Assessment of how health inequities are addressed in NCD and risk factor policies across Europe

A questionnaire-based cross-sectional study.

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Title: Assessing how health inequities are addressed in national NCD and risk factor policies in Europe: a questionnaire-based cross-sectional study.

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Abbreviations

COPD	Chronic obstructive pulmonary disease
CVD / CVDs	Cardiovascular disease / cardiovascular diseases
DALYs	Disability-adjusted life years
EEA	European Economic Area
EII / EIIs	Equity integration indicator(s)
EIS	Equity integration score
EPAAC	European Partnership for Action Against Cancer
EU	European Union
EU4Health	EU4Health Programme
GBD	Global Burden of Disease
GDPR	General Data Protection Regulation
HADEA	European Health and Digital Executive Agency
HEAT	Health Equity Assessment Toolkit
HEIA	Health Equity Impact Assessment
HiAP	Health in All Policies
iPAAC	Innovative Partnership for Action Against Cancer
JA	Joint Action
JA OriON	Joint Action on Contribution to the Cancer Inequalities Registry to Monitor National Cancer Control Policies
JA PreventNCD	Joint Action Prevent Non-Communicable Diseases
JACARDI	Joint Action on Cardiovascular Diseases and Diabetes
JAHEE	Joint Action Health Equity Europe

LGBTQ+	Lesbian, gay, bisexual, transgender, queer/questioning and other sexual and gender minorities
NCD / NCDs	Non-communicable disease / non-communicable diseases
OECD	Organisation for Economic Co-operation and Development (not expanded in the report)
SDH	Social determinants of health
UK	United Kingdom
WHO	World Health Organization
WP7	Work Package 7

Executive summary

As part of the Joint Action Prevent Non-Communicable Diseases (JA PreventNCD), this report examines the extent to which health equity considerations are integrated into national policies on non-communicable diseases (NCDs) and the associated behavioural risk factors across 17 European countries. Embedding equity considerations into specific policies is essential for establishing systematic action at the national level to reduce health inequities and move beyond often vague statements regarding the importance of health equity. While previous research has focused on individual countries, policy areas, or diseases, no comprehensive cross-country assessment has examined the integration of health equity across both NCD and behavioural risk factor policies in Europe. The main objective of this study is therefore to examine how these considerations are integrated into national NCD and risk factor policy documents across Europe.

Data were collected through nine online questionnaires completed by national experts in each policy area: four questionnaires addressed behavioural risk factors (tobacco, alcohol, diet and nutrition, and physical activity), while five focused on NCDs (cancer, cardiovascular diseases (CVDs), diabetes, chronic obstructive pulmonary disease (COPD), and documents addressing several NCDs). In total, 87 questionnaires from 17 countries were included in the analysis.

The integration of equity considerations was assessed using four equity integration indicators (EIIs): (1) inequities mentioned, (2) inclusion of equity-oriented actions, (3) monitoring of inequities, and (4) adoption of a Health in All Policies (HiAP) approach.

The analysis of the questionnaire responses reveals several key findings, most notably the substantial difference in the number of policy documents addressing behavioural risk factors compared with those addressing NCDs. More countries have policy documents on behavioural risk factors (tobacco: 15; alcohol: 16; diet and nutrition: 13; physical activity: 16) than on NCDs (several NCDs: 5; CVDs: 2; diabetes: 6; COPD: 0). Cancer is a notable exception, with documents present in 14 countries.

Almost all of the countries' policy documents on NCDs (26/27) and risk factors (58/60) mention inequities. A similar pattern is observed regarding the inclusion of actions aimed at addressing these inequities, and most countries include such measures both in policy documents on behavioural risk factors (55/60) and on NCDs (22/27). These

findings suggest that health equity has become an established policy objective across national NCD and risk factor policies, rather than a peripheral consideration. However, when it comes to policy documents on NCDs, fewer than half of the countries included actions or interventions aimed at inequities in both behavioural risk factors and the management and treatment of NCDs; most addressed only one of these areas.

The analysis also revealed important gaps. Most notably, only around half of the countries' policy documents on risk factors (30/60) and NCDs (14/27) cover monitoring of inequities. Cancer policies were particularly weak in this regard, rarely addressing the monitoring of inequities. This represents a critical policy gap, as without systematic monitoring it is impossible to assess whether policies are actually reducing inequities.

A second key finding is the uneven adoption of a HiAP approach. While a HiAP approach was incorporated into almost all behavioural risk factor policy documents (57/60), it was only adopted in 17 of the 27 cases in which countries had policy documents on NCDs. This suggests that cross-sectoral action, which is essential for addressing the broader determinants of health inequities, has not yet been adequately integrated into many NCD policy documents.

Overall, behavioural risk factor policy documents achieved higher and more consistent equity integration scores (EIS) than NCD policy documents.

Taken together, the findings of this report suggest that, while inequities are widely recognised in policy documents, there is a need to translate this recognition into more concrete actions and monitoring mechanisms. NCD policy documents in particular need strengthening, with equity considerations extending across both behavioural risk factors and the full continuum of treatment and care. The findings also point to the need for a broader equity lens: future policies should consider a substantially wider range of social determinants and population groups experiencing inequities.

Given that these challenges are seen across all countries and policy areas, greater practical guidance and technical support from research institutions and international organisations, including the World Health Organization and relevant European Union bodies, could help strengthen the integration of health equity into future NCD policies.

1. Introduction

Non-communicable diseases (NCDs) account for the vast majority of deaths and disability in Europe. According to the Global Burden of Disease (GBD) Study 2023, more than 89% of deaths and over 84% of disability-adjusted life years (DALYs) in the region are attributable to NCDs (1). Despite overall improvements in population health, this burden is unevenly distributed. Persistent and substantial health inequities remain across population groups, particularly according to socioeconomic status, influenced by factors such as educational attainment, income, minority background, and geographic location. These inequities are reflected both in the unequal distribution of behavioural risk factors (such as tobacco use, alcohol consumption, physical inactivity, and unhealthy diet) and in inequities in health outcomes, including the incidence and mortality of cancer, cardiovascular diseases (CVDs), chronic obstructive pulmonary disease (COPD), and diabetes (2) (3) (4) (5).

Social and gender inequities play a critical role in shaping both exposure to risk factors and the capacity to engage in preventive behaviours, resulting in a disproportionate burden of NCDs among socially and economically disadvantaged groups (6). Individuals with a lower socioeconomic status are more likely to face structural barriers such as poverty, limited access to healthy foods, unsuitable environments for physical activity, and restricted access to healthcare. These conditions contribute to higher rates of smoking, unhealthy dietary patterns, lower levels of physical activity, increased alcohol consumption, and reduced adherence to preventive recommendations (7) (8) (9) (10).

Inequities in NCD outcomes, such as mortality from diabetes or CVDs, are closely linked to broader social determinants of health (SDH), including education, income, and gender. For example, Vaccarella et al. show that individuals with lower educational attainment experience systematically higher cancer mortality for nearly all cancer types across European countries (11). Similarly, drawing on data from the 2014 European Social Survey, McNamara et al. identified a clear educational gradient in self-reported NCD prevalence in all countries studied (12). More recent analyses of European Social Survey data indicate that, although social gradients were not explicitly re-examined, the prevalence of self-reported NCDs and multimorbidity has increased over time. These studies further suggest that, overall, inequities in self-

reported health have widened slightly over the past decade in Europe, with substantial variation between countries (13).

Inequities in healthcare further exacerbate the uneven burden of NCDs. Across OECD countries, the prevalence of unmet health needs, which is an established indicator of access to health services, is consistently higher among lower-income individuals (14). This creates a double burden for people in lower socioeconomic positions: not only do they experience a disproportionate share of the NCD burden and greater exposure to behavioural risk factors, but they also face greater barriers to accessing and effectively using healthcare services.

Inequities in NCD-specific care are better documented in some areas of cancer services, particularly cancer screening, where socioeconomic differences in uptake are observed across Europe (15). These existing inequities in health and healthcare are further challenged by rapid technological advancement. For instance, as societies and public services become increasingly digitalised, new challenges for health equity are emerging, with growing evidence of social inequality in access to and use of digital healthcare services (16).

Reducing the burden of NCDs, the associated behavioural risk factors, and inequities in access to NCD-related health services requires more than individual-level interventions. It necessitates comprehensive public policies that promote health equity by addressing the underlying social and economic conditions that shape health behaviours, inequalities in healthcare services, and health outcomes. When countries seek to reduce inequities in NCDs and their determinants, relevant national policy documents should reflect such commitments. At the European level, health equity is firmly embedded in the policy agenda through initiatives such as the EU4Health Programme (17), Europe's Beating Cancer Plan (18), and the Healthier Together – EU NCD initiative (19), making health inequities a common concern for European countries. The Safe Hearts Plan (20) —a new major European Union initiative focused on NCDs— was launched while this study was being carried out. It strengthens EU-level attention to CVDs, the associated risk factors, and CVD treatment and care. Tackling inequalities is one of its three cross-cutting themes.

Nevertheless, there is limited evidence and only a small number of overviews examining the extent to which national policies on NCDs and their behavioural risk

factors in Europe explicitly address health inequities. The well-known World Health Organization (WHO) “Closing the gap” report from 2008 (21) assessed policies across multiple sectors in 13 high-income countries, focusing on how they addressed health inequities and SDH. Similarly, a European Commission report reviewed health inequities and how both national and EU-level policies respond to them (22). Barsanti et al. (23) conducted a cross-European survey in selected countries to analyse national and regional governance arrangements related to policies aimed at reducing health inequalities. More recently, a report examined EU-level policies and institutional actions taken to address health inequalities across the Union, highlighting areas of progress and gaps (24). However, these studies primarily focus on general health or social policies, and do not systematically examine specific NCD or behavioural risk factor policy areas. No previous studies specifically examining how health inequities are addressed in national risk factor and NCD policy documents were identified.

Analysing specific policy areas and policy documents at the national level is essential for understanding how health equity considerations are incorporated into public policy. Such policies translate broader strategic policy objectives into concrete actions, thereby revealing whether and how these equity concerns are embedded in specific strategies and implementation plans.

2. Theoretical framework

This study is grounded in a comprehensive equity-oriented theoretical framework aligned with the objectives of JA PreventNCD and Work Package 7. It integrates three complementary approaches: the SDH model, the principle of proportionate universalism, and the Health in All Policies (HiAP) approach.

SDH —defined as the conditions in which people are born, grow up, live, work, and age, as well as their access to power, money, and resources— play a central role in shaping health inequities (25). As described in the previous section, health outcomes follow a clear social gradient, whereby a lower socioeconomic position is associated with poorer health. This study focused on structural SDH and used the Cochrane PROGRESS-Plus framework, which includes the most important socially stratifying factors that may contribute to inequalities in health outcomes across diverse settings. The socially stratifying factors shaping health opportunities and outcomes are place of residence, race, ethnicity, culture and language, occupation, gender and sex, religion,

education, socioeconomic status, and social capital (26) (27). Of the additional factors encompassed in the “plus” component of the framework, only age and disability factors were included in this study. Time-dependent relationships and features of relationships were omitted, as these were not found to be relevant during exploratory reading of various NCD and behavioural risk factor policy documents.

To operationalise equity in the policy analysis, this study draws on the concept of proportionate universalism introduced by the Marmot Review in England (28) and subsequently developed further by Marmot and colleagues, as well as by other researchers. Proportionate universalism advocates developing policies, actions, and resource allocation methods that are designed to be universally implemented but delivered to individuals, groups, and organisations at a scale and intensity proportionate to the degree of need (29).

As mentioned above, this study is informed by the HiAP approach, which recognises that many key determinants of NCDs lie outside the health system (30) and highlights the importance of intersectoral collaboration and accountability mechanisms for addressing health inequities and ensuring policy coherence. Thus, HiAP emphasises the importance of systematically considering impacts on health and equity across all policy sectors.

This integrated analytical framework builds on the study team’s experience in equity-focused policy analysis within previous European Joint Actions and partnerships, including the European Partnership for Action Against Cancer (EPAAC) (31), the Innovative Partnership for Action Against Cancer (iPAAC) (32), and the Joint Action on Contribution to the Cancer Inequalities Registry to Monitor National Cancer Control Policies (JA OriON) (33). These prior initiatives demonstrate both the feasibility and added value of structured comparative policy analysis across European countries.

3. Objectives

The primary objective of this study is to examine how health equity considerations are integrated into national NCD and behavioural risk factor policy documents across Europe.

The study provides insights into the extent to which health inequities are addressed within national policy frameworks and identifies opportunities to strengthen the integration of health equity in future policy development.

4. Methods

4.1. Study design

This study employed a cross-sectional questionnaire-based policy analysis. Data were collected using structured questionnaires designed to assess the extent to which national policy documents incorporate health equity considerations into the prevention, treatment, and management of NCDs and their common behavioural risk factors.

4.2. Setting

This study was conducted within the framework of the Joint Action Prevent Non-Communicable Diseases (JA PreventNCD) project, as part of Work Package 7 *Social Inequalities*. All countries participating in Work Package 7 were invited to take part in the study. These countries represented a substantial part of the European Union (EU) and the European Economic Area (EEA): Austria, Belgium, Bulgaria, Croatia, Czech Republic, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Malta, Norway, Portugal, Slovenia, Spain, and Ukraine.

Austria and Ukraine were unable to contribute to the data collection, and therefore, the final analysis included data from 17 countries.

4.3. Study respondents

The questionnaires were completed by national policy experts with current or previous involvement in the development, implementation, or oversight of national policy documents within the policy areas covered by the study. Experts were identified and recruited by JA PreventNCD partners, who were responsible for selecting and contacting the appropriate experts from their country.

4.4. Policy documents

The study examined national policy documents relating to major NCDs and their common behavioural risk factors. NCD policy areas included policies addressing several NCDs, cancer, CVDs, diabetes, and COPD. In relation to behavioural risk

factors, the study analysed the following policy areas: tobacco, alcohol, diet and nutrition, and physical activity.

Policy documents were defined as national strategies, plans, programmes, white papers (when constituting formally adopted policy or official policy objectives), national initiatives, or equivalent policy instruments. Legislative instruments were not included as policy documents. Documents were eligible if they were currently in force or formally approved and expected to come into force, and if they focused on or substantially addressed one of the selected policy areas.

Overarching policy documents addressing several NCDs, such as overarching NCD strategies, were assessed using a dedicated questionnaire on NCD policies. A different approach was applied to behavioural risk factor policies. When a single policy document addressed more than one behavioural risk factor, it was assessed separately using the questionnaire corresponding to each relevant risk factor.

