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National Health Education, Information and Communication Center
Teku, Kathmandu

Breakthrough ACTION Nepal/JHU-CCP/CDPH-IOM

Data scoping exercise

14th February 2020

Breakthrough ACTION
FOR SOCIAL & BEHAVIOR CHANGE

CDPH-Breakthrough ACTION Data Scoping Exercise

1. Data scoping
   - *Prioritization activity*
   - *Desk review*
   - *Introduction to evidence maps*
   - *Findings*
2. Next steps

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CDPH-Breakthrough ACTION Data Scoping Exercise

- Supported by Breakthrough ACTION Nepal
- Conducted by students of MPH, MPHN, MHPE, CDPH, IOM (Kamal Raj Adhikari, Nabin Dhakal, Preena Lal, Preeti Bhattarai, Sapana Panta, Soniya Gurung, Sharmila Acharya, Sushma Pokharel)
- Duration- November 2019 to February 2020

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CDPH-Breakthrough ACTION Data Scoping Exercise

Objectives

- To learn about Data Scoping exercise process
- To create search protocol for literature review
- To summarise findings and generate Evidence map
- To write technical briefs based on Evidence map
- To disseminate findings of Data Scoping exercise

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What is data scoping?

A data scoping exercise reviews and maps a wide range of literature with the purpose of envisioning where gaps and innovative approaches may lie.

Goals of the data scoping activity

1. Guide future research and SBC health planning based on prioritized health issues/research questions
    - *E.g. by creating evidence maps; developing analysis plans; identifying data sources to answer research questions; conducting simple data analyses*
2. Identify opportunities for future research, collaborations, skills-building
    - *E.g. Data dissemination for data use*

Components of the data scoping activity

1. Identification of prioritized health issues and research questions
2. Desk review
3. Evidence maps
4. Data availability, sharing and use

1. Prioritization Activity

Identify health issue:

Non-communicable diseases and socio-behavioural risk factors

Identify research questions:

What are the socio-behavioural risk factors contributing to NCDs in Nepal?

Components of the data scoping activity

1. Prioritization of health issues and key research questions
2. Desk review
3. Evidence maps
4. Data availability, sharing and use

2. Desk review

- Methods: Literature review and data summary
  - Identify a list of key search terms
  - Identify a list of databases to use (PubMed)

("Nepal"[Mesh] OR Nepal*[tiab]) AND ("last 10 years"[PDat]) AND (“Non-communicable Disease"[Mesh] OR “NCD"[Mesh] OR “Chronic Disease” [Mesh] OR “Diabetes” [Mesh] OR “Blood Sugar” [Mesh] OR “Diabetes Mellitus” [Mesh] OR “Cardiovascular disease” [Mesh] OR “Hypertension” [Mesh] OR “High Blood Pressure” [Mesh] OR “Heart disease” [Mesh] OR “High Blood Pressure” [Mesh] OR “Coronary Artery disease” [Mesh] OR “Stroke” [Mesh] OR “Cerebrovascular accident” [Mesh] OR “Atherosclerosis” [Mesh] OR “Myocardial Infarction” [Mesh] OR “Cancer” [Mesh] OR “Carcinoma” [Mesh] OR “Malignancy” [Mesh] OR “Tumor” [Mesh] “Non-communicable Disease" OR “NCD"[tiab] OR “Chronic disease” [tiab] OR “Diabetes” [tiab] OR “Blood Sugar” [tiab] OR “Diabetes Mellitus” [tiab] OR “Cardiovascular disease” [tiab] OR “Hypertension” [tiab] OR “High Blood Pressure” [tiab] OR “Heart disease” [tiab] OR “High Blood Pressure” [tiab] OR “Coronary Artery disease” [tiab] OR “Stroke” [tiab] OR “Cerebrovascular accident” [tiab] OR “Atherosclerosis” [tiab] OR “Myocardial Infarction” [tiab] OR “Cancer” [tiab] OR “Carcinoma” [tiab] OR “Malignancy” [tiab] OR “Tumor” [tiab])

("Nepal"[Mesh] OR Nepal*[tiab]) AND ("last 10 years"[PDat]) AND ("Obesity" [Mesh] OR “Risk factors"[Mesh] OR “Lifestyle"[Mesh] OR “Physical inactivity”[Mesh] OR “Diet"[Mesh] OR “Behavioral Barriers" [Mesh] OR “Tobacco use”[Mesh] OR “Alcohol consumption”[Mesh] OR "Obesity”[tiab] OR “Risk factors"[tiab] OR “Lifestyle"[tiab] OR “Physical inactivity”[tiab] OR “Diet"[tiab] OR “Behavioral Barriers"[tiab] OR “Tobacco use”[tiab] OR “Alcohol consumption”[tiab])

