

Implementing Methamphetamine Prevention Strategies into Action

IMPRESA

Aim, methodology and summarized results of the literature review and the Delphi expert consensus finding process

Work package 2: Literature review and evidence synthesis
Deliverable 2.1

Work package lead:

Department of Addictology, Charles University Prague (CUNI)



FIRST FACULTY
OF MEDICINE
Charles University



Contributing consortium partners:

Centre for Interdisciplinary Addiction Research of the University of Hamburg (UKE/ZIS)



Akademia Pedagogiki Specjalnej (Maria Grzegorzewska University, Warsaw)



Pavol Jozef Safarik University, Kosice (UPJS)



Republican Centre for Addictive Disorders, Vilnius (RPLC)



Prague/Hamburg, 31.12.2021



Contents

1. Abstract.....	3
2. Background	4
3. Research question.....	5
4. Literature review methodology.....	5
4.1. <i>Protocol and central question.....</i>	<i>5</i>
4.2. <i>Inclusion criteria.....</i>	<i>6</i>
4.3. <i>Search strategy: databases and search strings.....</i>	<i>7</i>
4.4. <i>National review.....</i>	<i>8</i>
4.5. <i>Mapping of the national prevention activities.....</i>	<i>8</i>
5. Results of the literature review and mapping.....	9
6. Methodology for the Delphi Process	10
6.1. <i>The Delphi method.....</i>	<i>10</i>
6.2. <i>Design</i>	<i>11</i>
6.3. <i>Recruitment of the expert panel.....</i>	<i>11</i>
6.4. <i>Questionnaire.....</i>	<i>11</i>
7. Analysis of Delphi process	13
8. Results of Delphi process.....	14
8.1. <i>Characteristics of the expert panel.....</i>	<i>14</i>
8.2. <i>Results of the consensus</i>	<i>15</i>
8.3. <i>Results of the consensus in respect of specific interventions and categories</i>	<i>15</i>
9. Conclusion.....	23
10. References	23
11. Annex.....	24

1. Abstract

The objective of work package 2 was to synthesize the latest evidence on methamphetamine use prevention in order to select the most adequate evidence-based selective and indicated prevention strategies as well as harm reduction measures for different target groups of (potential) methamphetamine users.

In order to reach this aim, at first a scientific review of the relevant literature published in peer reviewed journals as well as a mapping of national prevention activities already in place (in the five IMPRESA countries) were undertaken. Electronic databases (MEDLINE, PSYINDEX, EMBASE, etc.) were searched, using appropriate keywords and inclusion / exclusion criteria to identify eligible studies. Resulting literature (N=1362) was screened, selected, quality appraised and finally 20 relevant studies were extracted, synthesized and summarized. The country-specific mapping led to 27 eligible prevention/harm reduction measures. Both were combined in a list containing 47 good practice, evidence-based selective prevention strategies, indicated methamphetamine use/misuse interventions and harm reduction measures.

An online questionnaire with short descriptions of the interventions, their setting and target group served as the input for a Delphi expert consensus finding process.

36 national and international (European) experts took part in the Delphi process. The majority of the experts indicated expertise in methamphetamine as well as in prevention and harm reduction, and most of them had been working in the field for many years. The experts were asked to assess the effectivity of the presented measures in two rounds, using a 5-point assessment scale ranging from “strongly disagree” to “strongly agree”. It was decided that consensus was reached, if at least 80% of the experts confirmed the effectivity of the respective measure. After two rounds 41 out of 47 interventions/measures (87%) reached consensus. On this basis, members of the multi stakeholder partnerships in the five pilot cities shall select appropriate measures for their city-level intervention packages to be implemented in work package 3.

2. Background

Methamphetamine use is one of the relevant public health threats in the countries and regions involved in IMPRESA. Therefore, the aim of the project is to promote an evidence-based approach to prevention and harm-reduction. To obtain an up-to-date record of evidence-based evaluated approaches and opinions of leading experts on the field of prevention and harm reduction, a literature review, mapping of national practices and the Delphi method were conducted. The systematic review is designed to support the development of evidence-based public policy on psychoactive substance use on the regional level. It aims to provide an up-to-date record of intervention options that have undergone both the evaluation process and peer review in respected scientific journals. Its results also serve as a basis for expert evaluation using the Delphi method. The systematic review is also supplemented by national mapping, as some of the findings have not been compiled into articles in databased journals and yet can be an important source of useful information.

The Delphi method was developed by RAND in the 1950s to help forecasting the effect of technology development on society warfare. It has since been applied to health care, education and other areas. As the effectiveness of the interventions is not certain and some uncertainty exists, this method seems to be very appropriate to address the given research questions (see below). For this project, we have gravitated towards a type of Delphi group that is focused on consensus. The aim was to achieve the largest possible consensus of experts, who were selected based on an assessment of measurable criteria, including experience in the field, educational background and area of expertise. Experts were asked about the effectiveness of each intervention identified in the systematic review. Based on the consensus reached, not only can the measures that have been evaluated be recommended to the representatives of each region, but they are also evaluated as effective by a panel of international experts.

3. Research question

- 1) For the systematic literature review the following research questions were formulated: What selective or indicated prevention interventions and what harm reduction measures addressing methamphetamine use are considered as effective?

The goal of the review was to determine the set of interventions that will be used for expert evaluation by applying the Delphi method.

For the consensus-oriented Delphi method the following research questions were formulated:

- 2) How do experts assess the effectivity of the proposed interventions in preventing/reducing methamphetamine use and/or related harms?
- 3) On which types of interventions does a consensus exist among the experts involved?

4. Literature review methodology

4.1. Protocol and central question

The procedure to systematically collect existing evidence was as follows: At first a protocol for the literature review was set up. Within this the title (“A systematic review on the effectiveness of selective and indicated interventions for prevention and harm reduction of methamphetamine use”) and the central question of the review (“What selective or indicated prevention interventions and what harm reduction measures addressing methamphetamine use are considered as effective?”) was determined and a PICO Scheme was filled (see table 1).

Table 1: PICO Scheme

Participants	Intervention	Comparison	Outcomes
Methamphetamine users	Selective or indicated prevention programs or harm reduction measures	Received no or different prevention intervention	Effectiveness of prevention or harm reduction measure

4.2. Inclusion criteria

Furthermore, following inclusion criteria were defined:

Types of participants

Human subjects who use methamphetamine and took part in a selective or indicated prevention measure or utilized harm reduction measures (resp. people who were part of a control group if envisaged in study design).

Types of interventions

Interventions of interest include those related to the efficacy of prevention interventions who aim to prevent methamphetamine use of members of risk groups (selective prevention) and interventions which address methamphetamine users who already show risky consumption patterns (indicative prevention and harm reduction). Interventions which are designed for selective/indicated prevention and harm reduction of stimulant use in general which thus also address methamphetamine use, can be included too.

Types of outcome measure

The outcome of interest is prevention of methamphetamine use of members of risk groups, reduction/cessation or harm reduction of methamphetamine use of users with risky consumption patterns.

Types of studies

All peer-reviewed studies evaluating the efficacy of interventions/strategies relating to selective and indicated methamphetamine prevention and harm reduction are considered. In the absence of this type of study, those that evaluate interventions and programs that address stimulant use in general will also be considered. Only quantitative studies of following designs will be included: (cluster) randomized control trials (RCT), quasi-experimental (interrupted time series, cross-sectional, pre-post, stepped design), longitudinal studies, implementation studies; reviews and meta-analyses.

Further criteria

Some further criteria have to be fulfilled to meet eligibility. Language: English; location: worldwide; publication date: from year 2000 onwards. No restrictions regarding age, setting, or target group were set. Not eligible for inclusion are papers that discuss opinions, policies or preferences without any original data, conference abstracts, grey literature (doctoral theses, reports), books, and unpublished papers. Further,

studies that assess universal prevention measures as well as general programs that address licit drugs only are not to be included.

