

POPULATION TRENDS IN THE KNOWLEDGE, ATTITUDES AND PRACTICES REGARDING NON-COMMUNICABLE DISEASES IN THE REPUBLIC OF MOLDOVA

Findings from a Controlled Trend Study 2017 and 2020 before and after Project Phase 1 Implementation









TABLE OF CONTENTS

TΑ	BLE (OF CC	ONTENTS	II	
TΑ	BLE (OF FIG	GURES	III	
1.	BACKGROUND				
2.		PRO	JECT APPROACH	1	
3.		KEY PROJECT OUTPUTS:			
4.		MEA	MEASUREMENT OF THE PROJECT EFFECTS IN THE POPULATION:		
5.	5. KEY RESULTS OF THE TREND ANALYSIS			2	
	5.1	Lifes	tyle related risk factors	3	
	!	5.1.1	Tobacco	3	
	!	5.1.2	Alcohol	3	
	!	5.1.3	Diet and physical activity	3	
	5.2	Heal	th care seeking behaviour and satisfaction with health services:	4	
	5.3	Lifes	tyle advice:	4	
	5.4	Knov	vledge, attitudes and practices about NCDs:	4	
	!	5.4.1	Disease awareness	4	
	;	5.4.2	Knowledge about risk factors and risk awareness	5	
		5.4.3	Knowledge about early symptoms, complications and prevention	6	
	!	5.4.4	Practices	7	
	5.5	Self-	perceived Quality of Life of People living with NCDs:	9	
	5.6	Heal	th information for people with an underlying NCD:	9	
	5.7	Heal	th literacy and patient's rights:	10	
	5.8	Heal	th expenditures	11	
6.		REC	OMMENDATIONS	11	
	6.1	Diag	noses of Hypertension, Diabetes and Ischemic Heart Diseases	11	
	6.2	Toba	Tobacco Consumption		
	6.3	Alco	hol Consumption	12	
	6.4	Dieta	ary Factors	12	
	6.5	Phys	sical Activity	12	
	6.6	Lifes	tyle Advice	12	
	6.7	Knov	wledge, Attitudes and Practices related to Diabetes, CVDs and Hypertension	13	
	6.8		perceived Quality of Life of People living with Hypertension, Diabetes or Ische t Diseases		
	6.9	Heal	th information and information seeking	13	
	6.10	Heal	th Literacy and Patient Rights	13	
	6.11	Heal	th expenditures	13	

TABLE OF FIGURES

Figure 1: Trend in the proportion of respondents consuming fruits and vegetables daily and
access to fresh fruits
Figure 2: Trend in the proportion of respondents that couldn't name at least one risk factor fo diabetes
Figure 3: Trend in the proportion of respondents that couldn't name one risk factor of CVDs6 Figure 4: Trend in the proportion of respondents that had their blood sugar measured by a health professional
Figure 5: Trend in the proportion of respondents that had their blood pressure measured by a health professional
Figure 6: Trend in the proportion of respondents with CVD taking medication regularly to preven or treat heart diseases

1. BACKGROUND

The prevalence of Non-Communicable Diseases (NCDs) is extremely high in the Republic of Moldova. The reasons for this are many and complex, and certainly they include lifestyle and health behaviour factors.

The overall goal of the Swiss Agency for Development and Cooperation's (SDC) *Healthy Life Project* is to contribute to the improvement of the health status of the Moldovan population, by reducing this burden of NCDs, especially in rural areas. The project achieves this through: the implementation of evidence-based clinical and managerial standards, the enablement of innovative approaches in primary health care (PHC), integrated care and health promotion, capacity building and support of planning, coordination and community level partnerships for health, as well as the active generation of evidence and its dissemination

By working at national, district (e.g. raion), facility and village levels across the domains of Public Health and Health Promotion, as well as in PHC, the *Healthy Life Project* aims to make steady progress towards the expected outcomes:

- 1. Enabling policy environment for the management of NCD
- 2. Quality and accessible NCD services for the population
- 3. Health promotion and behavioural change in the targeted population

This executive summary describes the main trends observable in the population's Knowledge, Attitudes and Practices (KAP) regarding NCDs between 2017 – before the project was implemented – and 2020 – after the project was implemented. By focusing on differences between intervention and control districts, it carefully describes possible effects of the project interventions in contributing to the empowerment of the targeted population to manage health risks and take action to improve their health.

