built
  - Tangible solidarity between members is valuable (inclusion vulnerable groups)
- Integration of health topics with socioeconomic and cultural activities works well
  - Health becomes part of wellbeing
  - People becoming more confident, depending less on professionals
- Trickle-down effect in communities
  - Others in communities see positive effects and copy elements (e.g. lifestyle)

Thank you for your attention

Questions to:

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Patient journey as tool for measuring effectiveness and cost-effectiveness of community health interventions

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(Cost-)effectiveness of PHC and community care

- Limited evidence on costs and benefits of interventions in LMICs
- Most prevention programs focus on healthcare setting, not reaching citizens without access to healthcare services
- Linking primary care with community support is essential to reach this population for health promotion, prevention, screening for NCDs and lifestyle interventions
- Highly (cost-)effectiveness and efficient in LMICs
  - service delivery of healthcare interventions (e.g., shifting the point of care)
  - improvement of the health workforce (e.g., capacity building of healthcare workers)
  - improvement of health information (e.g., monitoring of patients and people at risk)
  - health financing (e.g., community-based insurance system)
  - and safety and quality of existing interventions
- Adjusting existing interventions or tailoring new interventions to its local context within the field of NCD related supply of prevention and treatment

→Public health return-on-investment 14:1

As strong as the weakest link

Financing | Governance

- Service delivery (incl. patient centred intervention)
- Human resources
- Health information systems
- Essential medicines

Output → Health System
Access: 75%
Quality: 40%
Safety: 100%

Outcome → Prevalence risk behaviours and factors
Coverage of interventions

Impact → Morbidity and mortality

Financing | Governance

- Service delivery (incl. patient centred intervention)
- Human resources
- Health information systems
- Essential medicines

Output → Health System
Access: 10%
Quality: 100%
Safety: 100%

Outcome → Prevalence risk behaviours and factors
Coverage of interventions

Impact → Morbidity and mortality

DM/HTN situation in SEA (Vietnam, Indonesia, Myanmar)

	Vietnam	Indonesia	Myanmar
Prevalence of diabetes and pre-diabetes	11.5% and 52.9% (2017)	8.5%, … (2018)	10.5%, 19.7% (2019)
Prevalence of undiagnosed diabetes and pre-diabetes	8.1% and 50.1% (2016)	30%, … (2018)	7.6%, N/A (2019)
Source(s)	1, 2	3	4

References:
(1) Ton TT, Tran ATN, Do IT, et al. Trends in prediabetes and diabetes prevalence and associated risk factors in Vietnamese adults. *Epidemiol Health*. 2020;42:e2020029. doi:10.4178/epih.e2020029
(2) Nguyen VD, Vien QM, Do TH, Phan CD, Nguyen HC, Nguyen VT, et al. Prevalence of undiagnosed diabetes and pre-diabetes and its associated risk factors in Vietnam. J Glob Health Sci 2019; 1: e7.
(3) http://ghdx.healthdata.org/record/indonesia-basic-health-research-2018
(4) Latt TS, Zaw KK, Ko K, et al. Measurement of diabetes, prediabetes and their associated risk factors in Myanmar 2014. *Diabetes Metab Syndr Obes*. 2019;12:291-298. Published 2019 Mar 4. doi:10.2147/DMSO.S156270