4.5. Data collection instrument

The data collection instrument comprised nine standardised questionnaires developed specifically for this study. Questionnaire development was informed by a review of existing instruments addressing NCD policies and health inequities, including tools developed within JA OriON (34), the WHO's "Country Profile of Capacity and Response to Noncommunicable Diseases" (35), and an unpublished questionnaire on monitoring and measuring health inequalities developed by the Public Health Agency of Sweden.

An exploratory review of national NCD and risk factor policy documents from several countries was also undertaken to identify common policy themes, document types, and equity-related contents. Findings from this review informed the development of questionnaire items and helped ensure their relevance across countries and policy areas.

In total, nine standardised questionnaires were developed: four relating to national behavioural risk factor policy documents (see Appendix B) and five relating to NCD policy documents (see Appendix C).

The questionnaires were validated and reviewed by JA PreventNCD partners. To maximise comparability across countries and policy areas, all questionnaires included the following components:

1. **Introduction:** outlining the purpose of the study and its relationship with the JA PreventNCD initiative.
2. **Instructions for data collection:** providing step-by-step guidance on completing the questionnaire.
3. **Glossary:** providing harmonised definitions of key concepts based on the JA PreventNCD glossary (March 2025) to support consistency across national contexts.
4. **Questionnaire content:** employing a mixed-methods approach. Closed-ended and multiple-choice questions captured structured information on equity-related policy content, while open-ended questions and document excerpts provided contextual information and supporting evidence from the policy documents reviewed.

Equity integration indicators

As the questionnaires were thematically structured around key elements of addressing inequities, the responses were used to construct a set of equity integration indicators (EIIs), which assessed the extent to which policy documents incorporated health equity considerations. The indicators also formed the basis for the equity integration scores (EIS) used in the comparative analyses. Separate indicator frameworks were developed for behavioural risk factor policies and NCD policies to reflect differences in focus:

A) Equity integration indicators for behavioural risk factor policies:

- EII1: Inequities mentioned
- EII2: Equity objectives
- EII3: Equity actions
- EII4: Monitoring of inequities
- EII5: Health in All Policies (HiAP) / multisectoral approach

B) Equity integration indicators for NCD policies:

- EII1: Inequities mentioned
- EII2: Actions to reduce inequities in treatment and management
- EII3: Actions to reduce inequities in risk factors.
- EII4: Monitoring of inequities
- EII5: Health in All Policies (HiAP) / multisectoral approach

Additional questionnaire items explored relevant sub-dimensions of each indicator, including the population groups affected, SDH, types of actions implemented, risk factors addressed, monitoring focus, and sectors involved. Population groups and social determinants were classified using a modified PROGRESS-Plus framework. More detailed information on each indicator is provided in Appendix D.

4.6. Data collection procedure

Each WP7 partner was responsible for identifying and recruiting national policy experts with relevant expertise in the policy areas covered by the study (see Section 4.3). Written guidance and training sessions were provided to ensure a consistent approach was applied in respondent selection. In countries where WP7 partner organisations were directly involved in national policy development or implementation, such as national health authorities, representatives of these organisations were invited to complete the relevant questionnaires.

Data collection was carried out between 1 April 2025 and 1 September 2025, although deadlines were extended for some countries to allow additional time to secure responses from policy experts.

To support harmonised data collection and ensure data quality, information was collected using both a Microsoft Word questionnaire and a digital questionnaire in Microsoft Forms. National policy experts initially completed the Word version, and WP7 partners subsequently reviewed and validated the responses against the supporting policy document excerpts and references provided. Training sessions, written information, and ongoing support from the study team were available throughout this process.

Following validation, data were entered into Microsoft Forms by WP7 partners. A second quality assurance review was subsequently undertaken by the coordinating team to assess consistency and completeness across countries and questionnaires. This review was particularly important for the NCD-specific questionnaires, where the scope and level of detail varied considerably between countries and policy areas. The validation process was carried out between 1 September 2025 and 1 February 2026.

To facilitate harmonised implementation and address challenges, regular virtual troubleshooting meetings were held with WP7 partners throughout the data collection and validation process.

Access to data submitted through Microsoft Forms was restricted to authorised members from the coordinating institutions (FISABIO and HDir). Personal data relating to policy experts were retained only when needed to clarify questionnaire responses. All personal data were processed in compliance with the EU General Data Protection Regulation (GDPR) (Regulation (EU) 2016/679).

4.7. Data analysis

A mixed-methods analytical approach was used to examine the integration of health equity considerations in national policy documents across participating countries. The analysis was based on the experts' responses and not on a systematic reading of the policy documents themselves, although the documents were often read at least partially during validation.

Quantitative data were analysed using Excel and SPSS. Descriptive analyses were conducted to provide an overview of policy documents addressing NCDs and their behavioural risk factors across countries, followed by a comparative analysis within each policy area. As the questionnaire did not distinguish between different types of policy documents, all eligible documents were analysed at the same level.

Responses to open-ended questions were primarily used to support the validation of quantitative findings and to illustrate the selected examples.

Equity integration score

To assess the extent to which equity considerations were embedded into policy documents, an EIS was developed. The scoring approach was informed by work undertaken within the Joint Action Health Equity Europe (JAHEE) (36) and adapted to

align with the objectives of the present study. The EIS was designed to facilitate comparisons across countries and policy areas and identify strengths and gaps in the integration of health inequities within national policy documents. The score was developed as a comparative tool and should not be interpreted as a measure of policy quality or expected effectiveness. It only reflects the presence or absence of selected EIIs.

The score was based on the EIIs described above, with two modifications to improve comparability across NCD and risk factor policy areas. Firstly, the indicator on equity objectives (EII2) was excluded from the behavioural risk factor scoring framework. Secondly, for NCD policy documents, the indicators relating to *actions to reduce inequities in treatment and management* and *actions to reduce inequities in risk factors* were combined into a single indicator capturing equity-oriented actions. These modifications resulted in a common scoring framework comprising four indicators for both policy domains.

Only the primary indicator measures, reflecting the presence or absence of each EII, were included in the score. Information derived from sub-dimensions —such as the population groups addressed, SDH, types of actions, risk factors, monitoring focus, or sectors involved— was analysed descriptively and used to contextualise the findings but was not incorporated in the scoring system.

Each indicator was dichotomously coded as either present or absent. The EIIs were then summed to produce an EIS ranging from 0 to 4:

- **Score 0**: No EIIs identified (0/4)
- **Score 1**: One EII identified (1/4)
- **Score 2**: Two EIIs identified (2/4)
- **Score 3**: Three EIIs identified (3/4)
- **Score 4**: Four EIIs identified (4/4)

This scoring approach was applied separately to NCD and behavioural risk factor policy documents in each participating country. Higher scores indicate that health equity considerations are more comprehensively integrated into the policy documents under assessment.

4.8. Data visualisation and presentation

Results were visualised using tables and bar charts to facilitate comparison of equity integration across countries and policy areas. Where appropriate, visualisation was also used to present findings of specific sub-dimensions of the EIIs.

Findings are presented separately for each risk factor and NCD policy area, followed by a synthesis of the main cross-cutting findings. Detailed indicator-level results for all policy areas are provided in Appendix A.

5. Results

A total of 87 questionnaires from 17 countries were analysed (27 on NCDs and 60 on risk factors). The results are presented below, detailed separately for risk factors and NCDs.

5.1. Results of the risk factor policy document analyses

This section presents the general results for each risk factor individually, followed by a comparative overview. Detailed results on the EIIs of each risk factor are provided in Appendix A.

National tobacco policy documents

As shown in Table 1, the majority of countries included in the study have tobacco-related policy documents currently in force. In some cases, no information was available because responses from national policy experts could not be obtained. These countries were therefore categorised as “No answer”.

Table 1. Current status of tobacco policy documents in participating countries.

Country response	Number of countries N (%)	Countries
Yes, in force	15 (88.2%)	Belgium, Bulgaria, Croatia, Czech Republic, Estonia, Finland, France, Germany, Greece*, Hungary, Italy, Malta, Norway, Slovenia, Spain
No, under development	0 (0%)	
No	1 (5.9%)	Iceland

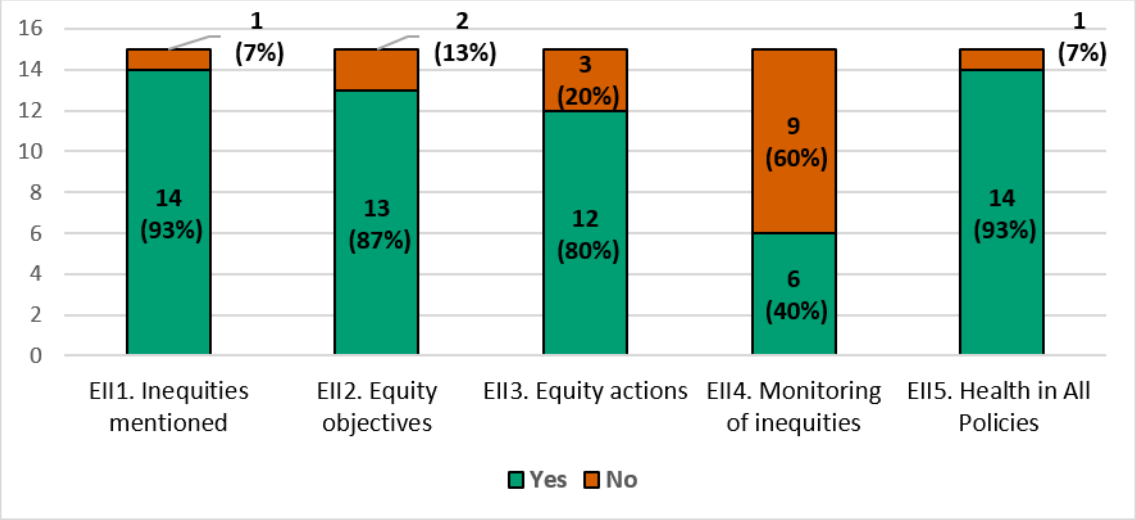
No answer	1 (5.9%)	Portugal
Total	17 (100%)	

** Although the Greek tobacco policy documents were legislative instruments rather than strategies or action plans, they were included because they were the main national policy instruments addressing tobacco control during the study period.*

Figure 1 presents the distribution of the five EIIs across the 15 countries with tobacco policy documents in force.

The findings suggest that equity considerations are well integrated into tobacco-related policy documents in participating countries. Most EIIs are widely represented across countries, with the notable exception of monitoring of inequities, which is less frequently included.

Figure 1. Incorporation of the equity integration indicators in tobacco policy documents.



National alcohol policy documents

All countries except Hungary have national alcohol policy documents in force.

Table 2. Current status of alcohol policy documents in participating countries.

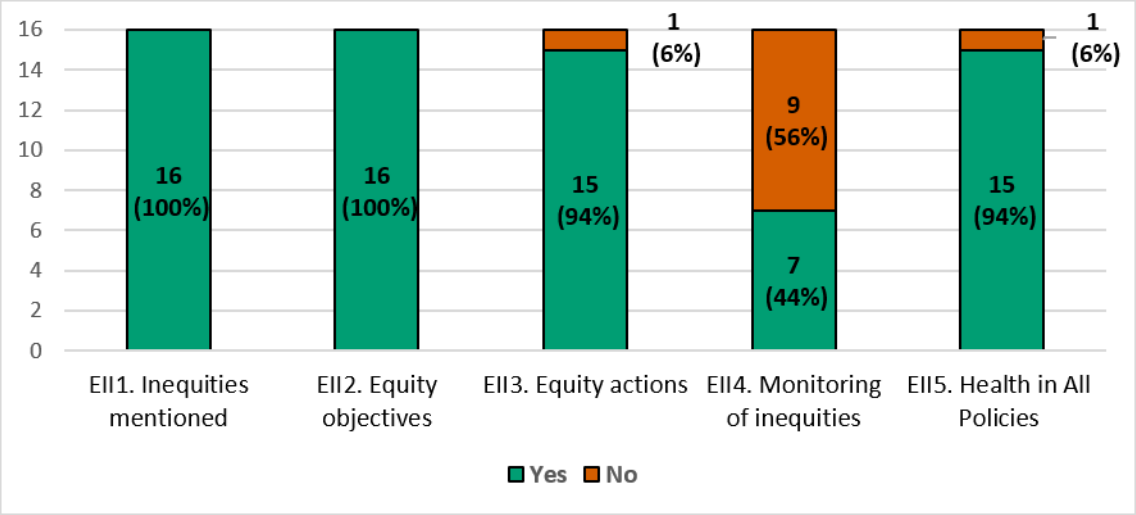
Country response	**Number of countries N (%)**	**Countries**
Yes, in force	16 (94.1%)	Belgium, Bulgaria, Croatia, Czech Republic, Estonia, Finland, France, Germany, Greece*,

		Iceland, Italy, Malta, Norway, Portugal, Slovenia, Spain
No, under development	0 (0%)	
No	1 (5.9%)	Hungary
No answer	0 (0%)	
Total	17 (100%)	

** Although the Greek alcohol policy documents were legislative instruments rather than strategies or action plans, they were included because they were the main national policy instruments addressing alcohol control during the study period*.

The overview of the five EIIs (Figure 2) shows the extent to which they are present in alcohol policy documents in participating countries. All countries mention inequities and describe objectives to reduce them, whereas one country does not include equity actions and another one does not adopt a HiAP approach. In contrast, more than half of the countries do not cover routine monitoring of inequities in their alcohol policy documents.

Figure 2. Incorporation of the equity integration indicators in alcohol policy documents.