2. PROJECT APPROACH

At national level work the *Healthy Life Project* continued to support Ministry of Health in developing policy documents for NCD prevention and control. It strengthened the leadership role of National Agency of Public Health (NAPH) in public health and as a promoter of modern health promotion interventions inclusively worked with the NAPH to design two national NCD prevention campaigns based on the latest evidence and social marketing principles. The *Healthy Life Project* has always used a "health in all policies" approach to promote the adoption of heathy behaviours in the Moldovan population (Sécula et al 2020). This included the development of a training course for Mayors and local officials that is run by the School of Management in Public Health.

District level 'Health Profiles' were an important building block, as these supported local evidence-based, intersectoral and health promotion planning and intervention design. Key gender and equity sensitive indicators for these health profiles were agreed upon with the Ministry of Health. The project ensured the dissemination of Health Profile' results at the community level as well, by presenting them to Local Public Authorities (LPAs) and community representatives of pilot villages.

To increase peoples' awareness of the role they can have in promoting and protecting their own health, the project engaged diverse range of actors at local level. Health seminars were implemented in remote villages, always involving local resource persons like family doctors and community medical assistants. Civil society organisations (CSOs) were capacitated to work as

Report Title | 1

equal partners with their LPA to design and implement health promotion activities for their communities through small grant funding from the project. These activities were based on insights from the health profiles, and a community "asset-mapping" process where local stakeholders were encouraged not only to see what they lack, but also their strengths and how to take full advantage of them.

3. KEY PROJECT OUTPUTS:

In 20 intervention communities, LPAs (Mayors and their teams) were engaged to strengthen their leadership in local decision-making for health.

Evidence-based 'health profiles' were developed, including gender and equity data, and used in all intervention districts as the basis of health action plans.

Capacity building of 20 local CSOs to work as partners with LPAs and implement community health promotion activities through small grant financing.

Health seminars delivered across 35 localities increased the knowledge of 7,988 people (5,504 women and 2,479 men) on NCD risk factors and prevention measures.

Piloting of a Chronic Patient Self-Management Programme, that reached 342 participants (251 women and 91 men) enabling them to better manage their own conditions. The initial evaluation showed a statistically significant increase of patient self-efficacy scores from 5.33 before the intervention to 8.32 afterwards.

The NAPH was supported to create and launch national health education campaigns on the topics of 'salt intake' and 'trans-fat' with coverage of 78% and 93% of population respectively. Videos and animated spots were broadcast on TV and shared online. An age and gender-sensitive approach was used in the content development.

4. MEASUREMENT OF THE PROJECT EFFECTS IN THE POPULATION:

To measure the project's achievements in the general population of Moldova, we designed a controlled trend study using the KAP survey method to obtain information from the population at two time points; the first measurements were taken in 2017 before the start of the project's activities, and the second 3 years later in 2020.

The study is representative of the adult population, separated into two age groups: 18-44 and 45-69 years old. The breakdown of the population by districts was based on data from the 2014 Population and Housing Census. Of the overall 35 districts of the Republic of Moldova (including 3 districts of UTA Gagauzia), data collection was conducted in 10 intervention districts of the *Healthy Life Project* and 10 control districts. A total of 930 and 945 respondents participated in the KAP surveys in 2017 and 2020 respectively.

5. KEY RESULTS OF THE TREND ANALYSIS

Although a slightly decrease in confirmed diagnoses of hypertension, diabetes and ischemic heart diseases occurred between 2017 and 2020 (hypertension: rate of 34.0 % (n=287) in 2017 to a rate of 32.2% (n=292) in 2020; diabetes: 15.3% (n=99) in 2017 to 14.0%

(n=103) in 2020 ischemic heart diseases: 16.2% (n=136) in 2017 to 14.3% (n=123) in 2020, respectively), the health profiles of the surveyed population indicate that the prevalence of NCDs remains on a high level. Using the Body Mass Index as a health indicator of the surveyed population, we notice that overweight respondents constituted 59.9% (n= 550) in 2017 and 62.5% (n= 582) in 2020.