4.3. Search strategy: databases and search strings

The next step was to set up a search strategy. As part of the search strategy, at first databases to be searched were determined. Seven established scientific databases that suited to the subject were selected: Medline (PubMed) (Ovid), PsycInfo (Ovid), PSYINDEX (Ovid), Cochrane Drugs and Alcohol Group's Trials Register, Web of Science Core Collection, CINAHL (EBSCO), and SocIndex (EBSCO). Thereafter, suitable search terms were discussed and defined as well as the logical connectors of the single terms. It was decided to apply the search terms to title and abstract of the publications. Table 2 shows an example of the search string for the Medline (PubMed) database. The search strategy and the results were documented in a Logbook. This contains also the syntax for the search strings for all databases (differs slightly from database to database). The Logbook with details of the hits in all databases can be found in the appendix.

Table 2: Example of the search string

Aspect #1	Methamphetamine	Methamphetamine [tiab] OR Crystal Meth [tiab] OR Yaba [tiab] OR amphetamine* [tiab]
Aspect #2	Prevention	prevention [tiab] OR indicated prevention [tiab] OR selective prevention [tiab] OR harm reduction [tiab] OR risk reduction [tiab] OR health promotion [tiab] OR deter [tiab]
Aspect #3	Evaluation	evaluation [tiab] OR evidence-based [tiab] OR best practice [tiab] OR good practice [tiab] OR effective* [tiab] OR assess* [tiab]
Aspect #4	Intervention	intervention [tiab] OR randomized controlled trial [tiab] OR RCT [tiab] OR cluster randomized controlled trials [tiab] OR CRCT [tiab] OR quasi-experimental [tiab] OR interrupted time series [tiab] OR cross-sectional [tiab] OR pre-post [tiab] OR stepped design [tiab] OR implementation study [tiab] OR implementation strateg* [tiab] OR longitudinal study [tiab] OR review [tiab] OR meta-analysis [tiab]
Aspect #5		#3 OR #4
Aspect #6 (Filter)	Language: English no animal studies publication date: 2000-2020	((english[Language]) AND (("2000/01/01"[Date - Publication] : "2020/12/31"[Date - Publication]))) NOT (rats)) NOT (animal*)

All results received from the seven databases were de-duplicated at first. Then they were screened by title and abstract and non-eligible results were removed. Full texts of the remaining references were checked in-depth for eligibility and a final selection of publications to be included in the review was made. (The number of hits for each step is presented in the next chapter.)

In order to systematically extract and record the key contents of the publications, a template of a data extraction sheet - based on a template from the Cochrane Collaboration - was created. This included information about the methods (aim, type of study, design, description of the intervention/type of prevention activity, etc.), about the participants (sample, setting, inclusion/exclusion criteria, number of participants, age, gender, etc.), about the outcomes (primary outcome, outcome measurement, validated measurement tools), about the key results, and the key conclusions drawn by the authors. After reading and documentation a risk of bias assessment was made for each reference. The risk of bias tool, provided by Cochrane Collaboration, is an assessment instrument for the potential of bias in controlled trials. It addresses following domains of potential study biases: selection bias, performance bias, detection bias, attrition bias, and reporting bias. Each domain had to be rated as low, high or unclear risk by two independent raters. The ratings were supported by quotes.

4.4. National review

In order to also include studies published only in the respective national language of each IMPRESA partner country, the partners were asked to search their national databases with the search strategy described above, adapted to the local language. This resulted in 27 hits (CZ: 4, PL: 10, SK: 8, LT: 4, DE: 1). As none of them turned out to be eligible, they were not included.

4.5. Mapping of the national prevention activities

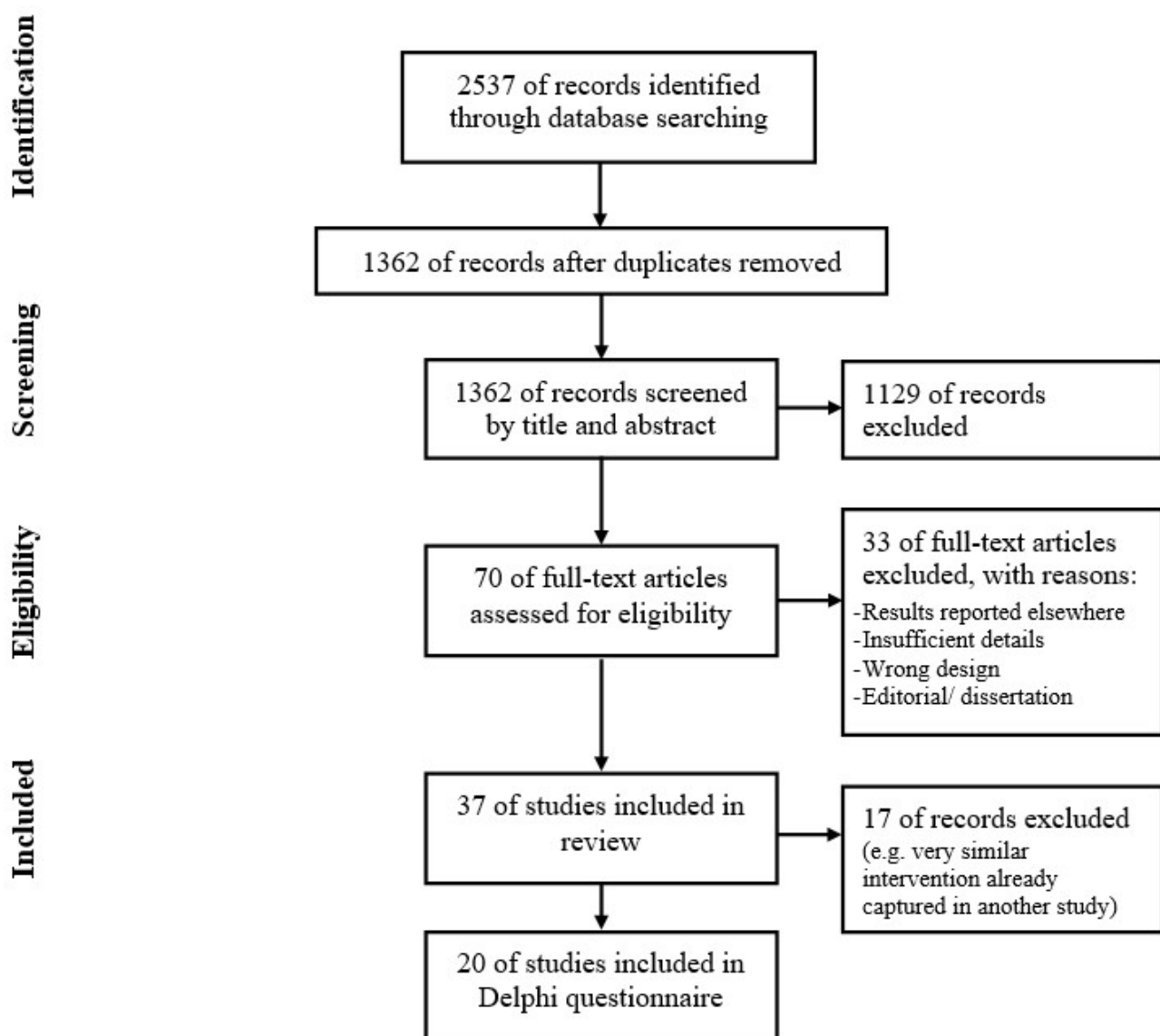
Not all prevention measures that are implemented on a national or local level are published in peer reviewed papers. As they might be important for the IMPRESA project as well, it was decided to conduct a mapping of such measures or interventions for each participating country. For this purpose country specific mapping protocols were created, determining eligibility criteria, search terms and sources of information (i.a. Google Scholar, prevention program registers, governmental sources, etc.). In this case grey literature (reports, doctoral theses, manuals, internet sources) was also eligible. Key information of the results was documented in an Excel-Sheet template. Only evaluated prevention programs were shortlisted. Once the selection was made, each prevention measure was assessed by two independent raters regarding quality rating/ level of evidence with the EDDRA quality grid. Possible outcomes were

“Level 1 project”, “promising intervention” and “Top Level Intervention”, depending on the scores reached.

