Department of Health & Social Care

Boys' and men's engagement with health programmes - barriers and evidence-based opportunities to improve engagement: a rapid mapping review

Published November 2026

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Executive summary

The purpose of this rapid mapping review and evidence gap map (EGM) was to identify and categorise the available review-level evidence on barriers and evidence-based opportunities to boys' and men's engagement in health programmes to help build on the Men's Health Strategy for England and help inform evidence gaps and/or priorities.

A total of 340 systematic reviews were identified and included in the EGMs. They were categorised by:

- population group (lifecourse stage and minority population groups)
- public health issues (main drivers of mortality and morbidity, risk factors and health issues specific to men)
- barriers to engagement
- opportunities for engagement

Population groups

Adulthood was the lifecourse stage for which most evidence was identified. The most widely reported minoritised subgroups were men who have sex with men (MSM) and minority ethnic groups.

Public health issues

Mental health and cancer were the most widely reported drivers of premature mortality and healthy life expectancy. Drug and alcohol use were the most commonly reported risk factors. For male-specific issues, most evidence was identified for sexual health, prostate and testicular health, and injury and risk taking.

Engagement barriers

Most evidence on barriers to engage boys and men in health programmes was identified at the individual level, the most common being:

- low health literacy and knowledge
- stigma
- masculine norms
- fear and uncertainty

Barriers at the health system level were the next most reported, especially:

- practitioner bias and knowledge
- lack of male-specific services
- unavailability of services

The main structural-level barriers identified were:

- financial issues
- prioritisation of work over health

At the cultural level, the main barriers reported were:

- culturally embedded stigma
- lack of culturally responsive services
- discrimination

Engagement opportunities

For opportunities to engage boys and men in health programmes, most evidence was identified at the individual level, the most common being:

- health education
- peer and lived experience support
- involvement of a personal support person

At the health system level, most evidence was reported for:

- male-responsive services
- health-literate services
- gateway consultations

The main structural level opportunities identified were:

- digital health

- engaging men and boys where they are (for example, in the community and everyday settings)
- flexible and accessible services

At the cultural level, the main opportunities reported were:

- culturally responsive services
- men's health advocacy
- valuing men’s and boys' strengths

Limitations

Only a limited amount of evidence was identified for older men and there is very little on early years and into childhood. Evidence is also very limited for disabled males, people living with housing insecurity, male carers and male sex workers. No systematic reviews were identified for health issues such as chronic respiratory disease and only limited evidence was found on musculoskeletal conditions, diabetes and cardiovascular disease. Little evidence was identified for risk factors such as diet, physical inactivity or metabolic factors such as blood pressure or cholesterol. Only one systematic review reported on gambling as a risk factor among males at any life stage.

The review maps the available evidence, rather than establishing ‘what works’ to improve engagement of boys and men. For example, the greater volume of reviews on individual barriers should not be read as showing that these matter more than service or structural barriers, which instead may reflect under-researched topic areas. Similarly, the volume of research in a particular area should not be taken as an indication of its relative priority for the government or of the level of need among men and boys.

Background

In November 2024, the then-Secretary of State announced plans for a men's health strategy. The now published 'Men's health: a strategic vision for England' strategy, was presented to Parliament in November 2025 and is the first of its kind in England (1). England is the first country in the G7 to have a dedicated plan for men's health. The Republic of Ireland has also developed and adopted a national men's health policy.

The strategy includes tangible actions to:

- improve access to healthcare services
- provide the right support to enable men to make healthier choices
- develop healthy living and working conditions
- foster strong social, community and family networks
- address societal norms
- tackle health challenges and conditions

It also considers how to prevent and tackle the biggest health problems affecting men of all ages, which include:

- mental health and suicide prevention
- respiratory illness
- prostate cancer
- heart disease

The strategy lays the foundation for future action and development and forms an important part of the government's Fit for the Future' 10 Year Health Plan for England, released in July 2025 (2). The plan aims to reform the NHS through 3 shifts from:

- sickness to prevention
- hospital to community
- analogue to digital

Improving men's access, engagement and experience of the health service was one of the themes in a 12-week public call for evidence launched in May 2025 to inform the Men's Health Strategy for England (1). The call for evidence sought the public's views as well as the views of health and social care professionals, academics, employers and stakeholder organisations. A total of 6,591 responses were received. Academics and health care professionals were invited to provide supporting information relating to:

- examples of solutions that have improved men's engagement with and experience of healthcare services
- recommendations for how healthcare services can improve how they engage men and the experience they offer
- any gaps in data or evidence

Priority topics identified through the call for evidence included cancers, mental health, access to services, suicide prevention and health screening services.

To help build on the Men's Health Strategy for England, and to complement the information submitted through the public call for evidence, we conducted a rapid mapping review to identify and map available evidence on the barriers to, and opportunities for, boys' and men's access to and engagement with health programmes.

Rapid mapping reviews are a type of evidence synthesis in which the stages in a systematic review are streamlined, while still maintaining the rigour and transparency of a traditional review (3). These are considered one of the 'big picture reviews' as they specifically aim to find, describe and map available existing research on a broad research question, rather than synthesising any findings from included studies. This synthesis method can be particularly helpful in deciding what future research priorities could be.

The definition of health programmes used in the rapid mapping review was broad and included all types of health services delivered in primary care, secondary care and in the community. It also included health improvement campaigns as well as digital health services and apps.

An umbrella review (a systematic review of systematic reviews) commissioned by the Australian Government's Department of Health and Aging previously collated evidence on this topic in preparation for the Australian men's health strategy (4). In this review, researchers searched for systematic reviews on barriers and opportunities for men's engagement with the health system published between 2000 and 2019. After screening against inclusion/exclusion criteria, 335 international reviews were included, 220 of which were classed as systematic reviews. Researchers report results in a framework covering 4 overarching factors:

- individual factors
- systemic factors
- structural factors
- cultural factors

There is now a need to understand the extent of systematic review level evidence published since 2019, to understand where evidence gaps exist and to make existing systematic reviews more accessible to researchers and policy makers.

Aim

This aim of this rapid mapping review was to build on the evidence review ‘Macdonald et.al. 2022, Men’s and Boys’ Barriers to Health System Access: A Literature Review’ (4) and to identify, code and map systematic reviews examining:

- barriers to boys’ and men’s engagement with health programmes
- evidence-based opportunities to engage boys and men with health programmes

Mapping reviews are evidence synthesis methodologies that address broad research questions and are used to support a range of purposes including guiding decision making and setting research priorities.

This mapping review presents available evidence in 3 thematic evidence gap maps (EGMs) displaying relevant systematic reviews by theme according to an agreed coding structure. These maps show where evidence is substantial (or lacking) for specific barriers, opportunities, population groups and health programmes.

Methods

This rapid mapping review followed streamlined systematic methods to help accelerate the review process. A protocol outlining the objectives, rationale and methods of the review was produced and registered on the Open Science Framework (OSF) platform.

Literature search

The Macdonald et al. (2022) review was used as a source of relevant systematic reviews published between 2000 and 2019. Additional electronic searches were then conducted up to March 27 2025 and again up to May 27 2025 using Ovid MEDLINE, Ovid EMBASE, Epistemonikos and the Cochrane Database of Systematic Reviews for any further systematic reviews published on or after 1 October 2019 when the Macdonald et al. (2022) search ended. An updated search was run up to 11 May 2026. A senior information scientist from UK Health Security Agency (UKHSA) developed the search strategy which was also peer reviewed by a second information scientist. This search used the Macdonald et al. (2022) search strategy for reference, but was less specific to Australia, more prevention focussed and included additional health services terms. As this is a rapid mapping review, grey literature (evidence not published in commercial publications) was not searched. The initial Medline search strategy is provided in Annex A.

All references identified by searching electronically were imported into reviewing software (EPPI-Reviewer 6)(5) and duplicates removed.

Eligibility criteria

The full inclusion and exclusion criteria are provided in annex B. All systematic reviews that reported on barriers and opportunities to boys' and men's engagement in healthcare, in reviews where the majority of included studies were from Organisation for Economic Co-operation and Development (OECD) countries, were included. A few reviews labelled by authors as scoping, integrative or umbrella reviews were also included if they fulfilled the review criteria for a systematic review.

Screening

Two reviewers completed 10% of the title and abstract screen in duplicate. The results were used to inform EPPI-Reviewer 6’s priority screening tool (6). The tool uses machine learning to prioritise the order of references by their likelihood of inclusion based on prior screening decisions (all studies were screened by a human reviewer). Two reviewers then screened a further 20% of the titles and abstracts in duplicate, with the remaining 70% screened by a single reviewer. The systematic reviews included in Macdonald et al. (2022) review were then imported into EPPI-Reviewer 6 for full text screening based on the eligibility criteria above.

An initial pilot phase was then conducted whereby 5% of the included full texts from both the Macdonald et al. (2022) review and electronic searches studies were screened at full text in duplicate by 2 reviewers. The remainder were screened on full text by one reviewer with a 10% check by a second reviewer.

During the screening process any discrepancies were resolved through discussion between a first and second reviewer, with a third reviewer used to support decisions if necessary.

Data extraction and coding

Information from included full texts was extracted and coded in EPPI-Reviewer 6 by a single reviewer with spot checks for accuracy by a second reviewer (3) to create interactive EGMs. EGMs are a form of evidence synthesis, designed to tackle broad research questions and they help to provide a visual illustration of how literature available on a topic is distributed. The interactive maps produced as part of this rapid mapping review are all available for download as HTML files.

No critical appraisal of the included studies was conducted.

Evidence gap map framework

The coding structure for the EGMs was informed by the theoretical framework presented by Macdonald et al. (2022). This framework characterises health system access as an individual's opportunity to:

- identify their personal healthcare needs
- identify healthcare services suitable for meeting their needs
- reach healthcare relevant to their needs
- receive effective care that addresses their healthcare needs
- adhere to healthcare advice or treatment in accordance with their needs

Barriers and opportunities to healthcare access were grouped and these groups were used to inform the data extraction codes:

- individual factors. These include internalised influences of cultural beliefs and norms, social and economic capital, any form of marginalisation, and personal values and beliefs. They affect trust in the healthcare system, likelihood of seeking help, health literacy, knowledge of one's own risk and available services, financial resources, satisfaction with care and adherence to treatment

- health system factors. These are driven by available social and economic resources, policy, prioritisation, service culture, practitioner education and training and professional values

- structural factors. These prescribe how a service is delivered (for example, where, when and at what cost), and are constrained by geography, funding, supply and demand

- cultural factors. These include collectively held values and standards that guide expectations of how an individual should behave or how a service should be delivered

Included systematic reviews were categorised by review characteristics (for example, publication date, whether they included UK studies, populations of interest) and health issue (including the drivers of early death, risk factors, specific 'male' health issues, intervention setting and context). All included systematic reviews were then categorised in relation to barriers or opportunities for engagement in health programmes at individual, health system, structural and cultural levels. Systematic reviews could report on more than one population of interest, health issue, intervention setting or context, barrier and opportunity.

The full coding structure along with their definitions are provided in annex C.

Results

The literature search identified 3,238 systematic reviews (published from 1 October 2019 to 11 May 2026) which examined barriers to boys' and men's engagement with health programmes and evidence-based opportunities to engage boys and men with health programmes. After screening titles and abstracts, 524 systematic reviews were screened at full text. An additional 201 systematic reviews were also identified from the Macdonald et al. (2022) review and screened at full text. A total of 340 systematic reviews were included and coded for display in the interactive EGMs. The study types included within each systematic review were not recorded for the purpose of this rapid mapping review, but authors noted a mix of qualitative and quantitative designs.

The Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) diagram for the search is provided in annex D.

Most of the identified research was published in the 5 year period between 2021 and 2025 (199 systematic reviews) and included between 1 and 25 individual studies (213 systematic reviews). 198 systematic reviews reported on UK studies. Further details on key characteristics of included systematic reviews are provided in Annex E.

In this section of the report, the number of systematic reviews identified are organised by the following themes:

- population group (including lifecourse stage and minority population groups)
- public health issue (including drivers of mortality and morbidity, risk factors and health issues specific to men)
- barriers to engagement
- opportunities for engagement

These themes correspond to the interactive EGMs.

We have listed the numbers of reviews for each theme and given the reference numbers of each.

Population group

Lifecourse stage

Adulthood was the lifecourse stage for which most evidence was identified (318 systematic reviews), with limited evidence identified specifically for older men (defined as the period

following the end of adulthood, from around 60 years and above) (29 systematic reviews). Only 3 systematic reviews were identified for the early years and childhood stage.