5.1 Lifestyle related risk factors

5.1.1 Tobacco

There is a sharp decrease in daily smokers in the project's intervention districts (from 55.4% in 2017 to 41.5% in 2020), compared to an increase in people smoking tobacco products on a daily base in the control districts (from 52.1% in 2017 to 68.1% in 2020).

5.1.2 Alcohol

Although there is a slight reduction in the consumption of alcoholic drinks observable, the level of alcohol consumption remains high. 61.4% (n= 437) of the respondents reported that they have consumed alcohol in the last month prior to 2017 survey and 53.6% (n= 374) for the 2020 survey.

5.1.3 Diet and physical activity

The consumption of fruits and vegetables increased in the surveyed population (from 63.8% in 2017, it significantly increased to 71.2% in 2020, and from 68.1% in 2017 to 79.5% in 2020, respectively). However, gender and age differences persisted. Although the proportion of men consuming fruits 6-7 days a week increased from 59.7% in 2017 to 67.6% in 2020 and for vegetables 6-7 days a week from 64.7% in 2017 to 78.2% in 2020, men consume significantly less fruits and vegetables compared to women consuming fruits 6-7 days a week: 67.2% to 74.6%; vegetables 6-7 days a week: 71.0% to 80.7%. In 2017, participants from 18-44 age group consumed significantly more fruits and vegetables (68.6% and 73.0%, respectively), compared to those in 45-69 age group (57.9% and 62.2%, respectively). In 2020 the latter group closed the gap and consume the same amount of both (72.0% and 80.9%).

Proportion of respondents consuming fruits and vegetables daily and

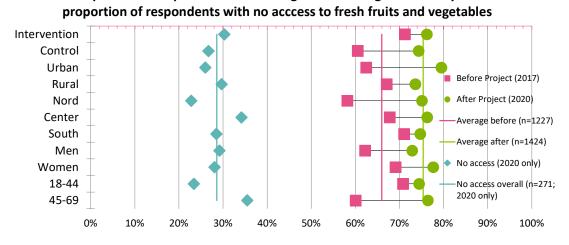


Figure 1: Trend in the proportion of respondents consuming fruits and vegetables daily and access to fresh fruits

In the survey in 2020, we noticed that nearly one third of the respondents had no access to fruits and vegetables in all seasons (28.6% (n= 271)), especially in the older age group (35.5% compared to 23.4% the younger age group). There is an increase in consuming sugary

drinks several times a week: from 7.1% (n= 66) in 2017 to 12.8% (n= 121) in 2020. However, more respondents declared to consume sugary foods and drinks only occasionally or **never** (37.0% (n= 344) in 2017 to 42.8% (n= 404) in 2020), especially in intervention districts from 38.3% to 45.6%). In 2020 more men and women reported to consume industrially produced foods and salty snacks only occasionally, as compared to 2017 (from 51.0% of male respondents and 42.0% in female respondents in 2017 to 58.6% in male respondents and 58.0% in female respondents in 2020). Overall, there is a decrease in the frequency of consumption of industrially produced foods and salty snacks: In 2020 a total of 73.6% (n= 696) of respondents answered occasionally or never, compared to 68.8% (n= 640) in 2017. Gender and age differences in the weekly fast-food consumption became visible in 2020, with male and younger respondents increasing their weekly fast-food consumption (from 2.5% to 4.3% for male respondents and from 3.1% to 4.2% for respondents between 18 and 44 years of age). Female participants (85.4% compared to 71.1% in male respondents), older respondents 80.2% compared to 77.1% in younger participants) and overweight respondents (82.9% compared to 64.6% in underweight respondents and 72.1% in normal weight respondents) were more knowledgeable about the potential harms of artificial fats. The proportion of respondents sitting more than 8 hours per day has increased massively over all strata (1.7%, n: 16 in 2017 to 8.1%, n: 76 in 2020), a trend likely being influenced by COVID19 restrictions.

5.2 Health care seeking behaviour and satisfaction with health services:

Overall, a trend to seek more health care was observable in the surveyed population. Most of the respondents visited a PHC Centre in the 12 months before the survey 1 to 3 times (50.7%, n: 448 in 2020, a significant increase from 39.0%, n: 335 in 2017). Visits of PHC facilities for routine check-ups have increased significantly in the intervention districts from 48.0% in 2017 to 59.4% in 2020. Overall, there was a high satisfaction with the services provided at PHC facilities in both surveys. The accessibility and quality of health care services provided at PHC facilities was rated significantly higher in 2020 with 90.1% compared to 87.8% in 2017.