5. Results of the literature review and mapping

The initial literature search resulted in 2,537 hits in seven databases. Figure 1 illustrates the steps of selecting the references from all initial hits to the final selection of 37 eligible references. The full list of these references can be found in the annex.

Figure 1: Flow chart



Twenty of the 37 studies were selected for the Delphi questionnaire. The reduction was due to the fact that some intervention did not fit the purpose of the project and that some studies examined the effectiveness of very similar interventions.

Table 3 provides an overview of the numbers of measures/ interventions differentiated by country, type of intervention and source as well as the results of the included studies from the literature review.

Table 3: Number of measures/ interventions differentiated by country, type of intervention and source

Country (mapping)	SEL	IND	IND + SEL	SEL, IND, HR	HR	TOTAL
CZ	3	1	0	2	3	9
SK	1	1	0	0	0	2
PL	0	1	1	0	2	4
LIT	0	0	0	0	5	5
DEU	1	3	0	2	1	7
Total mapping	5	6	1	4	11	27
Literature review	1	12	0	5	2	20
TOTAL	6	18	1	9	13	47

Notes: SEL: selective prevention measure; IND: indicated prevention measure, HR: harm reduction measure

The majority of measures are indicated prevention measures (N=18), followed by harm reduction measures (N=13). Selective prevention measures (N=6) form the smallest group of interventions.

The next step was to create a list of all measures/ interventions containing a short description of each intervention (including a header), information about the setting or context in which the measure is provided, and the envisaged target group. This list served as a basis for the construction of the Delphi questionnaire. More details about this questionnaire and the general Delphi methodology will be presented in the next section.

6. Methodology for the Delphi Process

6.1. The Delphi method

The Delphi technique was developed for governmental (military) purposes by the RAND Corporation in the 1950ies. Linstone and Turoff (1975) define it as: „a method for structuring a group communication process so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem“. According to them „to accomplish this "structured communication" there is provided: some feedback of individual contributions of information and knowledge; some assessment of the group judgment or' view; some opportunity for individuals to revise views; and some degree of anonymity for the

individual responses“. More recently Sekayi and Kennedy (2017) pointed out that “the Delphi Method was originally designed to collect data from a panel of experts to aid in decision making in government settings” which is in the line with the purpose of the Delphi process presented in this project. There are numerous types of Delphi designs, from classical to online (see Hasson and Keeney 2011). There are different types of Delphi (see de Villiers, de Villiers and Kent 2005), namely conventional Delphi, real-time or modified Delphi and policy Delphi.

6.2. Design

The Delphi method was used to gain consensus on the effectivity of the interventions in preventing/reducing methamphetamine use and/or related harms. These interventions (as a list of statements) were administered to the expert’s panel via online questionnaire in two rounds. We used the conventional Delphi. The questionnaire was sent via e-mail to the group of experts which were selected according to a methodology inspired by Ivlev, Kneppo and Barták (2015). After receiving the responses, they were analyzed and sent to the experts for the second round (see below).

6.3. Recruitment of the expert panel

The expert panel was recruited by the project consortium at national and international level. At the national level, experts were recruited via nomination technique in the countries in which the project is carried out: Lithuania, Poland, Czech Republic, Germany and Slovakia. The researchers started from their social networks and, in addition to that, professional organizations and networks were utilized to spread information about this research. At the international level, the experts were recruited via professional networks and organizations. The experts signed up for the study via a short online questionnaire or by directly contacting the research team. Only experts who fulfilled the following criteria were included:

- 1) minimum 5 years of work experience in the field of harm reduction or prevention,
- 2) basic command of English (understanding of written text),
- 3) self-evaluation as an expert.

6.4. Questionnaire

An online questionnaire was administered using the online-based survey tool Limesurvey. For each round of the Delphi process, the participating experts were given a personalized link containing a unique token to access the questionnaire. The links were distributed to the experts via email by the responsible researchers

in each country. The specific tokens that were assigned to the specific expert in first and second round were matched, which allowed for linking the data from first and second round in the analysis.

The main section of the questionnaire consisted of the list of interventions to be assessed by the experts. The list of interventions was based on the results of the systematic review as well as the national mapping. At the beginning of the questionnaire, the experts were provided basic instructions and some information about the study necessary to provide informed consent. In the first round, we collected characteristics of the experts. Furthermore, the experts were asked whether they were aware of any additional interventions (selective and indicated prevention, harm reduction) which were not listed. In both rounds, the experts were provided an option of indicating general comments or remarks on the Delphi procedure or content. The 47 interventions were described in a few sentences based on the available information and grouped into the categories:

- 1) selective prevention (6 interventions),
- 2) indicated prevention (18 interventions),
- 3) mixed interventions: selective or indicated prevention and harm reduction (7 interventions),
- 4) harm reduction interventions (16 interventions).

For each intervention, we provided additional information about the designated setting/context as well as the envisaged target group. This list of interventions was reviewed by team members that were not involved in the compilation of the list to ensure that the items were described in an understandable way, making it possible for them to be judged by the experts. In the first round, we provided the experts with the whole list of interventions. In the second round, the list included only those interventions for which no consensus was found (see Analysis of the Delphi process).

In both rounds of the Delphi, the experts were asked the same general question: „In your opinion, to what extent would you agree that the following measures are effective in preventing/reducing methamphetamine use and/or related harms?“ In the first round, the answer options were: strongly disagree; disagree; neither agree nor disagree; agree; strongly agree; no opinion/not able to evaluate. In the second round of the survey, we removed the option: neither agree nor disagree. This was done to encourage the experts to decide on the intervention effectivity. Furthermore, in the second round, the summary of the panel’s responses from the first round was provided in the questionnaire (e.g. “Results from first round: 0% strongly disagreed, 19 % disagreed, 5 % neither agreed nor disagreed, 46 % agreed and 30 % strongly agreed.”).

7. Analysis of Delphi process

A separate analysis was conducted after the first and second round of Delphi, respectively. Information about the descriptive characteristics of the experts was only collected in the first round. We calculated the rate of agreement and disagreement (percentage of agreeing and disagreeing experts) and other descriptive characteristics (sum score of the answers, mean, standard deviation, median). We used the following procedure to calculate the rate of agreement: rate of agreement = (agree + strongly agree) / (strongly disagree + disagree + neither agree, nor disagree). The same procedure was used to calculate the rate of disagreement.

Based on the rate of agreement, we allocated the interventions to the following groups:

- 1) positive consensus,
- 2) negative consensus,
- 3) no consensus.