Of these reviews:

- 318 reported on adulthood (7 to 256) (257 to 324)
- 53 reported on fatherhood (10, 24, 28, 39, 45, 46, 50, 52, 53, 58, 71, 72, 76, 79, 85, 90, 93, 96, 97, 101, 104, 118, 126, 136, 138, 150, 160, 174, 177, 189, 191, 202, 210, 215, 252, 262 to 265, 271, 275, 279, 288, 292, 297, 305, 306, 311 to 313, 325 to 327)
- 45 reported on adolescence (12, 13, 20, 22, 25, 29, 44, 47, 50, 51, 77, 81, 103, 114, 116, 146, 153, 157, 170, 200, 201, 203, 223, 224, 227, 228, 246, 259 to 261, 283, 284, 292, 325, 328 to 338)
- 29 reported on older age men (17, 22, 29, 35, 50, 60, 87, 120, 129, 141, 190, 202, 205, 224, 230, 237, 240, 248, 250, 260, 264, 271, 279, 300, 307, 339 to 342)
- 3 reported on early years and childhood (223, 325, 335)

Minoritised groups and subpopulations

Men who have sex with men (MSM) was the minoritised subgroup for which most evidence was identified (123 systematic reviews) followed by minority ethnic groups (106 systematic reviews) and socially disadvantaged males (23 systematic reviews). Only 2 were identified that reported on disabled people, 6 on people living with housing insecurity and 4 on carers.

Of these reviews:

- 123 reported on men who have sex with men (MSM) (13, 15, 17, 20, 23, 25, 32, 35, 43, 47, 51, 55 to 57, 65 to 67, 74, 78, 80, 82, 86, 89, 91, 94, 99, 106, 108, 110 to 112, 115, 116, 121, 123 to 125, 130 to 135, 144, 147, 148, 152, 153, 155 to 159, 161, 163, 167, 169 to 172, 175, 178, 179, 187, 188, 193, 195, 196, 200, 203 to 205, 207, 208, 211 to 213, 219, 220, 223 to 225, 227 to 229, 231 to 233, 235, 238, 243, 249, 251, 253 to 256, 259, 267, 274, 281, 283, 285 to 287, 289, 291, 293, 294, 299, 301 to 304, 308, 311, 314, 315, 317, 322 to 324, 343)
- 106 reported on minority ethnic groups (8, 10 to 13, 16, 22, 23, 25, 26, 29, 32, 37, 39, 44, 45, 48 to 50, 52, 64-66, 69, 74, 78, 81, 87, 91, 94, 98, 103, 104, 108, 114 to 116, 119, 121, 124, 125, 127, 128, 130, 131, 134, 139 to 141, 147, 154, 161 to 163, 167, 169, 170, 173, 175, 182, 184, 185, 188, 190, 193, 203 to 205, 207, 208, 211, 219, 220,

222, 223, 225, 227, 230, 235, 238, 240, 241, 247, 248, 255, 257, 259, 267, 270, 273, 276, 283, 286, 292, 297, 302, 308 to 311, 320, 328, 331, 332, 334, 335)

- 23 reported on socioeconomically disadvantaged men (12, 13, 21, 25, 29, 45, 62, 78, 87, 114, 162, 167, 169, 184, 190, 193, 202, 209, 257, 267, 292, 308, 331)
- 21 on socially isolated males (12, 39, 43, 46, 50, 55, 72, 78, 85, 140, 162, 204, 205, 218, 225, 257, 264, 267, 272, 279, 297)
- 21 reported on transgender men and boys (18, 20, 37, 39, 55, 61, 75, 112, 123, 124, 142, 144, 157, 164, 206, 221, 229, 235, 265, 343, 344)
- 19 reported on persons in the criminal justice system (12, 30, 37, 47, 50, 54, 67, 80, 83, 87, 111, 119, 124, 131, 146, 220, 260, 276, 311)
- 16 on religious groups (8, 22, 32, 85, 109, 140, 162, 182, 216, 241, 264, 297, 299, 311, 326, 335)
- 13 reported on military population or veterans (29, 48, 64, 67, 80, 87, 199, 205, 223, 246, 260, 276, 320)
- 12 reported on interpersonal violence (8, 12, 44, 47, 50, 124, 127, 135, 139, 175, 223, 299)
- 11 reported on asylum seekers and refugees (8, 74, 78, 162, 169, 174, 182, 191, 193, 204, 276)
- 6 reported on people living with housing insecurity (25, 47, 87, 127, 255, 257)
- 5 reported on sex workers (152, 190, 227, 281, 343)
- 4 reported on carers (97, 160, 326, 340)
- 2 reported on disabled people (29, 190)

Health issues

Drivers of premature mortality and/or healthy life expectancy

Mental health was the key driver of premature mortality and/or healthy life expectancy for which the most evidence was identified (126 systematic reviews) followed by cancer (92 systematic reviews).

Of these reviews:

- 126 reported on mental health (8 to 10, 12, 15, 17, 24, 26, 28, 29, 31, 36, 38, 44, 46, 47, 49 to 51, 54, 55, 58, 59, 63, 69 to 72, 76, 78, 79, 84, 85, 87, 88, 90, 93, 95 to 97, 101, 102, 104, 107, 113, 118, 119, 121, 124, 127, 128, 131, 135, 136, 139, 140, 142, 146, 149, 150, 160, 162, 164, 168, 174, 175, 177, 178, 181, 186, 189, 191, 192, 194, 197, 199, 205, 208 to 212, 214 to 218, 229, 232, 235, 239, 244, 252, 254, 257, 259, 260, 262 to 266, 268, 270, 272, 273, 275, 276, 279, 281, 290, 292, 297 to 299, 305, 306, 311 to 313, 319, 328, 329, 340, 341, 345)

- 92 reported on cancer (7, 11, 14, 16, 17, 19, 26, 32, 38, 40 to 42, 49, 55, 56, 61, 64, 68, 70, 81, 87, 92, 100, 102, 109, 112, 117, 128, 129, 137, 140, 141, 144, 145, 154, 165, 184, 185, 187, 188, 190, 195 to 198, 201, 214, 216 to 218, 221, 224, 230, 234, 237, 240 to 242, 244 to 250, 253, 257, 261, 267, 269, 277, 278, 280, 282, 290, 295, 300, 309, 311, 316, 318, 320, 323, 330, 331, 334 to 339, 345)

- 20 reported on suicide (10, 12, 15, 46, 50, 54, 72, 87, 88, 107, 127, 168, 211, 216, 229, 232, 239, 257, 265, 272)

- 15 reported on cardiovascular disease or diseases (21, 50, 73, 87, 102, 103, 176, 237, 257, 278, 307, 309 to 311, 345)

- 11 reported on diabetes (50, 73, 87, 102, 202, 222, 257, 310, 311, 328, 345)

- 5 reported on musculoskeletal conditions (60, 87, 102, 339, 342)

- 1 reported on chronic liver disease (293)

See figure 1 for a screenshot example EGM showing number of systematic reviews identified relevant to key drivers by lifecourse stage.

Risk factors

Drug use and alcohol use were the risk factors for which most evidence was identified (46 and 44 systematic reviews respectively), followed by social isolation and loneliness (28 systematic reviews), overweight and obesity (22 systematic reviews) and physical inactivity (19 systematic reviews). Only one systematic review was identified related to gambling and only 3 related to metabolic factors (excluding obesity) such as blood pressure or cholesterol.

Of these reviews:

- 46 reported on drug use (12, 30, 43, 46 to 48, 50, 51, 54, 74, 83, 87, 115, 116, 121, 127, 132, 135, 146, 148, 149, 170, 178, 179, 195, 202, 203, 205, 212, 223, 227, 235, 254, 255, 257, 272, 281, 293, 294, 296, 298, 299, 308, 324, 325, 343)

- 44 reported on alcohol use (15, 22, 30, 43, 46, 47, 50, 51, 54, 74, 83, 87, 115, 116, 121, 132, 135, 146, 148, 149, 170, 176, 178, 179, 195, 203, 212, 216, 223, 235, 236, 254, 257, 271, 272, 279, 281, 293, 296, 298, 308, 311, 324, 325)

- 28 reported on social isolation and loneliness (12, 39, 43, 46, 72, 78, 85, 87, 97, 115, 119, 140, 162, 177, 191, 205, 212, 218, 225, 263 to 265, 272, 273, 292, 305, 326, 341)

- 22 reported on overweight and obesity (22, 33, 34, 50, 84, 87, 98, 143, 176, 202, 205, 226, 236, 237, 257, 258, 271, 279, 307, 310, 311, 316)

- 19 reported on physical inactivity (33, 34, 50, 84, 100, 103, 146, 176, 226, 236, 237, 257, 258, 266, 271, 279, 310, 311, 316)

- 18 reported on diet (22, 34, 50, 84, 87, 103, 113, 149, 176, 194, 226, 232, 237, 257, 266, 279, 310, 316, 332)

- 11 reported on nicotine use (24, 34, 48, 50, 116, 138, 146, 201, 237, 266, 311)

- 3 reported on metabolic factors (excluding obesity) (103, 237, 271)

- 1 reported on gambling (48)

Specific men's issues

The most commonly reported male specific issues were sexual health (165 systematic reviews), prostate and testicular health (78 systematic reviews) and injury and risk taking (36 systematic reviews).

Of these reviews:

- 165 reported on sexual health (7, 9, 13, 17 to 20, 23, 25, 26, 32, 35, 37 to 39, 45, 47, 49, 51, 55, 57, 61, 65 to 67, 69, 70, 74, 77, 78, 80 to 82, 86, 89, 91, 94, 99, 102, 106, 108 to 112, 114 to 116, 121, 123, 125, 127, 130 to 134, 144, 146 to 148, 151 to 153, 155 to 159, 161, 163, 165 to 167, 169 to 172, 178 to 183, 187, 188, 192, 193, 195, 196, 200, 201, 203 to 207, 211 to 213, 216 to 221, 224, 225, 227, 228, 231, 233, 238, 243, 247, 251, 253, 255, 256, 261, 267, 268, 274, 277 to 279, 281, 283, 285 to 287, 289 to 291, 293, 294, 299, 301 to 304, 307 to 312, 314, 315, 317, 321 to 325, 330, 331, 333 to 337, 343, 344, 346)

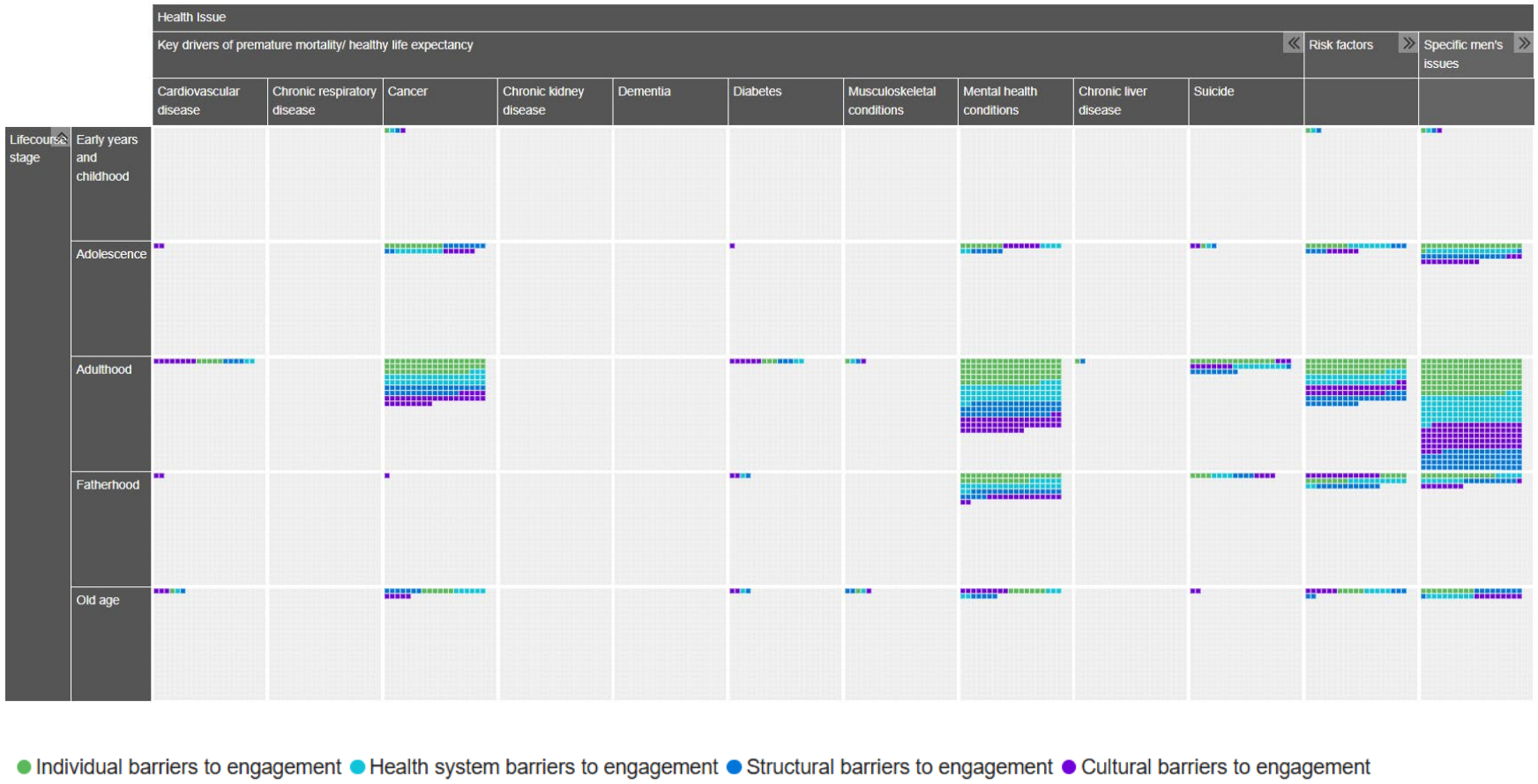
- 78 reported on prostate or testicular health (9, 14, 17, 19, 26, 27, 32, 38, 40 to 42, 55, 56, 64, 68, 70, 92, 100, 105, 109, 117, 122, 128, 129, 137, 140, 141, 144, 154, 165, 173, 184, 187, 196 to 198, 201, 214, 216 to 218, 221, 224, 225, 230, 234, 237, 245 to 248, 250, 253, 261, 269, 278, 280, 282, 284, 290, 291, 295, 300, 309 to 312, 316, 323, 330, 331, 334 to 339, 345)