5.3 Lifestyle advice:

Significantly more respondents reported to have received advice from a medical professional to quit or to not start using tobacco in 2020 (37% compared to 25% in 2017) or to quit/reduce their alcohol consumption (24.9% (n= 231) in 2017 compared to 36.5% (n= 345) in 2020). Lifestyle advice from a health professional increased in physical activity, most pronounced in the intervention districts (from 59.6% to 63.6%), compared to control districts (57.7% in 2017 to 57.8% in 2020). There is a tendency that more respondents received advice from a doctor or other health care worker regarding a healthy body weight (from 51.7% (n= 481) in 2017 to 63.6% (n= 601) in 2020), with higher proportions in intervention districts (65.1% in 2020 compared to 52.5% in 2017), female participants (55.3% in 2017 to 70.4% in 2020), older respondents (from 63.1% to 74.2%) and overweight participants (from 64.5% to 74.4%).

5.4 Knowledge, attitudes, and practices about NCDs:

5.4.1 Disease awareness

The surveyed population is aware of NCDs. The majority of respondents in both surveys was aware of diabetes (96.4% n: 897 in 2017 and 96.8%, n: 915 in 2020), hypertension (90.7% n: 843 in 2017 and 95.9% n: 906 in 2020) and cardiovascular diseases (90.6%, n: 842, in 2017 and

91.1%, n: 863 in 2020). In both studies, there were significant statistical differences between the proportion of people that were aware of diabetes in intervention districts (98.1% in 2017 and in 2020) compared to control (94.7% and 95.3%, respectively). The significant increase in the respondents' awareness of hypertension is most noticeable in intervention districts (from 89.9% to 97.5%, significant increase), and significantly higher in 2020 compared to control districts (from 91.4% to 94.0%). The proportion of participants that are aware of cardiovascular diseases increased significantly over the three years in intervention districts (from 90.4% to 94.1%) and is significantly higher compared to control districts in 2020 (in decline from 90.8% to 88.2%).

5.4.2 Knowledge about risk factors and risk awareness

The population's knowledge of risk factors related to diabetes and cardiovascular increased. The average proportion of respondents that couldn't name at least one risk factor for diabetes before project implementation in 2017 was 25% (n=235) - or in other words – one-quarter of respondents in 2017 did not know any risk factor for diabetes (Figure 2). This proportion dropped to 10% (n=93) after project implementation in 2020. This change was statistically significant for all strata but the urban area and the Southern development region.

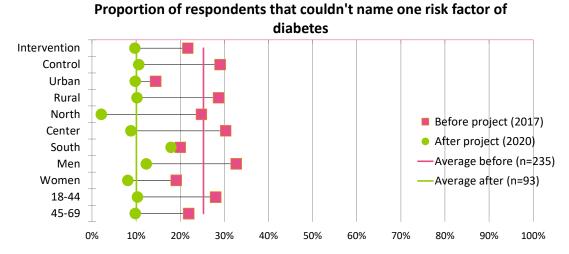


Figure 2: Trend in the proportion of respondents that couldn't name at least one risk factor for diabetes

The knowledge of participants about the risk factors that may lead to the development of cardiovascular diseases has also improved significantly over the three-year period. The proportion of people that couldn't name at least one such factor decreased from 25% (n= 208) in 2017 to 12% (n= 95) in 2020.

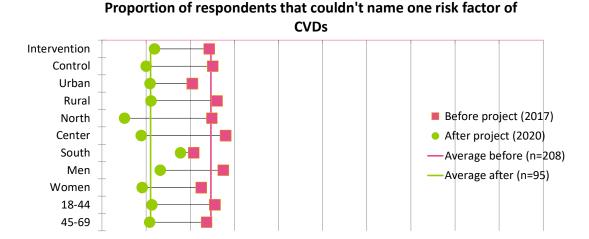


Figure 3: Trend in the proportion of respondents that couldn't name one risk factor of CVDs

40%

30%

20%

0%

Risk awareness for diabetes, hypertension and cardiovascular diseases changed significantly in participants without these diseases. Differences in the higher risk awareness are most remarkably for diabetes and hypertension in intervention districts, compared to control districts.