2. Desk review

- Methods: Literature review and data summary
  - Literature review
    - Peer-reviewed literature
- **Inclusion criteria**: We used articles published in the last 10 years and related to Non-communicable diseases and socio-behavioural risk factors specifically in Nepal

2. Desk review

- Data collection

	Abstracts retrieved
Pubmed; Search terms 1(743) + 2(979)	284
Total relevant with full-texts pulled	91
Total not relevant on initial review	193

2. Desk review: Data summarization

Content summarized
Full reference
Organization affiliated
Publication type: peer-reviewed publication
Specific geographical location(s)
Study type: Qualitative, quantitative, or mixed methods
Primary audience(s) or populations of interest
Sample sizes
Primary health areas of interest: NCDs; risk behaviours
Specific health behaviors
Primary predictors or explanatory variables of interest
Specific SBCC intervention component discussed/described (if any)
Major findings (Summarized in 1 sentence only)
Relevant level(s) of the socio-ecological model: individual, household, community/societal, health facility, or structural/policy

2. Desk Review: Data summarization

	Number	Reference	Geographical location(s)	Study type: Qualita	Primary audien	Sample sizes	Primary health areas	Specific health behavio	Primary predictors or expla	Specific SBCC int	Major finding (Summa
1	NCD1	Tobacco smoking, chewing habits, alcohol drinking and the risk of head and neck cancer in Nepal Chun-Pin Chang, Bhola Siwakoti,	Chitwan, BPKMCH	Hospital-based Case-Control study	Head and Neck Cancer cases	HNC cases- 549; Controls- 601	Head and Neck Cancer	Tobacco smoking; Chewing habits (Tobacco, Supari, Zarda, Lwang, Pan Masala); Alcohol drinking	Types, frequency and duration of Tobacoo smoking, Chewing habits and Alcohol drinking		Increased HNC risk for tobac 2.06), chewing habits (OR: 2. drinking (OR: 1.57; 95% CI: fraction (PAF) was 24.3% for
2	NCD2	Study of the magnitude of diabetes and its associated risk factors among the tuberculosis patients of Morang, Eastern Nepal; Babita	Morang	Cross-sectional study	Tuberculosis patients	320	Co-morbidity- Tuberculosis ad Diabetes; Behavioral factors- Alcohol and Tobacco	Toacco consumption; Alcohol consumption; Fruits and vegetable consumption; Physical activity	Tobacco consumption, Alcohol consumption, Stress level; Family history		The univariate analysis report alcohol consumers, and stress with diabetes; while the multi alcohol consumer as the signi
3	NCD3	Analyzing Awareness on Risk Factors, Barriers and Prevention of Cervical Cancer among Pairs of Nepali High School Students and	Lalitpur	Descriptive Cross-sectional study	Adolescents; their mothers	253 pairs of adolescent students and their mothers	Cervical cancer, Adolescent health, Reproductive health; Prevention	Lifestyle; Cancer talk with others	Sex, Education level, Healthy diet, Cancer talk with others, Mother's Cancer Screening Practice among students; Age,	Health Belief Model	Knowledge on cervical cancer students and mothers. Student and had a healthy diet had bet students' mothers had better k
4	NCD4	Prevalence of American Heart Association defined ideal cardiovascular health metrics in Nepal: findings from a nationally	Nepal	Cross-sectional study	Adult (15-69 years of age)	4200	Cardiovascular disease	Physical activity, smoking and the consumption of fruits and vegetables	ICH factors- four ideal health behaviours (non-smoking, normal weight,sufficient physical activity and ideal diet), and three ideal		More than half of the particip 45–69 y age group having the females having better cardiov male counterparts (60.6% vs -
5	NCD5	Lifestyle-related risk factors among patients with coronary artery disease in Nepal Pramila Gaudel, Marja Kaunonen,	Kathmandu, Sahid Gangalal National Heart Centre	Cross-sectional study	CAD patients	224	Coronary artery disease (CAD)	Dietary habits, smoking, alcohol consumption, stress, physical activity, overweight or obesity and adherence to	Lifestyle-related risk factors: Dietary habits, smoking, alcohol consumption, stress, physical activity, overweight or obesity		The prevalence of risk factors 97%, with stress being the mc consumption the least. The m lifestyle-related risk factors.
6	NCD6	The burden and correlates of multiple cardiometabolic risk factors in a semi-urban population of nepal: a community-based	Pokhara	Community-based cross-sectional study	adults aged 25–64 years	2,310	Cardiometabolic risk factors (hypertension, diabetes, and overweight/obesity)	Dietary habits, smoking, alcohol consumption, physical activity	Socio-demographics and behavioural characteristics		Proportion of the participants harmful level (13%). Most of of physical activity (89%) but not consume the recommende
		Self-Care Adherence And Barriers	Kathmandu;					Self-care adherence and	Socio-Demographic; And		The poor glycaemic control w