- 36 reported on injury or risk taking (45, 46, 50, 60, 78, 88, 107, 121, 132, 133, 135, 144, 148, 149, 158, 163, 166, 178, 179, 195, 203, 212, 219, 228, 232, 254, 255, 260, 281, 287, 291, 293, 299, 308, 309, 327)

- 27 reported on reproductive health (18, 25, 28, 39, 45, 49, 52, 58, 75, 77, 79, 85, 126, 151, 164, 171, 182, 189, 205, 206, 211, 216, 245, 265, 288, 312, 325)

- 11 reported on other physical conditions (examples here could include chronic lymphoedema, hepatitis, colorectal cancer and long-term conditions) (53, 62, 75, 102, 231, 240, 284, 310, 341, 345, 347)

Figure 1: screenshot example EGM showing number of systematic reviews identified relevant to drivers by lifecourse stage



This screenshot is taken from the [key drivers by lifecourse stage] EGM.

Intervention setting and context

Information about intervention setting and context was not consistently reported or available across the included systematic reviews. These numbers should therefore be treated with caution.

Of the reviews identified:

- 106 related to healthcare settings, including:
    - 60 related to primary care (9, 10, 12, 15, 18 to 20, 25, 32, 35 to 37, 47, 49, 52, 56, 60, 63, 72, 74, 90, 95, 106, 116, 117, 124, 140, 141, 161, 162, 165, 168, 171, 173, 187, 190, 192, 195, 205, 206, 208, 211, 215, 216, 218, 222, 225, 232, 240, 248, 259, 284, 311, 318-320, 323, 327, 331, 344)
    - 47 related to community care (10, 15, 20, 25, 37, 47, 56, 71, 84, 90, 100, 104, 106, 114 to 116, 120, 121, 124, 138, 144, 146, 153, 163, 165, 166, 168, 169, 177, 195, 205, 212, 215, 222, 231, 232, 238, 248, 270, 278, 281, 289, 292, 311, 322, 323, 326)
    - 40 related to secondary care (17 to 19, 21, 32, 33, 58, 71, 100, 105, 114, 117, 118, 126, 137, 138, 140, 154, 162, 165, 168, 177, 187, 205, 206, 216, 218, 222, 225, 232, 240, 282, 289, 292, 310, 311, 318, 323, 325, 326)
    - 24 related to online settings or digital health (15, 30, 84, 104, 106, 118, 120, 153, 163, 202, 208, 209, 212, 228, 231, 238, 248, 259, 268, 271, 292, 301, 324, 325)
    - 5 related to tertiary care (58, 117, 138, 216, 326)
- 55 related to community settings, including:
    - 20 related to grassroots communities (29, 30, 50, 87, 98, 115, 119, 172, 184, 195, 240, 247, 257, 271, 301, 308 to 310, 315, 325)
    - 15 related to sports settings (22, 50, 84, 98, 193, 195, 202, 207, 236, 237, 271, 273, 279, 311, 325)
    - 12 related to hospitality (114, 115, 172, 195, 207, 219, 231, 247, 301, 310, 311, 315)
    - 8 related to spiritual and religious settings (50, 154, 184, 240, 247, 308, 310, 311)

- 28 related to other settings, including:
    - 19 related to workplace settings (19, 22, 33, 34, 84, 107, 149, 202, 209, 230, 236, 237, 239, 240, 266, 275, 301, 311, 325)
    - 9 related to correctional facilities such as prisons) (30, 47, 83, 111, 114, 124, 146, 311, 343)
- 15 related to education settings, including:
    - 8 related to adult and further education settings (23, 33, 195, 201, 246, 247, 310, 336)
    - 7 related to schools (19, 104, 106, 184, 259, 308, 333)

Barriers to boys' and men's engagement

A total of 244 systematic reviews were identified that reported on barriers to boys and men's engagement with health programmes. Most evidence was identified for barriers at the individual level, the most common being low health literacy and knowledge (114 systematic reviews) followed by stigma (98 systematic reviews), masculine norms (91 systematic reviews) and fear and uncertainty (88 systematic reviews).

Barriers at the health system level were the next most reported, especially practitioner bias and knowledge (97 systematic reviews), lack of male specific services (59 systematic reviews) and unavailability of services (41 systematic reviews).

The main structural level barriers identified were financial issues (99 systematic reviews) and prioritisation of work over health (44 systematic reviews). At the cultural level, the main barrier reported was culturally embedded stigma (67 systematic reviews), followed by lack of culturally responsive services (56 systematic reviews) and discrimination (54 systematic reviews).

Of these reviews:

- 215 reported on individual level barriers (7, 8, 10 to 13, 15 to 19, 21 to 23, 25, 26, 28 to 34, 36 to 41, 43 to 49, 52, 56 to 61, 63 to 74, 78 to 81, 85, 89 to 93, 95, 97, 100, 101, 105, 107 to 110, 115, 116, 118, 120, 121, 123 to 131, 135 to 137, 139 to 142, 144, 147, 150 to 152, 156, 157, 160 to 165, 167 to 169, 171 to 175, 177, 182, 186 to 199, 201, 204 to 206, 210, 211, 213, 215, 216, 218, 220 to 225, 227, 229 to 232, 235, 236, 239, 241 to 244, 247, 251 to 254, 256, 257, 259 to 262, 264, 265, 268, 270, 272 to 274, 276, 278, 279, 281 to 283, 285, 290, 292, 293, 296, 297, 299, 303, 305-308, 312, 317 to 320, 323, 326, 327, 329 to 331, 333 to 338, 340, 346)

- 159 reported on health system barriers (7 to 13, 16, 17, 22 to 26, 28, 31, 32, 36, 39, 42, 43, 45 to 49, 52, 55 to 57, 60 to 63, 65 to 68, 70 to 72, 74 to 76, 78 to 81, 85, 89, 93, 97, 100, 101, 105, 106, 110, 115 to 118, 121 to 124, 126, 127, 129, 136, 137, 139 to 142, 144, 147, 150, 156, 157, 161 to 165, 167, 169, 171, 173, 175, 177, 187, 189, 190, 192 to 196, 201, 202, 204 to 206, 210, 211, 213, 215, 216, 218, 220, 222 to 225, 227, 231, 232, 235, 241 to 244, 247, 252, 253, 259, 260, 264, 265, 269, 272, 278, 283, 288, 291, 292, 297, 299, 300, 303, 305-307, 312, 315, 318 to 320, 326, 327, 329, 331, 334 to 338, 340, 346)

- 142 reported on structural barriers (7 to 10, 12, 13, 16 to 19, 21 to 23, 25, 26, 28, 29, 31, 32, 36, 39, 45 to 47, 49, 56, 57, 60 to 62, 64, 66, 69, 71 to 74, 78 to 81, 85, 89, 92, 93, 97, 106, 107, 109, 110, 115, 116, 121, 123, 124, 126, 129, 130, 136, 141, 142, 147, 151, 154, 155, 157, 160, 163, 164, 167, 169, 171, 173, 174, 177, 182, 186, 188, 190, 192, 195, 196, 201, 202, 205, 208, 211, 213, 215, 218, 220 to 225, 229, 231, 232, 235, 236, 241 to 243, 247, 252, 259 to 261, 264, 265, 267, 272, 275, 278, 283, 285, 287, 288, 292, 293, 296, 297, 299, 300, 303, 305 to 307, 318 to 320, 326, 327, 331, 334 to 339, 344)

- 148 reported on cultural barriers ((7, 8, 10, 12, 13, 16 to 18, 20, 26, 29, 30, 32, 35 to 37, 39, 43, 45, 46, 48 to 50, 52, 55 to 57, 61, 63 to 69, 74, 75, 78, 80, 81, 85, 87, 89, 91, 94, 95, 103, 106 to 108, 110 to 112, 114 to 116, 119 to 121, 124, 125, 127, 130, 131, 139, 142, 144, 147, 154, 156, 162 to 164, 167, 169, 171, 173 to 175, 177, 182, 185, 187, 188, 191, 193, 204 to 208, 211, 212, 219 to 222, 224, 225, 227, 229 to 231, 233, 235, 237, 241, 242, 247, 252, 253, 257, 259, 260, 263 to 265, 267, 270, 276, 278, 279, 283, 285, 286, 289, 291, 292, 297, 302, 303, 305, 308, 310, 311, 317, 319, 320, 323, 326, 329, 334 to 336, 338, 340, 344, 347)

Of the 215 systematic reviews that included individual level barriers:

- 114 reported on low health literacy or knowledge (7, 8, 10, 12, 13, 16, 18, 19, 21, 23, 25, 26, 31, 36, 38, 41, 48, 56, 58, 60, 61, 64 to 66, 68, 71 to 74, 78, 80, 81, 91, 92, 95, 101, 105, 107, 110, 125, 128, 129, 137, 140, 142, 147, 150, 156, 160, 162, 163, 165, 167, 169, 172, 173, 177, 182, 188, 190 to 197, 201, 204, 205, 211, 213, 216, 218, 221, 222, 224, 227, 232, 236, 239, 242 to 244, 247, 249, 253, 254, 259, 260, 265, 272, 274, 276, 278, 280 to 282, 292, 293, 305, 306, 318 to 320, 323, 327, 330, 333 to 338)

- 98 reported on stigma (7, 8, 10, 12, 13, 15, 17, 25, 30 to 32, 36, 43 to 45, 48, 49, 57, 59, 60, 63, 66 to 69, 71, 72, 74, 78, 80, 85, 89, 91, 95, 101, 107, 108, 110, 116, 121, 123 to 125, 129, 131, 136, 142, 144, 147, 156, 162, 163, 167 to 169, 172, 173, 175, 182, 187, 193 to 195, 199, 204 to 206, 213, 216, 220, 224, 225, 227, 229, 231, 232, 239, 241 to 243, 252, 254, 256, 259, 260, 268, 272, 273, 276, 278, 283, 292, 303, 308, 318, 334 to 336)

- 91 reported on masculine norms (7, 11, 12, 16, 22, 25, 26, 31 to 34, 36, 38, 40, 44 to 48, 52, 60, 61, 63, 66, 69, 71, 72, 81, 85, 93, 95, 101, 107, 109, 120, 124, 127, 129, 130, 135, 136, 139, 140, 160, 165, 168, 169, 173, 175, 177, 186, 189, 190, 192, 194, 199, 211, 215, 216, 218, 222, 223, 225, 232, 236, 241, 242, 244, 247, 252, 254, 259, 260, 264, 265, 270, 272, 276, 278, 279, 292, 297, 308, 318 to 320, 326, 327, 329, 340, 346)

