Advancing public health through self management of chronic conditions

Mark Harris Centre for Primary Health Care and Equity, UNSW April 2024

NGURANG DALI MANA BURUDI

A PLACE TO GET BETTER

Acknowledgement of Country

Artwork

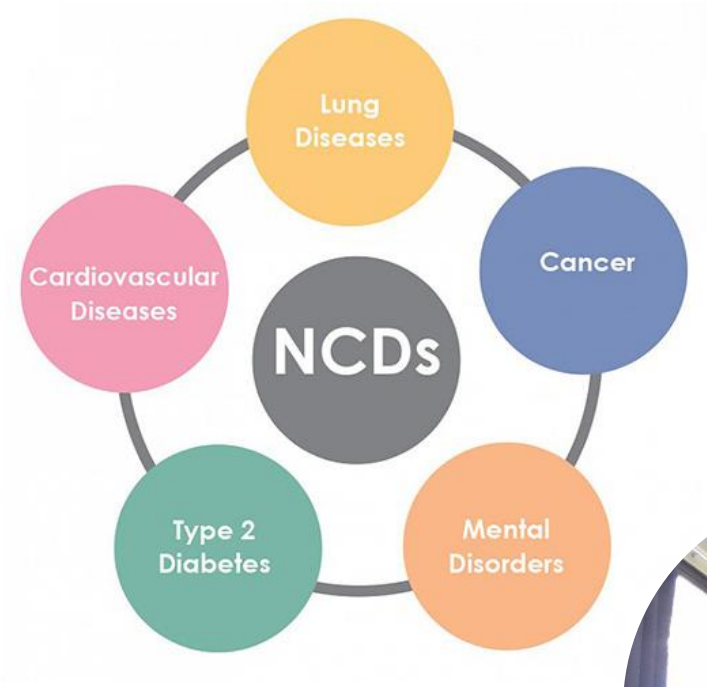
Ngurang Dali Mana Burud

The map was created by
staff telling the story of a
community to gain bette

Artwork by Aboriginal art
utilising our story.