In both rounds, the answer “no opinion / not able to evaluate” was excluded from the consensus calculation. In the first round, a positive consensus existed if the rate of agreement was $\geq 80\%$ of informants. A negative consensus was the case if the rate of disagreement was $\geq 80\%$ of respondents. We used a more conservative threshold of 80% in order to select the most effective interventions with a high degree of agreement. The remaining interventions were classified as “no consensus”. The calculation of rates was as follows:

$$\text{Rate of agreement} = \frac{N_{\text{strongly agree}} + N_{\text{agree}}}{N_{\text{strongly disagree}} + N_{\text{disagree}} + N_{\text{neither agree, nor disagree}} + N_{\text{agree}} + N_{\text{strongly agree}}} \times 100$$

$$\text{Rate of disagreement} = \frac{N_{\text{strongly disagree}} + N_{\text{disagree}}}{N_{\text{strongly disagree}} + N_{\text{disagree}} + N_{\text{neither agree, nor disagree}} + N_{\text{agree}} + N_{\text{strongly agree}}} \times 100$$

In the second round, we used a slightly different algorithm because the “neither agree, nor disagree” option was not provided anymore:

$$\text{Rate of agreement} = \frac{N_{\text{strongly agree}} + N_{\text{agree}}}{N_{\text{strongly disagree}} + N_{\text{disagree}} + N_{\text{agree}} + N_{\text{strongly agree}}} \times 100$$

$$\text{Rate of disagreement} = \frac{N_{\text{strongly disagree}} + N_{\text{disagree}}}{N_{\text{strongly disagree}} + N_{\text{disagree}} + N_{\text{agree}} + N_{\text{strongly agree}}} \times 100$$

8. Results of Delphi process

8.1. Characteristics of the expert panel

In both rounds of the Delphi, a total of 36 experts completed the questionnaire that the same experts who completed the first round of the Delphi, also participated in the second round. Therefore the characteristics of the respondents did not change between rounds.

Table 4 shows that most experts had an education status which was higher than a master degree and on average more than 11 years of work experience in substance use and addiction. Therefore, the experts had adequate education and work experience. More than half of the experts declared to have specific expertise in methamphetamine prevention. We assume that having a specific expertise in methamphetamine prevention is rare in the European context, except for countries which show a high prevalence among the general population (Czech Republic and Slovakia). Therefore, the sample provides a reasonable coverage of experts with specific expertise in methamphetamine. The sample consists of experts from all IMPRESA countries and also includes 5 international experts.

Table 4: Characteristics of the expert panel

		N	%
Gender	Female	20	56
	Male	16	44
Age	21 to 30	5	14
	31 to 40	5	14
	41 to 50	14	39
	51 to 60	7	19
	61 or older	5	14
Educational	Bachelor	3	8
	Master	18	50
	Doctoral	15	42
Expertise in methamphetamine	Yes	22	61
	No	14	39
Years of work experience in substance use and addiction	5 to 10	12	33
	11 to 20	14	39
	21 to 30	9	25
	31 and more	1	3
Field of expertise	Prevention	23	64
	Harm reduction	20	56
	Research	16	44
	Treatment/counselling	15	42
Country	SK	9	25
	PL	7	19
	DE	7	19
	CZ	5	14
	LT	3	8
	International	5	14

8.2. Results of the consensus

Table 5 shows the main result which is the categorization of interventions into the different groups according to the consensus. We show the results for first round, second round and total results (combined results of first and second round).

The table shows that in the first round the experts did not reach consensus on 45 % of interventions and that the consensus was positive in all cases. The remaining 21 interventions with no consensus in the first round were presented to the experts in the second round. In this second round the experts did reach consensus on 15 of the remaining interventions. In total (combined results from both rounds), a consensus was not reached on 6 out of 47 interventions (13 %).

Table 5: Results of the consensus

	First round		Second round		Total	
	N	%	N	%	N	%
Positive consensus	26	55	15	71	41	87
Negative consensus	0	0	0	0	0	0
No consensus	21	45	6	29	6	13
Total	47	100	21	100	47	100

8.3. Results of the consensus in respect of specific interventions and categories

This section shows the results in specific interventions and categories. We show the rate of positive agreement, if there was positive consensus and in which round the consensus was reached. For the interventions where there was no consensus reached in the first round, we use the results from the second round. The specific results for first and second round with further descriptive statistics such as mean and sum score are available in the annex (Tab 2A and Tab 3A). Furthermore, we only show the short description/headlines of the interventions. The full description is also available in the annex (Tab 1A).

Table 6 shows the ranked list of all interventions. A consensus was not reached in 6 out of 47 interventions (13 %). There was no consensus on one intervention in selective prevention, four in indicated prevention and one in harm reduction. The intervention harm reduction model implemented in Perinatal Addiction Treatment Clinics achieved a 100% rate of positive agreement in the first round. The two interventions with 100% positive agreement were both harm reduction interventions.

Table 6: Ranked list of all interventions

Nr.	Category	Short description/headline	Round in which consensus was reached	Positive consensus	Positive agreement rate
hr_43	Harm reduction Interventions	A harm reduction model implemented in Perinatal Addiction Treatment Clinics	1	yes	100%
hr_46	Harm reduction Interventions	Brief Cognitive Behavioral Therapy for Regular Methamphetamine Users in Methadone Treatment	2	yes	100%
ind_11	Indicated prevention	Motivational interviewing focused on reducing club drug use	2	yes	97%
ind_24	Indicated prevention	SKOLL	1	yes	97%
hr_47	Harm reduction Interventions	Integration of a methamphetamine harm reduction intervention into opioid harm reduction services in drop-in centers	2	yes	97%
ind_20	Indicated prevention	Brief intervention consisting of motivational interviewing and cognitive behavior therapy	2	yes	97%
hr_36	Harm reduction Interventions	Street work with methamphetamine users	1	yes	97%
sel_2	Selective prevention	Street work focused on providing information on drug use and treatment options	1	yes	97%
ind_15	Indicated prevention	The intervention provides psychoeducation on substance use, trauma and HIV	1	yes	94%
mix26	Mixed interventions	Online counselling	2	yes	94%
hr_45	Harm reduction Interventions	A brief intervention in outpatient treatment centers	2	yes	94%
ind_18	Indicated prevention	Street work: mobile outreach program to find and establish contact with drug users and sex workers	1	yes	94%
ind_14	Indicated prevention	Culturally sensitive intervention program	1	yes	94%
hr_35	Harm reduction Interventions	Needle and syringe exchange programs for injecting methamphetamine users	1	yes	91%
mix25	Mixed	A program targeting adolescents	1	yes	91%

	interventions	who experiment with psychoactive substances			
ind_17	Indicated prevention	10-step brief intervention for substance users	2	yes	89%
hr_42	Harm reduction Interventions	Leaflets to provide information for MSM on safer chemsex practices	2	yes	89%
ind_22	Indicated prevention	Counselling centers providing assessment, brief interventions, counselling and information for people at-risk	1	yes	88%
hr_33	Harm reduction Interventions	Drop-in centers	1	yes	88%
ind_12	Indicated prevention	Seven-session intervention for MSM couples	1	yes	88%
ind_21	Indicated prevention	FRED-ATS	1	yes	88%
ind_9	Indicated prevention	Positive affect intervention to reduce stimulant use and methamphetamine craving	1	yes	88%
mix29	Mixed interventions	A fully automated web delivered intervention (“breakingtheice”)	2	yes	88%
ind_10	Indicated prevention	Behavioral activation therapy and risk reduction counseling intervention	1	yes	88%
sel_1	Selective prevention	Peer activists training	2	yes	86%
sel_3	Selective prevention	Training program for methamphetamine using parents focused on strengthening parental competencies	1	yes	86%
mix28	Mixed interventions	Website with information about various psychoactive substances	2	yes	86%
hr_37	Harm reduction Interventions	Safe space (and paraphernalia) for the consumption of methamphetamine	2	yes	86%
mix27	Mixed interventions	Low-threshold online forum	1	yes	86%
ind_23	Indicated prevention	Mobile phone application that helps to monitor methamphetamine use and reflect on individual consumption	2	yes	86%
ind_8	Indicated prevention	Multi-component intervention targeting HIV-related traumatic stress	2	yes	84%
hr_38	Harm	A program distributing gelatin	1	yes	83%