National diet and nutrition policy documents

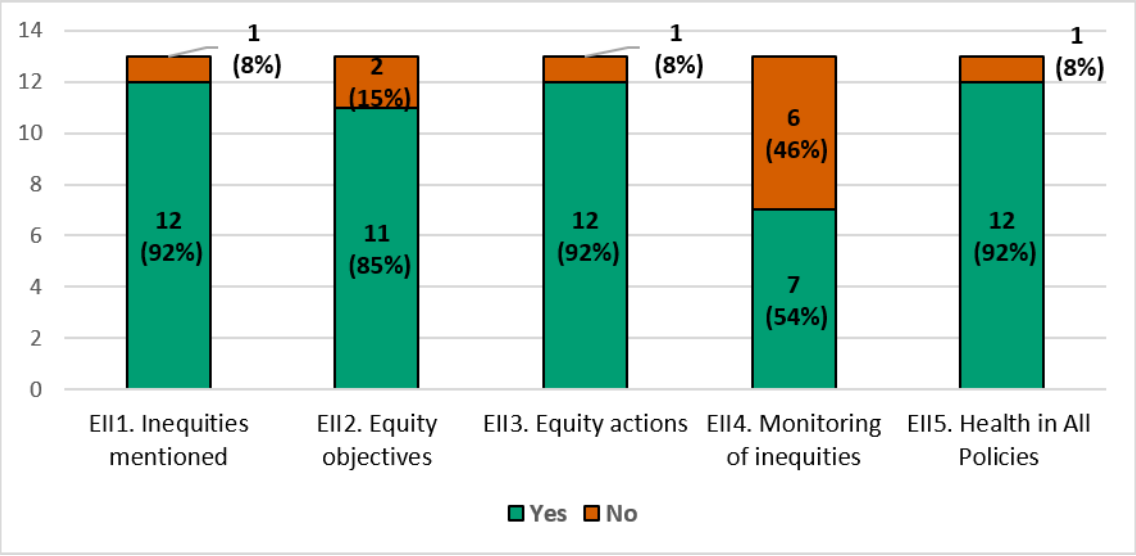
Most countries have diet and nutrition policy documents currently in force. Two countries are in the process of developing them. No information was received from policy experts in two other countries.

Table 3. Current status of diet and nutrition policy documents in participating countries.

Country response	Number of countries N (%)	Countries
Yes, in force	13 (76.5%)	Bulgaria, Croatia, Czech Republic, France, Germany, Greece, Hungary, Iceland, Italy, Malta, Portugal, Slovenia, Spain
No, under development	2 (11.8%)	Estonia, Norway
No	0 (0%)	
No answer	2 (11.8%)	Belgium, Finland
Total	17 (100%)	

Figure 3 illustrates the extent to which equity considerations are incorporated into countries' diet and nutrition policy documents. Most EIIs were included. All countries except for one mention inequities, have actions to reduce them, and incorporate a HiAP approach in their diet and nutrition policy documents, while only two countries do not have equity objectives. Furthermore, the monitoring of inequities is less commonly addressed, being present in slightly over half of the countries' policy documents on diet and nutrition.

Figure 3. Incorporation of the equity integration indicators in diet and nutrition policy documents.



National physical activity policy documents

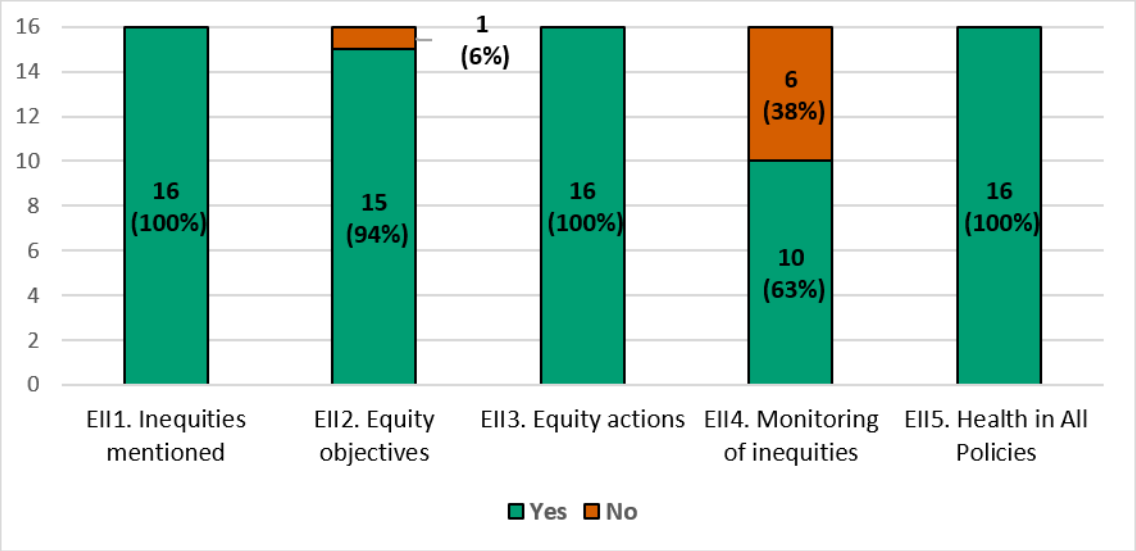
All countries except Greece have physical activity policy documents in force.

Table 4. Current status of physical activity policy documents in participating countries.

Country response	Number of countries N (%)	Countries
Yes, in force	16 (94.1%)	Belgium, Bulgaria, Croatia, Czech Republic, Estonia, Finland, France, Germany, Hungary, Iceland, Italy, Malta, Norway, Portugal, Slovenia, Spain
No, under development	0 (0%)	
No	1 (5.9%)	Greece
No answer	0 (0%)	
Total	17 (100%)	

As shown in Figure 4, overall, countries demonstrate a high level of equity integration in their physical activity policy documents. All countries acknowledge inequities, include actions to reduce them, and adopt a HiAP approach. However, one country does not specify explicit equity objectives, and six countries do not incorporate routine monitoring of inequities.

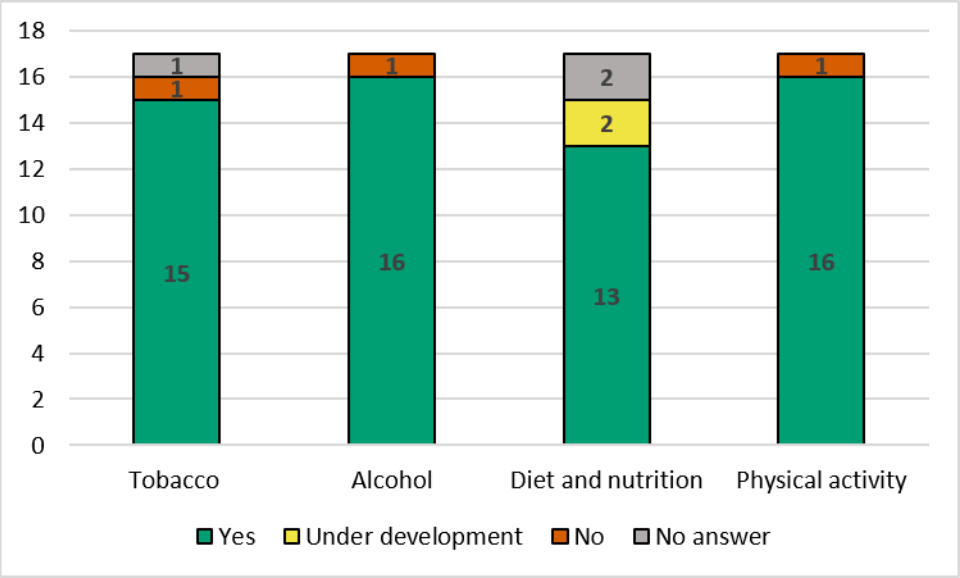
Figure 4. Incorporation of the equity integration indicators in physical activity policy documents.



Comparison of national policy documents on risk factors

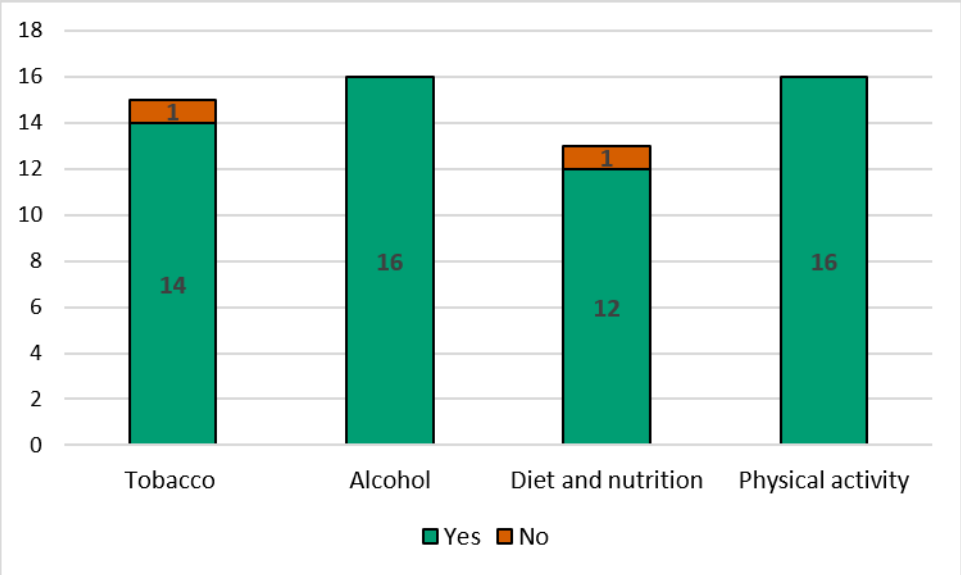
While most countries have policy documents addressing all four risk factor areas, some differences are evident. Fewer countries have diet and nutrition policy documents in force, although two countries are currently developing relevant policy documents. Policy documents on alcohol and physical activity are present in 16 countries, whereas tobacco policy documents are reported in 15 countries (Figure 5).

Figure 5. Current status of risk factor policy documents by policy area.



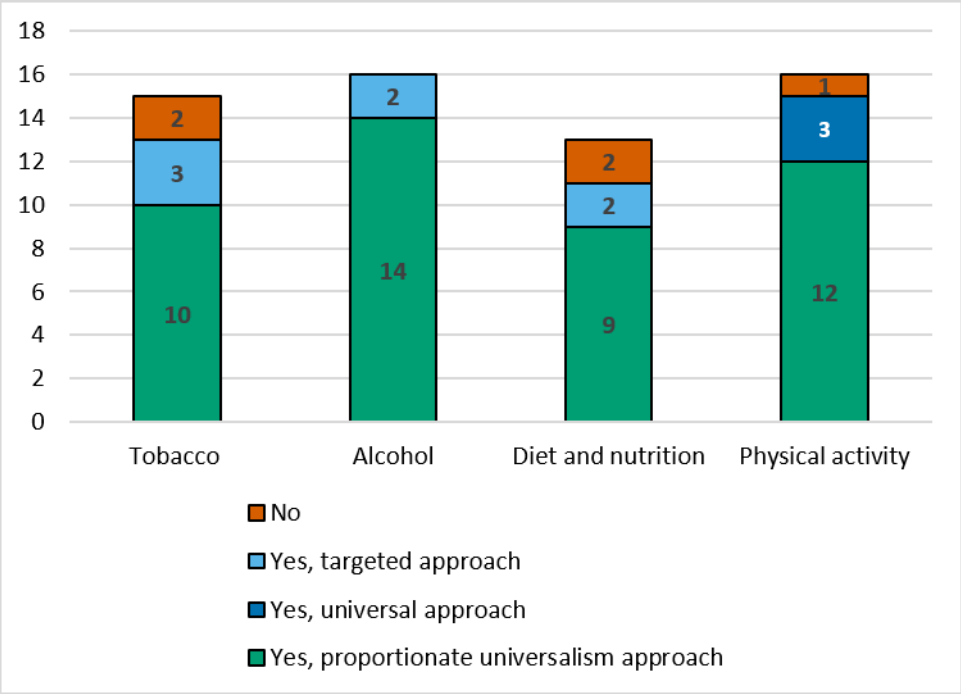
Almost all countries explicitly mention inequities (Figure 6) in their policy documents across the four risk factors, with only two exceptions: one country in the area of tobacco and another in diet and nutrition.

Figure 6. Number of countries explicitly mentioning inequities in risk factor policy documents by policy area.



Similarly, almost all countries with policy documents include objectives aimed at reducing inequities (Figure 7). Exceptions where no equity objectives are specified are limited to two countries in the area of tobacco, two in diet and nutrition, and one in physical activity. Across risk factors, most objectives adopt a proportionate universalism approach. However, a targeted approach is used in a small number of countries and a universal approach is observed in only three countries in the area of physical activity.

Figure 7. Number of countries with equity-oriented objectives in risk factor policy documents by equity approach.



With respect to actions, differences are observed across policy areas (Figure 8). In the field of physical activity, all countries include actions aimed at reducing inequities. In contrast, one country with policy document in alcohol and another one in diet and nutrition areas, do not report such actions. Similarly, three countries' tobacco policy documents lack equity-focused actions. Across policy areas, most actions are framed using a proportionate universalism approach, particularly in the case of physical activity.

Figure 8. Number of countries with actions to reduce inequities in risk factor policy documents by equity approach.

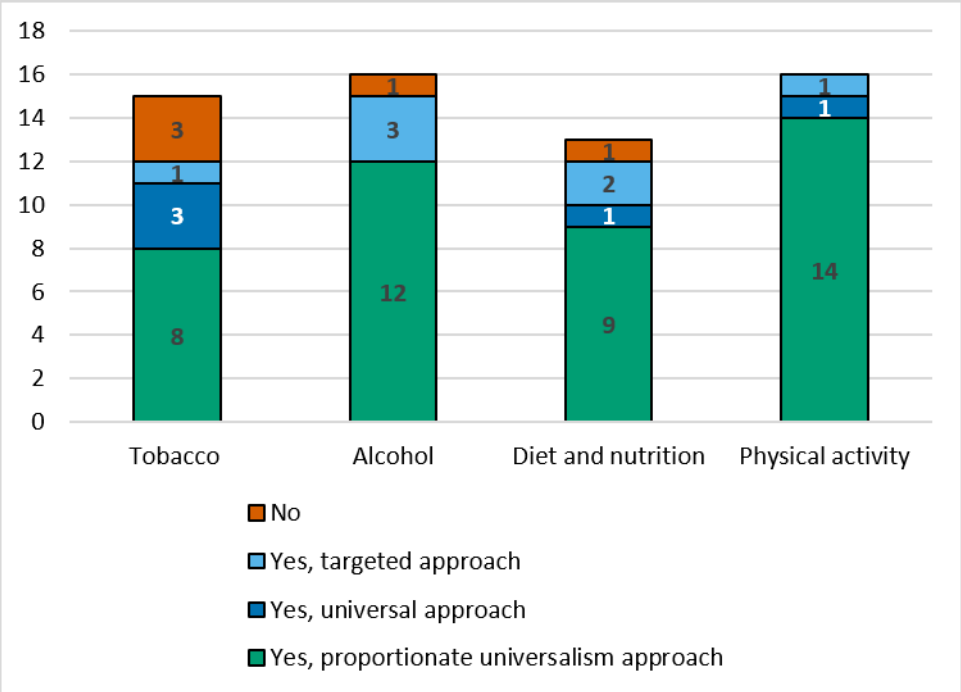


Figure 9 shows the frequency with which SDH are included in risk factor policy documents, combined for equity objectives and equity actions. In total, each SDH could be mentioned 110 times: 55 times in equity objectives and 55 times in equity actions.