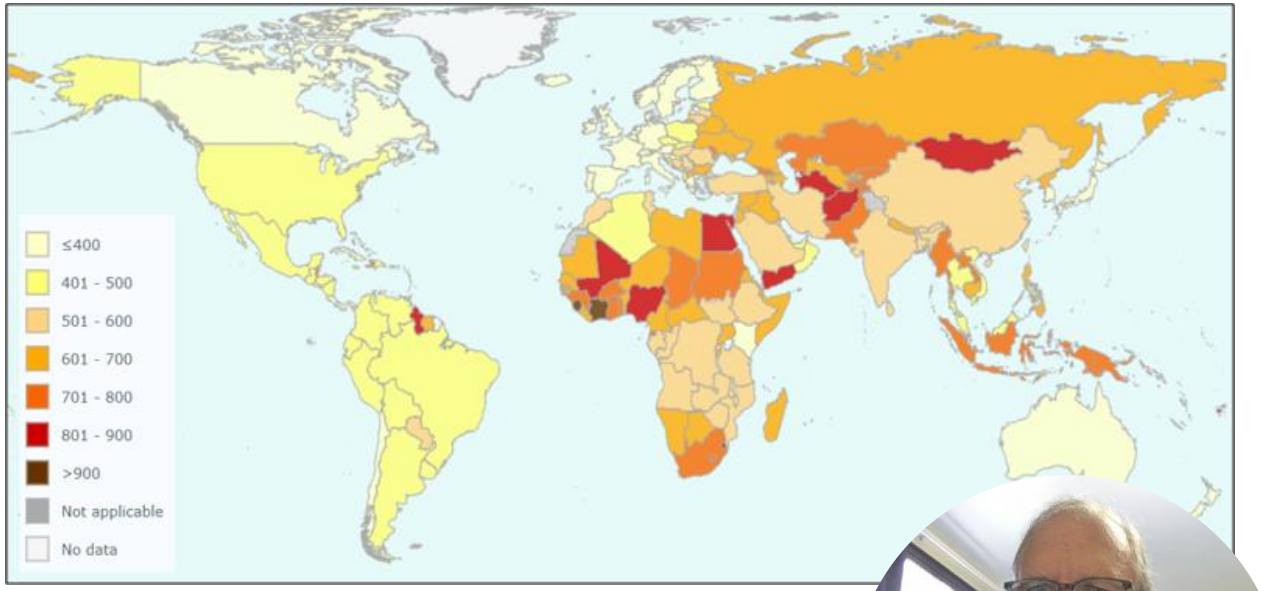
Outline

1. Importance of self management of chronic conditions
2. Evidence for their impact on health and health care?
3. Implementation of SMS in disadvantaged and vulnerable populations?
4. Relevance of SMS to Nepal and other low- and middle- income countries