	reduction Interventions	capsules			
hr_39	Harm reduction Interventions	Educational initiative that offers consultations on drug consumption	1	yes	83%
sel_4	Selective prevention	Training for addicted parents in OST	1	yes	83%
mix30	Mixed interventions	Peer network intervention	1	yes	83%
hr_34	Harm reduction Interventions	Dispensing machines providing syringes anonymously	1	yes	82%
mix31	Mixed interventions	HIV prevention program for substance-using (methamphetamine included) MSM	1	yes	82%
hr_44	Harm reduction Interventions	Single-session 30 minutes 'check-up' intervention	2	yes	81%
hr_41	Harm reduction Interventions	Drug checking at festivals	1	yes	81%
hr_40	Harm reduction Interventions	Peer-to peer consultations at festivals	1	yes	81%
sel_6	Selective prevention	Prevention in children's homes	1	yes	80%
ind_7	Indicated prevention	Text messaging intervention to reduce methamphetamine use and high-risk sexual behaviors	0	no	77%
sel_5	Selective prevention	A prevention program in schools based on a screening questionnaire (Substance Use Risk Profile Scale)	0	no	76%
ind_13	Indicated prevention	Single-session motivational interviewing intervention to reduce methamphetamine use and sexual risk	0	no	69%
hr_32	Harm reduction Interventions	A periodical booklet	0	no	66%
ind_16	Indicated prevention	Conditional cash transfer and microenterprise opportunity for amphetamine-type stimulants using female entertainment workers	0	no	64%
ind_19	Indicated prevention	A school based preventive brief intervention program focused on drug use	0	no	50%

Tables 7 to 10 show the ranked list of interventions in specific categories: selective prevention, indicated prevention, mixed interventions and harm reduction. The expert consensus may be summarized as follows:

Selective prevention

The highest rate of agreement (97%) was on the Street work focused on providing information on drug use and treatment options. The lowest rate of agreement (76%) was on a prevention program in schools based on a screening questionnaire (Substance Use Risk Profile Scale). Thus there was no consensus on this one intervention.

Indicated prevention

The highest rate of agreement (more than 90%) in this category was reached for six interventions.. A positive consensus of 97% was achieved for three interventions, namely Motivational interviewing focused on reducing club drug use, SKOLL (Early intervention focused on risky users (methamphetamine included) or those who want to prevent relapse) and Brief intervention consisting of motivational interviewing and cognitive behavior therapy. The lowest agreement among the experts was on the Conditional cash transfer and microenterprise opportunity for amphetamine-type stimulants using female entertainment workers and the School based preventive brief intervention program focused on drug use. There was no consensus on four interventions in this category.

Mixed interventions

The highest rate of agreement (more than 90%) was reached on Online counselling and the Program targeting adolescents who experiment with psychoactive substances. The lowest agreement rate in this category was reached on the HIV prevention program for substance-using (methamphetamine included) MSM. However, the agreement rate for this intervention is still higher than 80%. A consensus was reached for all interventions in this category.

Harm reduction interventions

The highest rate of agreement (100%) was reached on two interventions: The Harm Reduction Model Implemented in Perinatal Addiction Treatment Clinics and the Brief Cognitive Behavioral Therapy for Regular Methamphetamine Users in Methadone Treatment. More than 90% of expert agreed on the effectivity of an Integration of a methamphetamine harm reduction intervention into opioid harm reduction services in drop-in centers, of Street work with methamphetamine users, of brief intervention in outpatient treatment centers as well as of Needle and syringe exchange programs for injecting methamphetamine users. The lowest level of agreement was found for a periodical booklet providing

information for methamphetamine users disseminated in low-threshold centers and online, which there was also no consensus on.

Table 7: Ranked list of interventions in selective prevention

Nr.	Short description/headline	Round in which consensus was reached	Positive consensus	Positive agreement rate
sel_2	Street work focused on providing information on drug use and treatment options	1	yes	97%
sel_1	Peer activists training	2	yes	86%
sel_3	Training program for methamphetamine using parents focused on strengthening parental competencies	1	yes	86%
sel_4	Training for addicted parents in OST	1	yes	83%
sel_6	Prevention in children's homes	1	yes	80%
sel_5	A prevention program in schools based on a screening questionnaire (Substance Use Risk Profile Scale)	0	no	76%

Table 8: Ranked list of interventions in indicated prevention

Nr.	Short description/headline	Round in which consensus was reached	Positive consensus	Positive agreement rate
ind_11	Motivational interviewing focused on reducing club drug use	2	yes	97%
ind_24	SKOLL	1	yes	97%
ind_20	Brief intervention consisting of motivational interviewing and cognitive behavior therapy	2	yes	97%
ind_15	The intervention provides psychoeducation on substance use, trauma and HIV	1	yes	94%
ind_18	Street work: mobile outreach program to find and establish contact with drug users and sex workers	1	yes	94%
ind_14	Culturally sensitive intervention program	1	yes	94%
ind_17	10-step brief intervention for substance users	2	yes	89%
ind_22	Counselling centers providing assessment, brief interventions, counselling and information for people at-risk	1	yes	88%
ind_12	Seven-session intervention for MSM couples	1	yes	88%
ind_21	FRED-ATS	1	yes	88%
ind_9	Positive affect intervention to reduce stimulant use and methamphetamine craving	1	yes	88%
ind_10	Behavioral activation therapy and risk reduction counseling intervention	1	yes	88%
ind_23	Mobile phone application that helps to monitor methamphetamine use and reflect on individual consumption	2	yes	86%
ind_8	Multi-component intervention targeting HIV-related traumatic stress	2	yes	84%
ind_7	Text messaging intervention to reduce methamphetamine use and high-risk sexual behaviors	0	no	77%
ind_13	Single-session motivational interviewing intervention to reduce methamphetamine use and sexual risk	0	no	69%
ind_16	Conditional cash transfer and microenterprise opportunity for amphetamine-type stimulants using female entertainment workers	0	no	64%
ind_19	A school based preventive brief intervention program focused on drug use	0	no	50%

Table 9: Ranked list of mixed interventions

Nr.	Short description/headline	Round in which consensus was reached	Positive consensus	Positive agreement rate
mix26	Online counselling	2	yes	94%
mix25	A program targeting adolescents who experiment with psychoactive substances	1	yes	91%
mix29	A fully automated web delivered intervention (“breaking the ice”)	2	yes	88%
mix28	Website with information about various psychoactive substances	2	yes	86%
mix27	Low-threshold online forum	1	yes	86%
mix30	Peer network intervention	1	yes	83%
mix31	HIV prevention program for substance-using (methamphetamine included) MSM	1	yes	82%

Table 10: Ranked list of harm reduction interventions

Nr.	Short description/headline	Round in which consensus was reached	Positive consensus	Positive agreement rate
hr_43	A harm reduction model implemented in Perinatal Addiction Treatment Clinics	1	yes	100%
hr_46	Brief Cognitive Behavioral Therapy for Regular Methamphetamine Users in Methadone Treatment	2	yes	100%
hr_47	Integration of a methamphetamine harm reduction intervention into opioid harm reduction services in drop-in centers	2	yes	97%
hr_36	Street work with methamphetamine users	1	yes	97%
hr_45	A brief intervention in outpatient treatment centers	2	yes	94%
hr_35	Needle and syringe exchange programs for injecting methamphetamine users	1	yes	91%
hr_42	Leaflets to provide information for MSM on safer chemsex practices	2	yes	89%
hr_33	Drop-in centers	1	yes	88%
hr_37	Safe space (and paraphernalia) for the consumption of methamphetamine	2	yes	86%
hr_38	A program distributing gelatin capsules	1	yes	83%
hr_39	Educational initiative that offers consultations on drug consumption	1	yes	83%
hr_34	Dispensing machines providing syringes anonymously	1	yes	82%
hr_44	Single-session 30 minutes ‘check-up’ intervention	2	yes	81%
hr_41	Drug checking at festivals	1	yes	81%
hr_40	Peer-to peer consultations at festivals	1	yes	81%
hr_32	A periodical booklet	0	no	66%