Age was the most frequently considered determinant, followed by socioeconomic status. Sex/gender and geography were also commonly addressed. In contrast, ethnic/linguistic minority and disability received less attention, while religion and sexual orientation were rarely considered.

Across risk factors, SDH were more broadly considered in physical activity policy documents, followed by alcohol policy documents. Overall, the findings indicate that equity objectives and actions primarily focus on age and socioeconomic inequalities, whereas other dimensions of inequity remain comparatively underrepresented.

Figure 9. Social determinants of health considered in equity objectives and actions in risk factor policy documents by policy area.

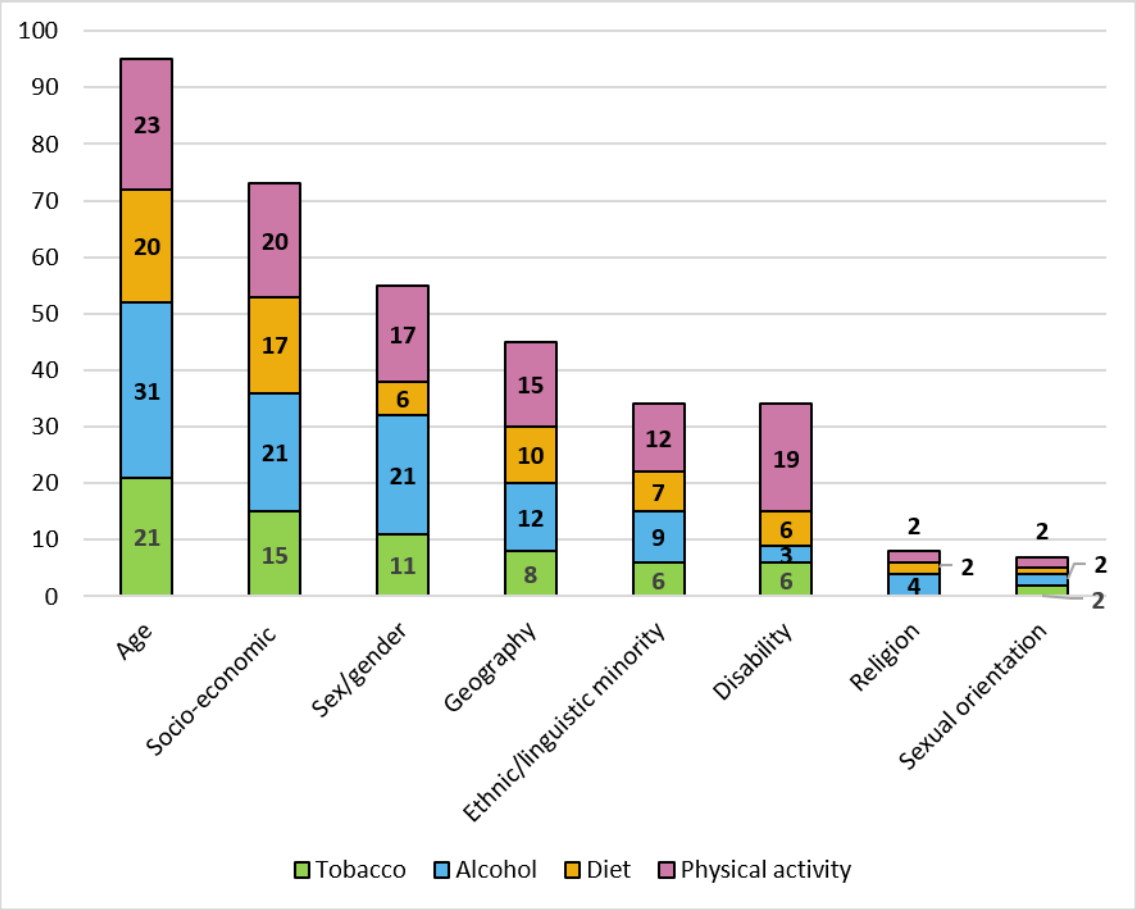


Table 5 summarises the types of actions to reduce inequities included in national risk factor policy documents. Educational programmes and awareness campaigns were the most consistently represented measures across all four policy areas, being included in more than two-thirds of the countries' policy documents. However, the overall pattern of actions differed substantially by risk factor.

Tobacco policy documents showed the widest use of different action types, with most present in over 80% of the countries' documents, whereas alcohol policy documents showed lower coverage of individual action types, especially alcohol-free spaces, free cessation programmes, and packaging.

In contrast, diet and nutrition and physical activity policy documents placed greater emphasis on behavioural and environmental interventions. Diet and nutrition policy documents most commonly included educational programmes, awareness campaigns, counselling through healthcare professionals, and measures aimed at reducing salt and/or sugar content in food products. Physical activity policy documents

focused on educational programmes, infrastructure improvements, promotion of active transportation, financial support for the use of sports facilities, and awareness campaigns, while regulatory measures were largely absent.

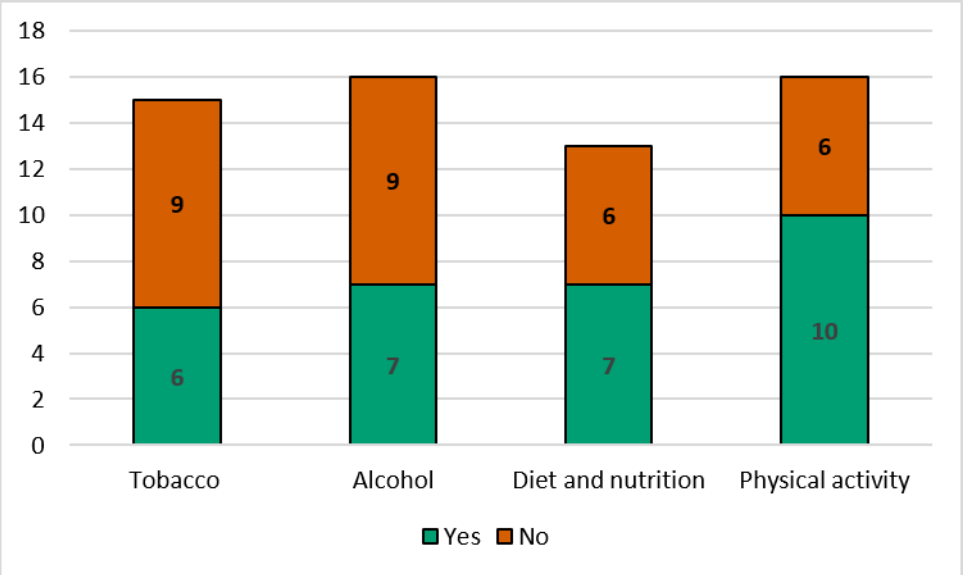
Table 5. Types of actions included in national risk factor policy documents by policy area.

SPECIFIC INFORMATION	Tobacco	Alcohol	Diet and nutrition	Physical activity
Type of action*	**N = 12 n(%)**	**N = 15 n(%)**	**N = 12 n(%)**	**N = 16 n(%)**
Taxes and fiscal measures	9 (75.0)	9 (60.0)	8 (66.7)	4 (25.0)
Advertising	10 (83.3)	11 (73.3)	7 (58.3)	1 (6.3)
Packaging	9 (75.0)	2 (13.3)	5 (41.7)	–
Sales restrictions	11 (91.7)	12 (80.0)	6 (50.0)	–
Smoke-/alcohol-free spaces	11 (91.7)	6 (40.0)	–	–
Counselling through healthcare professionals	11 (91.7)	10 (66.7)	10 (83.3)	12 (75.0)
Awareness campaigns	11 (91.7)	12 (80.0)	10 (83.3)	14 (87.5)
Educational programmes	10 (83.3)	11 (73.3)	11 (91.7)	15 (93.8)
Free cessation programmes	11 (91.7)	5 (33.3)	–	–
Reducing salt and/or sugar content in food products	–	–	10 (83.3)	–
Financial support for the use of sports facilities	–	–	–	10 (62.5)
Infrastructure improvements	–	–	–	15 (93.8)
Promotion of active transportation	–	–	–	11 (68.8)
Other	0 (0)	0 (0)	0 (0)	0 (0)

**Number of countries that included actions in each risk factor policy area*.

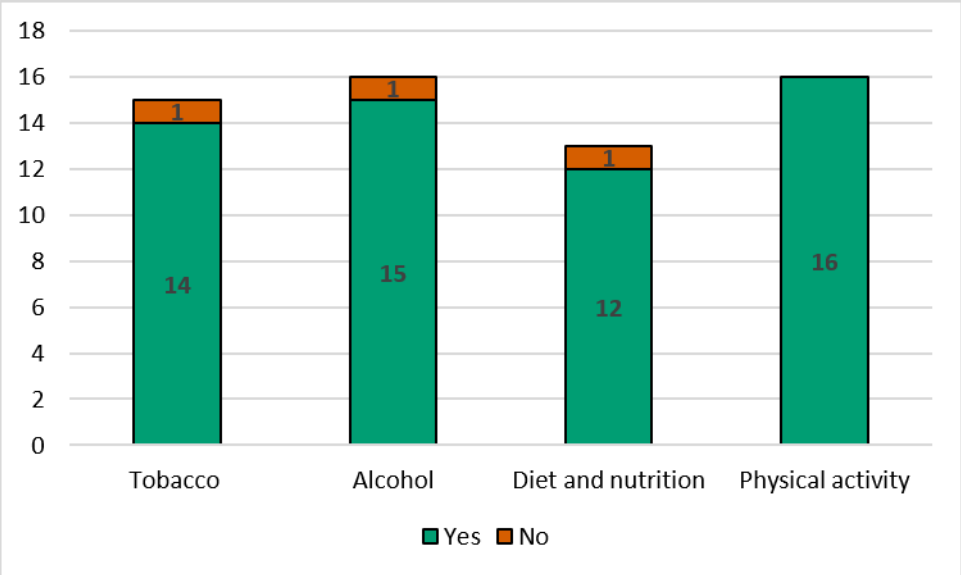
Results are less favourable with respect to the inclusion of routine monitoring of inequities (Figure 10). Monitoring was most frequently included in physical activity policy documents, with 10 of the 16 countries reporting monitoring mechanisms, followed by diet and nutrition policy documents, where slightly more than half of the countries included them. In contrast, in tobacco and alcohol policy documents it is included in less than half of the countries.

Figure 10. Number of countries including routine monitoring of inequities in risk factor policy documents by policy area.



However, all four policy areas demonstrate strong inclusion of a HiAP approach (Figure 11). Only one country in each of the tobacco, alcohol, and diet and nutrition areas does not incorporate this approach.

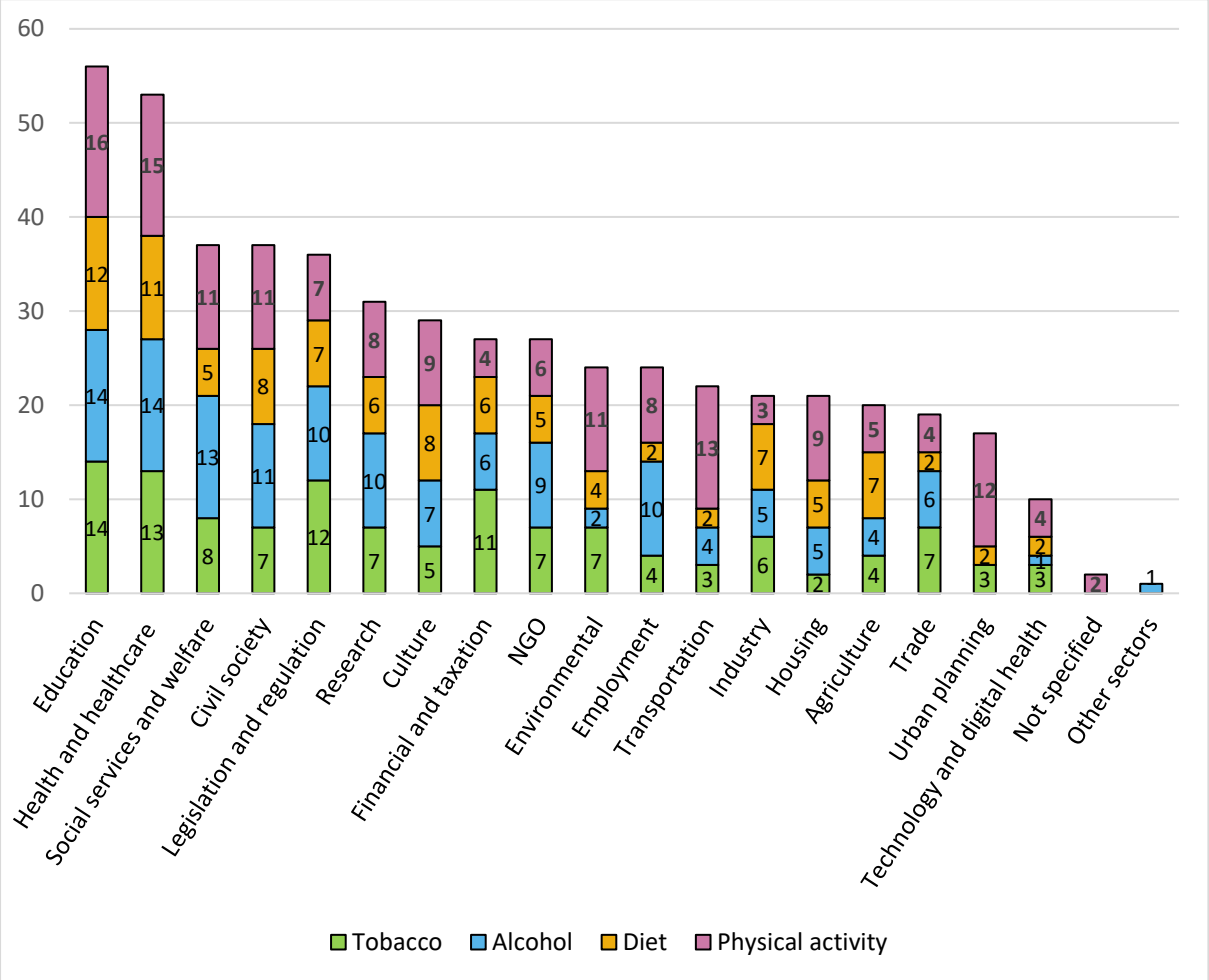
Figure 11. Number of countries including a HiAP approach in risk factor policy documents by policy area.