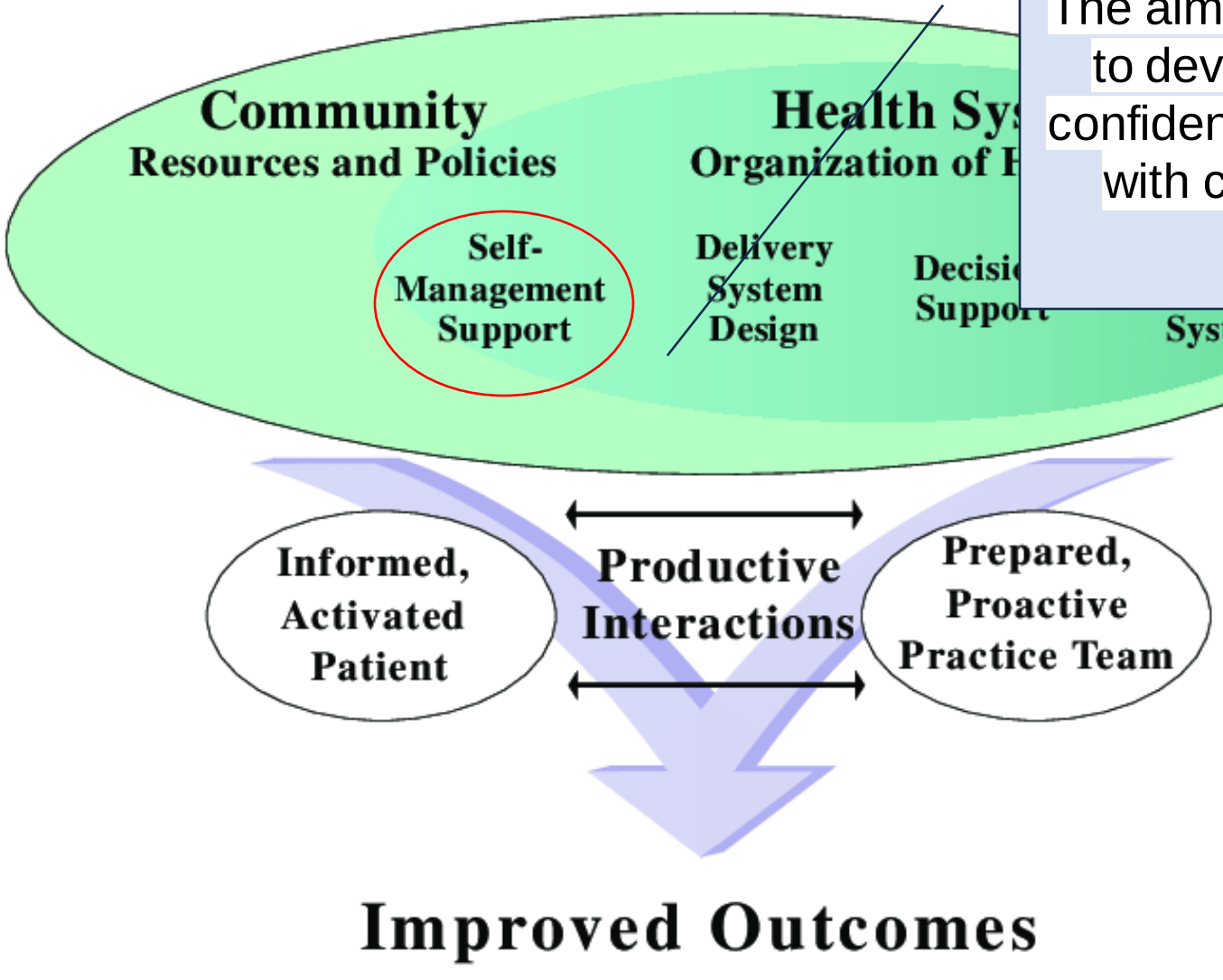
Chronic conditions

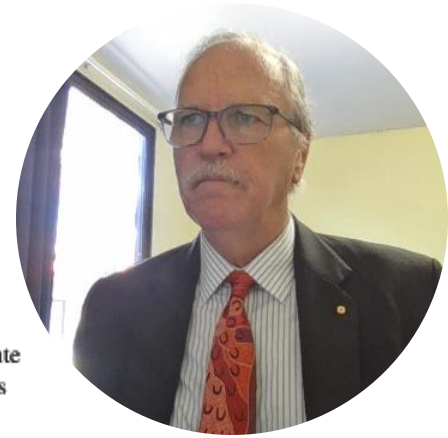
- 41 million death each year or 74% of all deaths.
- 17.9 million cardiovascular diseases deaths, 9.3 cancer deaths, 4.1 million deaths due to respiratory diseases and 1.5 million deaths due to diabetes).
- 85% of "premature" deaths occur in low- and middle-income countries.
- WHO 2023



Chronic Care Model

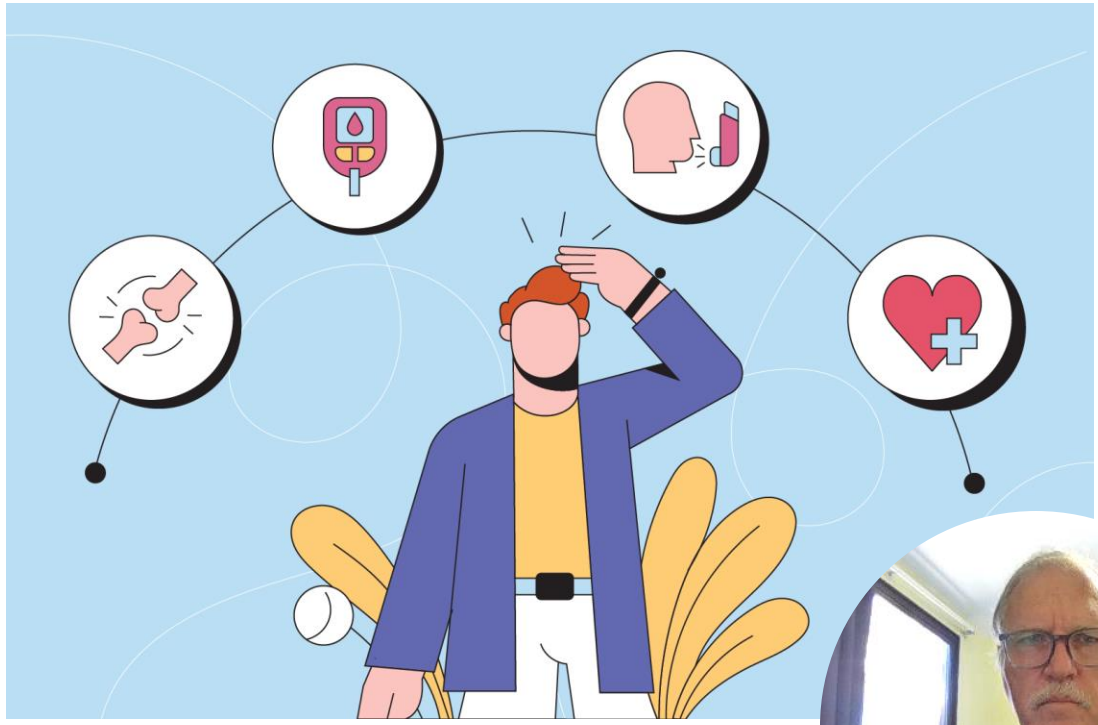
The aims of self-management support is to develop the knowledge, skills and confidence needed to enable the person with chronic illness to manage their health





