NEPHU POPULATION HEALTH CATCHMENT PLANNING

PRIORITY AREA RECOMMENDATIONS

STAGE 2A REPORT
PHASE 1

MARCH 2023

NEPHU NORTH EASTERN PUBLIC HEALTH UNIT

ACKNOWLEDGEMENTS

We acknowledge the traditional owners of the land on which we work and live. We pay our respects to elders past and present and extend that respect to all Aboriginal and Torres Strait Islander people.

We recognise, celebrate and respect Aboriginal and Torres Strait Islander people as the First Australians. We acknowledge their unique cultural and spiritual relationships to the land and waters, as we strive for equality and safety in health and wellbeing outcomes.

CONTRIBUTORS

NEPHU would like to acknowledge the contribution of the following teams in preparing this report:

- Public Health Integrated Planning and Programs
- Senior Leadership
- Communications

We would also like to thank the many stakeholders who contributed their time, knowledge and insights during the workshop.

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1. INTRODUCTION

1.1. BACKGROUND

The North Eastern Public Health Unit (NEPHU) is required by the Department of Health to develop a Population Health Catchment Plan by June 2023. This plan will outline priorities for place-based primary and secondary prevention activity focused on preventable chronic disease and modifiable risk factors. As part of this process, NEPHU must identify two population health priorities for targeted collective effort in FY 22-23.

NEPHU has conducted a collaborative, multi-sectoral process to inform the development of its catchment plan and selection of two priority areas for collective action[1,2]. Stage 1 of the planning process included four phases:

1. **Desktop review** of the prevention landscape across the NEPHU catchment[1].
2. **Listening Lab Program** comprising interviews with internal and external stakeholders to capture reflections, opportunities and expectations[1].
3. **Population Health Profile** to generate a picture of the health and wellbeing needs and indicators of the NEPHU community[1].
4. **Multisector stakeholder workshop** to generate recommendations for two shared priorities moving forward for collective impact[2].

The culmination of Stage 1 was the identification of the top four key priority areas to be considered for further refinement to two. These were:

- Improving sexual and reproductive health
- Increasing active living
- Increasing healthy eating
- Reducing harm from alcohol and drug use

The second and final stage of the catchment planning process centres around establishing relevant governance structure and identifying two collective action priority areas, along with a range of broader NEPHU actions for inclusion in the NEPHU Population Health Catchment Plan.

This Priority Area Recommendations Report draws upon the evidence base generated via Stage 1 activity and documents the rationale and assessment criteria applied to generate the recommendation of the two priority areas for collective action.

This report will be utilised by the newly established NEPHU Population Health Catchment Plan Steering Group, comprised of internal and external stakeholders, to inform the determination of our two priority areas. The report will also be shared with all stakeholders involved in the NEPHU Catchment Planning process.

1.2. PURPOSE

To articulate key rationale, and to apply corresponding assessment criteria in order to generate a recommendation which identifies two priority areas (from amongst the top 4) for collective action within the 2022-2023 financial year and inaugural Catchment Plan.

1.3. APPROACH

The following approach has been applied to generate recommendations contained within this report:

1. Development of a Priority Area Identification Rationale.
2. Generation of an Assessment Criteria which correspond to the Priority Area Identification Rationale and application of these criteria to each of the top 4 priority areas.
3. Compilation of an Assessment Scoring Matrix including scores against assessment criteria.
4. Recommendation for two priority areas based on Assessment Scoring Matrix.

2. ASSESSMENT METHOD

2.1. PRIORITY AREA IDENTIFICATION RATIONALE

The rationale for priority area identification is underpinned by stakeholder input, literature review, evidence drawn from available population-health data, and Department of Health requirements. The selection of two priority areas for collective action in 2022-23 should, where possible, be informed by:

1. Demonstrated need and burden of disease across the NEPHU catchment
2. Stakeholder views on what the top priority areas for collective action are
3. Alignment between stakeholder identified vision for success and NEPHU's key prevention functionality
4. Significant potential for effective action within a 6-month timeframe
5. Demonstrated potential for partnership including sector-based diversity
6. Consideration of health equity including the identification of disproportionate, burden of disease across different population groups which is preventable. (This includes avoidable sex and gender differences, differences among people from different socio-demographic backgrounds or cultural backgrounds.)
7. Equitable application of LPHU resourcing across the catchment
8. Consideration of likely impact of climate change on potential priority areas.

2.2. ASSESSMENT CRITERIA

Tables 1 and 2 (below) present Assessment Criteria which align with the above rationale, along with the relevant data source to be drawn on for each criteria, and the type of assessment to be made (numeric; categorical, or descriptive text).