Nonetheless, the extent of involvement varied considerably between sectors (Figure 12). Overall, a HiAP approach was reported in 57 of the 60 countries' policy documents across the four risk factor policy areas. Education was the most frequently involved sector, followed closely by health and healthcare, and subsequently social services and welfare, civil society organisations, and legislation and regulation.

Differences between risk factor areas were also apparent. Physical activity policy documents generally involved the widest range of sectors, with the biggest difference seen in the environmental, transportation, and urban planning sectors. In contrast, diet and nutrition policy documents seemed to involve a smaller number of sectors overall, but exhibited a stronger presence in the industrial and agricultural sectors.

Figure 12. Sectors involved in risk factor policy documents with a HiAP approach.



Finally, Table 6 shows the score for each country and risk factor policy area, as described in the methodology section.

Physical activity and alcohol policy documents showed a stronger concentration of higher EIS values, whereas tobacco policy documents displayed greater dispersion across scores. Overall, physical activity policy documents achieved the highest level of equity integration, with a mean score of 3.6. Alcohol and diet and nutrition tied with a mean score of 3.3, while national tobacco policy documents exhibited the lowest level of equity integration with a mean score of 3.1.

Table 6. Score of countries' national risk factor policy documents according to their level of equity integration.

	Tobacco					Alcohol					Diet					Physical activity				
	EII1	EII3	EII4	EII5	Score	EII1	EII3	EII4	EII5	Score	EII1	EII3	EII4	EII5	Score	EII1	EII3	EII4	EII5	Score
Belgium	●	●	●	●	4	●	●	●	●	4	-	-	-	-	-	●	●	●	●	4
Bulgaria	●	○	○	●	2	●	●	○	●	3	●	●	○	●	3	●	●	●	●	4
Croatia	●	●	●	●	4	●	●	●	●	4	●	●	○	●	3	●	●	○	●	3
Czech Republic	●	●	○	●	3	●	●	●	●	4	●	●	●	●	4	●	●	●	●	4
Estonia	●	●	○	●	3	●	○	○	●	2	-	-	-	-	-	●	●	○	●	3
Finland	●	●	●	●	4	●	●	●	●	4	-	-	-	-	-	●	●	○	●	3
France	●	●	●	●	4	●	●	○	●	3	●	●	○	●	3	●	●	●	●	4
Germany	●	●	○	●	3	●	●	○	●	3	○	○	○	●	1	●	●	○	●	3
Greece	●	●	○	○	2	●	●	○	○	2	●	●	○	●	3	-	-	-	-	-
Hungary	●	○	○	●	2	-	-	-	-	-	●	●	○	○	2	●	●	●	●	4
Iceland	-	-	-	-	-	●	●	○	●	3	●	●	●	●	4	●	●	●	●	4
Italy	○	○	○	●	1	●	●	○	●	3	●	●	●	●	4	●	●	○	●	3
Malta	●	●	○	●	3	●	●	●	●	4	●	●	●	●	4	●	●	●	●	4
Norway	●	●	○	●	3	●	●	○	●	3	-	-	-	-	-	●	●	●	●	4
Portugal	-	-	-	-	-	●	●	●	●	4	●	●	●	●	4	●	●	○	●	3
Slovenia	●	●	●	●	4	●	●	○	●	3	●	●	●	●	4	●	●	●	●	4
Spain	●	●	●	●	4	●	●	●	●	4	●	●	●	●	4	●	●	●	●	4
				Mean	3.1				Mean	3.3				Mean	3.3				Mean	3.6

● = *EII included*

○ = *EII not included*

" - " = No policy document available, either because there is no such document or the national policy experts did not complete the questionnaires.

EII1 = Inequities mentioned

EII3 = Equity actions

EII4 = Monitoring of inequities

EII5 = HiAP approach

5.2. Results of the NCD policy document analyses

This section presents the results relative to policy documents on each NCD separately, and thereafter provides a comparative overview of all the policy documents on NCDs. More detailed results are available in Appendix A.

National policy documents on several NCDs

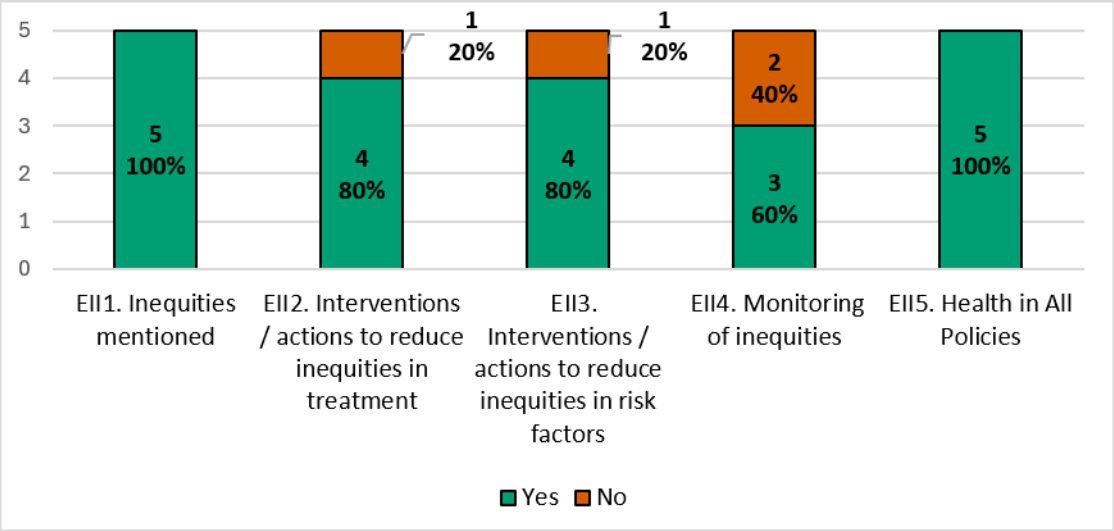
Only around one-third of participating countries have dedicated policy documents that address several NCDs ("integrated NCD policy documents" in the questionnaires) simultaneously or include NCDs as a substantial component of broader policy frameworks, such as public health plans or general health sector development strategies. The countries with policy documents on several NCDs are detailed in Table 7.

Table 7. Current status of policy documents on several NCDs in participating countries.

Country response	Number of countries	Countries
Yes, in force	5 (29%)	Bulgaria, Italy, Malta, Portugal, Spain
No, under development	1 (6%)	Croatia
No	9 (53%)	Czech Republic, Estonia, France, Germany, Greece, Hungary, Iceland, Norway, Slovenia
No answer	2 (12%)	Belgium, Finland
Total	17	

Figure 13 summarises the inclusion of EIIs in the five national policy documents on several NCDs in force. All five countries explicitly mention health inequities and incorporate a HiAP approach to address them. Routine monitoring of inequities—whether related to NCDs, behavioural risk factors, or treatment of NCDs, is included in only three of the five policy documents, making it the least represented EII. Four of the five countries include actions or interventions to reduce inequities in the treatment and management of NCDs in the policy documents, and an equal number include actions or interventions to reduce inequities in behavioural risk factors.

Figure 13. Incorporation of the equity integration indicators in policy documents on several NCDs.



National policy documents on cardiovascular diseases

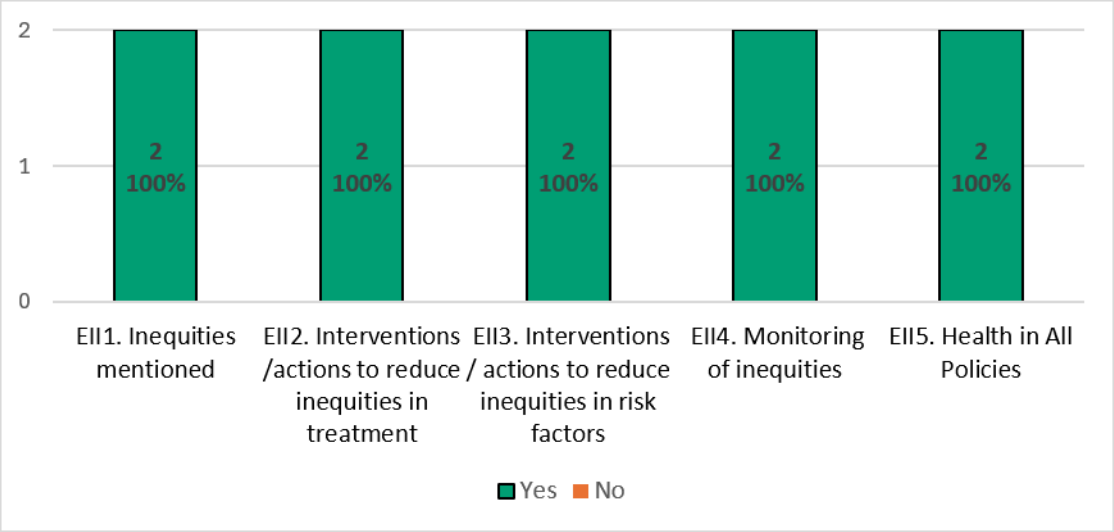
Of the 17 countries, only two have either dedicated CVD policy documents or broader ones in which CVDs constitute a substantial component (Table 8).

Table 8. Current status of CVD policy documents in participating countries.

Country response	Number of countries	Countries
Yes, in force	2 (12%)	Czech Republic, Spain
No, under development	3 (18%)	Bulgaria, Croatia, Slovenia
No	9 (53%)	Estonia, Finland, France, Greece, Hungary, Iceland, Italy, Malta, Norway
No answer	3 (18%)	Belgium, Germany, Portugal
Total	17	

As shown in Figure 14 below, both countries with CVD policy documents include all five EIIs.

Figure 14. Incorporation of the equity integration indicators in CVD policy documents.



National policy documents on diabetes

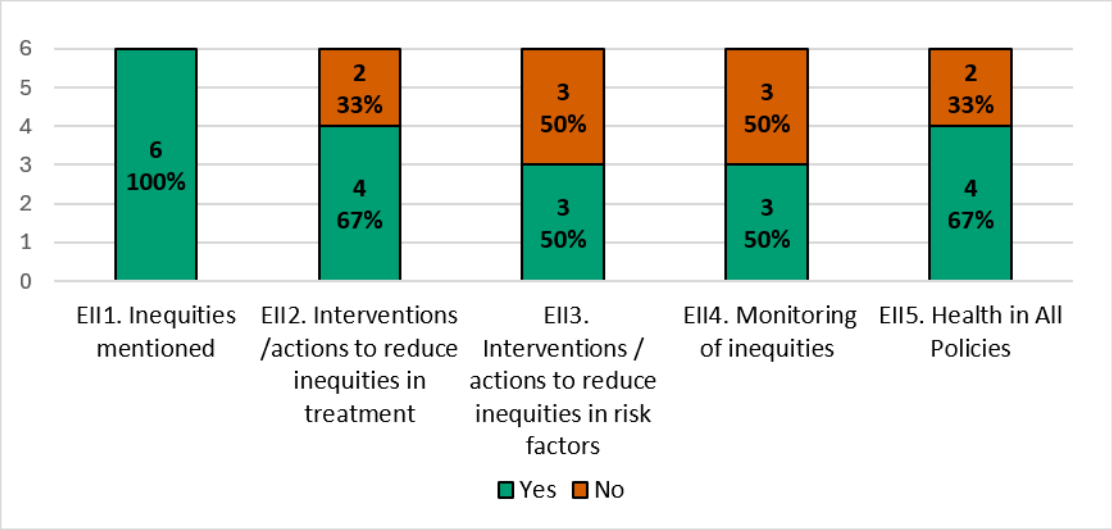
Around one-third of the participating countries have either a dedicated national policy document on diabetes or a broader document in which diabetes is addressed as a significant component (Table 9).

Table 9. Current status of diabetes policy documents in participating countries.

Country response	Number of countries	Countries
Yes, in force	6 (35%)	Germany, Malta, Norway, Portugal, Slovenia, Spain
No, under development	1 (6%)	Croatia
No	9 (53%)	Belgium, Bulgaria, Czech Republic, Estonia, France, Greece, Hungary, Iceland, Italy
No answer	1 (6%)	Finland
Total	17	

Figure 15 below illustrates the coverage of EIIs in policy documents on diabetes. All six countries' documents on diabetes explicitly mention inequities. Four countries include interventions or actions to reduce inequities in the treatment and management of diabetes, while three countries address inequities related to risk factors. In addition, three of the six countries with diabetes policy documents include routine monitoring of inequities in diabetes, and four of the countries incorporate a HiAP approach to address these inequities.

Figure 15. Incorporation of the equity integration indicators in diabetes policy documents.



National policy documents on cancer

In contrast to policy documents on other NCDs, most countries have either a dedicated policy document on cancer or a broader policy document in which cancer is a significant component (Table 10). Such policy documents are under development in the three remaining countries. Thus, all countries either have a cancer policy document or are developing one.

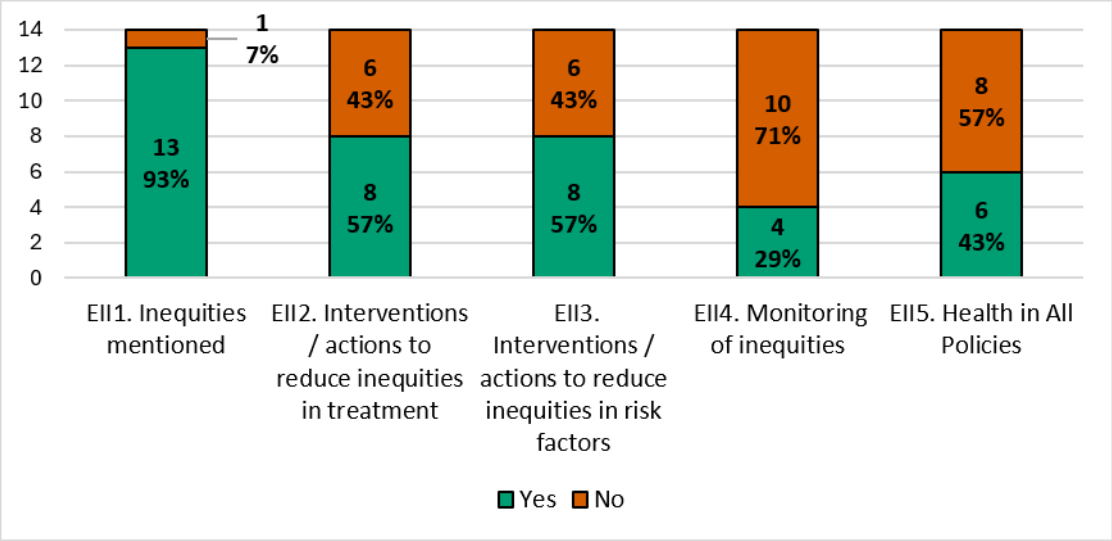
Table 10. Current status of cancer policy documents in participating countries.