Goals of self-management

- Build self-esteem and self-confidence (self-efficacy)
- Reflect on their health behaviour and consider change
- Make decisions whether to change their behaviour
- Reach their goals with an action or self-management plan
- Acquire knowledge and skills to support self-management and/or health behaviour change



Patient self-management journey

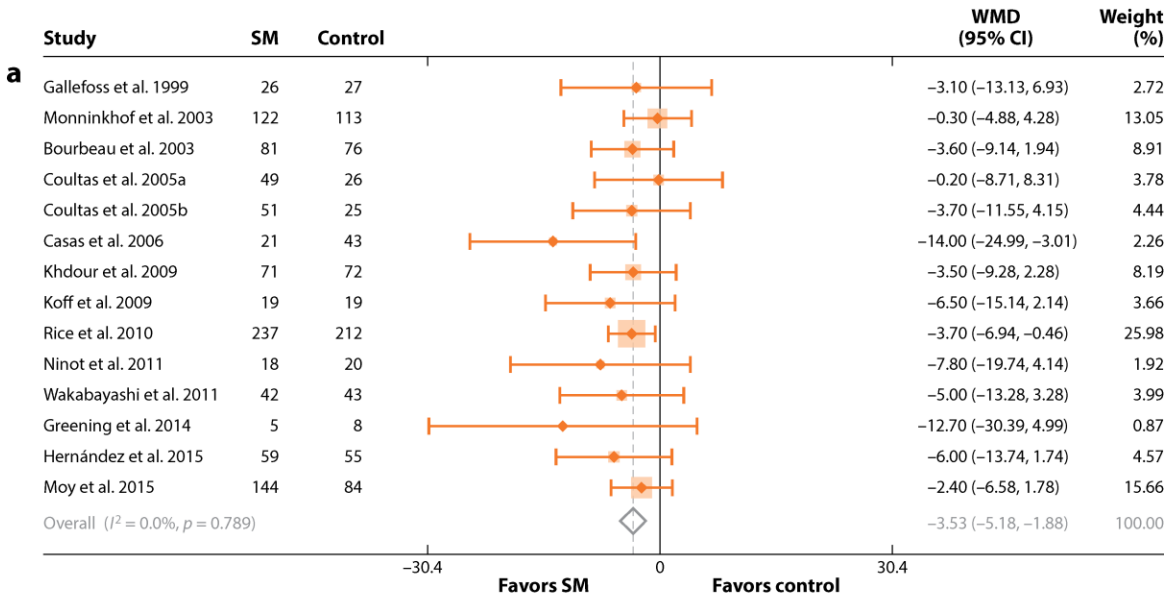
Kirby SE, Dennis SM, Bazeley P, Harris MF. Activating patients with chronic disease for self-management: comparison of self-managing patients with those managing by frequent readmissions to hospital. Aust J Prim Health. 2013;19(3):198-206.

Self-management support by condition: Reynolds R, Dennis S, Hasan I, Slewa J, Chen W, Tian D, Bobba S, Zwar N. A systematic review of chronic disease management interventions in primary care. BMC family practice. 2018 Dec;19:1-3.