9. Conclusion

The method chosen for identification of evidenced based selective and indicated prevention as well as harm reduction measures and for achieving expert consensus on best practice measures proved to be reasonable and feasible. The systematic literature review as well as the mapping of national measures yielded a rich set of evidence based (via scientific studies or evaluation of measures already in place) prevention and harm reduction interventions. Even though the interventions included in the Delphi questionnaire have already been proven to be effective in study settings, not all were rated as suitable by the experts, who most often also possessed practical experience. Therefore, the additional experts' opinion allowed for further selecting and ranking effective measures and for setting up a ranked list which can be provided to members of the local multi stakeholder partnership (MSP) board. The list does not only contain of a short description of the measure but also includes information about suitable settings and the envisaged target group. This allows the MSP members in the five pilot cities to discuss different possible measures to be implemented and in the end serves as a basis for choosing measures which fit the local conditions and those target groups which have the highest need for prevention or harm reduction.

10. References

- Linstone, H. A., & Turoff, M. (Eds.). (1975). The delphi method (pp. 3-12). Reading, MA: Addison-Wesley.
- Sekayi, D., & Kennedy, A. (2017). Qualitative Delphi method: A four round process with a worked example. *The Qualitative Report*, 22(10), 2755-2763.
- Hasson, F., & Keeney, S. (2011). Enhancing rigour in the Delphi technique research. *Technological Forecasting and Social Change*, 78(9), 1695-1704.
- De Villiers, M. R., De Villiers, P. J., & Kent, A. P. (2005). The Delphi technique in health sciences education research. *Medical teacher*, 27(7), 639-643.
- Ivlev, I. & Kneppo, P. & Barták, M. (2015). Method for Selecting Expert Groups and Determining the Importance of Experts' Judgments for the Purpose of Managerial Decision-Making Tasks in Health System. *E a M: Ekonomie a Management*. 18. 57-72. 10.15240/tul/001/2015-2-005.

11. Annex

Table 1A: Short names and long descriptions of interventions included in Delphi process

Table 2A: Full results of first round of the Delphi process

Table 3A: Full results of second round of the Delphi process

Table 4A: Changes between the Delphi rounds one and two

Protocol for systematic literature review

Logbook for systematic literature review

References of literature included in the systematic review

Table 1A: Short names and long descriptions of interventions included in Delphi process

Intervention	Category	Short description/headline	Long description
sel_1	Selective prevention	Peer activists training	Peer activists training. 15-18 years old peer activists are selected and recruited by other peer activists during the primary prevention activities in schools or by school prevention professionals. The peer activists are educated about the substance use risks, prevention approaches and trained in communication skills and youth work. They take part in the official prevention activities and influence their peers in the everyday life by their attitude and lifestyle. In addition to that they help their peers to solve their issues.
sel_2	Selective prevention	Street work focused on providing information on drug use and treatment options	Street work focused on providing information on the drug use and drug addiction treatment options. Activities are aimed at informing people about the risks associated with drug use, treatment options, overdose prevention, withdrawal syndrome management and at promoting risk reduction strategies. The aim of the intervention is to provide reliable and practical information to young people who already used drugs experimentally or regularly.
sel_3	Selective prevention	Training program for methamphetamine using parents focused on strengthening parental competencies	Training program for methamphetamine using parents focused on strengthening parental competencies, reflecting on their addiction in the context of family and parenthood, promoting resiliency aspects in the family.
sel_4	Selective prevention	Training for addicted parents in OST	Training addicted parents in the Opioid substitution treatment (OST) programs. Intervention combining relapse prevention and parenting skills training with home-based case management services focused on the prevention of substance and methamphetamine use among the children of these parents.
sel_5	Selective prevention	A prevention program in schools based on a screening questionnaire (Substance Use Risk	At-risk pupils in school. A prevention program in schools based on a screening questionnaire (Substance Use Risk Profile Scale) used to identify at-risk pupils. The intervention is delivered to the identified pupils in small groups and uses techniques of cognitive-behavioral therapy, elements of motivational interviews and

		Profile Scale)	psychoeducation. Although it is focused on substance use in general, it is considered and applied within the context of methamphetamine use.
sel_6	Selective prevention	Prevention in children's homes	Prevention in children's homes. The program focusses on youths from children's homes and consists of regular meetings in groups outside of the children's homes. It uses methods of learning through experience, works with group dynamics and guided discussions. It aims to prevent the initiation of substance use (methamphetamine included) and to reduce alcohol and tobacco consumption.
ind_7	Indicated prevention	Text messaging intervention to reduce methamphetamine use and high-risk sexual behaviors	Two-week text messaging intervention to reduce methamphetamine use and high-risk sexual behaviors. Minimum of one and a maximum of three pre-written risk reduction messages per day. Those who respond to the pre-written risk-reduction messages are sent real-time text messages back from experts. Non-responders also receive pre-written text messages, but with decreasing frequency if they continuously do not respond.
ind_8	Indicated prevention	Multi-component intervention targeting HIV-related traumatic stress	Multi-component intervention targeting HIV-related traumatic stress that consists of 1) psychoeducation regarding the nature of exposure-based treatments; 2) expressive writing exercises about HIV/AIDS; 3) writing prompts that are designed to cultivate positive psychological states; and 4) in-session meditation and relaxation exercises to assist with managing any acute increases in distress or methamphetamine craving related to the writing experience.
ind_9	Indicated prevention	Positive affect intervention to reduce stimulant use and methamphetamine craving	Positive affect intervention to reduce the stimulant use and the methamphetamine craving. Positive affect intervention skills include: 1) positive event noting; 2) positive event capitalizing; 3) gratitude; 4) informal and formal mindfulness; 5) positive reappraisal; 6) personal strengths; 7) attainable goals, and 8) acts of kindness (altruism).
ind_10	Indicated prevention	Behavioral activation therapy and risk reduction counseling intervention	Behavioral activation therapy and risk reduction counseling intervention. Behavioral activation is a treatment for depression that involves learning to reengage in life's activities. The aim of this intervention is to reduce depressive symptoms and sexual risk behavior by reducing the use of methamphetamine and other drugs.
ind_11	Indicated prevention	Motivational interviewing focused on	4 sessions of motivational interviewing adapted from the Motivation Enhancement Therapy protocol focused on reducing club drug use (including methamphetamine)