Table 1: Assessment Criteria based on stakeholder consultation data

	Criteria	Data source	Type of assessment
1	Ranking of top four priority areas by stakeholders	Stakeholder Workshop Findings	Numeric
2	Alignment between stakeholder vision for success for priority area and NEPHU functionality	Stakeholder Workshop Findings and Listening Lab consultation findings	Categorical: (High/ Moderate/ Low)
3	Alignment between stakeholder suggested action for each priority area and 6-month timeframe	Stakeholder Workshop Findings	Categorical: (High/ Moderate/ Low)
4	Number of potential partners	Stakeholder Workshop Findings	Numeric
5	Sector based diversity within potential partners	Stakeholder Workshop Findings	Categorical (High/ Moderate/ Low)

	Criteria	Data source	Type of assessment
6	Are there known key initiatives currently underway within the priority area?	Stakeholder Workshop Findings Existing knowledge within NEPHU including Phase 1 Desktop Review of Current Landscape.	Categorical (Many/ Some/ Few or None)
7	Are there known networks/partnerships currently established within each/any priority area?	Stakeholder Workshop Findings Existing knowledge within NEPHU	Categorical (Many/ Some/ Few or None)

Table 2: Assessment Criteria based on population health indicators, demographic indicators and research literature

	Criteria	Data source	Type of assessment
8	Across the selected indicators within the four Priority Areas, how many LGAs in the NEPHU catchment have worse outcomes than the Melbourne Metro average?	Population Health Indicators (shown in Appendix 2).	Numeric / Categorical
9	Across the selected indicators within the four Priority Areas, is there disproportionate representation of any given cohort?	Research literature	Descriptive text
10	Of the four-priority area which one/s stand to be most adversely impacted by climate change?	Research literature	Categorical (Definite/ Likely/ Possible)
11	Where key indicators show that outcomes are worse than the Melbourne metro average for multiple LGAs, is there a geographical spread across the whole NEPHU catchment?	Population Health Indicators	Binary Yes/No

1. ASSESSMENT

3.1. STAKEHOLDER CONSULTATION DATA

Table 3 presents an assessment of the four identified priority areas against criteria 1 – 7, based on data drawn from stakeholder consultation activities.

Table 3: Summary of assessment of top four priority areas against assessment criteria derived from stakeholder consultation data

	Criteria	Improving sexual and reproductive health	Increasing active living	Increasing healthy eating	Reducing harm from alcohol and drug use
1	Ranking of Top four priority areas	1	2	3	4
2	Alignment between stakeholder vision for each priority area's success elements and NEPHU functionality [Table A1]	High (6 out of 6)	Moderate (3 out of 6)	Moderate (4 out of 6)	Moderate (3 out of 6)
3	Alignment between stakeholder suggested action for each priority area and 6-month timeframe [Tables A2 – A5]	Moderate (10 actions)	Moderate (11 actions)	High (16 actions)	High (12 actions)
4	Number of potential partners	High 14	Moderate 11	Moderate 11	High 14
5	Sector based diversity within potential partners	High 7	Low 3	Moderate 4	High 6
6	Are there known key initiatives currently underway within the priority area? [Table A6]	Many 8	Many 11	Many 8	Some 4
7	Are there known networks/partnerships currently established within each/any priority area? [Table A7]	Few 2	Some 3	Many 7	Some 3

Category classification

Criteria 2: 5 to 6 areas of functionality – high; 3 to 4 areas – moderate; ≤2 areas – low
Criteria 3: 12 to 16 actions – high; 7 to 11 actions – moderate; ≤6 actions – low
Criteria 4: 12 to 14 partners – high; 8 to 11 – moderate; ≤7 – low
Criteria 5: 6 to 7 – high; 4 to 5 – moderate; ≤3 – low
Criteria 6: 8 to 11 initiatives – high; 4 to 7 – some; ≤3 – few
Criteria 7: 5 to 7 networks – Many; 3 to 4 – Some; ≤2 - few

3.2. POPULATION HEALTH INDICATORS & RESEARCH EVIDENCE

Table 4 presents an assessment of the four identified priority areas against criteria 8 – 11, based on information drawn from population health indicators and research evidence.

Table 4: Summary of assessment of top four priority areas against assessment criteria for population health indicators

	Criteria	Improving sexual and reproductive health	Increasing active living	Increasing healthy eating	Reducing harm from alcohol and drug use
8	Across the selected indicators within the four Priority Areas, how many LGAs in the NEPHU catchment have worse outcomes than the Melbourne Metro average? (Table A8)	Average number of LGAs (across 7 indicators) with worse outcome than Metro Melb **3.4** Moderate	Average number of LGAs (across 2 indicators) with worse outcome than Metro Melb: **5** High	Average number of LGAs (across 4 indicators) with worse outcome than Metro Melb: **4** Moderate	Average number of LGAs (across 7 indicators) with worse outcome than Metro Melb: **6.3** High
9	Across the selected indicators within the four Priority Areas, is there disproportionate representation of any given cohort? (Table A9)	Descriptive text response (see below)			
10	Of the four-priority area which one/s stand to be most adversely impacted by climate change?	Likely	Likely	Definite	Possible
11	Where key indicators show that outcomes are worse than the Melb metro average for multiple LGAs, is there a geographical spread across the whole NEPHU catchment?	Yes	Yes	Yes	Yes

Category classification

Criteria 8: 5 to 7 LGAs – high; 3 to 4 – moderate; ≤3 – low

3.2.1. Criteria 9: Across the selected indicators within the four Priority Areas, is there disproportionate representation of any given cohort?

Research literature suggests that there is disproportionate representation of particular population groups across all four priority areas. Some specific research findings for culturally and linguistically diverse (CALD) communities, Aboriginal and Torres Strait Islander people, older people, people living with a disability, and people identifying as LGBTQI+ are shown in Table A9.