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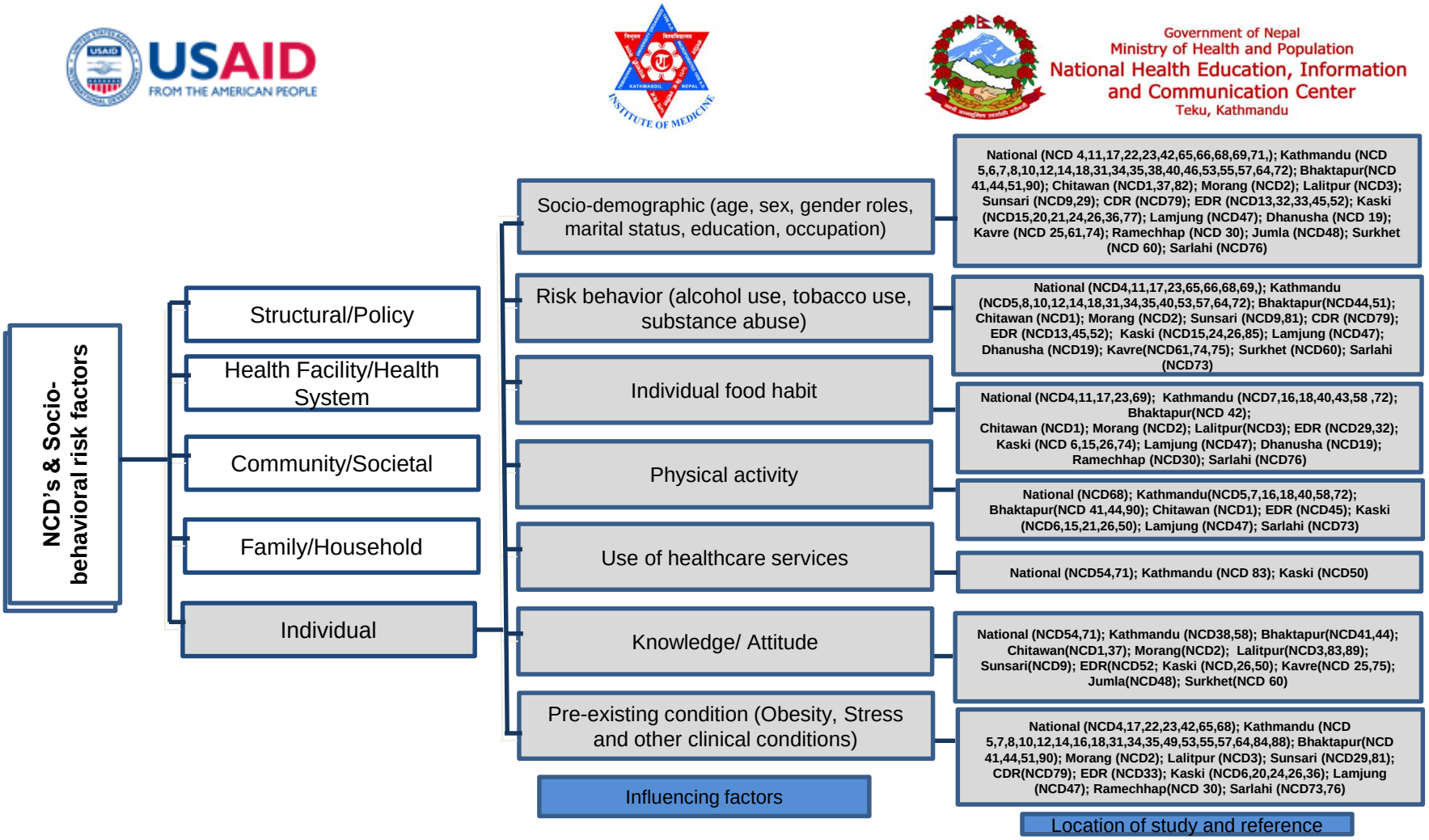
Components of the data scoping activity