SUNI-SEA increases synergies between communities and PHC facilities

Training for Community Health Volunteers

Communities Health Volunteers supporting in identification of risk for NCDs

Using software such as DHIS2

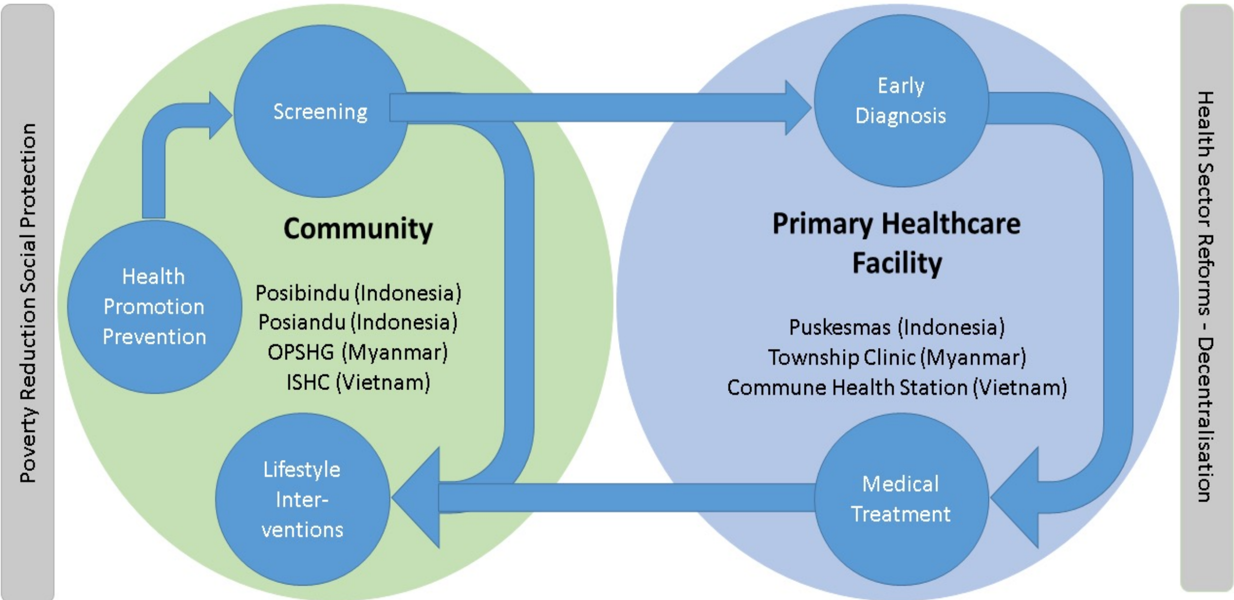
Self care model with health information in app

Improving knowledge (with health promotion)

Communities Health Volunteers supporting in lifestyle changes

Monitoring improvements (behavioral change, metabolic changes)

Communities Health Volunteers support in monitoring at risk individuals and ensuring they visit facilities



Communities Health Volunteers support in monitoring diagnosed individuals and ensuring good practices (treatment adherence, check-ups, etc.)

Strengthening capacity of health providers by soft skill capacity building

The potential public health and economic value of a hypothetical COVID-19 vaccine in the United States: Use of cost-effectiveness modeling to inform vaccination prioritization

Table 3
Base case population-level outcomes under various vaccine supply scenarios.

Vaccine supply scenario	Vaccination strategy	Deaths		Hospitalizations		Det[illegible]		Costs (millions)		
		Annual number	Difference from no vaccine	Annual number	Difference from no vaccine	[illegible]	[illegible]	Hospitalizations	Vaccination	Total
No vaccine	**n/a**	**264,602**		**726,115**		**3,601,[illegible]**	[illegible]	[illegible]	[illegible]	**$20,628**
Low	No priority	221,785	−16%	621,556	−14%	3,171,221	[illegible]	[illegible]	[illegible]	$28,476
Low	Occupational/ age-based	210,668	−20%	604,383	−17%	3,156,372	−12%	[illegible]	[illegible]	[illegible]
Low	Age-based	204,253	−23%	595,040	−18%	3,149,627	−13%	[illegible]	[illegible]	[illegible]
Low	Risk-group-based	204,298	−23%	594,838	−18%	3,153,147	−12%	[illegible]	[illegible]	[illegible]
Medium	No priority	207,305	−22%	586,539	−19%	3,028,438	−16%	$16,657	[illegible]	[illegible]
Medium	Occupational/ age-based	198,237	−25%	572,768	−21%	3,017,299	−16%	$16,263	$10,823	[illegible]
Medium	Age-based	194,092	−27%	566,570	−22%	3,011,973	−16%	$16,085	$10,823	[illegible]
Medium	Risk-group-based	194,131	−27%	566,463	−22%	3,014,785	−16%	$16,087	$10,823	$26,910
High	No priority	187,591	−29%	539,108	−26%	2,835,583	−21%	$15,307	$10,823	$26,130
High	Occupational/ age-based	182,097	−31%	529,569	−27%	2,821,455	−22%	$15,030	$10,823	$25,854
High	Age-based	181,526	−31%	528,585	−27%	2,819,933	−22%	$15,002	$10,823	$25,825
High	Risk-group-based	181,412	−31%	527,716	−27%	2,821,040	−22%	$14,983	$10,823	$25,806
Immediate	No priority	179,775	−32%	520,452	−28%	2,760,399	−23%	$14,776	$10,823	$25,599
Immediate	Occupational/ age-based	179,775	−32%	520,452	−28%	2,760,399	−23%	$14,776	$10,823	$25,599
Immediate	Age-based	179,775	−32%	520,452	−28%	2,760,399	−23%	$14,776	$10,823	$25,599
Immediate	Risk-group-based	179,775	−32%	520,452	−28%	2,760,399	−23%	$14,776	$10,823	$25,599

n/a, not applicable.