3.2.2. Criteria 10: The impact of climate change on each of the four priority areas

Climate change has a significant impact on health via increasingly frequent extreme weather events, the disruption of food systems, increased water and vector borne diseases and mental health issues[3]. Populations already experiencing disadvantage are disproportionately affected by climate change and have greater difficulty coping with and responding to its impacts[4].

Improving sexual and reproductive health:

There is limited evidence on the likely impacts of climate change on sexual and reproductive health, however, existing evidence in regard to natural disasters suggests a number of impacts. These include reduced access to: health services[4], including limited access to safe abortion services, contraception (including emergency), medication for HIV prevention and treatment, menstrual health care and child health care. There is also evidence to suggest that natural disasters are associated with increased occurrence of sexual violence.

Increasing Active Living

There is some evidence to suggest the likely impacts of climate change on active living, particularly in relation to increased frequency of extreme weather events. As a result of extreme heat, bushfires, drought or excessive rain, there will be a reduced level of physical activity[6].

Increasing Healthy Eating

There is a moderate evidence base about the likely impact of climate change on healthy eating. Key mechanisms include the impact on agricultural production cycles, the disruption of supply chains, decreased food security and poor quality of air and water[5].

Reducing Alcohol & Drug Harm

There is a limited evidence base about the impact of climate change on harmful alcohol and drug use, however, it is possible that climate change may increase harmful substance abuse due to increased psychological stress and mental disorders[7].

3.3. ASSESSMENT SCORE MATRIX

Scores were applied to each numeric and categoric criteria assessment to enable a composite total score to be produced for each priority area. A scoring system was applied as follows:

1. For any criteria involving a categorical assessment with three possible categories, a scoring system allocating 3, 2 or 1 points was applied. This scoring approach was applied to 8 criteria, For example:
    - High – 3 points; Moderate – 2 points; Low – 1 point

    This approach was also applied to criteria with the possible responses:
    - Definite / Likely / Possible
    - Many / Some / Few
2. For Criterion 1, the following scoring system was applied:
    - Rank 1 - 4 points; Rank 2 - 3 points; Rank 3 - 2 points; Rank 4 - 1 point
3. For Criterion 11 the following scoring system was applied:
    - Yes – 1 point; No – 0 points
4. Criterion 9 was not scored as the assessment was based on a combined descriptive response for all four priority areas

Scores were applied to each criterion and tallied to generate a total score for each priority area. This is shown in Table 5.

Table 5. Assessment score matrix for four priority areas

Criteria	Improving sexual and reproductive health	Increasing active living	Increasing healthy eating	Reducing harm from alcohol and drug use
1	4	3	2	1
2	3	2	2	2
3	2	2	3	3
4	3	2	2	3
5	3	1	2	3
6	3	3	3	2
7	1	2	3	2
8	2	3	2	3
9	n/a	n/a	n/a	n/a
10	2	2	3	1
11	1	1	1	1
Total score	**24**	**21**	**23**	**21**

4. RECOMMENDATIONS

Based on the criteria and assessment scores outlined in this report, the two priority areas which are recommended for collective action in 2022-23 are:

- Improving sexual and reproductive health
- Increasing healthy eating

It is also recommended that action in other priority areas be considered within the broader NEPHU Population Health Catchment Plan.

Endorsement for these recommendations will be sought from the NEPHU Catchment Plan Steering Group.

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5. APPENDICES

APPENDIX 1: REFERENCES

1. NEPHU (2022) Stage 1 Catchment Planning Report (Phases 1 – 3)
2. NEPHU (2023) Catchment Plan Workshop Findings Report (Stage 1, Phase 4).
3. World Health Organisation (2023). Climate Change and Health. Climate change and health (who.int)
4. Women Deliver (2021). The link between climate change and sexual and reproductive health and rights – An evidence review. Climate-Change-Report.pdf (womendeliver.org)
5. Logie, C. H., Toccalino, D., Reed, A., Malama, K., Newman, P., Weiser, S. D., Harris, O. O., Berry, I., & Adedimeji, A. (2021). Exploring linkages between climate change and sexual health: a scoping review protocol. *BMJ Open*, *11*(10), e054720. https://doi.org/10.1136/bmjopen-2021-054720
6. Department of Health (2020) Tackling climate change and it's impacts on health through MPHWP – Guidance for local government 2020 tackling-climate-change-and-its-impacts-on-health-through-MPHWP-guidance-for-local-government.pdf
7. Vergunst, F., Berry, H. L., Minor, K., & Chadi, N. (2022). Climate Change and Substance-Use Behaviors: A Risk-Pathways Framework. *Perspectives on Psychological Science*, 174569162211327. https://doi.org/10.1177/17456916221132739

APPENDIX 2: SUMMARY OF KEY STAKEHOLDER CONSULTATION DATA FOR PRIORITY AREA ASSESSMENT

Table A1: Alignment between stakeholder identified actions for success and NEPHU's functionality

Role of NEPHU	Improving sexual and reproductive health	Increasing active living	Increasing healthy eating	Reducing harm from alcohol and drug use
Enhancing coordination, alignment and integration in planning, program delivery and evaluation	×	×	×	
Community engagement	×	×	×	×
Focus on priority populations	×		×	
Provision of data	×			
Workforce capacity development	×			×
Advocacy	×	×	×	×