- 88 reported on fear and uncertainty (11, 13, 22, 25, 26, 30, 36, 41, 45, 47, 49, 56, 66, 68 to 70, 72, 74, 78, 81, 85, 90, 91, 95, 100, 105, 109, 110, 115, 116, 124, 127, 129, 139 to 141, 147, 152, 156, 157, 161 to 163, 165, 167, 169, 172, 173, 175, 182, 187, 192, 193, 195 to 197, 201, 204 to 206, 211, 218, 223, 225, 227, 231, 241, 247, 251, 260, 265, 278, 281, 290, 292, 299, 303, 307, 312, 317 to 320, 334 to 338)

- 65 reported on low service knowledge (12, 13, 16, 36, 39, 45, 48, 56, 64 to 66, 69, 78, 91, 101, 105, 110, 125, 136, 137, 140 to 142, 163, 167, 169, 173, 174, 182, 192, 193, 195, 201, 204, 211, 215, 216, 218, 221, 224, 225, 232, 241, 243, 244, 247, 259, 260, 262, 272, 278, 281, 292, 293, 297, 303, 306, 318 to 320, 327, 333 to 336)

- 63 reported on embarrassment or shame (7, 12, 17, 22, 25, 31, 32, 38, 43, 45, 47 to 49, 59, 60, 63, 67, 72, 81, 85, 93, 109, 116, 124, 126, 127, 129, 139, 147, 151, 162, 165, 175, 182, 187, 190, 192, 194, 195, 204, 211, 216, 218, 223, 225, 232, 241, 247, 249, 253, 254, 259, 260, 264, 273, 278, 282, 292, 318 to 320, 323, 336)

- 55 reported on denial and delayed help seeking (7, 8, 12, 16, 22, 31, 38, 43 to 47, 60, 63, 72, 85, 90, 95, 97, 101, 107, 109, 120, 125, 127, 129, 139, 156, 168, 169, 172, 173, 189, 190, 192, 206, 211, 216, 223, 225, 232, 236, 242, 244, 259, 260, 264, 272, 278, 292, 318, 319, 334, 337, 340)

- 52 reported on medical mistrust (8, 11, 13, 16, 32, 38, 41, 45, 47, 49, 56, 65, 74, 80, 110, 125, 129, 130, 141, 147, 152, 162, 169, 173, 189, 196, 198, 204 to 206, 215, 216, 220, 225, 227, 229, 231, 243, 247, 256, 257, 260, 272, 274, 278, 283, 318, 320, 326, 335, 337, 338)

- 48 reported on concerns about privacy and confidentiality (13, 25, 37, 47 to 49, 59, 66, 67, 69, 71, 78, 80, 89, 95, 116, 121, 124, 136, 144, 147, 151, 157, 161 to 163, 165, 171, 182, 192, 195, 204, 205, 211, 213, 224, 227, 230, 235, 247, 251, 259, 272, 281, 285, 292, 296, 346)

- 46 reported on family influence / health literacy (8, 16, 21, 22, 36, 41, 48, 67, 68, 70, 74, 80, 81, 92, 101, 110, 125, 127, 135, 136, 139, 141, 147, 161, 162, 164, 169, 175, 182, 197, 198, 236, 247, 259, 261, 278, 283, 297, 307, 308, 331, 333 to 336, 338)

- 42 reported on negative experiences of services (32, 36, 45 to 49, 60, 63, 68, 78, 79, 85, 118, 121, 124, 130, 139, 140, 147, 173, 175, 177, 187, 204 to 206, 211, 223, 227, 232, 242, 253, 260, 264, 265, 278, 292, 318 to 320, 327)

- 25 reported on female focussed marketing or health promotion (7, 22, 28, 29, 36, 45, 60, 72, 79, 116, 120, 124, 195, 206, 210, 211, 224, 232, 242, 247, 260, 292, 305, 306, 318)

- 23 reported on challenges with articulating emotions (12, 31, 46, 47, 59, 63, 72, 79, 85, 90, 97, 109, 140, 192, 254, 259, 260, 264, 297, 305, 318, 326, 329)

Of the 159 systematic reviews that included health system level barriers:

- 97 reported on practitioner bias and knowledge (7, 10, 12, 16, 17, 24 to 26, 28, 31, 32, 39, 43, 46, 47, 49, 52, 55 to 57, 60, 61, 63, 66, 67, 71, 72, 74 to 76, 78, 80, 81, 85, 89, 97, 101, 105, 106, 116, 118, 121, 122, 124, 126, 127, 137, 139, 141, 142, 144, 150, 156, 161, 162, 164, 169, 171, 175, 177, 187, 189, 193, 194, 204 to 206, 211, 215, 223-225, 227, 232, 235, 242, 243, 252, 253, 259, 264, 265, 269, 278, 283, 291, 292, 297, 300, 303, 306, 319, 326, 327, 329, 331, 340)

- 59 reported on lack of male-specific services and information (7, 10, 24, 28, 36, 39, 42, 46, 48, 56, 60, 71, 72, 76, 79, 85, 101, 110, 118, 126, 127, 136, 139, 140, 142, 144, 150, 175, 189, 194, 195, 202, 206, 210, 213, 215, 216, 218, 222, 225, 232, 242, 244, 252, 260, 272, 278, 288, 292, 297, 303, 305, 312, 318, 320, 326, 327, 334, 338)

- 41 reported on unavailability of services (8, 12, 13, 25, 26, 36, 45, 47, 62, 65, 66, 68, 78, 81, 116, 123, 139, 141, 147, 161, 163, 190, 192, 193, 196, 202, 205, 220, 225, 232, 244, 247, 259, 272, 292, 300, 303, 319, 320, 334, 336)

- 39 reported on poor acceptability of procedures (9, 11, 13, 16, 22, 23, 25, 39, 45, 61, 68, 70, 72, 74, 116, 124, 126, 129, 141, 147, 156, 157, 165, 167, 173, 201, 241 to 243, 247, 265, 299, 307, 315, 320, 335 to 337, 346)

- 29 reported on system pressures (12, 17, 28, 42, 47, 71, 93, 105, 115 to 117, 122, 140, 141, 156, 161, 193, 194, 202, 205, 215, 218, 232, 235, 252, 300, 303, 320, 335)

- 15 reported on lack of continuity of care (12, 22, 62, 78, 100, 141, 216, 225, 231, 235, 253, 272, 300, 306, 326)

- 12 reported on poor inter-service coordination (13, 32, 42, 62, 89, 100, 116, 139, 216, 265, 292, 326)

Of the 142 systematic reviews that included structural level barriers:

- 99 reported on financial barriers (7 to 10, 13, 18, 19, 21, 23, 25, 26, 28, 32, 36, 39, 45, 47, 49, 56, 57, 61, 62, 64, 66, 69, 72 to 74, 78, 80, 81, 89, 92, 106, 110, 115, 116, 121, 123, 129, 130, 142, 147, 151, 154, 157, 164, 167, 169, 171, 173, 182, 188, 195, 196, 201, 205, 211, 218, 220 to 225, 229, 231, 235, 236, 241, 243, 247, 259-261, 264, 265, 267, 272, 278, 283, 285, 287, 293, 296, 297, 299, 303, 307, 319, 320, 326, 331, 334-338, 344)

- 44 reported on prioritisation of work over health (10, 12, 13, 21, 31, 46, 49, 62, 71, 72, 79, 85, 97, 107, 109, 136, 147, 160, 169, 174, 182, 192, 195, 201, 202, 208, 215, 218, 221, 222, 225, 252, 275, 278, 283, 292, 296, 297, 300, 305, 319, 320, 326, 334)

- 26 reported on female oriented environments and services (10, 22, 28, 46, 60, 85, 97, 124, 126, 174, 177, 186, 192, 211, 215, 232, 242, 260, 265, 288, 292, 305, 306, 318, 326, 327)

- 18 reported on lack of transport (10, 22, 28, 46, 60, 85, 97, 124, 126, 174, 177, 186, 192, 211, 215, 232, 242, 260, 265, 288, 292, 305, 306, 318, 326, 327)

- 14 reported on inaccessibility of services (8, 12, 26, 49, 80, 110, 163, 211, 213, 247, 261, 264, 278, 335)

Of the 148 systematic reviews that reported on cultural level barriers:

- 67 specifically reported on culturally embedded stigma (7, 8, 12, 13, 18, 26, 30, 35, 36, 39, 43, 48, 56, 57, 63, 65, 67-69, 74, 78, 80, 81, 89, 95, 107, 120, 121, 125, 127, 130, 139, 142, 156, 164, 167, 169, 171, 173, 175, 177, 187, 188, 204, 205, 211, 224, 229, 231, 242, 252, 253, 259, 260, 265, 270, 276, 279, 283, 285, 286, 292, 308, 323, 329, 338, 340)

- 56 reported on lack of culturally responsive services (8, 12, 18, 26, 37, 39, 43, 49, 55, 56, 61, 65, 67, 69, 75, 78, 80, 89, 91, 107, 112, 115, 116, 127, 130, 139, 142, 144, 162, 164, 169, 171, 174, 182, 187, 204 to 206, 220, 221, 224, 225, 229, 235, 247, 259, 260, 265, 278, 285, 292, 297, 319, 326, 329, 334)

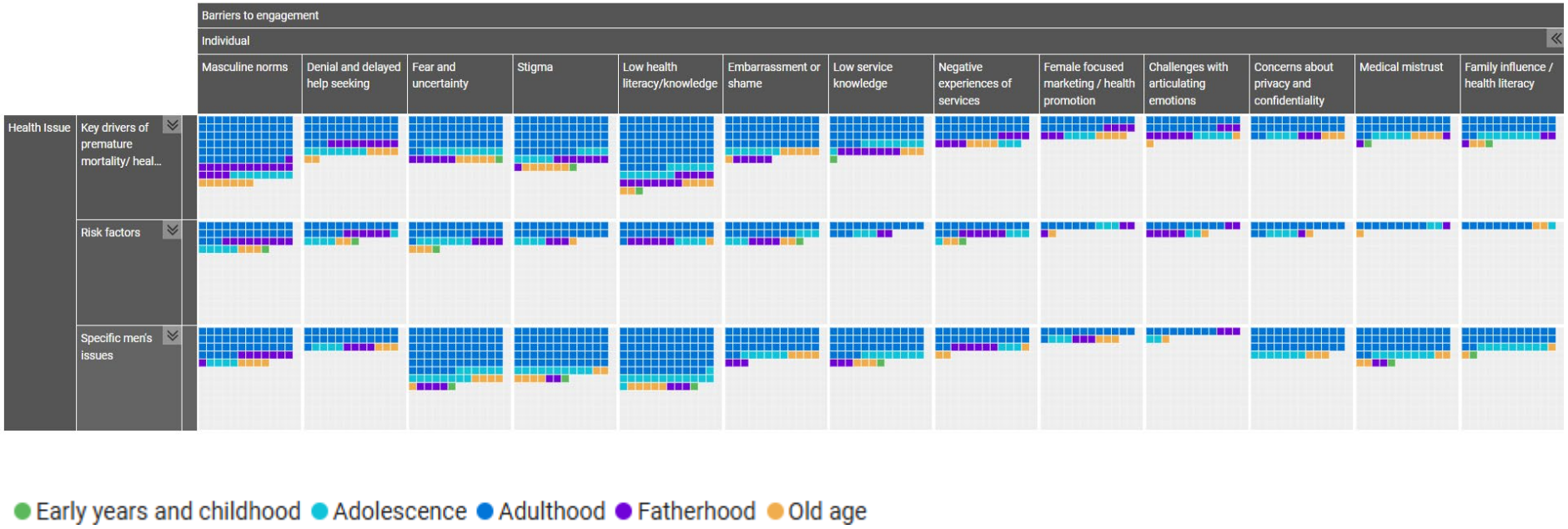
- 54 reported on discrimination (8, 16 to 18, 20, 26, 30, 32, 35, 37, 39, 43, 48, 49, 52, 63, 68, 69, 74, 78, 89, 106, 116, 124, 125, 130, 139, 142, 144, 154, 156, 163, 169, 175, 182, 187, 205, 206, 211, 224, 225, 227, 229, 231, 235, 241, 253, 259, 264, 283, 286, 303, 308, 335)

- 19 reported on language barriers (8, 10, 16, 66, 69, 74, 78, 80, 81, 89, 91, 162, 169, 174, 182, 191, 207, 278, 297)

See figure 2 for a screenshot example EGM showing the number of systematic reviews identified relevant to individual level barriers by health issue.

Figure 2: screenshot example EGM showing number of systematic reviews identified relevant to individual level barriers by health issue

Note: the double arrows on the EGM show where it can be expanded to show further categories in the fully interactive online versions.