50%

60%

70%

80%

100%

In intervention districts there is an increase in the number of respondents that consider themselves at risk of diabetes from 29.7% to 35.4%, compared to control districts where the increase was much smaller: from 27.6% to 29.9%. This makes the difference between intervention and control districts in 2020 statistically significant. There is a significant increase in the overall number of respondents that consider themselves at risk for hypertension; form 25.9% (n= 144) in 2017 to 31.2% (n= 191) in 2020. This increase in only observed in intervention districts (from 24.9% to 34.8%) compared to control districts (unchanged at 26.5% in 2020). Compared to 2017, significantly more participants considered themselves at risk for developing a cardiovascular disease (from 35.5% (n= 251) in 2017 to 45.2% (n= 335) in 2020)

5.4.3 Knowledge about early symptoms, complications and prevention

The population's knowledge about early symptoms of diabetes improved remarkably. In 2020, 71.8% (n= 657) of respondents could name at least one early symptom of diabetes. This is a significant improvement from 2017, when only 60.5% (n= 563) could name at least one symptom.

The knowledge about complications related to hypertension as well as on preventive actions increased across all strata. In 2017 only 76.7% (n= 647) of respondents could name at least one complication of hypertension. In 2020 this indicator has significantly increase to 87.0% (n= 786). In 2017 78.6% (n= 663) of participants correctly named at least one measure/step that can be taken to reduce the risk of high blood pressure. In 2020 this indicator has significantly increased to 90.2% (n= 817). In 2017 78.6% (n= 663) of participants correctly named at least one measure/step that can be taken to reduce the risk of high blood pressure. In 2020 this indicator has significantly increased to 90.2% (n= 817).

Knowledge of symptoms of a heart attack, as well as knowledge of early symptoms of a cardiovascular disease increased. When respondents were asked to name an early symptom of a cardiovascular disease, in 2017 73.6% (n= 620) were able to name at least one correctly. In 2020 88.5% (n= 764) could do so, a significant increase over the three years.

The population's knowledge regarding preventive actions to reduce the risk of developing cardiovascular disease also increased. There is a significant decrease in the number of respondents that did not know any actions that could be taken: from 16.1% (n= 136) to 8.4% (n= 73).

5.4.4 Practices

There is a strong tendency that more people had their blood sugar measured by a health professional. In 2017 69.4% (n= 646) of the survey's respondents have had their blood sugar measured by a health professional and in 2020 this proportion has increased significantly to 78.2% (n= 915).

Proportion of respondents that had their blood sugar measured by a health care professional

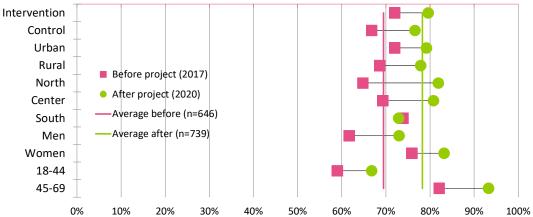


Figure 4: Trend in the proportion of respondents that had their blood sugar measured by a health professional

There is a decrease in the general population to check their blood pressure levels. The average proportion of respondents having had their blood pressure measured by a health professional before project implementation was 79% in 2017 and decreased to 77% after project implementation in 2020. This decrease was significant for control districts and the Southern development region, and visible for men and younger respondents.

Proportion of respondents that had their blood pressure measured by a health professional within 12 months before the survey

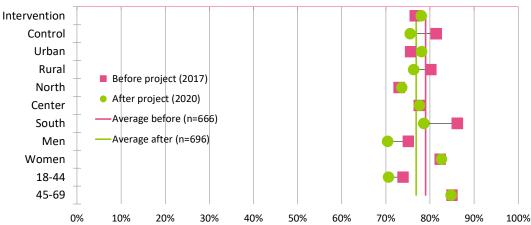


Figure 5: Trend in the proportion of respondents that had their blood pressure measured by a health professional

In hypertensive respondents, there is a significant increase in the number of those that also go to routine blood pressure checks as advised by doctor, as well as when not feeling well: from 27.8%, n: 80 to 41.4%, n: 121, respectively. This increase is most noticeable in intervention raions (from 22.1% to 40.8%), compared to a smaller increase in control raions (from 33.9% to 42.0%).