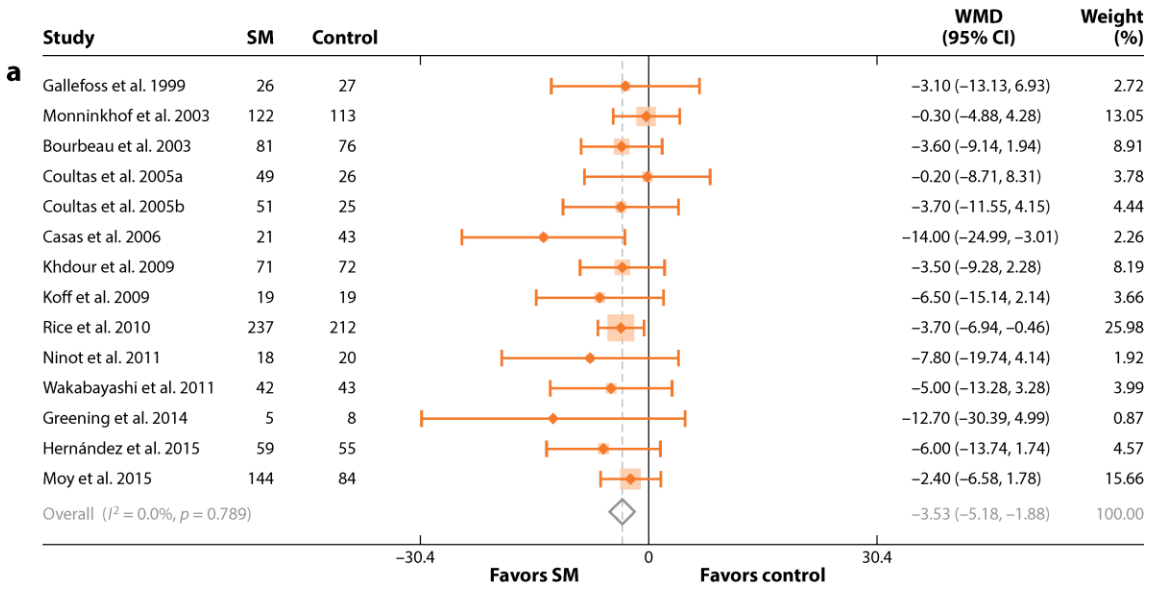
	Ad to guide lines	Med change	Ad to treatment	Service use	POMD	Risk behaviour	QoL	Health status	Satisf-action	Func-tion	Know-ledge
OA	1 (1)				1 (1)		3 (5)			2 (2)	2 (3)
Asthma		1 (1)		0 (2)	1 (2)		1 (3)	1 (2)			
COPD		0 (1)		1 (2)		1 (1)	2 (4)	1 (1)	1 (2)	1 (1)	3 (5)
T2DM	1 (1)		4 (8)	0 (1)	17 (29)	9 (15)	3 (8)	2 (6)	1 (2)	11 (14)	1 (1)
CHD		1 (1)		0 (2)	2 (5)		1 (2)	1 (3)	1 (1)		
HTN	3 (5)	3 (3)		1 (3)	11 (15)	1 (4)	0 (3)	0 (1)		1 (1)	
OP			1 (2)		1 (1)		0 (1)	1 (1)			

Metanalysis

Health-related quality of life (HRQoL)