This screenshot is taken from the barriers by health EGM.

Opportunities for evidence-based engagement of boys and men

A total of 325 systematic reviews were identified that reported on opportunities to engage boys and men in health programmes. Most evidence was identified at the individual level 262 reviews), with health education (158 systematic reviews), peer and lived experience support (132 systematic reviews) and involvement of a personal support person (100 systematic reviews) most widely reported. Opportunities for engagement at the health system level were identified in 224 reviews and most evidence was reported for male responsive services (125 systematic reviews), health literate services (60 systematic reviews) and gateway consultations (59 systematic reviews). At the structural level, evidence was identified across 188 reviews, most commonly for digital health (93 systematic reviews), going to where men and boys were (54 systematic reviews) and multiagency approach (48 systematic reviews). A total of 141 systematic reviews reported cultural level opportunities, with culturally responsive services most reported (107 systematic reviews) followed by men's health advocacy (34 systematic reviews) and value men's and boys' strengths (29 systematic reviews).

Of the 262 systematic reviews included on opportunities for engagement at the individual level:

- 158 reported on health education (8, 9, 13, 14, 17, 19, 21 to 23, 26, 27, 30, 33, 37, 38, 42, 45, 47, 49, 51, 52, 56, 58, 60, 64, 65, 69, 72, 78, 79, 81, 83, 84, 90, 93, 96, 99 to 102, 105, 107, 108, 113, 115 to 118, 122, 123, 128, 129, 131, 132, 134, 136, 137, 140, 141, 144 to 147, 150, 153, 155, 156, 159, 166 to 170, 173, 174, 176, 178, 180, 181, 185, 189, 194, 196 to 198, 203, 207, 208, 210, 212, 214 to 217, 219, 224, 226, 228, 230, 231, 234, 237, 238, 240, 245 to 250, 253, 254, 259, 266, 268, 269, 271, 274, 276 to 278, 280, 283, 284, 286, 288, 291 to 293, 295, 296, 298 to 301, 305, 310 to 312, 314, 315, 318, 319, 323, 326, 328, 330, 332 to 336, 338, 339, 341, 342, 345, 347)

- 132 reported on peer and lived experience support (10, 17, 21, 22, 24, 26, 29, 30, 32, 35, 38, 40 to 42, 48, 50, 53, 58, 60, 62, 65, 69, 73, 74, 80, 87, 91, 93 to 102, 105, 107, 110, 113, 115, 119, 123, 127, 129, 131, 134 to 137, 139 to 142, 147 to 150, 155, 156, 158 to 160, 166, 168 to 170, 172, 174, 176, 180 to 182, 186, 187, 191, 193, 197, 198, 202, 204, 205, 209, 214, 215, 217, 219, 223, 225, 228, 230-232, 236, 238 to 240, 242, 246, 253, 255, 256, 262, 263, 270, 271, 273, 277 to 279, 282, 283, 286, 290, 292, 296, 297, 301, 302, 305, 308 to 311, 325, 326, 334, 338, 340, 341, 345)

- 100 reported on involvement of a personal support person (7, 13, 21, 22, 26, 32, 36, 38, 40, 41, 44, 45, 53, 56, 57, 62, 65, 66, 68, 70 to 72, 79, 81, 92, 98, 99, 105, 107, 110, 112, 120, 121, 124, 126, 129 to 131, 135, 137, 139 to 142, 154, 156, 162, 169, 180, 181, 185, 191, 192, 194, 196, 198, 201 to 203, 205, 208, 211 to 213, 216, 217,

222, 223, 225, 232, 237, 238, 241 to 244, 247, 249, 252, 259, 264, 272, 274, 277 to 279, 283, 292, 302, 312, 318-320, 326, 333, 335-337, 340, 347)

- 63 reported on media campaigns or advertising strategies (8, 15, 19, 28, 29, 36, 40, 53, 60, 69, 72, 74, 78, 80, 88, 94, 101, 102, 108, 110, 115, 120, 124, 131, 136, 139, 140, 148, 155, 156, 162, 172, 184 to 186, 192, 193, 195, 200, 207, 218, 219, 223 to 225, 231, 233, 237, 238, 240, 246, 247, 259, 265, 278, 301, 304, 305, 310, 320, 335, 337, 338)

- 28 reported on fostering social connection (21, 22, 29, 35, 43, 50, 68, 87, 95, 107, 115, 119, 143, 168, 202, 205, 230, 247, 263, 270, 271, 273, 279, 282, 297, 305, 318, 334)

- 24 reported on incentives (22, 28, 29, 47, 53, 99, 109, 115, 136, 143, 159, 173, 202, 212, 231, 233, 240, 266, 271, 279, 296, 301, 310, 333)

Of the 224 systematic reviews included on opportunities for engagement at the health system level:

- 125 reported male responsive services (7, 10, 13, 15, 17, 21, 22, 24, 25, 28, 29, 31 to 33, 36, 38 to 40, 42, 45 to 50, 52, 60, 66, 71, 72, 76 to 79, 82, 84, 87, 90, 93, 96 to 98, 102, 104 to 107, 110, 113, 114, 116 to 118, 124, 126, 129, 131, 136, 138 to 140, 147, 150, 160, 162, 163, 166, 168, 169, 173, 174, 177, 178, 182, 186, 189, 191, 192, 202, 208, 210, 211, 213, 215, 216, 219, 221, 225, 228, 232, 236 to 239, 247, 249, 250, 257, 259, 260, 262, 264, 265, 269, 271, 273, 278, 279, 283, 288, 291, 292, 298, 300, 305, 306, 311, 312, 318, 326, 327, 329, 340, 341, 344)

- 60 reported on health literate services (8 to 10, 13, 15, 23, 27, 32, 35, 36, 41, 62, 68, 74, 84, 90, 91, 94, 95, 102, 105, 107, 114, 117, 128, 129, 141, 148, 154, 155, 169, 177, 178, 203, 210, 211, 214, 219, 230, 231, 237, 239-241, 245 to 247, 250, 256, 259, 272, 277, 288, 292, 306, 327, 334, 335, 337, 347)

- 59 reported on gateway consultations (10, 19, 22, 25, 26, 45, 47, 50, 56, 57, 66, 71, 79, 80, 83, 100, 101, 108, 114, 116, 118, 122-124, 126, 129, 139 to 141, 156, 160, 177, 188, 189, 196, 205, 215, 221, 223, 224, 231, 236, 239, 241, 249, 251, 253, 261, 273, 278, 323, 326, 329, 331, 336 to 339, 344)

- 55 reported on sustained interventions or continuity of care (17, 30, 31, 33, 40, 47, 51, 54, 74, 83, 84, 96, 98, 99, 102, 103, 107, 115, 116, 124, 132 to 134, 136, 141, 143, 146, 148, 155, 156, 158, 168, 170, 171, 176, 178, 180, 181, 188, 202, 203, 209, 212, 214, 231, 246, 252, 255, 257, 258, 266, 279, 282, 316, 341)

- 51 reported on involvement in intervention decisions or design (8, 27, 30, 31, 42, 50, 51, 55, 76, 79, 87, 90, 95, 98, 99, 116, 117, 120, 131, 137, 140, 143, 154, 177, 185,

197, 198, 208, 209, 212, 214, 219, 225, 234, 240, 248, 250, 257, 259, 263, 266, 269, 271, 280, 295, 310, 311, 326, 334, 335, 341)

- 39 reported on brief interventions (50, 51, 103, 104, 108, 115, 118, 132 to 134, 147, 148, 155, 158, 166, 170, 176, 178, 179, 185, 208, 209, 212, 214, 219, 236 to 240, 245, 246, 248, 254, 255, 266, 271, 277, 292)

- 18 reported on evaluation of services (28, 37, 60, 63, 82, 83, 116, 117, 122, 131, 143, 182, 185, 209, 212, 244, 271, 334)

Of the 188 systematic reviews included on opportunities for engagement at the structural level:

- 93 reported on digital health (8, 15, 27, 30, 32, 36, 37, 50, 74, 85, 86, 89, 93, 94, 96, 98, 103, 104, 107, 108, 110, 115 to 118, 131, 136, 140, 142, 143, 145, 148, 153, 159 to 161, 167, 176-179, 183, 185, 200, 202, 203, 205, 207 to 209, 212, 214, 217, 224 to 226, 228, 230, 233, 238, 239, 245, 248, 250, 251, 253, 255 to 257, 259, 262, 268, 271, 279, 283, 289, 290, 292, 296, 301, 302, 310, 313, 314, 316, 321, 324 to 326, 328, 339, 343, 347)

- 54 reported on engaging men and boys where they are (8, 22, 28, 29, 34, 50, 61, 74, 84, 87, 98, 103, 104, 107, 115, 119, 120, 125, 132, 133, 149, 155, 156, 167, 168, 172, 184, 203, 214, 217, 219, 231, 233, 236 to 238, 240, 257, 266, 271, 273, 278, 279, 289, 301, 309 to 311, 315, 320, 322, 325, 329, 341)

- 48 reported on an integrated or multiagency approach (12, 25, 29, 30, 32, 37, 47, 51, 65, 83, 91, 104, 108, 111, 116, 122, 131, 140, 141, 156, 163, 177, 180, 181, 184, 185, 193, 197, 198, 208, 209, 212, 214, 220, 224, 230, 231, 238, 250, 252, 253, 265, 267, 281, 289, 302, 312, 344)

- 48 reported on flexible and accessible services (8, 22, 25, 33, 36, 37, 45, 47, 79, 83, 91, 95, 104, 105, 107, 108, 116, 120, 121, 131, 136, 139, 140, 147, 151, 156, 160, 163, 167, 169, 190, 192, 202, 208, 211, 219, 225, 231, 236, 253, 264, 271, 282, 292, 294, 305, 322, 326)

- 44 reported on male responsive environments (10, 13, 22, 28, 29, 31, 36, 45 to 47, 50, 78, 79, 83, 84, 87, 96, 98, 106, 113, 119 to 121, 124, 126, 139, 140, 176, 177, 211, 216, 220, 232, 236, 257, 260, 263, 265, 266, 288, 292, 305, 318, 329)

- 34 reported on comprehensive services (12, 13, 15, 33, 47, 51, 70, 71, 83, 98, 106, 116, 122, 130, 139 to 141, 147, 155, 160, 176, 208, 212, 216, 218, 220, 224, 229, 231, 250, 262, 265, 266, 281, 298, 308, 316)

Of the 141 systematic reviews that reported on opportunities for engagement at the cultural level:

- 107 reported on culturally responsive services (8, 10, 13, 17, 18, 20, 26, 29, 32, 35 to 37, 39, 43, 45, 46, 49, 50, 55, 56, 61, 64, 69, 74, 78, 81, 85, 87, 94, 103, 106 to 108, 110 to 112, 114, 115, 119, 121, 124, 125, 127, 131, 139, 142, 144, 147, 156, 162 to 164, 167, 169, 171, 173, 174, 182, 185, 187, 193, 204 to 206, 208, 212, 219 to 222, 224, 225, 227, 229, 230, 233, 235, 237, 241, 247, 257, 260, 263, 265, 267, 270, 276, 279, 283, 286, 289, 291, 292, 297, 302, 305, 308, 310, 311, 317, 320, 329, 334, 336, 338, 344, 347)