Tables A2 – A5: Potential activities within collective action that can be undertaken within a 6-month time frame

Table A2: Potential activities within collective action for improving sexual and reproductive health

Priority area: **Improving sexual and reproductive health**

Focus on social determinants and priority populations

- A focus on a social determinants approach; Recognise the intersection of health and other determinants **(< 6 months)**
- Prevention strategies expand upon understandings of SRH **(< 6 months)**
- Increasing health literacy **(< 6 months)**

Secondary prevention and service access

- Focus should include secondary prevention (abortion access, STI testing and tracing, and other chronic issues relate to this priority) **(< 6 months)**
- Increasing service coordination regarding medical and surgical abortion **(< 6 months)**
- Inclusive service provision for priority populations, including LGBTIQ+ **(< 6 months)**

Partnerships

- Build the implementation of existing strategies; broaden existing partnerships, enabling wide partnerships and a prevention approach **(< 6 months)**
- Potential for more health promotion work **(< 6 months)**
- Skills acquired by NEPHU through our work in contact tracing for COVID can be readily transferred to SRH **< 6 months)**
- Long term work but quick wins in this space **(< 6 months)**

Total activities that can be achieved in < 6months: 10

Table A3: Potential activities within collective action for increasing active living

Priority area: Increasing active living

Advocacy and funding

- Collective advocacy (x2) for example:
  - to the Department of Education and Training
  - to Public Transport Victoria
  - for improved active travel infrastructure
- Lobbying to reduce the cost of accessing physical activities (e.g., gyms) through Government subsidies **(< 6 months)**
- Funding for structured opportunities to be active (outside normal business hours)

Infrastructure and environment

- Improved and well-linked up infrastructure to support active travel including increasing walkability (x3)
- Improved and more coordinated policies
- Targeting sporting leagues and state-based organisations to improve their offerings **(< 6 months)**
- Installation of 'drop and stride'/ 'park and walk' zones for schools **(< 6 months)**

Evaluation

- Shared impact measures to evaluate and monitor change **(< 6 months)**
- Clarity around what needs to be measured to show impact **(< 6 months)**

Accessible and equitable system and services

- Greater availability, accessibility, affordability, quality, frequency and diversity, of group physical activities offered within communities
- Applying an intersectional lens to understanding barriers to participation e.g., gender, age, disability **(< 6 months)**
- Improved health promotion regarding the benefits of physical activity **(< 6 months)**

Partnerships and shared learning

- Focus on one or two actions that achieve increased activity e.g., incidental activity for a particular cohort **(< 6 months)**
- Coordinate to avoid duplication and ensure role clarity **(< 6 months)**
- Shared models and learning about what works **(< 6 months)**
- Scale up existing models and projects that show strong outcomes
- Region-wide social marketing campaigns **(< 6 months)**
- Collaborative, sustained, long-term, mutually reinforcing program of activity that reaches those most in need (dependent on local community needs)

Total activities that can be achieved in < 6months: 11

Table A4: Potential activities within collective action for increasing healthy eating

Priority area: Increasing healthy eating

Advocacy

- Advocacy to government departments to create regulatory and broad systems change rather than small, hard-to-achieve changes at a local level **(< 6 months)**
- Influence policy on advertising/media
- Advocate for Vic Kids Eat Well to have increased follow through (as it is one-off process that is not currently sustained) **(< 6 months)**

Environments, infrastructure and food systems

- Improved infrastructure
- Working to directly address climate change in terms of local food systems **(< 6 months)**
- Increase stakeholder buy-in for the Achievement Program in relevant settings **(< 6 months)**

Partnerships and networks

- Regional Communities of Practice for peer support and sharing findings **(< 6 months)**
- A Food Systems network for community health organisations **(< 6 months)**
- Combined effort with the VicHealth Council Partnership Program (**< 6 months)**
- Shared effort across an LGA to scale up project level action by single organisations, which is supported by policy
- Innovation and new approaches; support provided to bring all areas of this work along **(< 6 months)**

Community Engagement and Education

- Gain community ground swell so that communities want to see changes in environments (e.g., schools) **(< 6 months)**
- Build community understanding about the influence that large corporations have on our food choices **(< 6 months)**
- Communicating the impact of our collective food choices on the whole ecosystem **(< 6 months)**
- Recognition of the need for education to start with young people to develop a healthy lifestyle **(< 6 months)**
- A health literacy approach **(< 6 months)**
- Take a size inclusive/weight neutral approach **(< 6 months)**

Evaluation

- Shared program logic including inputs from across the region and expected outputs **(< 6 months)**
- Shared measurement including the ability to combine impact and outcomes data **(< 6 months)**

Total activities that can be achieved in < 6months: 16

Table A5: Potential activities within collective action for reducing harmful drug and alcohol use

Priority area: Reducing harmful drug and alcohol use

Advocacy

- Flexible local funding **(< 6 months)**
- Advocate for health lens rather than justice lens **(< 6 months)**

Accessible services

- Service mapping including awareness of gaps **(< 6 months)**
- Enhanced service integration and coordination; pathways between services (including between prevention/support services and those that manage the consequences of harmful use) **(< 6 months)**
- Integrated service access