All-cause hospitalization days



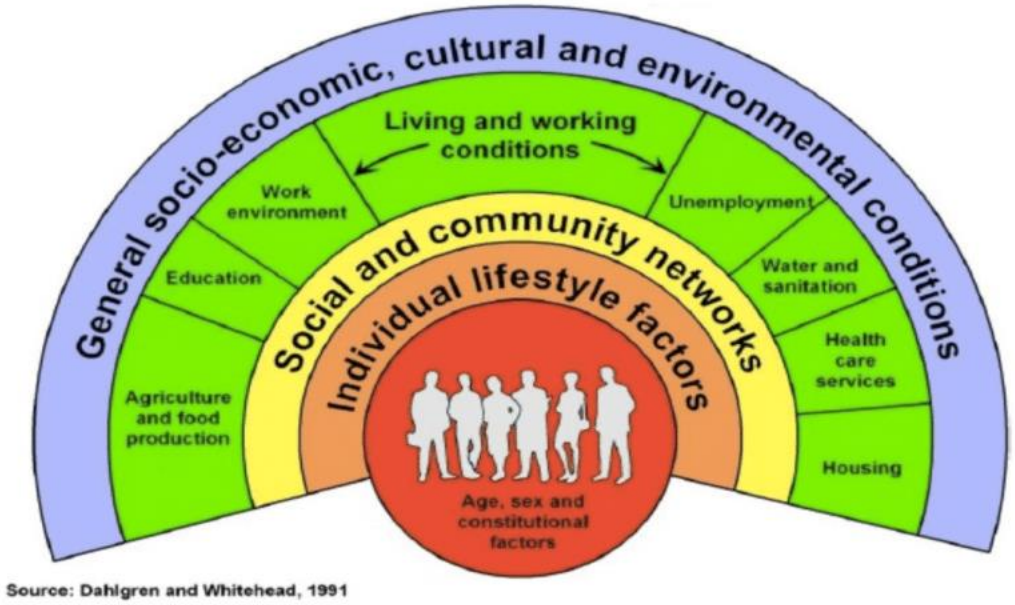
Allegrante JP, Wells MT, Peterson JC. Interventions to support behavioral self-management of chronic diseases. Annual review of public health. 2019 Apr 1;40:127-46.

What components of SMS make a difference?

1. Transfer of information
2. Enhancing problem solving /decision making
3. Active symptom monitoring
4. Stress / psychological monitoring
5. Enhancing diet
6. Medication management
7. Enhancing physical activity
8. Goal setting and action planning
9. Smoking cessation

Dineen-Griffin S, Garcia-Cardenas V, Williams K, Benrim
patients help themselves: a systematic review of self-r
support strategies in primary health care practice. PloS
1;14(8):e0220116.

Low socioeconomic, indigenous and ethnic minority status moderate effectiveness.



Source: Dahlgren and Whitehead, 1991

Less evidence in chronically ill patients with low socio-economic status (SES). Van Hecke, Ann, et al. "J of advanced nursing 73.4 (2017): 775-793.

Without careful tailoring and direct targeting of barriers to self-management, SMS may exacerbate the social gradient in chronic disease outcomes. Hardman R et al BMC health services research. 2020 Dec;20:1-5.

Significant interaction between diabetes self-efficacy and GP communication in blood glucose testing. Rose V et al Patient education and counselling 77 (2), 260-265, 2009

Factors influencing self-management occurr
levels of the socio-ecological model. Doa J
journal of primary health 25 (2), 176-184, 20

Community Health Workers role in SMS

- CHWs can not only increase vulnerable individuals' involvement in services but also to promote self-management and health behavior change in low income groups and cultural and lingual minorities .
- Punna M, et al. Health Education & Behavior. 2019;46:1045-72.

Characteristics and training of LHWs	Self-management intervention components and delivery by LHWs		Theories and guidelines behind the intervention
Experience with long-term conditions			National guidelines for DM, hypertension and cardiovascular diseases
Eligibility based on personal interest or maintained self-management	Participants recruited by LHWs or health professionals	Interaction frequency from once a week to every second month, often besides usual health care	Transtheoretical model of change
Length of training from one day to 240 h, approx. 30 to 60 h	Attrition prevention by providing, e.g., make-up sessions, telephone support calls, gift cards.	Principles of implementation: individual-empowering, culture and language sensitiveness, peer education, family-centering, social networking	Social cognitive theory
Elements of training: classroom training, hands-on activities, home visits, clinical measurements	Elements: PA, nutrition, medication, clinical measurements, and other education classes; online programs	BCTs: Self-monitoring, goal setting, information providing, action plans, enhancing social support	Chronic care model
Training contents: LTCs, motivation, self-monitoring, self-management, medication	Formats: Individual or group meetings delivered by a LHW or a group of LHWs; LHW as a colleague of health professional or member of health care team;	provided face to face, via telephone, online, at clinics or community centers or home visits.	
Pre-established competencies, graduation			
Ongoing mentoring Salaries or stipends			
Volunteers			