1. Prioritization of Health issues and key research questions
2. Desk review
3. Evidence maps
4. Data availability, sharing and use

3. Evidence maps

- Evidence maps offer a visual way to examine trends and gaps in existing literature
  - *Flexible*
  - *Can contain as little or as much detail as desired*
  - *Can be organized based on a specific theoretical approach*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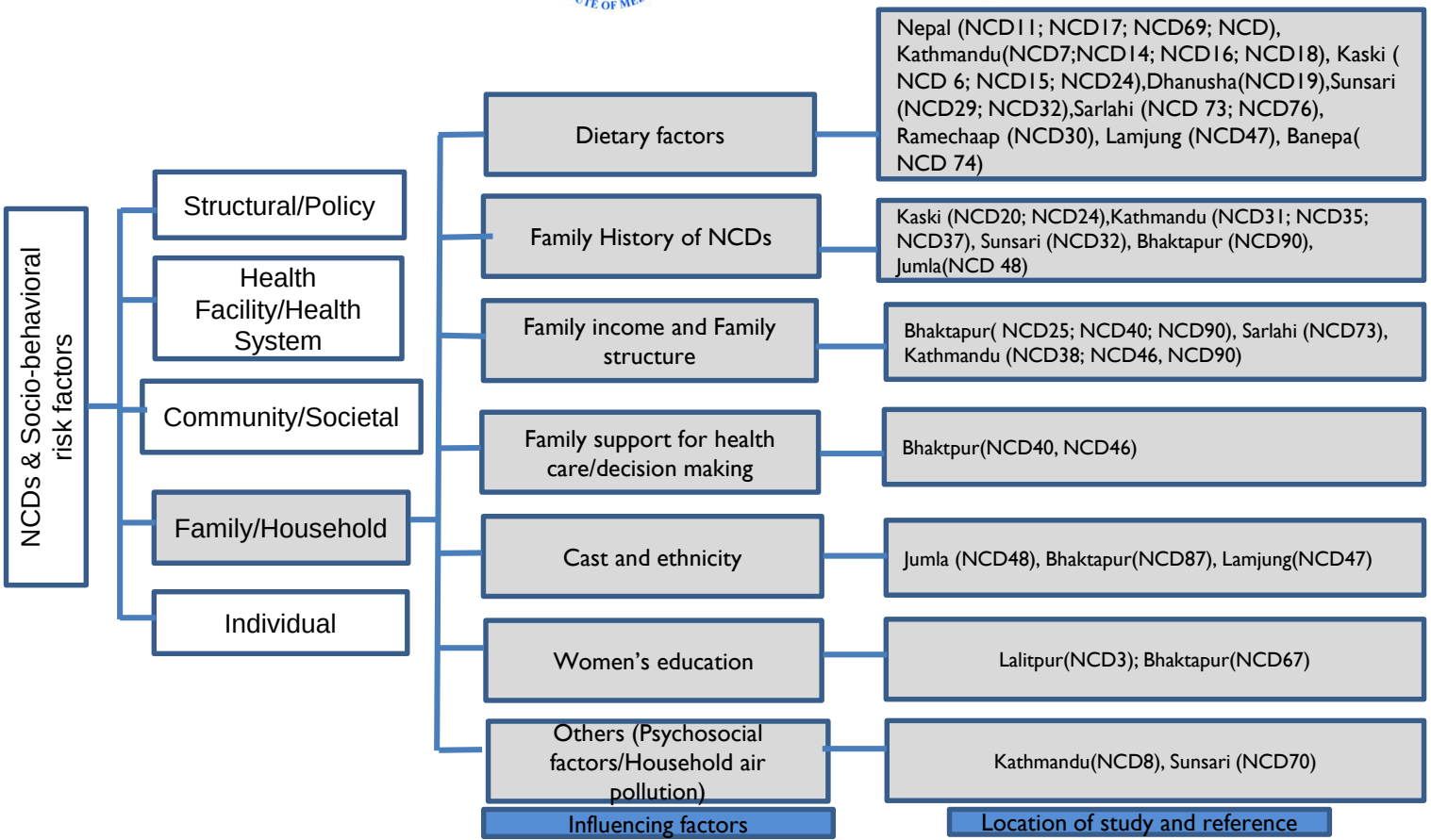
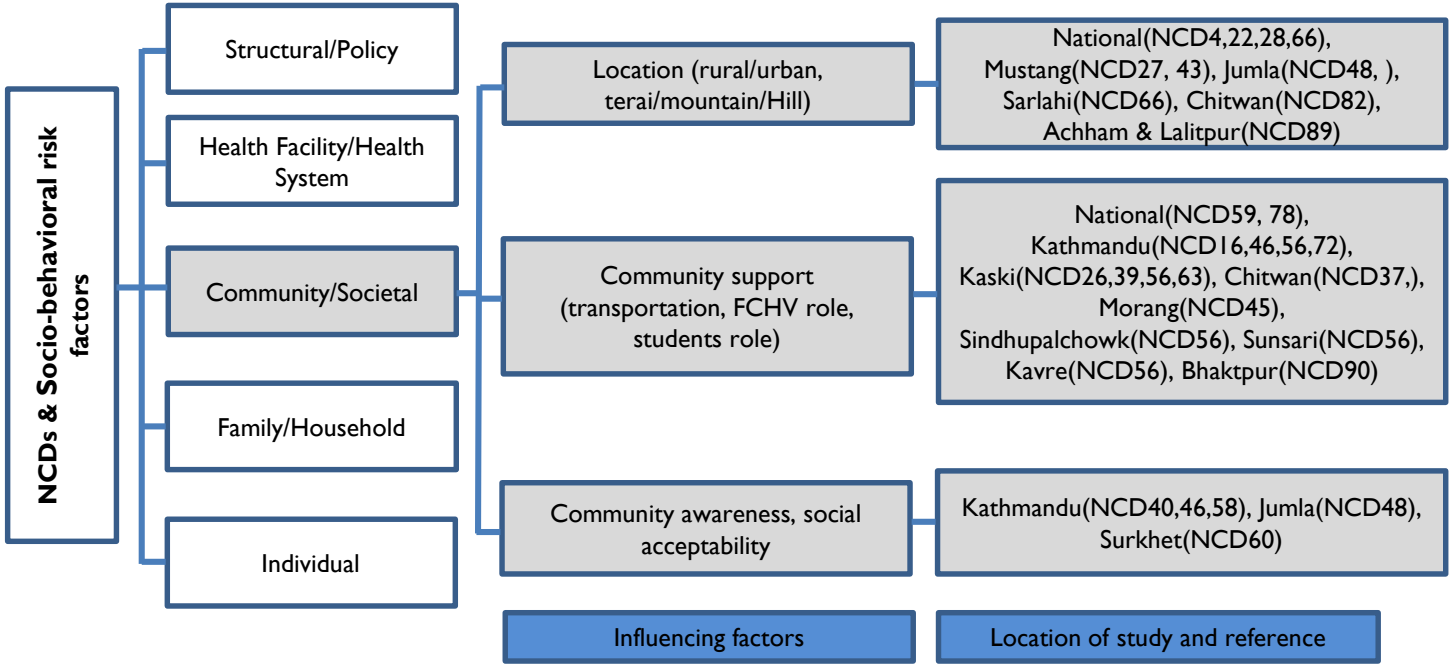
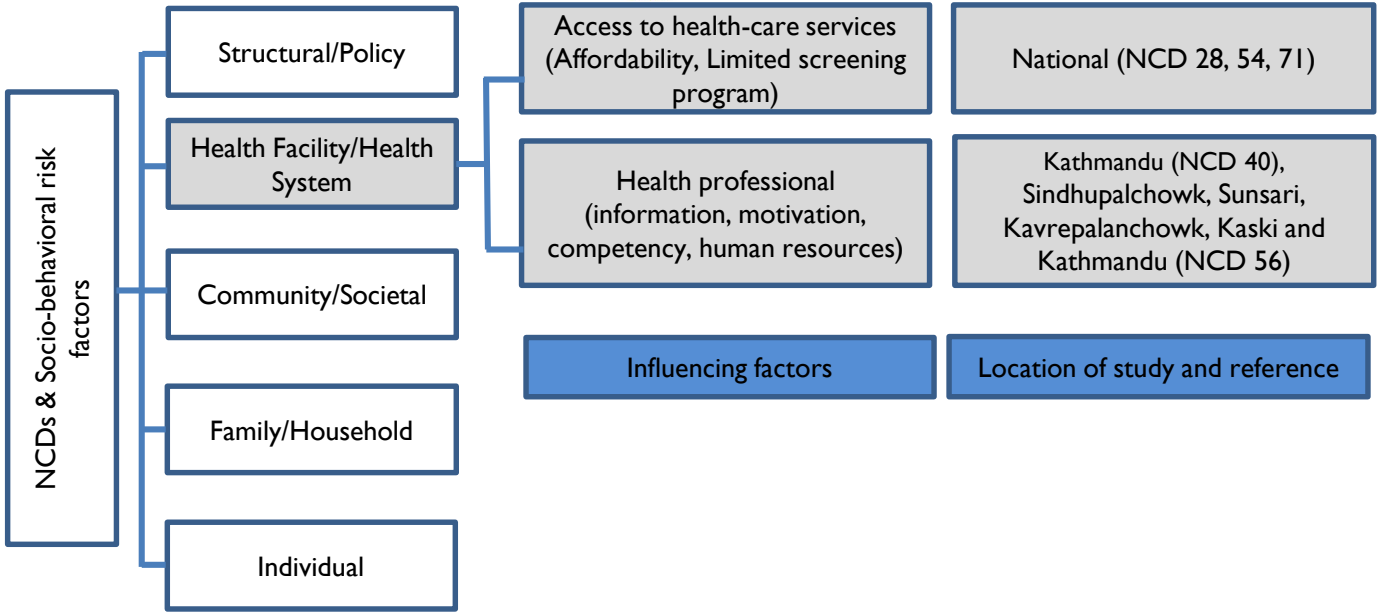
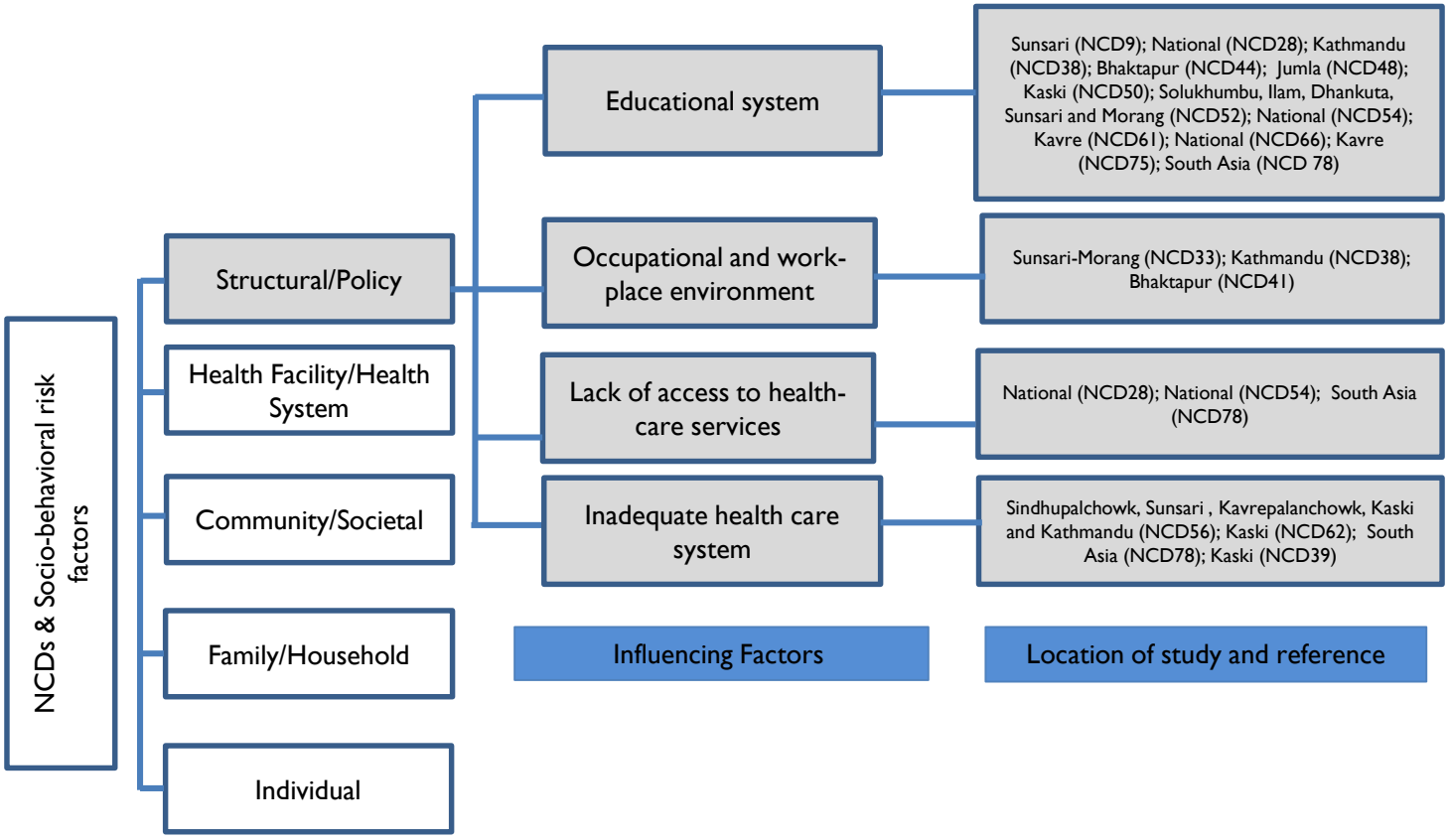
NCD's & Socio-behavioral risk factors
Structural/Policy
Health Facility/Health System
Community/Societal
Family/Household
Individual
Socio-demographic (age, sex, gender roles, marital status, education, occupation)
Risk behavior (alcohol use, tobacco use, substance abuse)
Individual food habit
Physical activity
Use of healthcare services