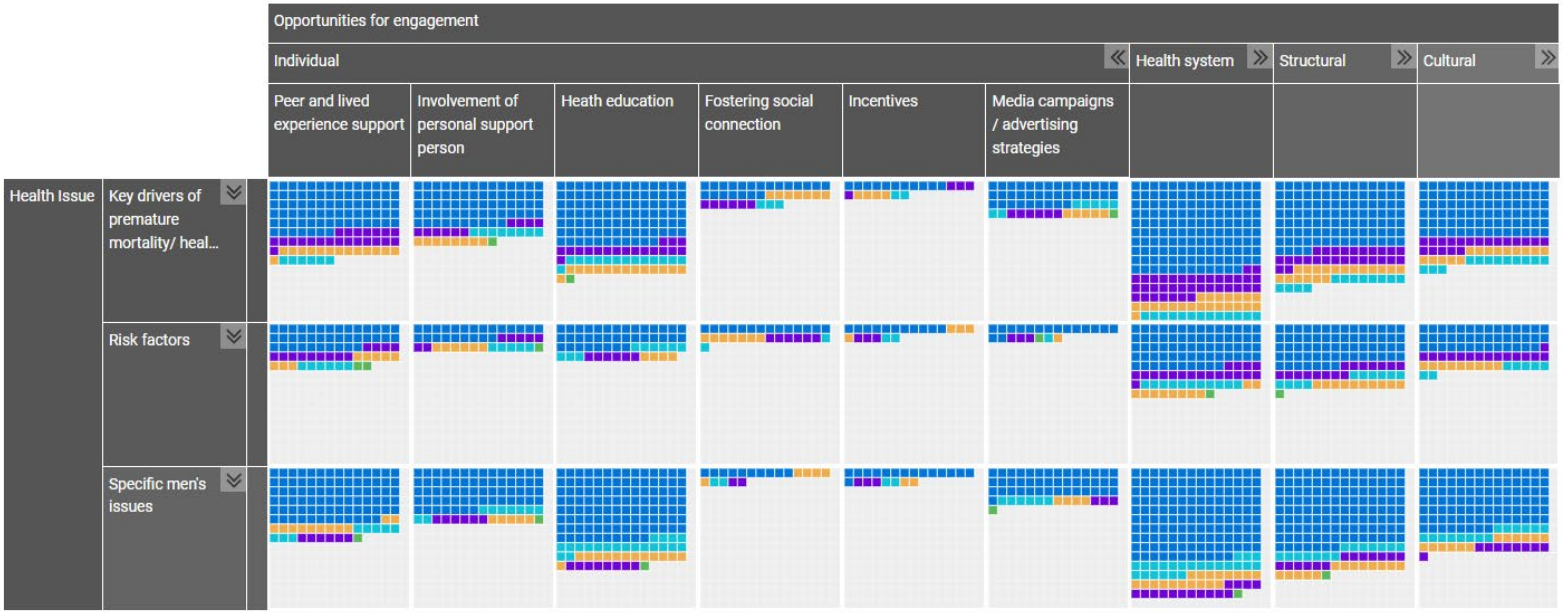
- 34 reported on men's health advocacy (22, 26, 38, 49, 69, 74, 94, 107, 110, 115, 116, 119, 121, 125, 131, 140, 158, 170, 184, 185, 205, 219, 230, 237, 240, 243, 247, 259, 271, 279, 301, 310, 311, 320)

- 29 reported on valuing men's and boys' strengths (31, 36, 41, 50, 72, 79, 85, 87, 88, 90, 95, 97, 98, 102, 107, 120, 135, 211, 260, 263, 264, 273, 275, 292, 305, 313, 326, 329, 341)

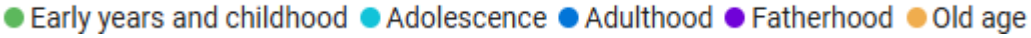
- 22 reported on holistic services (8, 26, 29, 45, 46, 78, 94, 109, 116, 120, 131, 140, 142, 162, 193, 212, 216, 250, 297, 317, 326, 336)

See figure 3 for a screenshot example EGM showing the number of systematic reviews identified relevant to opportunities for engagement by health issue.

Figure 3: screenshot example EGM showing the number of systematic reviews identified relevant to opportunities for engagement by health issue



Note: the double arrows on the EGM show where it can be expanded to show further categories in the fully interactive online versions of the maps.



This screenshot is taken from the evidence-based opportunities are there to improve engagement EGM.

Gaps in the evidence base

Only a limited amount of evidence was identified for older men (29 systematic reviews). Where research about older age was available this most often reported on cancer (13 systematic reviews) or prostate or testicular health (10 systematic reviews). However, no studies for health issues such as dementia were identified.

Only 3 systematic reviews were identified for the life stage from early years into childhood. Some systematic reviews did explore adolescence (45 systematic reviews), with around two-thirds of these specifically categorised as related to sexual health (29 systematic reviews).

Evidence was also very limited for populations such as disabled males (2 systematic reviews), male carers (4 systematic reviews), male sex workers (5 systematic reviews) and people living with housing insecurity (6 systematic reviews). This translated into large gaps in the evidence base across both barriers and opportunities to healthcare access for these populations.

No systematic reviews were identified for chronic respiratory disease and a small number of reviews for musculoskeletal conditions (5 systematic reviews), diabetes (11 systematic reviews) and cardiovascular disease (15 systematic reviews). Little evidence was also identified for risk factors such as diet, physical inactivity or metabolic factors (excluding obesity) such as blood pressure or cholesterol (19, 19 and 3 systematic reviews respectively). Only one systematic review reported on gambling as a risk factor among males at any life stage.

Limitations

As this was a rapid mapping review, only the visual spread of the available literature about boys' and men's engagement in health programmes is presented in the EGMs and described narratively in this report. No quality assessment was conducted of any included systematic reviews nor details of how they were funded. It was also not the intention of this review to determine 'what works' to improve engagement of boys or how to overcome any potential barriers identified in the EGMs. The findings should not therefore be interpreted as determining policy priorities or where future activity should be focused.

This rapid mapping review and the interactive downloadable EGMs represent a comprehensive, visual illustration of the current international and UK evidence base for this topic. However, these exist at a fixed point in time. It is possible that relevant systematic reviews could have been missed if these were published after the current search period ended. It should also be noted that primary research studies could be available for any of the possible gaps in the evidence base.

EGMs enable users to rapidly identify where evidence is concentrated and where gaps remain, which can guide the commissioning of new research. They are not reflective of Department of Health and Social Care priorities or research needs but may help inform decisions on research priorities. In addition, they are descriptive rather than analytical tools and show what evidence there is, not what the evidence says. They do not synthesise findings or provide conclusions about effectiveness and this can create a risk of misinterpretation. For example, it may be assumed that a high volume of studies on the map means an intervention is highly effective or proven to work, but it may be characterised by weak or inconsistent evidence. Conversely, an empty cell may be viewed as less important, but it may reflect an under-researched topic area.

A considerable amount of this evidence is from the international literature and 142 of 340 included systematic reviews did not include any UK studies. Included reviews may not therefore be wholly relevant to the UK content.

Annex A: search strategies

Example of search strategy for Ovid MEDLINE(R) ALL <1946 to March 26, 2025>

4 exp "Patient Acceptance of Health Care"/ or exp "treatment adherence and compliance"/ or exp Attitude to Health/ or help-seeking behavior/ or exp health services accessibility/ or healthcare disparities/ or exp "Appointments and Schedules"/ 702338

5 (effective* or efficacy or benefit or success or outcome or evaluat* or impact or up?take or "take up" or usage or adherence or participation or compliance or barrier* or hurdle or restrict* or challeng* or obstacle* or imped* or hinder* or hindr* or deter or facilitat* or enable* or driver* or promote* or motivat* or involv* or Engag* or Complian* or Attend* or Consult* or "Contact rate*" or Attrition or "drop out*" or Opportunit* or access* or utili?at* or "did not attend" or "patient experience" or mentor* or "culturally competent" or "left at own risk" or experience* or view* or reflection* or attitude or narrative* or perspective* or insight* or perception* or difficult* or struggle* or motivator* or determinant* or enabler* or factor* or potential or advantage* or constraint* or problem* or limit*).kf,kw,ti. or effective*.ab. /freq=2 or efficacy.ab. /freq=2 or benefit.ab. /freq=2 or success.ab. /freq=2 or outcome.ab. /freq=2 or evaluat*.ab. /freq=2 or impact.ab. /freq=2 or up?take.ab. /freq=2 or "take up".ab. /freq=2 or usage.ab. /freq=2 or adherence.ab. /freq=2 or participation.ab. /freq=2 or compliance.ab. /freq=2 or barrier*.ab. /freq=2 or hurdle.ab. /freq=2 or restrict*.ab. /freq=2 or challeng*.ab. /freq=2 or obstacle*.ab. /freq=2 or imped*.ab. /freq=2 or hinder*.ab. /freq=2 or hindr*.ab. /freq=2 or deter.ab. /freq=2 or facilitat*.ab. /freq=2 or enable*.ab. /freq=2 or driver*.ab. /freq=2 or promote*.ab. /freq=2 or motivat*.ab. /freq=2 or involv*.ab. /freq=2 or Engag*.ab. /freq=2 or Complian*.ab. /freq=2 or Attend*.ab. /freq=2 or Consult*.ab. /freq=2 or "Contact rate*".ab. /freq=2 or Attrition.ab. /freq=2 or "drop out*".ab. /freq=2 or Opportunit*.ab. /freq=2 or access*.ab. /freq=2 or utili?at*.ab. /freq=2 or "did not attend".ab. or "patient experience".ab. /freq=2 or mentor*.ab. /freq=2 or "culturally competent".ab. /freq=2 or "left at own risk".ab. /freq=2 or experience*.ab. /freq=2 or view*.ab. /freq=2 or reflection*.ab. /freq=2 or attitude.ab. /freq=2 or narrative*.ab. /freq=2 or perspective*.ab. /freq=2 or insight*.ab. /freq=2 or perception*.ab. /freq=2 or difficult*.ab. /freq=2 or struggle*.ab. /freq=2 or motivator*.ab. /freq=2 or determinant*.ab. /freq=2 or enabler*.ab. /freq=2 or factor*.ab. /freq=2 or potential.ab. /freq=2 or advantage*.ab. /freq=2 or constraint*.ab. /freq=2 or problem*.ab. /freq=2 or limit*.ab. /freq=2 10333896

6 ((increas* or decreas* or frequent or repeat* or regular or declin*) adj2 (visit* or usage or use*)).kf,kw,tw

7 or/4-6

8 *Male/ or exp *Men/ or Transgender Persons/ or *Sex Factors/

9 (male or males or man or men or boy* or father* or dad* or grandfather or grandad or paternal* or masculin* or transgender or transsexual or "sex factor*" or "Sex difference").kf,kw,ti. or male.ab. /freq=3 or males.ab. /freq=3 or man.ab. /freq=2 or men.ab. /freq=3 or boy*.ab. /freq=3 or father*.ab. /freq=2 or dad*.ab. /freq=2 or grandfather.ab. /freq=2 or grandad.ab. /freq=2 or paternal*.ab. /freq=2 or masculin*.ab. /freq=2 or transgender.ab. /freq=2 or transsexual.ab. /freq=2 or "sex factor*".ab. /freq=2 or "Sex difference".ab. /freq=2

10 8 or 9

11 (exp *Sexually Transmitted Diseases/ or exp *Opioid-Related Disorders/ or exp *Substance-Related Disorders/ or exp *Alcoholism/) and (health services/ or exp Hospitals/ or exp hospital departments/)

12 ((Hospital or medical or health) adj1 (ward or team or staff)).kf,kw,ti. or (Hospital adj1 ward).ab. /freq=2 or (Hospital adj1 team).ab. /freq=2 or (Hospital adj1 service).ab. /freq=2 or (medical adj1 ward).ab. /freq=2 or (medical adj1 team).ab. /freq=2 or (health adj1 team).ab. /freq=2 or (Hospital adj2 staff).ab. /freq=2 or (medical adj2 staff).ab. /freq=2 or (health* adj2 staff).ab. /freq=2

13 ("integrated health" or "community health" or "primary care" or "primary Health" or "Secondary Care" or "Acute Care" or "Tiertary care" or "public health" or "social work" or "social care" or pharmacy or dentist or dental or "school health" or "school nurse").tw,kf,kw.