Country response	Number of countries	Countries
Yes, in force	14 (82%)	Bulgaria, Croatia, Czech Republic, Estonia, France, Germany, Hungary, Iceland, Italy, Malta, Norway, Portugal, Slovenia, Spain

No, under development	3 (18%)	Belgium, Finland, Greece
No	0 (0%)	
No answer	0 (0%)	
Total	17	

As illustrated in Figure 16 below, the presence of EIIs in cancer policy documents is rather low. While almost all the countries' policy documents on cancer mention inequities, only eight out of 14 include actions or interventions to reduce inequities in cancer treatment and management, and an equal number include actions or interventions to address inequities in cancer risk factors. Routine monitoring of inequities is only covered by four countries' national cancer policy documents. Six countries' policy documents on cancer incorporate a HiAP approach to address inequities in cancer.

Figure 16. Incorporation of the equity integration indicators in cancer policy documents.

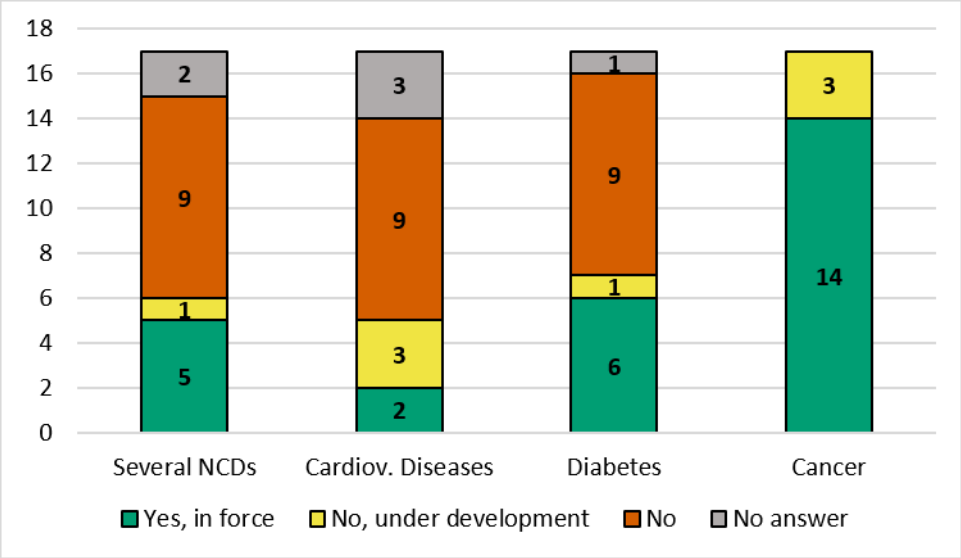


Comparison of the NCD policy documents

Across the 17 countries, policy documents were identified in 27 instances across the five NCD policy areas included in the study. No COPD documents met the inclusion criteria. Of these, 14 countries had policy documents on cancer, six on diabetes, five on several NCDs, and only two on CVDs, illustrating considerable variation in the availability of policy documents across NCD areas, as exhibited in Figure 17 below.

Some countries reported that policy documents are currently under development, including three on CVDs and three on cancer.

Figure 17. Current status of NCD policy documents by policy area.



With regard to whether NCD policy documents explicitly mention inequities (Figure 18), almost all do so (26/27), with the only exception being one policy document on cancer.

Figure 18. Number of countries explicitly mentioning inequities in NCD policy documents by policy area.

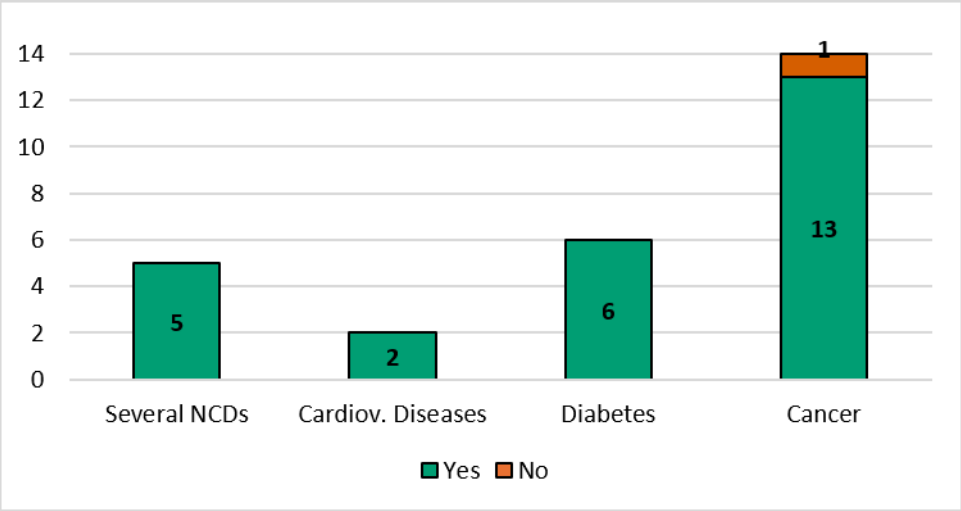
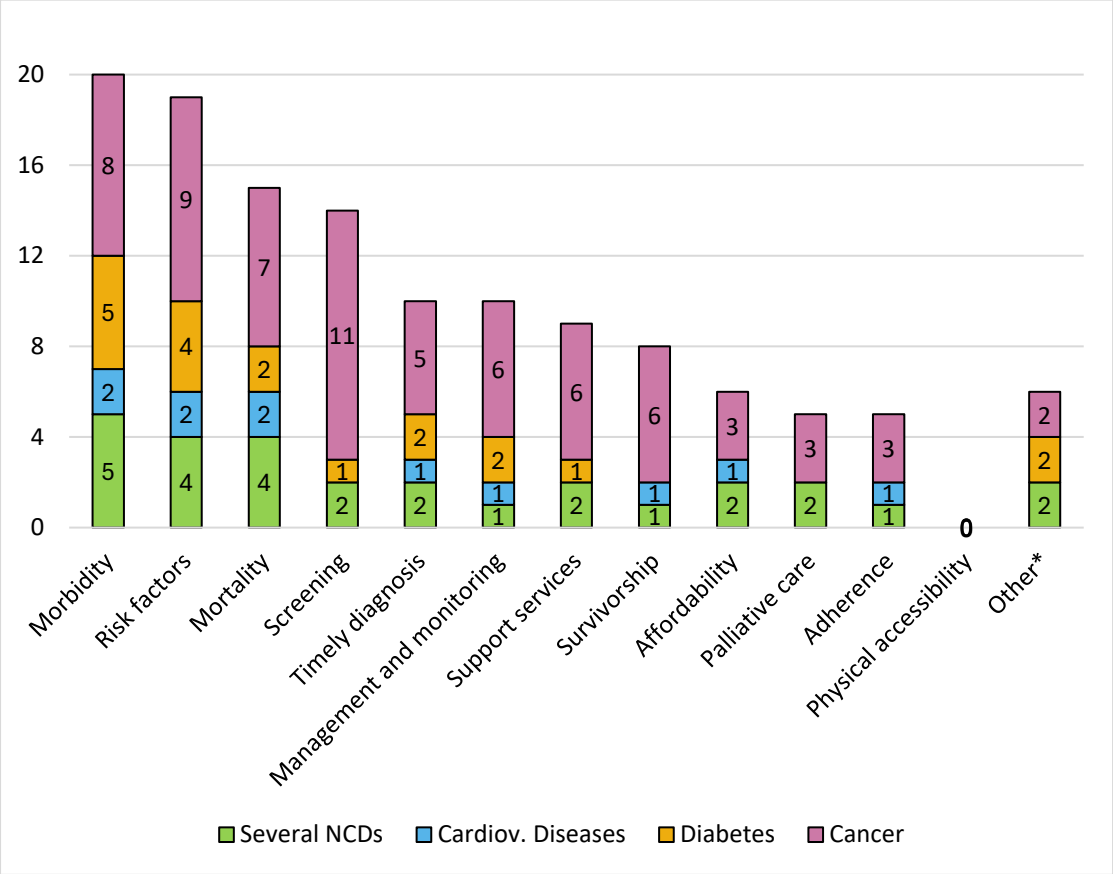


Figure 19 below shows the cumulative results across all NCD policy documents. Inequities related to morbidity and risk factors are the most frequently mentioned in national NCD policy documents, followed by those in mortality and screening, the latter of which is mainly reflected in cancer policy documents. Other types of inequities

related to health services and treatment of NCDs are considered in half or fewer of the NCD policy documents. When interpreting the cumulative results in Figure 19, it is important to note that cancer policy documents account for a large share of the coverage across most topics as they are considerably more common than policy documents on other NCDs.

Figure 19. Types of inequities mentioned in all NCD policy documents.



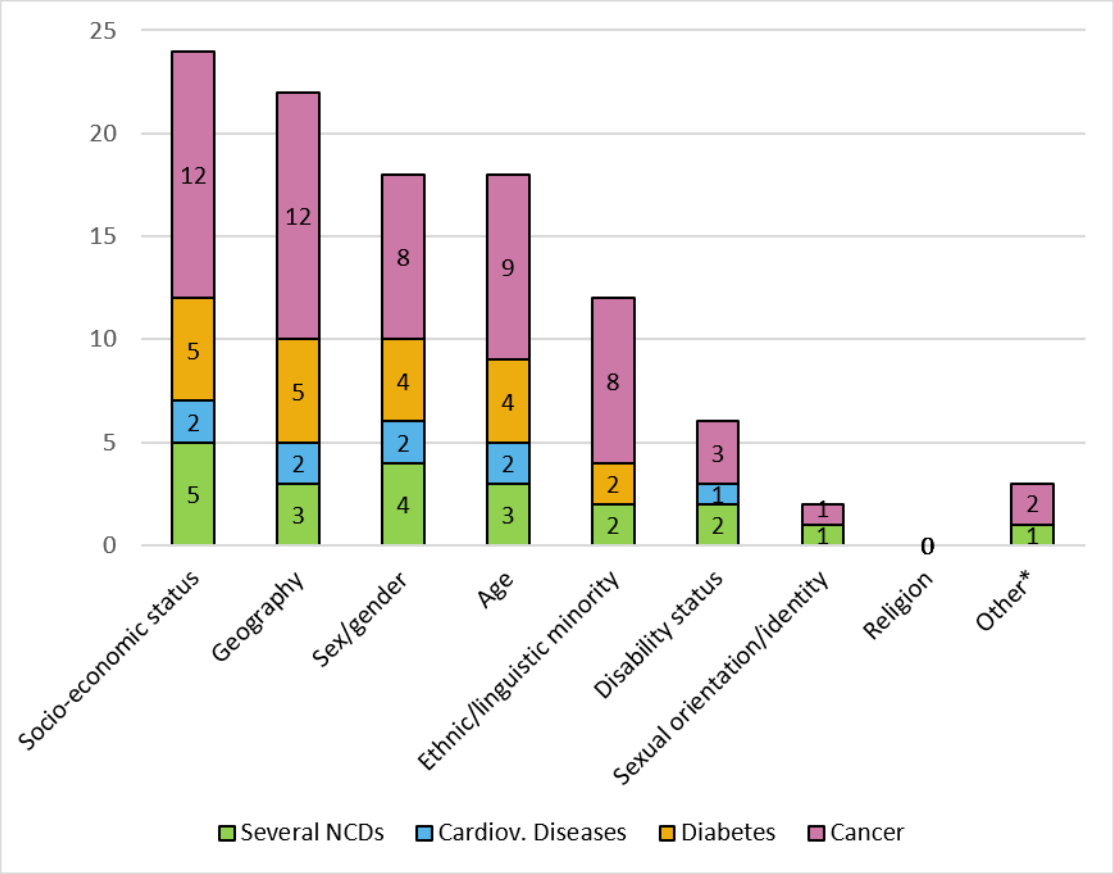
Where respondents reported that the policy documents cover inequities in areas other than those listed, they named general inequalities, forecasting/projections, health literacy, access to the same quality prevention programmes, childhood cancers, and general unevenness in care (*wording from the open-ended questions*).

With regard to which population groups are considered in relation to inequities in the NCD policy documents as a whole, certain groups and stratifying factors receive considerably more attention than others (Figure 20), with socioeconomic status, geography, sex/gender, and age being the most frequently considered in national NCD policy documents. Ethnic and linguistic minorities, disability status, and sexual orientation or identity are considered less often, while religion is not mentioned in any

of the NCD policy documents. Other population groups are mentioned by three countries, covering general inequities, incarcerated individuals, and people with mental health problems (*wording from the open-ended answers*). More detailed results on each NCD policy area are provided in Appendix A.

As noted above, these cumulative results should be interpreted in light of the variation in the number of policy documents available across the different NCD areas. This means that the overall pattern is strongly influenced by cancer policy documents.

Figure 20. Inequities mentioned in all NCD policy documents, by population group.