Targeted approaches, primary prevention and community engagement

- Solutions/interventions need to be nuanced to meet the needs of different communities to be effective (including NEPHU funded targeted local solutions) **(< 6 months)**
- Community engagement to ensure service users voices and experiences are central to service and program planning and evaluation **(< 6 months)**
- Focus on primary prevention **(< 6 months)**

Partnerships

- An engaged, cross-sector working group; engagement of non-health groups such as Victoria Police and other agencies outside of health service delivery **(< 6 months)**
- Community of practice **(< 6 months)**
- Working collaboratively with local community health organisations **(< 6 months)**
- Strategic partnerships at a local level that result in co-designed initiatives **(< 6 months)**
- Applying Gender Impact Assessment (GIA) and gender lens to collective work **(< 6 months)**

Total activities that can be achieved in < 6months: 12

Table A6: Known key initiatives currently underway within the priority area

Improving sexual and reproductive health	Increasing active living	Increasing healthy eating	Reducing harmful drug and alcohol use
Side by Side	Rainbow Active Program (Sunbury and Cobaw Community Health)	Yarra Ranges Food Connections	Sunday Sessions Program
MindCycle	INFANT Program (active play)	Vic Kids Eat Well	Achievement Program (tobacco, alcohol and other drugs)
Sex Ed 101	Achievement Program (physical activity and movement)	INFANT Program (healthy eating)	Good Sports Program
Capacity building workshops	Link Health and Community Vic Kids Eat Well, For Sports and Play	Achievement Program (healthy eating and oral health)	Yarning SafeNStrong (Victorian Aboriginal Health Service)
Sexual and reproductive health hubs	Strong People Stay Healthy (Banyule Community Health)	Feed Happiness	
Multicultural Centre of Women's Health multilingual Family Planning and Reproductive Rights Education Program	Creating a Space for Women in Sport	DPV Health's Healthy Canteen Advocacy Campaign	
Achievement Program (sexual health and wellbeing)	Art and Sole (Yarra Ranges)	Link Health and Community Food Supplier and Distributor Project	
Early Medical Abortion Webinars and training	Morning Move for Mind (Yarra Ranges)	Get to Know Your Local Grower Campaign (Sunbury and Cobaw Community Health)	
	Proud 2 Play		
	Transform-Us!		
	Active Koories (Victorian Aboriginal Health Service)		
Total: 8	**Total: 11**	**Total: 8**	**Total: 4**

NOTE: The findings in Table A6 come from NEPHU's Population Health Catchment Planning Stage 1 Report: Phase 1 Desktop Review of the current health promotion and prevention landscape, and current initiatives shared from stakeholder networks and partnerships (inclusive of PHN Needs Assessments, Community Health Integrated Health Promotion Plans, LGA MHWPs, Women's Health Integrated Health Promotion Plans, Health Service strategic plans, relevant planning documents from Aboriginal Community Controlled Sector organisations and Sexual Health Victoria relevant planning documents).

We acknowledge that this is not a comprehensive mapping exercise and does not capture the full extent of programs/initiatives currently undertaken across the catchment.

Table A7: Existing partnerships and networks

Improving sexual and reproductive health	Increasing active living	Increasing healthy eating	Reducing harm from alcohol and drug use
Partnerships and Networks with the NEPHU Catchment			
Women's Health East (WHE) Sexual and Reproductive Health Strategic Reference Group (SRG)		Food Systems Partnership (lead by Inspiro Health)	Action on Alcohol Flagship Group (lead by Access Health and Community)
		Climate Health in Local Lives CoP (led by Link/Latrobe Community Health)	North East Mental Health Service Coordination Alliance (NEMHSCA)
Partnerships and Networks which included but are wider than the NEPHU Catchment			
The Sexual and Reproductive Health Community of Practice	INFANT Program – Deakin University	Healthy Eating Advisory Service	The Local Government Gambling, Alcohol and Other Drugs Issues Forum (LGGAODIF)
	Achievement Program Health Promoter Network – Cancer Council	Achievement Program Health Promoter Network – Cancer Council	
		Victorian Healthy Eating Enterprise (VHEE)	
	Transform-Us! Program Partner Catch Up – Deakin University	Vic Kids Eat Well Network and Community of Practice	
		INFANT Program – Deakin University	

APPENDIX 3: SUMMARY OF KEY POPULATION HEALTH INDICATORS FOR PRIORITY AREA ASSESSMENT

Table A8: LGAs with worse outcomes/disease burden compared to Metropolitan Melbourne

Indicators List	Number and List of LGAs (status indicator)	Geographical Spread of Values (situational indicator) Arranged from worse to more worse than Metro Melbourne (or VIC) average
Healthy Eating		
Proportion of adults who meet fruit consumption guidelines only	Data: Victorian Population Health Survey (VPHS) 2017 Metro: 39.2% VIC: 43.2% No of LGAs <39%: 1	Hume: 36%
Proportion of adults who meet vegetable consumption guidelines only	Data: VPHS 2017 Metro: 5.1% VIC: 5.2% No of LGAs worse than Vic average: 5	Darebin: 5.1% Maroondah: 4.9% Knox: 3.6% Whittlesea: 2.4% Hume: 2.3%
Proportion of adults who consume sugar sweetened beverages daily	Data: VPHS 2017 Metro: 9.4% VIC 10.0% No of LGAs > 9%: 4	Maroondah: 13% Whittlesea: 13% Hume: 14% Yarra Ranges: 15%
Proportion of adults who are obese and/or overweight (note that this can also be used with Physical Activity)	Data: VPHS 2020 Metro: 48.8% VIC: 51% No of LGAs > 49%: 6	Yarra Ranges: 49.5% Banyule: 51.5% Whittlesea: 53.1% Maroondah: 53.8% Nillumbik: 55.8% Hume: 60.9%
Physical Activity		
Proportion of adults who are insufficiently physically active and/or sedentary	Data: VPHS 2017 Metro: 50% VIC: 49.9% No of LGAs > 50%: 3	Whitehorse: 50% Hume: 51% Darebin: 52%