14 (therap* or counsel* or screen* or diagnos* or intervention* or Assessment* or "health system" or treat* or Vaccinat* or immuniz* or immunis* or "Ehealth" or "E-Health" or "Mhealth" or "m-health" or "Telehealth" or "tele health" or "Digihealth" or "digital health" or "Help line" or Helpline or "health literac*" or "health information" or "health education" or "health program*").kf,kw,ti. or therap*.ab. /freq=2 or counsel*.ab. /freq=2 or screen*.ab. /freq=2 or diagnos*.ab. /freq=2 or intervention*.ab. /freq=2 or Assessment*.ab. /freq=2 or "health system".ab. /freq=2 or treat*.ab. /freq=2 or Vaccinat*.ab. /freq=2 or immuniz*.ab. /freq=2 or immunis*.ab. /freq=2 or "Ehealth".ab. /freq=2 or "E-Health".ab. /freq=2 or "Mhealth".ab. /freq=2 or "m-health".ab. /freq=2 or "Telehealth".ab. /freq=2 or "tele health".ab. /freq=2 or "Digihealth".ab. /freq=2 or "digital health".ab. /freq=2 or "Help line".ab. /freq=2 or Helpline.ab. /freq=2 or "health literac*".ab. /freq=2 or "health information".ab. /freq=2 or "health education".ab. /freq=2 or "health program*".ab. /freq=2

15 exp *Health Services Administration/ or exp health personnel/ or exp medical staff/ or health workforce/ or School Nursing/ or exp Pharmacy Technicians/ or exp Community Pharmacy Services/ or exp Pharmacy Service, Hospital/ or exp dentistry/ or exp pharmacy/ or exp *patient care/ or exp ambulatory care/ or exp *health facilities/ or exp *hospitals/ or exp Mass Screening/ or exp Physical Examination/ or exp Telemedicine/

or exp Self-Help Groups/ or exp Health Education/ or exp Health Services Accessibility/ or "Delivery of Health Care"/ or family planning services/ or health services for transgender persons/ or exp health services misuse/ or men's health services/ or exp weight reduction programs/ or exp smoking prevention/ or needle-exchange programs/ or exp school health services/ or exp reproductive health services/ or Smoking Cessation/ or Substance Abuse Treatment Centers/

16 General Surgery/ or exp Mental Health Services/ or exp community health services/ or exp preventive health services/ or exp *Hospitals/ or exp *hospital departments/ or exp emergency service, hospital/ or exp *health services/ or exp Public Health/ or exp Social Work/ or primary health care/ or secondary care/ or tertiary healthcare/

17 exp emergency medicine/ or exp general practice/ or exp Residential Facilities/ or Subacute Care/ or exp Patient Care/ or exp Critical Care/

18 ((pediatr* or hematol* or Paediat* or haematol* or Dermatol* or Ophthalmol* or Pathology or pathologies or pathologist* or psychologist* or psychiatrist* or specialist* or oncolog* or clinician* or Optometr* or Cardiolog* or midwi* or "diabetes educator" or Endocrinol* or Rheumatol* or Urolog* or Neurolog* or audiolog*) adj2 (team or service or staff or ward)).kf,kw,tw.

19 (nurs* or "health professional*" or physician* or doctor* or GP or "General Practitioner").ti,kf,kw. or nurs*.ab. /freq=2 or "health professional*".ab. /freq=2 or physician*.ab. /freq=2 or doctor*.ab. /freq=2 or GP.ab. /freq=2 or "General Practitioner".ab. /freq=2

20 ((Smoking or Tobacco or sexual or GUM or Genitourinary Medicine or Drug or Alcohol) adj2 (service* or centre or clinic)).kf,kw,tw.

21 or/12-19

22 7 and 10 and 21

23 limit 22 to dt=20191001-20250326

24 "Systematic Reviews as Topic"/ or "systematic review".pt. or ("systematic review*" or "Umbrella review").ti,kf,kw.

25 23 and 24

Annex B: inclusion and exclusion criteria

Table 1: inclusion and exclusion criteria

	Included	Excluded
Population	Men and boys (general population) and all sub-populations. If studies include samples of both males and females these will be included if findings are clearly reported for males separately.	
Intervention and/or exposure	Includes barriers and opportunities for engagement in relation to awareness, access and engagement with all types of health programmes and health services including but not limited to primary care, secondary care, community care, health improvement campaigns, digital health services and apps.	
Comparison	Not applicable or any comparison if intervention	
Outcomes	Studies will be eligible for inclusion if they report on barriers or opportunities linked to men's or boys' engagement with a health service or health programme.	
Study type	Systematic reviews (defined as per Database of Abstracts of Reviews of Effects (DARE) criteria set out below) with narrative synthesis or meta-analysis.	Meta-analysis without systematic review, primary research, opinion pieces, guidelines, conference abstracts, protocols, narrative reviews.

Included systematic reviews had to meet at least 4 of the following 5 DARE criteria with the first 3 being mandatory:

1. Were inclusion and/or exclusion criteria reported?

2. Was the search adequate?

3. Were the included studies synthesised?

4. Was the quality of the included studies assessed?

5. Are sufficient details about the individual included studies presented?

Additional inclusion criteria

The following additional inclusion criteria was applied:

Table 2: additional inclusion criteria

Language	Published in English due to lack of capacity for reviewing non-English language publications
Date of publication	1 January 2000 to current
Geographical limits	At least 50% of included systematic reviews from Organisation for Economic Co-operation and Development (OECD) countries.
Barriers / opportunities	Individual barriers or opportunities Internalised influences of cultural beliefs and norms, social and economic capital, any form of marginalisation, and personal values and beliefs. These affect trust in the healthcare system, likelihood of seeking help, health literacy, knowledge of one's own risk and available services, financial resources, satisfaction with care and adherence to treatment. Health system barriers or opportunities Driven by available social and economic resources, policy, prioritisation, service culture, practitioner education and training and professional values. For example, waiting periods, availability of services, system dissatisfaction, culturally embedded stigma and discrimination, practitioner biases. Structural barriers or opportunities Those that prescribe how a service is delivered (for example, where, when and at what cost), and are constrained by geography, funding, supply, and demand. Cultural barriers or opportunities

	Include collectively held values and standards that guide expectations of how an individual should behave or how a service should be delivered.

Annex C: coding framework

Table 3: coding framework

Section	Category	Code options	Description
Population of interest	Lifecourse stage	Early years and childhood	The period between birth and puberty (around 2-12 years); boys' health.
		Adolescence	The period between the onset of puberty and adulthood (around 12-18 years); boys' health.
		Adulthood	Period between the end of adolescence and beginning of old age (around 18-60 years).
		Fatherhood	The state of being a father; matters relating to paternity and paternal health.
		Old age	Period following the end of adulthood (around 60+ years).
	Minoritised groups / subpopulations	Disabled people	Those with a physical or mental impairment which has a substantial and long-term effect on normal day-to-day activity.
		Transgender men and boys	Those who live and identify as men or boys but were assigned female at birth; trans men.
		Men who have sex with men (MSM)	Those who engage in sexual activity with other males, regardless of their sexual orientation or identity. Includes gay and bisexual men.

		Religious groups	Those who are part of a community sharing a common set of beliefs, practices and values around a spiritual or religious idea.
		Minority ethnic groups	Those who are part of racial and ethnic groups which form a minority within the general population; in the UK context this is taken to refer to all groups except for White British.
		Socially isolated males	Those who lack contact or connection with others; may include older men, disabled men, people living in rural areas, people with families abroad or a lack of social networks and many more.
		Carers	Those who provide unpaid help to a family member, partner or friend who could not cope without this support.
		Interpersonal violence	Those with experience of physical force or power, threatened or actual, against themselves, another person, or against a group or community. Includes domestic abuse.
		People in the criminal justice system	People in contact with the criminal justice system including those with experience of being held in a correctional facility, which includes incarceration in prisons or detention centres, rehabilitation programmes, and probation services.
		Socioeconomically disadvantaged	Those who lack access to material and social resources, or who are living in less favourable social and economic conditions compared to the majority of the population; including those living in absolute or relative poverty.

		Sex workers	Those who receive money or goods in exchange for consensual sexual services or erotic performances, either regularly or occasionally.
		People living with housing insecurity	Those living without stable or affordable housing; includes those facing eviction or who are homeless, rough sleeping
		Asylum seekers and refugees	Those who have left their home country due to persecution, war or violence, to seek international protection.
		Military population/veterans	Those are currently involved in, or were previously part of, the armed forces.
Health issue	Key drivers of premature mortality/ healthy life expectancy	Cardiovascular disease	Conditions affecting the heart and blood vessels, such as coronary heart disease and pulmonary embolism.
		Chronic respiratory disease	Conditions affecting the lungs, including chronic obstructive pulmonary disease and asthma.
		Cancer	All types of malignant tumours, such as lung, colorectal, liver, stomach and breast cancer.
		Chronic kidney disease	A condition where damage to the kidneys impairs filtration of blood.

		Dementia	A syndrome associated with the ongoing decline of brain functioning, with most common types including Alzheimer's disease and vascular dementia.
		Diabetes	A condition where blood glucose levels become too high, with most common types including type 1 (insulin-dependent) and type 2 (non-insulin-dependent) diabetes.
		Musculoskeletal conditions	Conditions affecting bones, joints, muscles, and nerves, such as arthritis and osteoporosis.
		Mental health conditions	Any kind of mental disorder, including anxiety disorders, depression, post-traumatic stress disorder and eating disorders, among others. Also includes concerns relating to men's body image.
		Chronic liver disease	A condition where progressive damage to the liver impairs its functioning.
		Suicide	Death resulting from intentional harm to oneself, done with the intention to end life.
	Risk factors	Social isolation and loneliness	Having a lack of meaningful and sustained contact with other people; the negative emotional state associated with this status.
		Nicotine use	Recreational use of nicotine through tobacco (e.g. cigarettes, cigars, snus) or vaping products.
		Overweight and obesity	Abnormal or excessive accumulation of fat.

		Diet	Type, proportion and amount of food and drink consumed; specifically focusing on diets considered to be unhealthy.
		Physical activity	Any form of voluntary movement and exercise, whether part of leisure, travel, everyday tasks or work; specifically focusing on excessive or insufficient physical activity.
		Metabolic factors (excluding obesity)	Metabolic states associated with serious health consequences, such as hypertension, hyperlipidaemia (e.g. hypercholesterolaemia) and hyperglycaemia.
		Alcohol use	Consumption of alcohol-containing products; specifically focusing on alcohol dependency, excessive drinking or harmful patterns of drinking (e.g. binge drinking).
		Drug use	Use of recreational drugs, or of non-recreational drugs for a non-intended purpose; specifically focussing on drug addiction, excessive drug use or harmful patterns of drug use (e.g. drug overdose).
		Problem gambling	Gambling to a degree which causes harm or disruption; gambling disorders or compulsive gambling,
	Specific men's issues	Prostate and testicular health	Any condition or symptom involving the prostate, testicles, or penis such as cancer, benign prostatic hyperplasia, or testicular torsion. Includes urinary incontinence as a consequence of prostate and testicular health conditions.

		Sexual health	Any matter relating to men's sexual function (e.g. erectile dysfunction), emotional intimacy, or sexually transmitted infection (e.g. HIV, Chlamydia).
		Injury and risk taking	Self-inflicted injury or engagement in potentially dangerous activities (e.g. driving under the influence of intoxicating substances, not using condoms, using alcohol to cope with health issues). May or may not be connected to poor mental health or other risk factors (e.g. nicotine use).
		Reproductive health	Any matter relating to men's reproductive function; that is, if, when, and how to reproduce; such as male infertility (e.g. due to low sperm count). Also includes antenatal care.
		Other physical conditions	Physical conditions not specified as a key drivers of premature mortality/healthy life expectancy. For example, eye, ear and dental health, rare diseases, etc.
Intervention setting and context	Education setting	Schools	Educational institutions with the purpose of providing early years education or educating children; nurseries and compulsory schooling.
		Adult and further education	Educational institutions which provide education primarily to over-16s and adults, including sixth form, further education colleges, and higher education institutions/universities.

	Community setting	Sports	Any setting where pursuits relating to sports or physical activity take place, such as gyms, football pitches, stadiums and community spaces.
		Hospitality	Any venue where services are offered to visitors for the purpose of enjoyment; such as bars, restaurants, nightclubs, theatres and cinemas.
		Spiritual and religious settings	Any specific context where spiritual or religious beliefs, practices and institutions operate, such as places of worship.
		Grassroots community	Any setting where a community is built from scratch around shared interests and opportunities, such as Men's Sheds.
	Healthcare setting / service provider	Primary care	Care which operates as the first point of contact for patients, such as general practitioners, dentists, pharmacists, or opticians.
		Secondary care	Care provided through specialist services, typically accessed through referral from a primary care provider or in an emergency situation; includes planned or elective hospital treatment, NHS 111, out-of-hours GP services, hospital emergency departments, or specialised mental health care.
		Tertiary care	Care which is highly specialised, involving advanced procedures and expert staff; includes neurosurgery, transplantation, plastic surgery or secure forensic mental health services.

		Community care	Care delivered in the community or at home, which typically supports people to live with dignity and independence, including district nursing, health visiting, child health services, sexual health services, hospice care, or care homes.
		Online setting / digital health	Settings where healthcare is provided remotely by means of digital or telecommunications technology, such as mobile phone Apps; telehealth.
	Other setting	Correctional facilities	Criminal justice settings, including prisons, detention centres, rehabilitation programmes, or probation services.
		Workplace setting	Any setting where men or boys are employed, including office and non-office environments (e.g. construction sites or entertainment venues).
		Other	Other settings, for example employment centres
Barriers to engagement	Individual	Masculine norms	Traditional, stereotypical masculine characteristics such as self-reliance, stoicism and toughness.
		Denial and delayed help seeking	Minimisation or refusal to acknowledge own health concerns or avoiding/procrastinating seeking care. Adoption of harmful coping strategies (e.g. alcohol, drugs and other avoidance strategies)
		Fear and uncertainty	Unease or anxiety around engagement with health systems, such as worry about receiving serious diagnoses or undergoing treatment. May be around specific processes or a broader fear of the unknown.