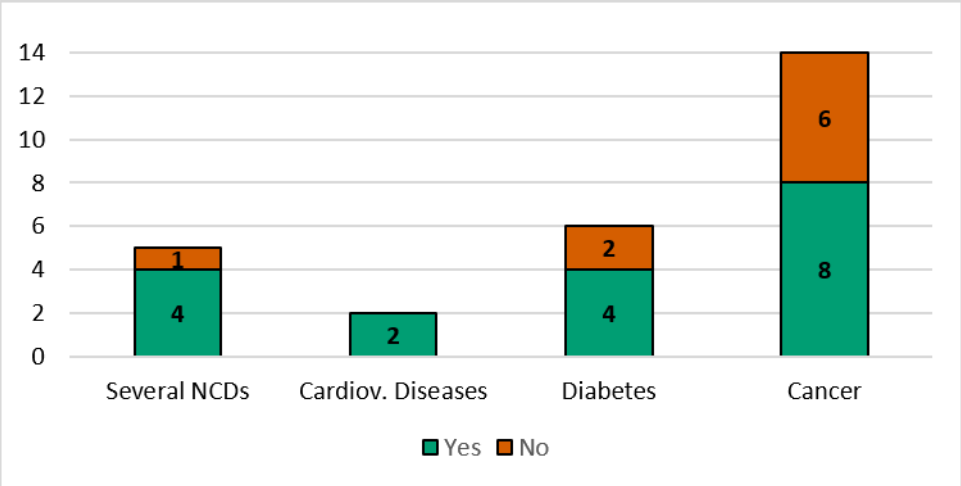


The questionnaires also asked whether any specific population groups were identified as vulnerable with regard to each NCD, treatment, or risk factors. The results with examples are provided in Appendix A. Overall, about two-thirds of the documents identified specific population groups as vulnerable or at risk with regard to the NCDs under study, treatment, or risk factors.

Interventions to address inequities are less prevalent in the policy documents than mentions of them. As shown in Figure 21, most countries include interventions and actions to reduce inequities in the treatment and management of NCDs. The gap

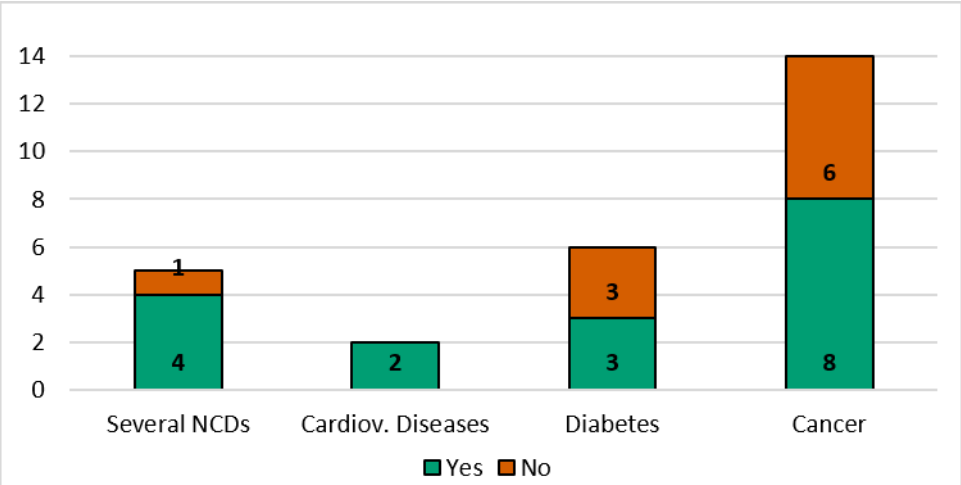
between the share of the policy documents that include such measures and those that do not is widest in the cancer policy documents.

Figure 21. Number of countries including interventions or actions to address inequities in the treatment and management of NCDs in NCD policy documents by policy area.



Similarly, while most countries' NCD policy documents include interventions and actions to address inequities in NCD risk factors (Figure 22 below), coverage is far from uniform. Only half of the countries with diabetes policy documents and slightly more than half of those with cancer policy documents include such interventions, whereas a higher proportion of countries with policy documents addressing several NCDs or CVDs do so, although there are fewer countries with such documents overall.

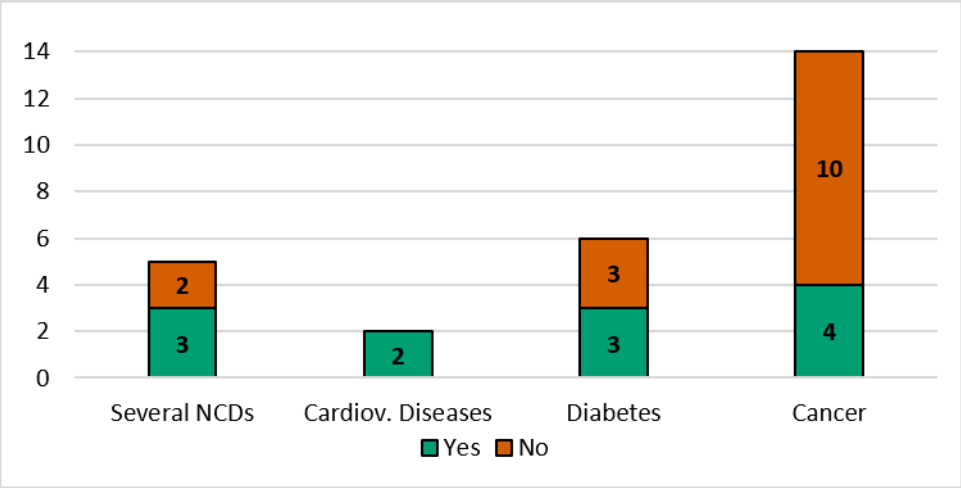
Figure 22. Number of countries including interventions or actions to address inequities in risk factors in NCD policy documents by policy area.



With regard to monitoring inequities in NCDs, whether in treatment and management or in risk factors, most countries with NCD documents do not describe routine

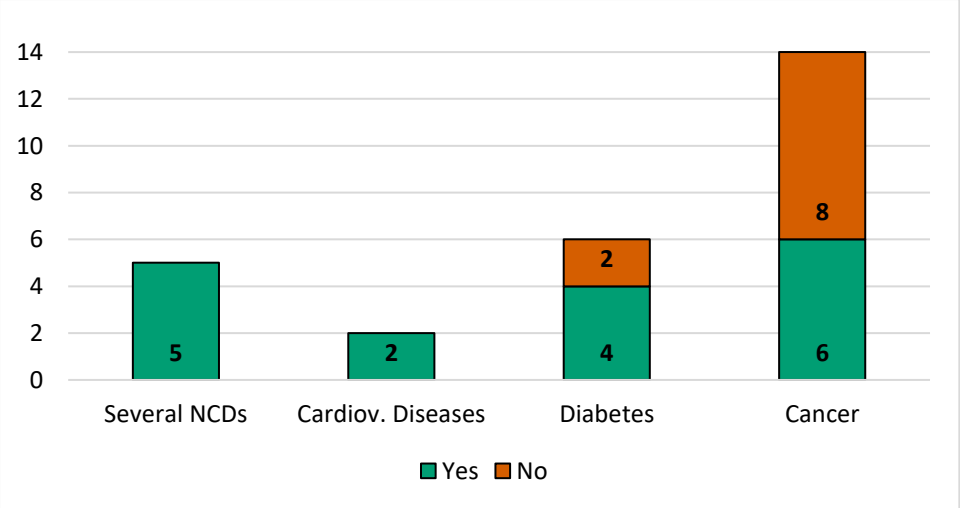
monitoring activities (although this does not mean that such monitoring does not exist at the country level), as illustrated in Figure 23.

Figure 23. Number of countries including routine monitoring of inequities in NCD policy documents by policy area.



Regarding the adoption of a HiAP approach and whether the policy documents involve other sectors to reduce inequities in NCDs, the treatment and management of NCDs, and/or risk factors, considerable variation is observed across policy areas (Figure 24). All countries with policy documents on several NCDs and CVDs adopted a HiAP approach, compared with only 66% of diabetes policy documents and 43% of cancer policy documents.

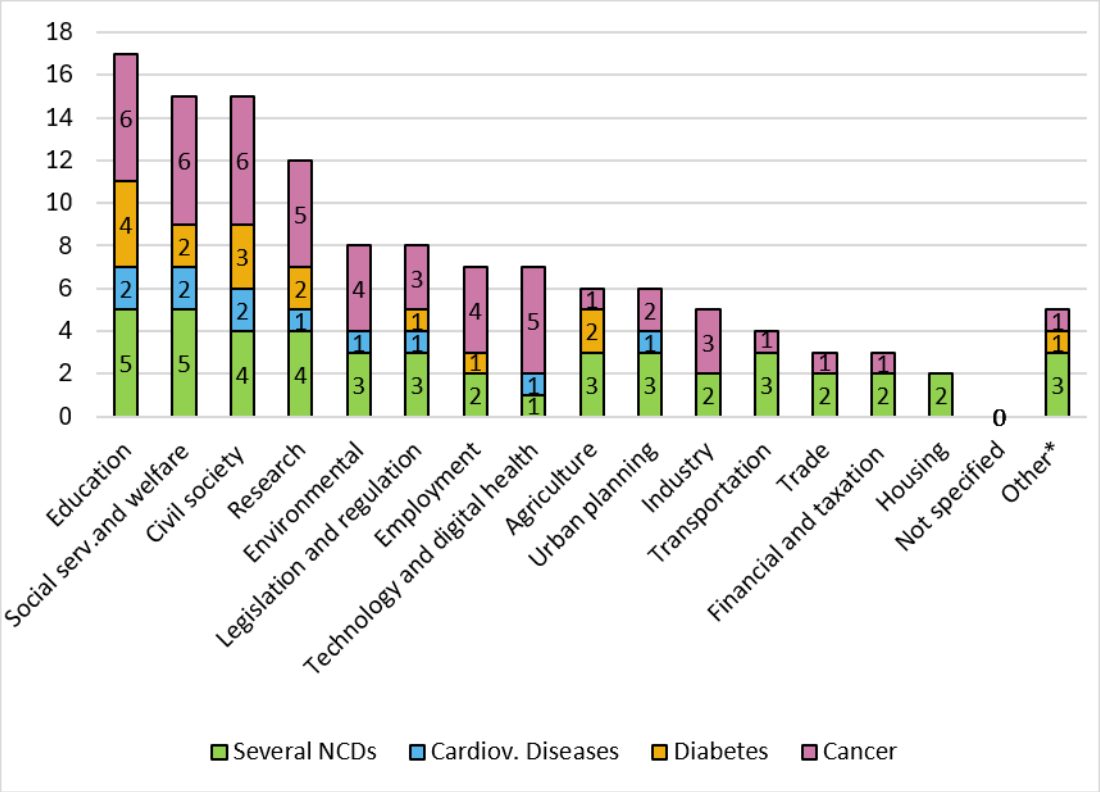
Figure 24. Number of countries with a HiAP approach in NCD policy documents by policy area.



Considerable variation is observed with regard to which sectors were involved under the HiAP approach. Overall, 17 countries' NCD policy documents included a HiAP approach. All of these were reported to cover the education sector as part of efforts to reduce inequities in NCDs, while the majority also included social services and welfare, civil society, and research.

Sector representation also varies across the different types of policy documents, as illustrated in Figure 25, with technology and digital health featuring more prominently in cancer policy documents and agriculture appearing more frequently in documents on several NCDs. This probably reflects the focus on contemporary treatment in cancer policies and the relevance of nutrition for NCDs in general.

Figure 25. Sectors involved in NCD policy documents with a HiAP approach.



Finally, the scores achieved by national policy documents are highly variable, as seen in Table 11. The main pattern observed is that countries often do not have specific NCD policy documents. Policy documents on several NCDs and CVDs demonstrated a higher level of equity integration than policy documents on cancer and diabetes.

Table 11. Scores of countries' national NCD policy documents according to their level of equity integration.

	Several NCDs					CVDs					Diabetes					Cancer				
	EII1	EII2+3	EII4	EII5	Score	EII1	EII2+3	EII4	EII5	Score	EII1	EII2+3	EII4	EII5	Score	EII1	EII2+3	EII4	EII5	Score
Belgium	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bulgaria	●	●	●	●	3	-	-	-	-	-	-	-	-	-	-	●	●	-	-	2
Croatia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	0
Czech Republic	-	-	-	-	-	●	●	●	●	4	-	-	-	-	-	●	●	●	●	4
Estonia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	4
Finland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
France	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	2
Germany	-	-	-	-	-	-	-	-	-	-	●	●	●	●	2	●	●	●	●	1
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	3
Iceland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	2
Italy	●	●	●	●	4	-	-	-	-	-	-	-	-	-	-	●	●	●	●	4
Malta	●	●	●	●	4	-	-	-	-	-	●	●	●	●	4	●	●	●	●	2
Norway	-	-	-	-	-	-	-	-	-	-	●	●	●	●	2	●	●	●	●	3
Portugal	●	●	●	●	3	-	-	-	-	-	●	●	●	●	4	●	●	●	●	1
Slovenia	-	-	-	-	-	-	-	-	-	-	●	●	●	●	2	●	●	●	●	1
Spain	●	●	●	●	4	●	●	●	●	4	●	●	●	●	4	●	●	●	●	4
				Mean	3.6				Mean	4				Mean	3				Mean	2.4

● = *EII included*

● = *EII not included*

" - " = No policy document available, either because there is no such document or the national policy experts did not complete the questionnaires.

EII1 = Inequities mentioned

EII2+3 = Equity actions for treatment and management + equity actions for risk factors

EII4 = Monitoring of inequities

EII5 = HiAP approach

6. Discussion

This study found that health inequities are widely recognised in national NCD and risk factor policy documents across 17 European countries. However, substantial variation exists in the extent to which these considerations are systematically addressed, integrated, and operationalised both between countries and across policy areas. Equity considerations were generally more comprehensively integrated into risk factor policy documents than NCD policy documents, suggesting that health inequities receive greater policy attention in prevention than in disease management and care.

This variation is noteworthy in light of recent European policy initiatives including the EU4Health Programme (37), Europe's Beating Cancer Plan (38), the Healthier Together – EU NCD Initiative (39), and, more recently, the Safe Hearts Plan (40), all of which emphasise reducing inequities in NCD prevention, diagnosis, and care. Despite these European-level commitments, the findings of this study suggest that equity considerations are inconsistently translated into national policy objectives and actions, highlighting a gap between policy ambitions and implementation.

Risk factor policy documents are more common than NCD policy documents

Policy documents on risk factors were considerably more common than those on specific NCDs. A possible explanation for this may be the strong emphasis on prevention and behavioural risk factors in public health policy, while treatment and care may be more often governed through clinical guidelines, disease-specific programmes, or broader health service strategies that fell outside the scope of this study.

Nevertheless, the limited number of NCD policy documents is notable given the substantial NCD burden in Europe; according to recent OECD estimates, 46% of premature deaths in the EU are due to cancers, CVDs, diabetes, and COPD (41). The findings are consistent with WHO evidence showing that many European countries lack an operational multisectoral strategy integrating major NCDs and their shared risk factors (42). Cancer policy documents were more common than those addressing other NCDs, likely reflecting both recent EU-level initiatives such as Europe's Beating Cancer Plan and a long-standing focus on cancer in EU and national health policy. As the EU's new Safe Hearts Plan shifts attention towards CVDs, the number of national

policy documents on cardiovascular health is expected to rise. This creates an opportunity to strengthen equity considerations in cardiovascular health policy.