		reducing club drug use	and HIV risk behaviors.
ind_12	Indicated prevention	Seven-session intervention for MSM couples	Seven-session intervention for MSM couples. The intervention is guided by the social cognitive theory and a relationship-oriented ecological perspective targeting the following risk mediators: knowledge and technical skills related to the transmission of HIV and other STIs, condom use, and drug use/risk reduction; outcome expectancies of sexual risk and methamphetamine use; and the social and self-regulatory skills.
ind_13	Indicated prevention	Single-session motivational interviewing intervention to reduce methamphetamine use and sexual risk	Single-session motivational interviewing intervention to reduce methamphetamine use and sexual risk. The intervention is designed to increase self-efficacy of the participants to decrease high risk behaviors.
ind_14	Indicated prevention	Culturally sensitive intervention program	Culturally sensitive intervention program consisting of 1) a nurse case management (incorporating protective strategies, improve coping, providing linkage with community resources), 2) peer-led sessions (strategies to reduce risk of hepatitis and HIV, dangers of drug use and unprotected sexual activities) and 3) contingency management to reduce stimulant use (methamphetamine, amphetamine, and cocaine) and to reduce the unprotected risky sexual behavior.
ind_15	Indicated prevention	The intervention provides psychoeducation on substance use, trauma and HIV	The intervention provides psychoeducation on substance use (methamphetamine included), trauma and HIV. This includes cognitive-behavioral strategies for identifying emotional triggers for substance use, emotional regulation, adaptive coping and problem-solving skills, managing cravings, conflict resolution and sexual safety skills training; self-care strategies for sustaining recovery and creating a meaningful life.
ind_16	Indicated prevention	Conditional cash transfer and microenterprise opportunity for amphetamine-type stimulants using female entertainment workers	Conditional cash transfer and microenterprise opportunity for amphetamine-type stimulants (ATS) using female entertainment workers. Brief counselling addressing decrease of sexual and ATS use risk behaviors. Moderate to extensive ATS users received 4 weeks of cognitive-behavioral aftercare. For 12 weeks, urine negative samples led to weekly cash transfer. After six months ATS abstinence a microenterprise opportunity is offered.

ind_17	Indicated prevention	10-step brief intervention for substance users	10-step brief intervention for the substance users (methamphetamine included). The clients are screened for substance use. Based on the risk scores (for each substance) clients receive personalized feedback including associated health problems related to their level of risk.
ind_18	Indicated prevention	Street work: mobile outreach program to find and establish contact with drug users and sex workers	Street work: mobile outreach program to find and establish contact with drug users (methamphetamine included) and sex workers directly on the streets. The aim is to provide social counselling with the intention to support and motivate to change behavior and improve their life situation. Counselling is particularly focused on coping skills to improve the quality of life.
ind_19	Indicated prevention	A school based preventive brief intervention program focused on drug use	A school based preventive brief intervention program focused on drug use (methamphetamine included) among the school children carried out by a Pedagogical Council and teachers. The preventive brief intervention consists of the following elements: 1) diagnosis, 2) advice, 3) motivating the students to change "problematic" behavior 4) provision of appropriate support in cooperation with parents.
ind_20	Indicated prevention	Brief intervention consisting of motivational interviewing and cognitive behavior therapy	Brief intervention consisting of motivational interviewing and cognitive behavior therapy (2 or 4 sessions) for regular amphetamine users (methamphetamine included). Key components in the sessions: 1) motivational interview, role-plays and take-home exercises. 2) cognitive-behavioral coping strategies and relapse prevention (coping self-talk, progressive muscle relaxation) 3) controlling thoughts about using amphetamine 4) coping with lapses and developing coping strategies for high-risk situations.
ind_21	Indicated prevention	FRED-ATS	FRED-ATS: The program provides early and short prevention interventions (knowledge gain, hints for consumption reduction, reflecting consumption, motivation to change consumption pattern) to first notified adolescents stimulant users (methamphetamine included) who show signs of problematic use and are referred to institutions that provide drug services by public and social institutions (e.g. police, judicial authorities, police, judicial authorities, family, school, youth welfare, apprenticing companies). This program also includes a component focused on the networking of these institutions.
ind_22	Indicated	Counselling centers	Counselling centers providing assessment, brief interventions, counselling and

	prevention	providing assessment, brief interventions, counselling and information for people at-risk	information for people at-risk of substance and methamphetamine use or in the early stages of substance and methamphetamine use.
ind_23	Indicated prevention	Mobile phone application that helps to monitor methamphetamine use and reflect on individual consumption	Mobile phone application that helps methamphetamine users to monitor their use and, in this way, reflect on their individual consumption pattern. The application provides information about the consequences of the individual consumption patterns and advice for safer use and risk management.
ind_24	Indicated prevention	SKOLL	SKOLL: Early intervention focused on risky users (methamphetamine included) or those who want to prevent relapse. It The intervention aims to develop competencies for self-control (self-management, risk awareness, taking responsibility for oneself), in order to achieve a responsible handling of substances. The program is based on motivational interviewing, empowerment and psychoeducational methods and comprises of ten training sessions of 90 minutes each in a weekly interval.
mix25	Mixed interventions	A program targeting adolescents who experiment with psychoactive substances	A program targeting adolescents who experiment with psychoactive substances (methamphetamine included) and demonstrate other symptoms of being at risk of social exclusion. The program is provided through psycho-corrective support groups, aimed at providing assistance in improving learning skills and satisfying psycho-emotional needs, Individual sessions, family counseling and club activities are also carried out.
mix26	Mixed interventions	Online counselling	Online counselling. An online platform providing brief interventions and counselling from experts to the users of different substances (methamphetamine included).
mix27	Mixed interventions	Low-threshold online forum	Low-threshold online forum for sharing experiences between methamphetamine users and exchange with professionals. The website also provides broad information about other help programs (national and regional) and a referral to the professional services, information about effects and risks and tips for safer use.
mix28	Mixed	Website with	Website with information about various psychoactive substances

	interventions	information about various psychoactive substances	(methamphetamine included). Website contains self-tests, animations, documentaries, news articles, a monthly newsletter, online counseling via chat or e-mail and referral to help programs/counseling centers.
mix29	Mixed interventions	A fully automated web delivered intervention (“breakingtheice”)	A fully automated web delivered intervention (“breakingtheice”) containing 3 modules for amphetamines users (methamphetamine included) to reduce substance use and enhance help-seeking motivation. The modules contain: motivational interviewing, cognitive behavioral therapy and the “decisional balance” approach.
mix30	Mixed interventions	Peer network intervention	Peer network intervention. Peer educators are trained in methamphetamine-related risk reduction and they provide this information to the members of their own social network in 7 sessions. Sessions with trained peer educator are focused on thinking critically about and reduce methamphetamine use as well as sexual risk behaviors. This included information on the effects of the methamphetamine use on individuals and community, social influences, and sexual risk behaviors.
mix31	Mixed interventions	HIV prevention program for substance-using (methamphetamine included) MSM	HIV prevention program for substance-using (methamphetamine included) MSM. Community-based, locally developed, low-intensity, health education/risk-reduction HIV prevention program to reduce substance use and sexual risk behavior. Participants attend an unlimited number of group sessions (The Art Exploration Group, the Skills-Building Group and Open Discussion group) and a maximum of three individual risk reduction sessions.
hr_32	Harm reduction Interventions	A periodical booklet	A periodical booklet providing information for the methamphetamine users disseminated in the low-threshold centers and online. The information provided is about substance use, harm reduction, mental and physical health, relationship issues, services for users and other information important for substance users.
hr_33	Harm reduction Interventions	Drop-in centers	Drop-in centers for the methamphetamine users providing clean needles and syringes and paraphernalia, place to drop-in and a camper (bus) for outreach work
hr_34	Harm reduction Interventions	Dispensing machines providing syringes anonymously	Dispensing machines for syringes available 24 hours a day and anonymously.
hr_35	Harm	Needle and syringe	Needle and syringe exchange programs for injecting methamphetamine users.