Knowledge/ Attitude
Pre-existing condition (Obesity, Stress and other clinical conditions)
Influencing factors
National (NCD 4,11,17,22,23,42,65,66,68,69,71,); Kathmandu (NCD 5,6,7,8,10,12,14,18,31,34,35,38,40,46,53,55,57,64,72); Bhaktapur(NCD 41,44,51,90); Chitawan (NCD1,37,82); Morang (NCD2); Lalitpur (NCD3); Sunsari (NCD9,29); CDR (NCD79); EDR (NCD13,32,33,45,52); Kaski (NCD15,20,21,24,26,36,77); Lamjung (NCD47); Dhanusha (NCD 19); Kavre (NCD 25,61,74); Ramechhap (NCD 30); Jumla (NCD48); Surkhet (NCD 60); Sarlahi (NCD76)
National (NCD4,11,17,23,65,66,68,69,); Kathmandu (NCD5,8,10,12,14,18,31,34,35,40,53,57,64,72); Bhaktapur(NCD44,51); Chitawan (NCD1); Morang (NCD2); Sunsari (NCD9,81); CDR (NCD79); EDR (NCD13,45,52); Kaski (NCD15,24,26,85); Lamjung (NCD47); Dhanusha (NCD19); Kavre(NCD61,74,75); Surkhet (NCD60); Sarlahi (NCD73)