There is a positive trend in the number of diabetic respondents that took medication for diabetes prescribed by a doctor. In 2017 78.6% (n= 225) of respondents with diabetes took medication prescribed by a doctor. In 2020 already 87.5% (n= 255) of diabetic respondents reported to do so, a significant increase over the three years.

A strong increase in hypertensive respondents taking medication for hypertension, in particular in intervention districts. In 2017, 78.6% (n= 225) and in 2020 87.5% (n= 255) of respondents with hypertension reported to take medication for their disease. Respondents from intervention districts reported more frequently that they have been taken medications for raised blood pressure, a significant increase in the three-year period from 69.0% to 92.3%, compared to a decrease in this indicator in control districts (from 89.0% to 82.4%).

Medication intake to prevent or treat heart diseases declined. In 2017 79.4% (n= 108) and in 2020 67.4% (n= 83) of respondents with cardiovascular disease said they have taken aspirin or other medication regularly to prevent or treat heart diseases, a significant decrease over the three years. This decrease is significant in control districts (from 84.6% to 62.1%), compared to intervention districts (from 75.0% to 70.8%).

Proportion of respondents with a CVD taking medication regularly to prevent or treat heart disease in the past 6 months

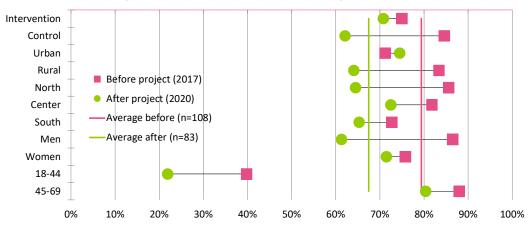


Figure 6: Trend in the proportion of respondents with CVD taking medication regularly to prevent or treat heart diseases

5.5 Self-perceived Quality of Life of People living with NCDs:

An underlying NCD affects the quality of life

In both surveys, **only one in five respondents with a confirmed diagnosis of diabetes rated their quality of life as "good" or "very good"** (20.7% (n= 20) in 2017 and 23.0% (n= 23) in 2020).

Respondents with hypertension were less likely to report to have a good quality of life in the intervention districts. Out of respondents with hypertension, 23.5% (n= 67) of respondents rated their quality of life with hypertension as "Very good" or "Good" in 2017 and 26.4% (n= 77) in 2020. In intervention districts this indicator decreased from 28.4% in 2017 to 19.5% in 2020, while in control districts in increased from 18.3% to 33.6%, respectively.

Overall, there is only a small increase in the proportion of participants with a diagnosed cardiovascular disease that gave a "Good" rating to their quality of life from 19.6% (n= 27) in 2017 to 22.0% (n= 27) in 2020.

In 2020, significantly more respondents with diabetes or an underlying cardiovascular disease reported a "very bad" or "bad" quality of life. There was a significant increase in the proportion of diabetic respondents that rated their quality of life as "Very bad", in intervention districts: from 0.5% in 2017 to 8.5% in 2020; in control districts: from 0% to 3.5%, respectively. The proportion of respondents with a cardiovascular disease rating their quality of life as "Bad" nearly tripled in intervention districts (from 11.5% in 2017 to 31.4% in 2020) and was in 2020 significantly higher than in control districts, where this proportion decreased over time (from 23.6% in 2017 to 15.6% 2020).

5.6 Health information for people with an underlying NCD:

Nearly twice as many respondents with an underlying diagnosis of diabetes reported that they have participated in educational activities related to their disease. The proportion of respondents that attended schools for diabetics increased from 25.9% (n= 26) in 2017 to 46.2% (n= 48) in 2020. This improvement is uniform across intervention and control districts (from 28.1% to 46.4% and from 23.4% to 46.0%, respectively)

More respondents with diabetes think that they do have enough information about the disease, especially in the intervention districts. When asked if they have enough information about diabetes, 32.0% (n= 293) in 2020 answered affirmatively, a significant increase from 22.0% (n= 204) in 2017. In intervention districts this indicator is still significantly higher compared to control districts (from 25.0% to 38.0% and 18.8% to 25.0%, respectively in 2020).