Indicators List	Number and List of LGAs (status indicator)	Geographical Spread of Values (situational indicator) Arranged from worse to more worse than Metro Melbourne (or VIC) average
Proportion of adults who sit for >=7 hours on an average weekday	Data: VPHS 2017 Metro: 27.7% VIC: 26.5% No of LGAs > 28%:7	Nillumbik: 29.1% Banyule: 29.3% Whitehorse: 29.3% Maroondah: 31.0% Darebin: 32.3% Boroondara: 33.3% Yarra: 40.8%
Alcohol & Drug Use		
Frequency of drinking and drug-taking consumption (including volume)	**Average no of standard drinks per week ages 14+** Data: AIHW 2019[8] VIC: 3.4 **Frequency of exceeding 4 standard drinks in 1-2 days/week** Data: VPHS 2017 VIC average 60.2% No of LGAs > 60.2%: 9 **Proportion of people who used illicit drugs within the last 12 months** Data: AIHW 2019 VIC: 16.4% Drug consumption data could not be found at the LGA level	Alcohol consumption (exceeding 4 standard drinks in 1-2 days/week) • Yarra Ranges 61.8% • Hume 63.6% • Knox 64.0% • Whitehorse 64.0% • Darebin 65.1% • Banyule 67.1% • Boroondara 68.0% • Nillumbik 73.1% • Yarra 74.6%
Age of consumption	**Average age of first drink** Data: AIHW 2019 VIC: 17.2 years **Average age of first drug use** Data: AIHW 2019 VIC Illicit drugs: 19.5 years Pharmaceuticals for non-medical purposes: 25.3 years	LGA specific data could not be found for this indicator

Indicators List	Number and List of LGAs (status indicator)	Geographical Spread of Values (situational indicator) Arranged from worse to more worse than Metro Melbourne (or VIC) average
Proportion of increased risk (yearly) of injury from a single occasion of drinking	Data: VPHS 2017 Metro: 43% VIC: 47% No of LGAs > 43%: 8	Boroondara 45% Knox 45% Darebin 47% Maroondah 47% Nillumbik 47% Banyule 48% Yarra Ranges 50% Yarra 53%
Proportion of increased lifetime risk of alcohol-related harm	Data: VPHS 2017 Metro: 60% VIC: 63% No of LGAs > 60%: 7	Darebin 62% Maroondah 63% Banyule 64% Boroondara 66% Yarra Ranges 67% Nillumbik 70% Yarra 70%
Rate of alcohol-related and other drug-related deaths	**Alcohol-related death rate** Data: AOD 2020 Metro: 116.1/100,000 VIC: 130.6/100,000 No of LGAs > 116.1: 7 **Drug-related death** VIC: average rate 1.16 per 100,000 number of deaths in 2020: 78 Metro: number of deaths in 2020: between 14-78	Alcohol-related death rate per 100,000 • Boroondara 117.5 • Whitehorse 123.4 • Knox 129.0 • Banyule 131.9 • Darebin 133.4 • Maroondah 147.4 • Manningham 154.4 For drug-related deaths in NEPHU, the AOD 2020 stats are approximates as <5 deaths or whole numbers if more than 5 deaths. Rates are not displayed. Most of NEPHUs LGAs are <5 deaths. The LGAs with 0 drug-related deaths in 2020: • Boroondara • Darebin • Knox • Manningham • Whitehorse

Indicators List	Number and List of LGAs (status indicator)	Geographical Spread of Values (situational indicator) Arranged from worse to more worse than Metro Melbourne (or VIC) average
Rate of alcohol-related and other drug-related violence	**Alcohol-related violence rate during low-alcohol hours (all days 6am-8pm)** Data: AOD 2020 VIC: 392.8 per 100,000 Metro: 363.5 per 100,000 No of LGAs > 363.5: 5 Drug-related violence rates could not be found	Alcohol-related violence rate per 100,000 • Maroondah 385.1 • Darebin 391.1 • Whittlesea 412.9 • Hume 457.4 • Yarra 595.4
Rate of alcohol-related and other drug-related hospitalisations	**Alcohol-related hospitalisation rate** Data: AOD 2019 VIC: 524.7 per 100,000 Metro: 557.9 per 100,000 No of LGAs > 557.9: 5 **Drug-related hospitalisation rate (illicit drugs)** VIC: 282.2 per 100,000 Metro: 302.1 per 100,000 No of LGAs > 302.1: 3	Alcohol-related hospitalisation rate per 100,000 • Maroondah 592.1 • Boroondara 615.2 • Knox 639.4 • Yarra 682.8 • Yarra Ranges 688.6 Drugs-related hospitalisation rate per 100,000 • Maroondah 317.1 • Knox 331.2 • Yarra 382.3
Sexual & Reproductive Health		
Rate of sexual offences experienced	**Sexual offences experienced by females** Data: Womens Atlas 2020 VIC: 9 per 10,000 No of LGAs > 9: 7 Male rates do not exceed the VIC average	Sexual offences experienced by females rate per 10,000 • Darebin 9.15 • Whitehorse 9.21 • Knox 10.43 • Hume 11.19 • Maroondah 12.86 • Yarra Ranges 13.26 • Yarra 14.98
STI rates	**Chlamydia rate** Data: Department of Health 2020 VIC: 322.7 per 100,000 No of LGAs > 322.7: 2	Chlamydia • Darebin 330.9 • Yarra 858.9