National (NCD4,11,17,23,69); Kathmandu (NCD7,16,18,40,43,58 ,72); Bhaktapur(NCD 42); Chitawan (NCD1); Morang (NCD2); Lalitpur(NCD3); EDR (NCD29,32); Kaski (NCD 6,15,26,74); Lamjung (NCD47); Dhanusha (NCD19); Ramechhap (NCD30); Sarlahi (NCD76)
National (NCD68); Kathmandu(NCD5,7,16,18,40,58,72); Bhaktapur(NCD 41,44,90); Chitawan (NCD1); EDR (NCD45); Kaski (NCD6,15,21,26,50); Lamjung (NCD47); Sarlahi (NCD73)
National (NCD54,71); Kathmandu (NCD 83); Kaski (NCD50)
National (NCD54,71); Kathmandu (NCD38,58); Bhaktapur(NCD41,44); Chitawan(NCD1,37); Morang(NCD2); Lalitpur(NCD3,83,89); Sunsari(NCD9); EDR(NCD52; Kaski (NCD,26,50); Kavre(NCD 25,75); Jumla(NCD48); Surkhet(NCD 60)
National (NCD4,17,22,23,42,65,68); Kathmandu (NCD 5,7,8,10,12,14,16,18,31,34,35,49,53,55,57,64,84,88); Bhaktapur(NCD 41,44,51,90); Morang (NCD2); Lalitpur (NCD3); Sunsari (NCD29,81); CDR(NCD79); EDR (NCD33); Kaski (NCD6,20,24,26,36); Lamjung (NCD47); Ramechhap(NCD 30); Sarlahi (NCD73,76)
Location of study and reference