Case study

Vindya is 58,

- Born in Sri Lanka and came to Australia 5 years ago as a refugee.
- Developed type 2 diabetes and has an infected ulcer on her left leg.
- She has no access to Australia's national health insurance because her visa is temporary.
- Her mother and aunty had diabetes, and both had amputations prior to their death

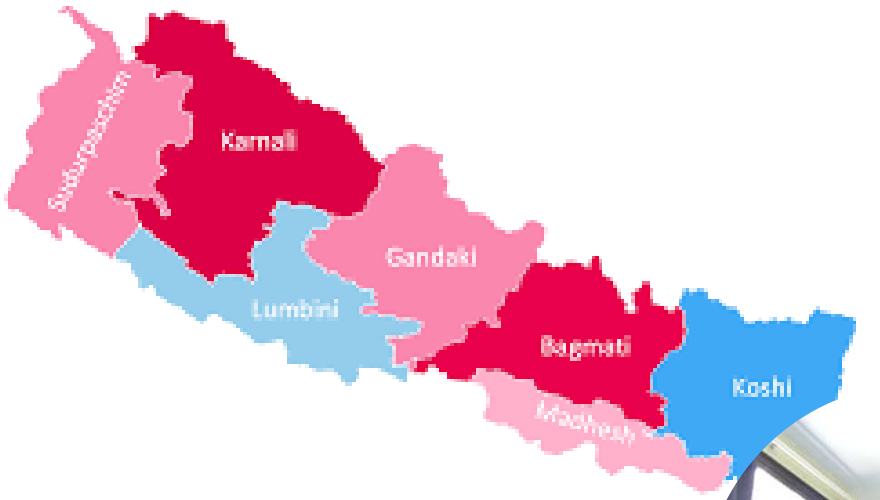
Self-management support in low- and middle- income countries

- SMS interventions effective, improving physiologic indicators, patient self-care and/or patient quality of life.
- Studies in small populations, with little indication of future scaling of the intervention

Hearn J, et al . Self-management of non-communicable diseases in low-and middle-income countries: A scoping review. PloS one. 2019 Jul 3;14(7):e02

Chronic conditions in Nepal

- The premature mortality due to NCDs has risen from 51% in 2066/67 (2010) to 71% in 2075/76 (2019).
- Cardiovascular disease (CVDs) responsible for 30% deaths, cancer 9%, diabetes 4%, chronic respiratory diseases 10% and other NCDs 13%.
- Increase the prevalence of insufficient physical activity and increased body mass index (BMI) in adult population of the country Smoking rates decreased from 37.1% to 28.9%.



COPD case history

- A 55-year woman (from the *Madhesi* ethnic community) with a history of using Hukka and a smoking history of one pack per day for the past 35 years.
- COPD symptoms appeared at age of 32 and got clinically diagnosed at the age of 45.
- Observed taking allopathic, ayurvedic, and homeopathic medicin[illegible]e time.

Facilitators and barriers to self-management of COPD in rural Nepal

- **Patient family level:** limited understanding of COPD and medications, inadequate family support and poor emotional health
- **Community level**: use of complementary and alternative treatment
- **Health service level** : levels of trust and respect between doctors and their patients, demands on doctors time, poor communication

Yadav et al, BMJ Open 2020 10(3)

Codesign of an integrated model of care

- Co-design methods have been cited as being successful in creating ownership of the product produced, an improvement in care and treatment processes, and better health outcomes for people.