Indicators List	Number and List of LGAs (status indicator)	Geographical Spread of Values (situational indicator) Arranged from worse to more worse than Metro Melbourne (or VIC) average
	Gonorrhoea rate VIC: 104.6 per 100,000 No or LGAs >104.6: 2 **Hepatitis B rate** VIC: 20.7 per 100,000 No of LGAs > 20.7: 4 **Syphilis rate** VIC: 35.9 per 100,000 No of LGAs > 35.9: 2 **HIV rate** VIC: 3.3 per 100,000 LGAs > 3.3: 2	**Gonorrhoea** • Darebin 136.1 • Yarra 405.9 **Hepatitis B** • Maroondah 20.9 • Whittlesea 21.2 • Manningham 29.3 • Whitehorse 40.6 **Syphilis** • Darebin 45.8 • Yarra 104.9 **HIV** • Hume 3.8 • Banyule 3.9 • Yarra 8.6
Cervical cancer screening participation proportion – female only	**Screening proportion** Data: Women's Atlas 2020) VIC: 56% No of LGAs < 56%: 4	Hume 48.2% Whittlesea 50.9% Darebin 53.9% Whitehorse 54.3%
Rate of sexual/reproductive chronic diseases (e.g. PCOS, endometriosis)	Data: AIHW (2016/2017) Australian average rate of endometriosis-related hospitalisations: 281 per 100,000	LGA-level data could not be found

Table A9: Disproportionate representation of high-risk groups across NEPHU LGAs and their risk for certain health indicators in the four priority areas

High-Risk Groups	LGAs with proportion of high-risk groups (either more than the Metro Melbourne average or the highest within NEPHU)	Affected indicators (based on general lit review)
CALD	Data: VPHS 2017 Metro proportion: 34.82% LGAs > 34.82%: • Whitehorse 40.50% • Whittlesea 45.40% • Manningham 46.32% • Hume 49.42%	**SRH** (WHIN)[9] - only migrants and refugees "Compared to Australian-born, non-First Nations women, migrant and refugee women are: • at greater risk of contracting an STI such as human immunodeficiency virus (HIV) and hepatitis B • at greater risk of experiencing family violence and are more likely to face barriers to obtaining support • more likely to experience barriers to sexual and reproductive health care, including abortion care and support services (MCWH, 2021)." **Physical activity** (VPHS) - only people born overseas • In 2019, people born overseas (47.8%) were less sufficiently physically active compared to people born in Australia (52.8%). **Healthy eating** (VPHS) - only people born overseas • In 2019, people born overseas (2.9%) were less likely to consume sufficient fruit and vegetables compared to people born in Australia (3.9%).
Aboriginal and Torres Strait Islander	Data: VPHS 2017 Metro proportion: 0.66% LGAs > 0.66%: • Banyule 0.69% • Hume 0.76% • Darebin 0.98% • Whittlesea 0.99% • Yarra ranges 1.10%	**SRH** (extracted from WHIN) [9] • "Notification rates of chlamydia, gonorrhoea and syphilis in 2017 were 3, 7 and 7 times greater respectively than the non-First Nations population (Kirby Institute, 2018). • Between 2012 and 2019, First Nations women were three times more likely to die in childbirth than other Australian women (AIHW, 2021a). • PCOS affects up to one in six First Nations women of reproductive age (Boyle et al., 2012)."

High-Risk Groups	LGAs with proportion of high-risk groups (either more than the Metro Melbourne average or the highest within NEPHU)	Affected indicators (based on general lit review)
		Alcohol & drug use (Australian Burden of Disease Study 2018) [10] • Alcohol use was the second largest contributor to total disease (fatal and non-fatal) burden in 2018 and illicit drug use as being the 4th largest burden. • "Lifetime risky drinking of Indigenous Australians aged 15 and over was slightly higher than that of non-Indigenous Australians (18.7% compared with 15.2%; age-standardised) (ABS 2016; ABS 2019) • over one quarter (28.3%) of Indigenous Australians aged 15 and over had used illicit substances in the last 12 months (2018-2019 NATSIHS)" **Physical activity** (VPHS) • In 2019, First Nations participants (43.7%) were less sufficiently physically active compared to non-First Nations participants (51.1%). **Healthy eating** (VPHS) • In 2017, First Nations participants (1.5%) were less likely to consume sufficient fruit and vegetables than non-First Nations participants (3.6%). • In 2017, First Nations participants (26.1%) were more likely to consume sugar sweetened beverages daily compared to non-First Nations participants (9.9%).
Aged (60+)	Data: VPHS 2017 Metro female proportion: 10.88% Metro male proportion: 9.29% LGAs > 10.88% female: • Nillumbik 12.22% • Yarra ranges 12.62% • Maroondah 12.85% • Knox 13.02% • Boroondara 13.20% • Whitehorse 13.31%	**SRH** (extracted from WHIN) [9] "Between 2000 and 2018, diagnosis rates of chlamydia, gonorrhoea and syphilis all increased among Australian women aged 55 – 74 and did so at faster rates than among younger women (Bourchier et al., 2020)." **Alcohol & drug use** (AIHW 2020) [11] • "People in their 50s (21%) and 60s (17.4%) were more likely to drink at levels that