The increase in hypertensive respondents informed by a medical professional about complications was remarkably high in intervention districts. In 2017, 82.5% (n= 237) of respondents with hypertension reported to have been informed by the doctor or medical assistants at the health centre about the complications of high blood pressure. In 2020, this rate has remained almost the same: 84.1% (n= 245). However, this indicator has increase significantly in intervention districts from 78.2% in 2017 to 90.5% in 2020, while it has decreased significantly in control districts from 87.2% to 77.4%. There is a small increase in the number of respondents that consider they have enough information about high blood pressure: from 43.0% (n= 108) in 2017 to 77.7% (n= 125) in 2020. Particularly: there was an increase for both intervention and control districts (from 43.5% to 46.9% and from 31.4% and 39.0%, respectively).

The proportion of participants with a cardiovascular disease attending counselling session or other educational activities for their disease doubled between 2017 and 2020. In 2017 24.1% (n= 33) reported doing so; in 2020 this number significantly increased to 48.5% (n= 60). This increase is uniform across both, intervention (from 22.6% to 49.1%) and control districts (from 25.7% to 47.6%). Respondents with a cardiovascular disease reported less often to have enough iinformation about their disease. In 2017, 32.3% (n= 44) and in 2020 29.8% (n= 37) of participants with cardiovascular disease declared they have enough information about cardiovascular disease. Compared to intervention districts, where there was a slight increase in the proportion of respondents declaring to have enough information (36.8% in 2017 and 38.2% in 2020) this drop was significantly pronounced in control districts (27.2% and 16.5%, respectively),

As in 2017, most of all participants mentioned medical professionals as their main source of information on health issues (67.3%, n: 636 in 2020). In intervention districts, this proportion is significant higher compared to control districts (72.7% compared to 61.2%, respectively).

5.7 Health literacy and patient's rights:

In the 2020 survey, respondents were asked questions about their health literacy and their rights as patients. The great majority of the respondents over all cross-sections perceived themselves as active and responsible managers of their health (81.7% (n=772).) Most respondents were literal about diabetes, hypertension, and cardiovascular diseases. However, comparted to participants from intervention districts, participants in control districts more often reported to not knowing the answer to the different questions they were asked about the three NCDs. A similar effect was observed for male participants, compared to female ones.

There was a low knowledge of patient rights in the surveyed population in 2020. In phase I implementation the Project did not support specific activities on patient rights, these data corresponding to the basic level. Out of all respondents, 61.5% (n= 581) knew they have the right to free medical care. In intervention districts, significantly more respondents knew about this right (64.5%), compared to 58.0% of respondents in control districts. 55.0% (n= 520) of respondents were aware of the right to confidentiality as a patient. Significantly more participants knew about their right to confidentiality in intervention districts (60.3%), compared to control districts (48.9%). On the right to file complaints about health service they received, 55.9% (n= 528) of respondents knew about it, with a greater proportion of participants in intervention districts (63.1%) compared to participants in control districts (47.7). Overall, only 48.2% (n= 456) knew about the right to have

information on the results of filed complaints and requested examinations, again with a higher proportion of participants in intervention districts (55.1%), compared to participants in control districts (40.4%). On the right to information on health services provider, specialization, volume, quality, cost and way of providing services, 44.2% (n= 417) of participants knew about this right. Significant differences in the proportion of those that knew about their right occurred between intervention and control districts (48.8% and 38.9%, respectively). The right of free choice of doctor, that can be exercised once a year when patients can switch to another family doctor, was known by 51.6% (n= 487) of participants. A significantly larger proportion of participants that did not know about this right was observed in control districts (23.1%) compared to intervention districts (13.9%).

5.8 Health expenditures

Most respondents declared to have medical insurance (73.1% in 2017 and 74.4% in 2020). In 2020, gender differences in medical insurance became visible, with 69.8% of male respondents declaring to have a medical insurance, compared to 78.7% of female respondents. More than half of the respondents reported that their needs in medication as well as other health needs were not covered by their insurance scheme (53.3% (n= 375) for medication and 51.8% (n= 364) for other health needs). Out of pocket payments for health visits significantly decreased over all cross-section from 39.8%, n: 342 in 2017 to 55.2%, n: 488 in 2020.