Constrained supply means smarter decisions of demand

Source: Kohli et al. 2021

Objective

- Matching the chronic care pathway (patient journey) of the country specific demand with possible improvements of the supply side of the health care system in place could help improve the (cost-)effectiveness and efficiency.
- Aim: To get more insight into the demand, services and outcomes of NCDs in Southeast Asia we identified the patient journeys and related methodology to evaluate (cost-)effective interventions for identifying individuals with high risks for developing NCDs, early treatment and lifestyle interventions, which fit in local cultures and health systems.

A model, why?

As illustrated in the previous diagram, Myanmar, Vietnam, and Indonesia aim for a stronger interlinkage between primary and secondary health care as well as between health facilities and communities – to reduce costs and provide synergistic effects to interventions.

Matching the chronic care pathway (**patient journey**) of the country specific demand with possible improvements of the supply side of the health care system in place could help improve the (cost-) effectiveness and efficiency.

To get more insight into the demand, services and outcomes of NCDs in Southeast Asia we aim to **model the patient journey** and evaluate the (cost-)effectiveness of interventions that fit in local cultures and health systems.

Why do we use a model?

→ Evidence on (cost-)effectiveness of prevention and treatment interventions targeted at NCDs, such as diabetes and hypertension, is scarce in Southeast Asia.

→ Due to COVID-19, interventions were delayed, which lead to difficulties in measuring impacts directly (e.g., clinical impacts, QoL) as planned.

→ A mathematical model can help in predicting impacts of increases in demand on services, based on specific interventions, and ultimately outcomes.

A framework for the model – generic health service operations framework

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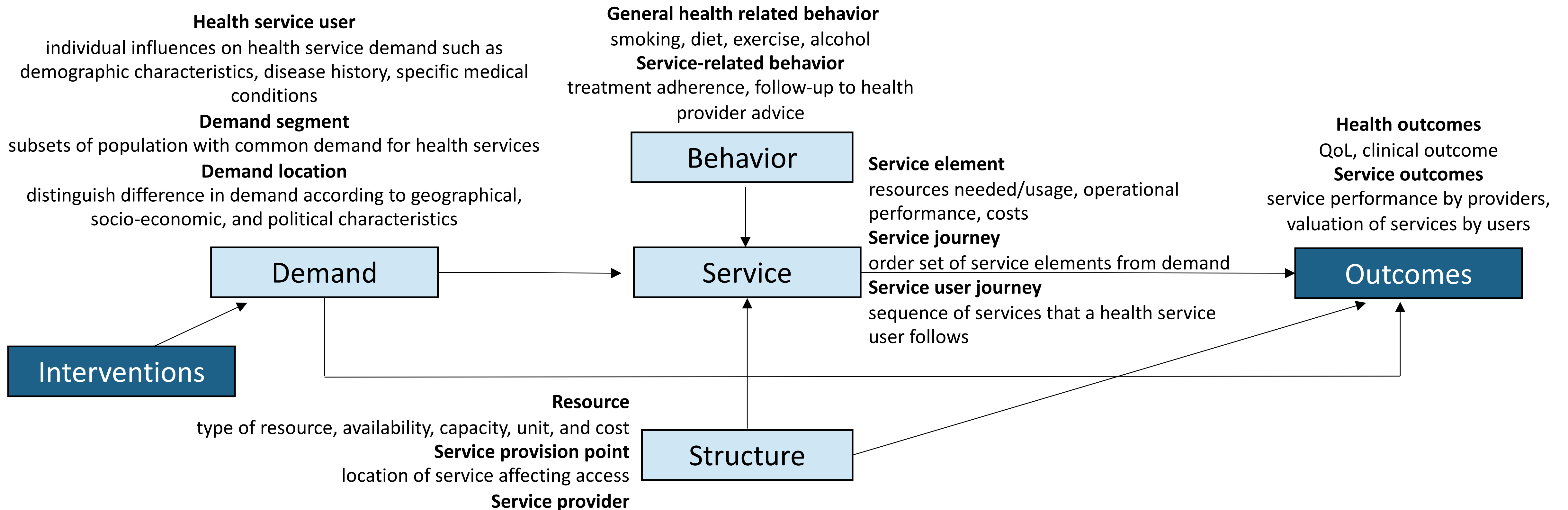

Reference: *Elkhuizen SG, Vissers JMH, Mahdavi M and van de Klundert JJ (2020) Modeling Patient Journeys for Demand Segments in Chronic Care, With an Illustration to Type 2 Diabetes. Front. Public Health 8:428. doi: 10.3389/fpubh.2020.00428*

Take Away Message

Fitting supply of care to local demand will enhance:

- Efficiency and cost-effectiveness of care
- Impact of health interventions
- Sustainability of care

Thank you for your attention

Questions?

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