High-Risk Groups	LGAs with proportion of high-risk groups (either more than the Metro Melbourne average or the highest within NEPHU)	Affected indicators (based on general lit review)
	• Banyule 13.48% • Manningham 15.48% LGAs > 9.29% male: • Maroondah 10.38% • Whitehorse 10.51% • Boroondara 10.81% • Knox 11.09% • Banyule 11.21% • Yarra ranges 11.43% • Nillumbik 11.65% • Manningham 12.94%	exceeded the lifetime risk guidelines than the general population aged 14 and over (16.8%), while people aged 70 and over (12.2%) were less likely to do so. • The age distribution of people who have recently used illicit drugs has shifted over time, reflecting an ageing cohort of people who use drugs. In 2001, 6.1% of people who had recently used an illicit drug were in their 50s and 4.4% were aged 60 and over. In 2019, this increased to 11.8% and 11.2%, respectively"
People living with a disability	**People living with disability** Data: ABS 2018 VIC proportion: 18.5% (Note. Data for this indicator is not available at LGA level.) **Need for assistance with core activity – profound disability** Data: Women's Atlas 2016 VIC average proportion: 5.5% LGAs > 5.5% female: • Manningham 5.8% • Whittlesea 6.1% • Darebin 6.6% • Hume 6.6% LGAs > 5.5% male: • Hume 5.9% (Note. This indicator is a subset of all people living with a disability)	**SRH** (extracted from WHIN) [9] • "90% of women with an intellectual disability have been subject to sexual abuse, with more than two thirds having been sexually abused before they turn 18 (ALRC, 2010). • Women living with disabilities often have minimal or no access to sexual and reproductive health services or information often due to not being viewed by the community or health systems as sexual beings (WDV, 2012)" **Physical activity** (VicHealth 2010) [12] • "Increased severity of disability is associated with lower rates of participation in a range of activities offering health benefits and the potential for community interaction. • Of people without a disability, 64% take part in sport or physical activities or attend sporting events as a spectator, compared with 50% of people with a disability and 28% of those with a profound or severe core-activity limitation (Trewin 2006)."

High-Risk Groups	LGAs with proportion of high-risk groups (either more than the Metro Melbourne average or the highest within NEPHU)	Affected indicators (based on general lit review)
LGBTQIA+	Data: VPHS 2017[13] Metropolitan Melbourne proportion: 6% VIC proportion: 5.7% LGAs > 6%: • Banyule (6.5%) • Darebin (10.6%) • Knox (6.1%) • Whitehorse (6.3%) • Whittlesea (6.8%) * • Yarra (10.0%) * this statistic should be used with caution due to large confidence interval[13] LGAs for which there is a statistically significant difference compared to Metropolitan Melbourne: - Darebin	**SRH** According to WHIN[9], this core group experience frequent discrimination in seeking sexual health care which was associated with lower STI testing rates among sexually active participants (Callander et al., 2019). Also, 37% of women in the LGBTQIA+ community reported they never had a STI test (ASRHA, 2021). **Alcohol & drug use** (AIHW 2020) [13] "In 2019, compared with people who identified as heterosexual, people who identified as lesbian, gay or bisexual were: • 1.5 times as likely to exceed the lifetime risk guidelines (25% compared with 16.9%) • 1.4 times as likely to exceed the single occasion risk guidelines at least monthly (35% compared with 26%) • In 2019, 2 in 5 (40%) people identifying as lesbian, gay or bisexual had recently used any illicit drug, compared with 36% in 2010"

Footnoted data sources for Tables A8 and A9:

8) Australian Institute of Health and Welfare (2020) National Drug Strategy Household Survey 2019, AIHW, Australian Government.

9) Women's Health In the North (2022). Freedom, Respect and Equity in Sexual Health 2022–2026. Thornbury: Women's Health In the North.

10) Australian Institute of Health and Welfare (2021) Australian Burden of Disease Study 2018: key findings for Aboriginal and Torres Strait Islander people, AIHW, Australian Government.

11) Australian Institute of Health and Welfare (2020). Australia's health 2020: data insights, AIHW, Australian Government.

12) VicHealth (2010) Participation in physical activity: a determinant of mental and physical health research summary. Victorian Health Promotion Foundation [VicHealth], Melbourne.

13) Victorian Agency for Health Information (2020) The health and wellbeing of the lesbian, gay, bisexual, transgender, intersex and queer population in Victoria: Findings from the Victorian Population Health Survey 2017, State of Victoria, Melbourne.