6. RECOMMENDATIONS

Due to the expected economic and societal effects of the COVID-19 pandemic, the observed trends are likely to change again. We therefore recommend a cautious interpretation of these results. The survey should be repeated at the end of the next project phase to continue the time trend. Recommendations are addressed to the central and local public authorities, health care institutions, public health, education, civil society, etc.

6.1 Diagnoses of Hypertension, Diabetes, and Ischemic Heart Diseases

Change in the prevalence takes time, especially in chronic diseases. Continue the efforts of the *Healthy Life Project* to reduce the burden of NCDs in the Moldovan population with a focus on regional differences

6.2 Tobacco Consumption

Strengthen the collaboration and involvement of Youth Friendly Centres at the community level. Target male and younger respondents with smoking cessation campaigns.

Consider focusing on smoking cessation campaigns on positive health effects of quitting smoking and the money that can be saved.

Continue support on updating and implementation of the tobacco control national policy.

Consider increasing taxes on tobacco products.

6.3 Alcohol Consumption

Invest in focus group discussions about the reasons for the differences between male and female alcohol consumption and use the results to target men and women differently in alcohol prevention campaigns and medical counselling.

Consider focusing on alcohol prevention on positive health effects.

Consider increasing taxes on alcoholic products.

6.4 Dietary Factors

Target men and older age group in the promotion of fruits and vegetables

Invest in accessibility of fruits and vegetables in all seasons.

Promotion of local markets, delivery to elderly age group and population with underlying health conditions

Continue capacity development of health promotion specialists on community health program development focused on risky behaviour change

Continue to invest in communication campaigns on positive health effects of healthy diet.

Advocate on policy level for declaration of unhealthy food (e.g. "traffic lights food labelling system)

Facilitate advocacy efforts of the MoH and NAPH with industry too to reduce sugar, salt and transfats in their products and to include information of the percentage content of iodized salt, sugar and trans fats on the products' label

Work closely with the Healthy Schools network to promote healthy diet

6.5 Physical Activity

Facilitate promotion of Healthy Community WHO Concept in pilot districts and communities.

Within the collaboration with Local Public Authorities (LPA) ask for more engagement and responsibility for building healthy behaviour

Invest in daily physical activity programmes in diverse communities, in education institutions (kindergarten, schools, colleges), at working places

Invest in infrastructural arrangement (bicycle roads etc.)

Promote positive examples for women and men in targeted ways

6.6 Lifestyle Advice

To continue promotion of lifestyle counselling at different structures as PHC facilities, Public Health Centers, education institutions, other relevant local actors.

6.7 Knowledge, Attitudes and Practices related to Diabetes, CVDs and Hypertension

To pay more attention to the men health by increasing their awareness about the CVD, Hypertension and diabetes, importance of regular check-up, adherence, and continuous character of received medication, etc. at PHC institution level

To support and facilitate the work of Schools for Diabetic and Hypertensive patients by providing education materials and appropriate training for medical staff

To facilitate the institutionalisation of Health seminars within the NAPH raion structures and the role of community nurse within the family doctor team in education/information of population in communities about the NCDs and their risk factors as well about the measures to be taken in case of complications.

To facilitate the institutionalisation of the self-management of chronic diseases program

6.8 Self-perceived Quality of Life of People living with Hypertension, Diabetes or Ischemic Heart Diseases

The quality of life of NCDs patients and healthy population depends on many factors outside of health sector. The health sector role in prevention and management of NCDs should be maintained and continuously strengthened.

Facilitate implementation of the WHO concepts "Health in All Policies" and "Healthy Cities and Communities"

Facilitate intersectorial collaboration and LPA engagement for health and wellbeing.

6.9 Health information and information seeking

Overall, the data shows that medical health professionals play an important and highly respected role in the dissemination of health information. Further training of health professionals to deliver these messages appears to be a good investment. Additional communication strategies need to take the respondents preferences and differences into account. Evidence-based activities lead by Public Health structures should be designed and supported.

6.10 Health Literacy and Patient Rights

To include the topic about patient rights in the institutionalized curricula of Health education in the continuing education program for public health specialists and family doctors at the State University of Medicine and Pharmacy "Nicolae Testemitanu" and within practical seminars of National Agency for Public Health.

6.11 Health expenditures

To continue to advocate for the replacement of antihypertensive drugs by generics.

To continue to advocate that even uninsured people have rights to medical services.