Particularly noteworthy was the complete absence of policy documents on COPD. COPD prevention may be partly addressed through tobacco control policy documents, given that smoking is the leading cause of COPD (43). Nevertheless, considering the well-documented socioeconomic gradient in the COPD burden (44, 45, 46), tobacco control policies alone are unlikely to address the broader social determinants of COPD and inequities in access to prevention, diagnosis, treatment, and care. Consequently, this represents a possible gap in policy attention.

The smaller number of NCD policy documents does not necessarily indicate a lack of action, as countries may address NCDs and related inequalities through other policy mechanisms. However, the contrast between the extensive coverage of risk factors and the more limited attention given to NCDs raises questions about how inequities in NCD prevention, treatment, and management are addressed at the national level.

Among risk factor policy documents, diet and nutrition were covered less frequently than tobacco, alcohol, and physical activity, despite diet being a major modifiable risk factor for NCDs (47) (48).

Mentioning of inequities in the policy documents – inequities are acknowledged, but not in breadth

In order to properly address a problem, policy makers must firstly recognise its existence, secondly set specific objectives to address the problem, and thirdly develop specific actions (49). These three steps are crucial for developing effective public policies to reduce health inequities. The study findings suggest that awareness of health inequities is now widespread, as almost all policy documents addressing NCDs and behavioural risk factors explicitly acknowledge them. This indicates that health equity has become an established policy concern across Europe.

However, this recognition remains limited, particularly in NCD policy documents. While inequities in mortality, morbidity, risk factors, and screening are frequently acknowledged, inequities related to healthcare (besides screening, which was often covered in cancer documents)—such as timely diagnosis, ongoing management of NCDs, support for patients and families, adherence, affordability, physical accessibility, and palliative care—receive considerably less attention.

As modern health services are person-centred, these give patients greater autonomy and control over their treatment choices, which have often increased in complexity. However, this requires that health services be tailored to patients' backgrounds and health literacy levels to avoid exacerbating health inequities. Health literacy research has shown that a large share of the European population struggles to understand and use health information and services, and there is a clear social gradient in health literacy (50).

Actions and interventions to reduce inequities in NCDs and risk factors

In risk factor policy documents, proportionate universalism emerged as the most common approach to addressing inequities across both objectives and actions. This approach is widely recommended as it combines universal policies with additional support proportionate to the level of disadvantage, thereby improving the population's health while reducing the social gradient in health outcomes (51, 52). While this represents a promising direction for reducing health inequities, adoption of the proportionate universalism approach remains uneven in the policy documents analysed. Greater and more consistent implementation across countries and risk factor policy areas would likely strengthen equity-oriented policy responses, especially in tobacco policy documents, as these included fewer actions and showed the lowest prevalence of the proportionate universalism approach. Given that tobacco use is strongly patterned by socioeconomic inequalities—22.4% of people with a very low income smoke daily, compared to 14.9% of those with a very high income (53)—the limited incorporation of equity-oriented actions in national tobacco policy documents indicates a clear need to strengthen policy development in this area.

The findings indicate considerable scope for strengthening equity-oriented action within NCD policy documents. Fewer than half of the countries included actions or interventions addressing both inequities in behavioural risk factors and in the treatment and management of NCDs; most addressed only one of these areas. This suggests that policy responses often take a fragmented approach to health equity rather than addressing the full continuum of prevention, care, and treatment. Moving beyond the recognition of inequities therefore requires more comprehensive action across both healthcare and risk factors. The importance of addressing inequities in healthcare is underscored by a growing body of evidence documenting inequities in healthcare

across Europe, such as in access to healthcare (54), as well as in healthcare for diabetes (55) and CVDs (56).

Considering different determinants and population groups

A modified PROGRESS-Plus framework of socially stratifying factors that may contribute to inequities was used to assess which SDH and population groups were considered in policy documents. The inclusion of these social determinants and population groups was often limited or uneven in both risk factor and NCD policy documents. While age, socioeconomic status, and sex/gender were frequently considered, factors such as disability, ethnicity/linguistic background, religion, and sexual orientation received comparatively less attention.

This is a critical shortfall given that these socially stratifying factors influence exposure to risk factors, health behaviours, and access to health-promoting resources, thus contributing to the social gradient observed in many NCDs.

Health and care services, as well as information about these services, should be accessible to the entire population and consider population diversity. The limited consideration given to ethnic or linguistic minority background, disability status, and sexual orientation in NCD policy documents suggests that inequities in NCDs affecting these population groups may not be adequately addressed in current policy documents. This is particularly concerning given the evidence that migrants, ethnic minorities, people experiencing homelessness, and LGBTQ+ populations across Europe face several barriers to equitable healthcare (57, 58, 59, 60).

Overall, the findings suggest that future NCD and risk factor policy documents would benefit from a broader and more systematic consideration of inequities affecting different population groups, thereby ensuring that health equity is addressed across the full range of social determinants and healthcare settings.

Monitoring of inequities remains a major weakness

The limited inclusion of routine monitoring of health inequities in both NCD and risk factor policy documents represents one of the most important gaps identified. A lack of systematic monitoring may hinder the assessment of policy effectiveness, as it is difficult to determine whether policies are reducing inequities, identify emerging disparities, or inform evidence-based policy adjustments (61). Notably, monitoring was

rarely included in cancer policy documents, despite the existence of national cancer plans and well-established cancer registries [1]in many countries.

Importantly, these findings do not imply that countries lack data on inequities in NCDs and risk factors. Rather, they suggest that the routine monitoring of inequities is not embedded within the policy documents examined. Including monitoring of inequities should therefore be a priority for future policy documents on both risk factors and NCDs.

Uneven inclusion of intersectoral action

A HiAP approach was more commonly incorporated in risk factor policy documents than in NCD policy documents, likely reflecting the inherently intersectoral nature of risk factor prevention and the fact that NCD policy documents may be more often developed solely within the health sector. Nevertheless, its inclusion in policy documents addressing several NCDs and CVDs suggests that a broader intersectoral approach is both feasible and relevant for disease-specific policy areas.

As emphasised in the WHO Helsinki Statement on HiAP (62), reducing health inequities requires coordinated action across sectors beyond healthcare, highlighting the need to address inequities in various social and structural determinants of health through intersectoral cooperation. Greater collaboration across sectors—including education, research, and civil society—could therefore strengthen efforts to understand the dynamics of inequities and address the drivers of inequities in NCDs and the associated behavioural risk factors.

Risk factor policy documents achieve higher EIS values than NCD policy documents

Overall, the findings indicate that health equity is more consistently integrated into risk factor policy documents than into NCD policy documents. The lowest average EIS for a specific policy area (score of 2.4 out of 4) was found for cancer policy documents, which, as the most numerous category, also accounted for the largest share of NCD policy documents included in the study. The highest average EIS was also found within the NCD policy area, namely for CVDs (score of 4), although only two policy documents were included in the study. The average scores for risk factor policy

[1] For example, see the Timeline of European Cancer Registries, which is available on The European Network of Cancer Registries website: https://www.encr.eu/node/673#/map/encr-2026ax-copy [cited 2026 Sept 9]

documents ranged from 3.1 to 3.6. This demonstrates that while risk factor policy documents could pay greater attention to reducing health inequities—particularly in countries with low scores across policy areas (see Table 6)—there is significant potential in the area of NCD policy both to develop national strategic documents and to better integrate equity considerations into them.

The findings confirm previous research

The findings of this study are broadly consistent with the limited body of European research examining how health inequities in NCDs are addressed in policy. A common pattern emerges across these studies: health inequities are widely recognised as a policy concern, but comprehensive integration into policy documents remains uneven. For example, analyses of national cancer plans conducted in the context of Europe's Beating Cancer Plan found that addressing inequalities was one of the least developed dimensions of cancer policy (63).

Similarly, the Joint Action on Cardiovascular Diseases and Diabetes (JACARDI) identified gaps and variation in the integration of equity-oriented approaches in national-level measures for the prevention and management of CVDs and diabetes, which led JACARDI to call for a comprehensive equity lens to be applied across all dimensions of CVD- and diabetes-related policies and interventions. The report highlights the need to strengthen equity-oriented approaches across health literacy and awareness, data availability and quality, screening, integrated care pathways, patients' self-management, and labour participation (64).

JA PreventNCD Deliverable 9.5.2 found that, although health considerations are frequently incorporated into impact assessments, equity considerations and the broader SDH receive less systematic attention. The report also highlighted limitations in data availability for monitoring (65), echoing the findings of the present study.

Evidence from individual countries points to similar challenges of addressing wider SDH and introducing comprehensive and concrete actions. Studies from Norway and Nordic countries found that policy responses have "tamed" the "wicked problem" of social inequalities as it is politically easier, with broader SDH often left insufficiently addressed (66) (67). A Danish study examining parliamentary debates found that the issue of health inequalities is often narrowed down to more limited solutions, often within healthcare, and that the policy agenda has not been translated into clear actions

and targets (68). A French evaluation of the National Health Strategy reached a similar conclusion. While the Strategy places health inequalities high on the agenda, efforts to translate this priority into effective policy instruments have been limited, and stakeholders interviewed for the evaluation reported a lack of concrete measures at the operational level (69).

Strengths and limitations

A major strength of this study is its broad geographic coverage. Although not all European countries are included, the 17 participating countries represent a substantial share of the European population and encompass diverse health systems and policy contexts throughout Europe.

Several limitations should also be considered. Firstly, the analysis focused exclusively on the content of national policy documents and did not assess policy implementation, enforcement, or effectiveness. In addition, the study did not examine other potentially relevant policy documents, such as legislation or broad overarching documents. Consequently, the findings should be interpreted as reflecting the reported content of policy documents, rather than as an assessment of policy quality, implementation, or impact.

Secondly, the study assessed whether key equity-related elements were present in policy documents, but not the extent to which equity was fully embedded throughout them. Nor did the study evaluate whether the actions and interventions proposed in the documents were sufficient to address the health inequities identified. More detailed qualitative policy analyses would therefore be valuable for assessing the coherence and comprehensiveness of equity integration in health policy documents.

Thirdly, the study relied on national policy experts to identify relevant documents and report on their content, which may have introduced a certain degree of subjectivity. However, this approach was necessary given the diversity of policy systems and administrative structures across countries. To minimise potential bias, standardised questionnaires, guidance materials, training sessions, and validation procedures were used throughout the data collection process. Furthermore, many respondents were directly involved in the development or implementation of the policy documents examined, providing valuable contextual expertise. Nevertheless, differences in policy

structures, terminology, and culture across countries may have influenced the interpretation of questionnaire items and policy content.

Despite these limitations, the study provides a unique cross-country assessment of how health equity is reflected in national NCD and behavioural risk factor policies.

Other frameworks and tools to incorporate equity in policy documents

There is a range of comprehensive tools and frameworks for incorporating equity considerations into health policy, and they can be used to operationalise the recommendations presented in the next section. Examples include recommendations on how to tackle inequities in cancer prevention and control (70) and a policy assessment tool for diabetes (71), both of which have approaches that can be transferred to other health policy areas. Established frameworks are also available for evaluating and addressing health inequities in programmes, such as the UK's Health Equity Assessment Toolkit (HEAT) (72) and Canada's Health Equity Impact Assessment (HEIA) (73).

7. Recommendations

7.1. European level

➔ Supranational organisations should develop guidance and technical support on how to address inequities in national health strategies and plans.

The European Commission, WHO, and other relevant organisations should develop practical guidance and provide technical support to help countries integrate health equity into various health policies. Such guidance should address inequities not only in risk factors and prevalence, but across the full continuum of healthcare, from detection to palliation, and should consider a broader range of population groups.

Given the EU's focus on CVDs and the expected rise in the development of corresponding national strategies, such initiatives should place a stronger emphasis on equity from the outset, incorporating targeted actions, routine monitoring of inequities, and cross-sectoral collaboration. Supranational guidance and technical support are required for that purpose.

7.2. National level

➔ Countries should review whether existing policies adequately address inequities in NCD prevention, treatment, and care or if there is a need for new policy documents.

Given the considerable variation across countries in the number of policy documents addressing risk factors and NCDs, further assessment is needed to determine whether inequities in NCDs and their treatment are addressed through other measures, or whether dedicated policy documents are needed to address them.

➔ Countries should consider a broad range of determinants of health and inequities across different population groups and establish clear objectives to address these in risk factor and NCD policies.

Future policies on both risk factors and NCDs should take into account the social determinants and other factors underlying inequities and therefore address inequities across different population groups. These should include not only groups with different levels of educational attainment and socioeconomic status, but also those defined by ethnicity or minority background, disability, occupation, LGBTQ+ identity, social capital, and other factors that may influence health outcomes.

➔ Policies on NCDs and risk factors should include concrete actions and interventions to address inequities across all main risk factors and the full continuum of NCD care, from diagnosis to patient support.

NCD and risk factor policies should go beyond acknowledging health inequities and include concrete actions to reduce them. Equity-oriented actions and interventions should be used to address both the main risk factors and inequities across the full continuum of healthcare, including prevention, diagnosis, treatment, disease management, support for patients and families, adherence, accessibility, and palliative care.

➔ Countries should apply the principle of proportionate universalism in policies addressing NCDs and the associated risk factors.

Policies aiming to reduce inequities in NCDs should apply a proportionate universalism approach, combining universal measures that benefit the whole population with targeted actions at a scale and intensity proportionate to the level of need in groups facing greater disadvantage. This helps ensure that interventions do not inadvertently widen inequities by primarily benefiting those who are already better off.

➔ Policies targeting inequities in NCDs and risk factors should take a HiAP approach and establish cross-sectoral actions and interventions.

Most causes of disease and health inequities originate outside the health sector. Effective actions and interventions targeting inequities thus require a HiAP approach that involves non-health sectors, including education, transport, housing, social services, urban planning, and finance.

➔ Countries should ensure that existing data on inequities are incorporated into NCD and risk factor policies to enable systematic monitoring of inequities.

Monitoring inequities in NCDs, risk factors, and NCD treatment is crucial for assessing not only the current situation, but also how inequities are changing and whether policy action is needed or having an effect. Relevant policies should therefore establish systematic monitoring of inequities where this is lacking or incorporate the use of existing statistics on inequities and NCDs.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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