NCDs & Socio-behavioral risk factors
Structural/Policy
Health Facility/Health System
Community/Societal
Family/Household
Individual
Dietary factors
Family History of NCDs
Family income and Family structure
Family support for health care/decision making
Cast and ethnicity
Women's education
Others (Psychosocial factors/Household air pollution)
Nepal (NCD11; NCD17; NCD69; NCD), Kathmandu(NCD7;NCD14; NCD16; NCD18), Kaski (NCD 6; NCD15; NCD24),Dhanusha(NCD19),Sunsari (NCD29; NCD32),Sarlahi (NCD 73; NCD76), Ramechaap (NCD30), Lamjung (NCD47), Banepa(NCD 74)
Kaski (NCD20; NCD24),Kathmandu (NCD31; NCD35; NCD37), Sunsari (NCD32), Bhaktapur (NCD90), Jumla(NCD 48)
Bhaktapur(NCD25; NCD40; NCD90), Sarlahi (NCD73), Kathmandu (NCD38; NCD46, NCD90)
Bhaktpur(NCD40, NCD46)
Jumla (NCD48), Bhaktapur(NCD87), Lamjung(NCD47)
Lalitpur(NCD3); Bhaktapur(NCD67)
Kathmandu(NCD8), Sunsari (NCD70)
Influencing factors
Location of study and reference