		Stigma	Internalised stigma, for example reputational harm for taking time off work
		Embarrassment or shame	Feelings of embarrassment or shame in talking about health issues or related to personal discomfort, such as sending a faecal sample for bowel screening.
		Low health literacy/knowledge	Lack of understanding, or misinformation, around relevant symptoms and health conditions which can impact decisions related to health behaviours and healthcare use
		Low service knowledge	Knowledge regarding how to find health services, how to access them or what takes place during a medical consultation.
		Negative experiences of services	Ongoing influence of perceived poor experience with healthcare services. May be current or historic and may refer to men's own experiences or those of family/friends.
		Female focused marketing / health promotion	Focus on targeting women - and consequent lack of focus on men and boys - in health campaigns/advertising to promote or discourage particular behaviours or service use.
		Challenges with articulating emotions	Reluctance or lack of familiarity in expressing feelings.
		Concerns about privacy and confidentiality	Worries relating to compromised anonymity and not wanting other people to find out about health-related matters.

		Medical mistrust	Lack of trust in health services and institutions, or in particular medical procedures.
		Parental Family influence / health literacy	Effect of familial beliefs or understandings of health on men and boys' engagement.
	Health system	Lack of male-specific services and information	Lack of training of staff in engaging men and boys; absence of policies and guidelines for engaging men and boys.
		Practitioner biases and knowledge	Practitioner prejudices or lack of understanding of men's health and how to engage and communicate with men and boys.
		Poor inter-service coordination	Poor communication between services and practitioners.
		Unavailability of services	Inadequate provision of services, including excessive waiting lists.
		Lack of continuity of care	Issues relating to transition through and between services.
		Poor acceptability of procedures	Issues relating to whether screening, treatment etc. are deemed adequate or are accepted by men and boys. May include intrusive or invasive procedures.
		System pressures	Issues resulting from system-wide challenges, such as shortages of staff, time pressures and resources.

	Structural	Prioritisation of work over health	Restrictions on men and boys' service engagement due to work commitments (including issues attending appointments, concern about finances or harm to career reputation).
		Limited proximity to services	Geographic distance of services from where men and boys are.
		Lack of transport	Reliability and affordability of travel networks to, from and between services and where men and boys are.
		Inaccessibility of services	Issues relating to people with physical and mental impairments accessing services e.g. lack access ramps or clear signage; or access to technology for booking appointment online
		Financial barriers	Issues of affordability as a structural barrier for men and boys engaging with services, e.g. issues of insurance.
		Female orientated environments & services	Design of spaces which is not oriented towards men and boys and their needs and interests (e.g. waiting rooms aimed at women, predominantly female staff delivering services).
	Cultural	Lack of culturally responsive services	Lack of knowledge or consideration for men’s and boys' cultural values within systems and practitioners.
		Culturally embedded stigma	Stigma arising from cultural expectations, which may interact with masculine norms.

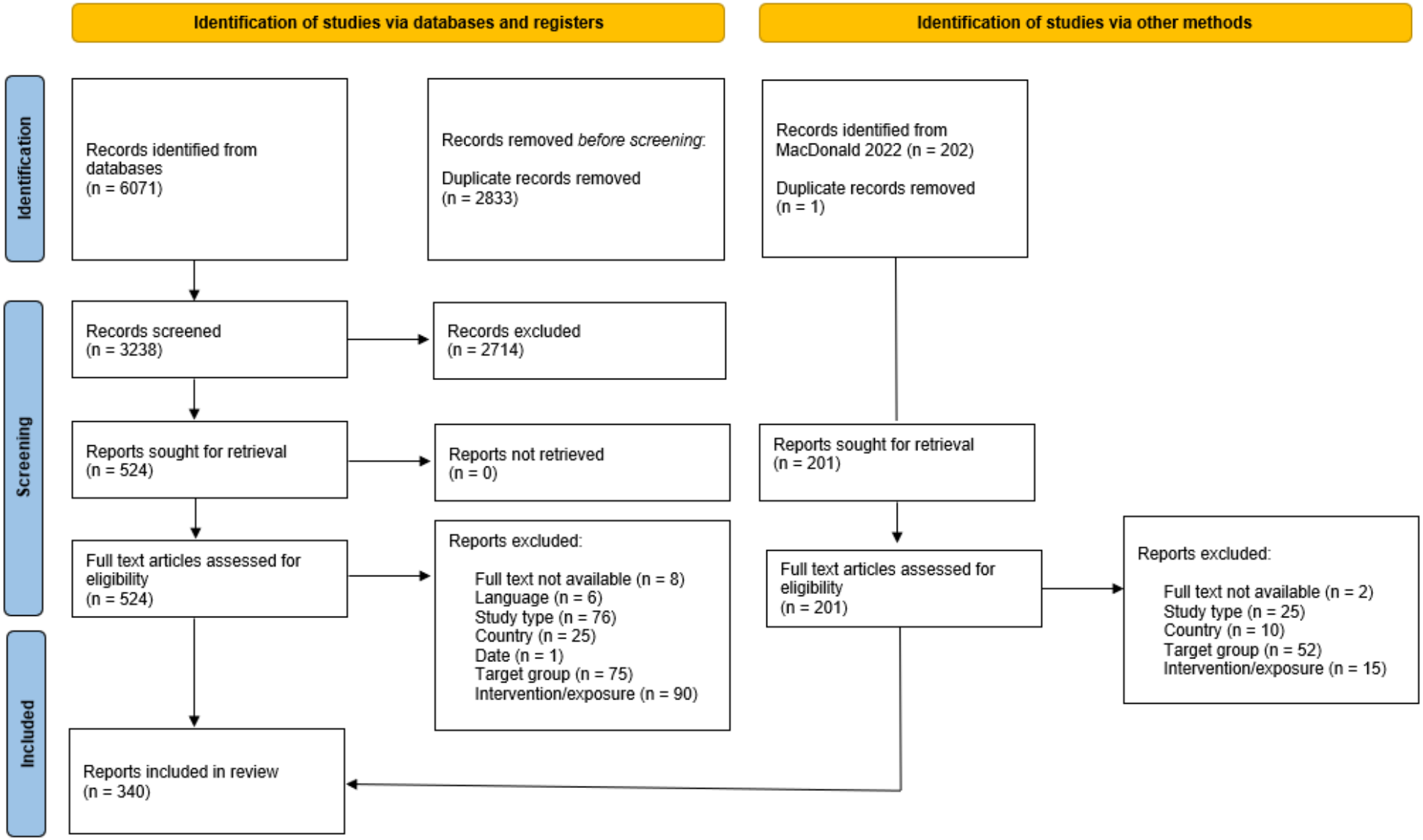
		Language barriers	Challenges understanding and navigating health systems for men and boys for whom English is not a primary language.
		Discrimination	Instances of negative, prejudicial treatment based on cultural stereotypes. Including discrimination relating to religion, ethnicity, sexuality and disability.
Opportunities for engagement	Individual	Peer and lived experience support	Bringing together groups of individuals with shared experience or knowing people with lived experience
		Involvement of personal support person	Involvement of friends and partners or other family members. Includes advice or support.
		Health education programme	Delivery of health-related information, and skills through targeted information and reassurance, leaflets, workshops, etc.
		Fostering social connection	Interventions encouraging men and boys to engage with others, e.g. walking groups.
		Incentives	Tangible motivators of engagement, financial (e.g. vouchers) or other (e.g. digital badges / achieving personal goal).
		Media campaigns / advertising strategies	Marketing strategies directed at men and boys and their interests, including social media.

Health system	Gateway consultations	Practitioners engaging men and boys in health discussions beyond the original intention of healthcare contact. Includes recommendations and referrals.
	Brief interventions	Interventions which take place over shorter periods of time (e.g. one-off workshops).
	Sustained interventions / continuity of care	Interventions which take place over a long period of time and/or continuity of care where patient has an ongoing relationship with a specific healthcare provider or team.
	Involvement in intervention decisions or design	Involvement of men and boys in treatment decisions. Co-created initiatives which directly incorporate feedback and/or planning by men and boys.
	Health literate services	Services which are easy for men and boys to understand and engage with, regardless of their level of health literacy.
	Evaluation of services	Monitoring and assessment of services in relation to men's continued engagement.
	Male responsive services	Services which are geared towards and are supportive of men and boys. E.g. those which feature male workers and gender-balanced teams, effective communications with men and boys, and male-based practitioner education and training.
Structural	Going to where men and boys are	Engaging men and boys at their homes or in community spaces attended by men and boys (e.g. Men's Sheds, sports clubs, pubs).

		Digital Health	Electronic/digital approaches to service delivery (e.g. mobile phone Apps, telephone consultations).
		Integrated / multiagency approach	Services which provide specific care (e.g. sexual health) in conjunction with other forms and/or collaborative approach where professionals from different organizations provide comprehensive support for individuals.
		Comprehensive services	Services which offer a broad range of care around a particular health area.
		Male responsive environments	Spaces for health engagement which are designed to accommodate men and boys, such as dedicated waiting rooms in prenatal services.
		Flexible and accessible services	Services which men and boys can engage with on their own terms and schedules, such as outreach activities (e.g. services entering the workplace) and community-based interventions (e.g. within spiritual communities).
	Cultural	Culturally responsive services	Services which are conscious of, and account for, different cultural norms. Includes opportunities for staff training and increasing diversity of staff.
		Value men and boys' strengths	Services which approach masculinity in a positive light, e.g. men's wishes to provide for their family.
		Holistic services	Services which approach health from a variety of different angles, e.g. physical, emotional, social and spiritual wellbeing.

		Men's health advocacy	Training and engaging community leaders in men's health advocacy. Speaking up and challenging social norms, helping reduce stigma and encouraging men to use health services.

Annex D: PRISMA diagram


Identification of studies via databases and registers
Identification of studies via other methods
Identification
Screening
Included
Records identified from databases (n = 6071)
Records removed *before screening*:
Duplicate records removed (n = 2833)
Records identified from MacDonald 2022 (n = 202)
Duplicate records removed (n = 1)
Records screened (n = 3238)
Records excluded (n = 2714)
Reports sought for retrieval (n = 524)
Reports not retrieved (n = 0)
Reports sought for retrieval (n = 201)
Full text articles assessed for eligibility (n = 524)
Reports excluded:
Full text not available (n = 8)
Language (n = 6)
Study type (n = 76)
Country (n = 25)
Date (n = 1)
Target group (n = 75)
Intervention/exposure (n = 90)
Full text articles assessed for eligibility (n = 201)
Reports excluded:
Full text not available (n = 2)
Study type (n = 25)
Country (n = 10)
Target group (n = 52)
Intervention/exposure (n = 15)
Reports included in review (n = 340)

Text equivalent of PRISMA diagram showing the flow of studies through this mapping review

From searches of databases and registers, n=6071 records were identified:

Ovid Medline n=1675

Ovid Embase n=1450

Ovid Emcare n=705

PsycInfo n=608

Global Health n=1633

From these, 2833 duplicate records were removed before screening.

After removal of duplicates, n=3238 records were screened on title and abstract, of which n=2714 were excluded, leaving n=527 papers sought for retrieval.

A total of 524 papers were assessed for eligibility on full text (n=0 reports not retrieved). Of these, 281 were excluded:

Full text not available (n = 8)

Language (n = 6)

Study type (n = 76)

Country (n = 25)

Date (n = 1)

Target group (n = 75)

Intervention/exposure (n = 90)

202 additional records were identified through Macdonald et al. (2022):

After removal of n=1 duplicate records, n=201 were assessed for eligibility on full text (n=0 reports not retrieved). Of these, 11 were excluded:

Full text not available (n = 2)

Study type (n = 25)

Country (n = 10)

Target group (n = 52)

Intervention/exposure (n = 15)

In total, 97 studies were included from Macdonald et al. (2022).

Combined with the results of the literature search (206 studies included), 340 studies were included

Annex E: characteristics of systematic reviews

Table 4: year of publication of included systematic reviews

Year published	Number of systematic reviews
2000 to 2005	2
2006 to 2010	7
2011 to 2015	34
2016 to 2020	86
2021 to 2025	199
2026 onwards	12

Table 5: number of studies in included systematic reviews

Number of included studies	Number of systematic reviews	Includes UK studies
1 to 25	213	109
26 to 50	78	52
51 to 75	30	19
76 to 100	7	6
100+	12	12

Table 6: further characteristics of systematic reviews

Characteristic	Number of systematic reviews

Focus solely on men and boys	283
Includes meta-analysis	61
Performs quality assessment	267

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