Group picture with participants from a final co-design workshop

People with COPD and their family members,
n=17

Representative from non-governmental organisations and media ,n=9

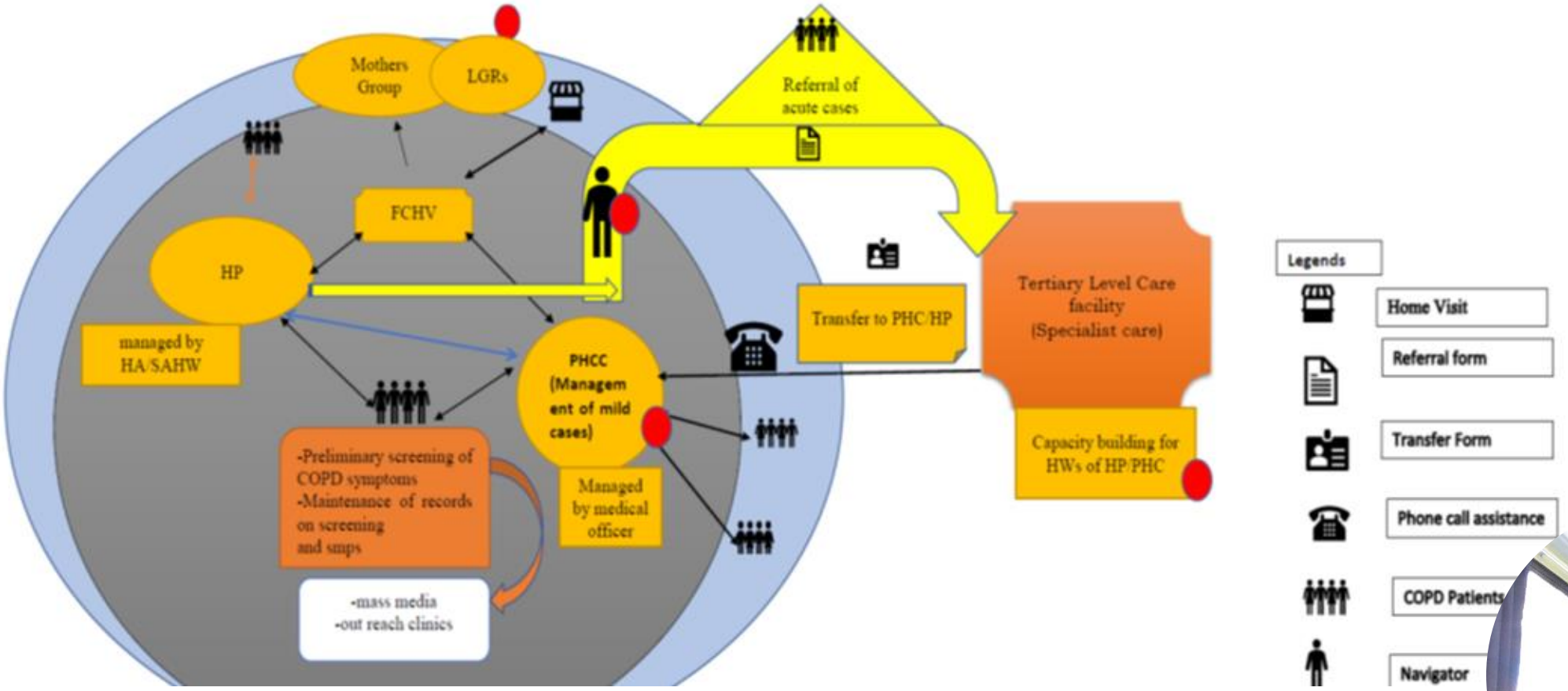
Representative from local, federal and provincial ministries, n=7

Academics and policy makers , n=8

Local community leaders and community representatives, n=14

Health care providers, n=18

Codesigned model of care



Yadav UN, et al Health research policy and systems. 2021 Dec;19:1-2.

Summary

- There is strong evidence for the effectiveness of self-management support as a component of chronic disease management
- This needs to be tailored to context and socioeconomic status and linked to other components of the Chronic care model especially multidisciplinary teamwork and community resources.
- Implementation in countries such as Nepal should be alongside efforts to develop integrated care between primary and secondary care.