NCDs & Socio-behavioral risk factors
Structural/Policy
Health Facility/Health System
Community/Societal
Family/Household
Individual
Location (rural/urban, terai/mountain/Hill)
Community support (transportation, FCHV role, students role)
Community awareness, social acceptability
National(NCD4,22,28,66), Mustang(NCD27, 43), Jumla(NCD48,), Sarlahi(NCD66), Chitwan(NCD82), Achham & Lalitpur(NCD89)
National(NCD59, 78), Kathmandu(NCD16,46,56,72), Kaski(NCD26,39,56,63), Chitwan(NCD37,), Morang(NCD45), Sindhupalchowk(NCD56), Sunsari(NCD56), Kavre(NCD56), Bhaktpur(NCD90)
Kathmandu(NCD40,46,58), Jumla(NCD48), Surkhet(NCD60)
Influencing factors
Location of study and reference


NCDs & Socio-behavioral risk factors
Structural/Policy
Health Facility/Health System
Community/Societal
Family/Household
Individual
Access to health-care services (Affordability, Limited screening program)
Health professional (information, motivation, competency, human resources)
National (NCD 28, 54, 71)
Kathmandu (NCD 40), Sindhupalchowk, Sunsari, Kavrepalanchowk, Kaski and Kathmandu (NCD 56)
Influencing factors
Location of study and reference


NCDs & Socio-behavioral risk factors
Structural/Policy
Health Facility/Health System
Community/Societal
Family/Household
Individual
Educational system
Occupational and work-place environment
Lack of access to health-care services
Inadequate health care system
Sunsari (NCD9); National (NCD28); Kathmandu (NCD38); Bhaktapur (NCD44); Jumla (NCD48); Kaski (NCD50); Solukhumbu, Ilam, Dhankuta, Sunsari and Morang (NCD52); National (NCD54); Kavre (NCD61); National (NCD66); Kavre (NCD75); South Asia (NCD 78)
Sunsari-Morang (NCD33); Kathmandu (NCD38); Bhaktapur (NCD41)
National (NCD28); National (NCD54); South Asia (NCD78)
Sindhupalchowk, Sunsari , Kavrepalanchowk, Kaski and Kathmandu (NCD56); Kaski (NCD62); South Asia (NCD78); Kaski (NCD39)
Influencing Factors
Location of study and reference

Components of the data scoping activity

1. Prioritization of Health issues and key research questions
2. Desk review
3. Evidence maps
4. Data availability, sharing and use

4. Data availability, sharing, and use

-Technical or summative briefs

-Platform or portal upload

-Dissemination to relevant stakeholders for future SBC collaborations

Summary of Data Scoping exercise

- Majority of the studies were patient-centered and hospital based.
- Location of studies were mostly based on tertiary-care hospitals.
- Population-based studies were addressed by articles based on STEPS survey.

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