	reduction Interventions	exchange programs for injecting methamphetamine users	
hr_36	Harm reduction Interventions	Street work with methamphetamine users	Street work with the methamphetamine users. The staff is working with the clients in drop-in centers and on the streets. Street workers are trained in harm reduction activities. These include providing injection equipment, food and drinks for clients, offering individual consultation and assistance, information activities, pre-medical interventions, sex education, establishing and maintaining contact.
hr_37	Harm reduction Interventions	Safe space (and paraphernalia) for the consumption of methamphetamine	Safe space (and paraphernalia) for the consumption of methamphetamine
hr_38	Harm reduction Interventions	A program distributing gelatin capsules	A program distributing gelatin capsules for the perioral methamphetamine use to provide a safer alternative administration in comparison to injecting methamphetamine.
hr_39	Harm reduction Interventions	Educational initiative that offers consultations on drug consumption	Educational initiative that offers consultations on drug consumption (methamphetamine included), HIV and safe sex at the festivals and provides help in case of unpleasant drug effect experience (psychological, physical), drinking water and HIV rapid tests.
hr_40	Harm reduction Interventions	Peer-to peer consultations at festivals	Peer-to-peer consultations on the psychoactive substances (methamphetamine included) and psychological support to those who feel unwell after using drugs at festivals.
hr_41	Harm reduction Interventions	Drug checking at festivals	Drug checking at festivals.
hr_42	Harm reduction Interventions	Leaflets to provide information for MSM on safer chemsex practices	Leaflets to provide information for MSM on safer chemsex practices. Methamphetamine is usually part of chemsex practices.
hr_43	Harm reduction Interventions	A harm reduction model implemented in Perinatal Addiction Treatment	A harm reduction model implemented in Perinatal Addiction Treatment Clinics. The model encompasses perinatal care, transportation, child-care, social services, family planning, motivational incentives and addiction medicine. The aim is to

		Clinics	support women in improving nutrition, decreasing smoking, alcohol and drug use. Further aims are to encourage breastfeeding, promote dental health, increase physical activity, encourage early and continuing prenatal care and promote social and community support.
hr_44	Harm reduction Interventions	Single-session 30 minutes 'check-up' intervention	Single-session 30 minutes 'check-up' intervention focused on psychostimulant (mainly methamphetamine) use. One semi-structured interview conducted in a motivational interviewing style, guided by a schedule. The schedule contains: a brief assessment of drug and alcohol use in the past 3 months, desired and undesired effects of psychostimulant use, exploration of the impact of psychostimulant use in eight key domains: sleep, appetite, mood, enjoyment, social/occupational functioning, thinking, physical health and risk-taking. The purpose is to help clients understand the full range of consequences of their psychostimulant use and to discriminate their level of functioning when using psychostimulants and in times of no use.
hr_45	Harm reduction Interventions	A brief intervention in outpatient treatment centers	A brief intervention in outpatient treatment centers focused on providing information about methamphetamine use to the users. Low-threshold two-week program with two sessions is intended for clients who do not want to stop using and are not motivated for abstinence.
hr_46	Harm reduction Interventions	Brief Cognitive Behavioral Therapy for Regular Methamphetamine Users in Methadone Treatment	Brief Cognitive Behavioral Therapy for Regular Methamphetamine Users in Methadone Treatment (including motivational interviewing, controlling thoughts and behaviors, coping with craving, and refusal skills).
hr_47	Harm reduction Interventions	Integration of a methamphetamine harm reduction intervention into opioid harm reduction services in drop-in centers	Integration of a methamphetamine harm reduction intervention into opioid harm reduction services in drop-in centers. The intervention provides short manual-based psychoeducation sessions, followed by booster sessions during the contacts with the program on a weekly basis. The aim is to reduce harms associated with methamphetamine use as well as the reduction of sexual risk behavior.

Table 2A: Full results of first round of the Delphi process

Nr.	Positive consensus	Positive agreement rate	Negative agreement rate	Sum Score	Mean	Standard deviation	Median	Valid N
sel_1	0	78%	17%	33	0,9	1,0	1	36
sel_2	1	97%	0%	49	1,4	0,6	1	34
sel_3	1	86%	0%	41	1,1	0,6	1	36
sel_4	1	83%	6%	42	1,2	0,9	1	35
sel_5	0	59%	12%	21	0,6	0,9	1	34
sel_6	1	80%	6%	35	1,0	0,8	1	35
ind_7	0	50%	16%	17	0,5	1,0	1	32
ind_8	0	72%	17%	22	0,8	1,0	1	29
ind_9	1	88%	3%	35	1,1	0,7	1	33
ind_10	1	88%	0%	36	1,1	0,6	1	32
ind_11	0	74%	9%	26	0,8	0,8	1	34
ind_12	1	88%	4%	25	1,0	0,6	1	25
ind_13	0	53%	18%	16	0,5	0,9	1	34
ind_14	1	94%	0%	38	1,2	0,5	1	32
ind_15	1	94%	0%	44	1,2	0,5	1	36
ind_16	0	50%	11%	14	0,5	0,8	1	28
ind_17	0	71%	11%	26	0,7	0,9	1	35
ind_18	1	94%	3%	48	1,4	0,7	2	34
ind_19	0	51%	37%	6	0,2	1,2	1	35
ind_20	0	77%	11%	33	0,9	0,9	1	35
ind_21	1	88%	3%	36	1,1	0,7	1	33
ind_22	1	88%	0%	40	1,2	0,6	1	34
ind_23	0	66%	14%	24	0,7	1,0	1	35
ind_24	1	97%	0%	49	1,4	0,5	1	36
mix25	1	91%	6%	33	1,0	0,8	1	33
mix26	0	66%	3%	33	0,9	0,9	1	35
mix27	1	86%	6%	42	1,2	0,8	1	35
mix28	0	67%	8%	30	0,8	0,9	1	36
mix29	0	67%	6%	24	0,7	0,8	1	33
mix30	1	83%	6%	35	1,0	0,8	1	35
mix31	1	82%	3%	33	1,0	0,7	1	33
hr_32	0	60%	20%	19	0,5	1,0	1	35
hr_33	1	88%	3%	50	1,5	0,8	2	34
hr_34	1	82%	3%	41	1,2	0,8	1	34
hr_35	1	91%	3%	47	1,4	0,7	2	34
hr_36	1	97%	3%	56	1,6	0,7	2	35
hr_37	0	76%	15%	34	1,0	1,0	1	34
hr_38	1	83%	10%	33	1,1	0,9	1	30
hr_39	1	83%	6%	40	1,1	0,8	1	36
hr_40	1	81%	6%	45	1,3	0,9	2	36
hr_41	1	81%	6%	45	1,3	1,0	2	36
hr_42	0	71%	3%	28	0,8	0,7	1	34
hr_43	1	100%	0%	49	1,4	0,5	1	35
hr_44	0	56%	6%	22	0,7	0,9	1	32
hr_45	0	69%	3%	24	0,8	0,7	1	32
hr_46	0	73%	6%	29	0,9	0,8	1	33
hr_47	0	74%	6%	30	0,9	0,8	1	34

Table 3A: Full results of second round of the Delphi process

Nr.	Positive consensus	Positive agreement rate	Negative agreement rate	Sum Score	Mean	Standard deviation	Median	Valid N
sel_1	yes	86%	14%	32	0,9	1,0	1	36
sel_5	no	76%	24%	19	0,6	1,1	1	33
ind_7	no	77%	23%	16	0,6	1,1	1	26
ind_8	yes	84%	16%	26	0,8	0,9	1	32
ind_11	yes	97%	3%	39	1,1	0,5	1	36
ind_13	no	69%	31%	19	0,5	1,1	1	36
ind_16	no	64%	36%	12	0,4	1,1	1	28
ind_17	yes	89%	11%	32	0,9	0,7	1	36
ind_19	no	50%	50%	0	0,0	1,2	0	36
ind_20	yes	97%	3%	39	1,1	0,5	1	35
ind_23	yes	86%	14%	33	0,9	0,9	1	35
mix26	yes	94%	6%	46	1,3	0,7	1	36
mix28	yes	86%	14%	38	1,1	1,0	1	36
mix29	yes	88%	12%	28	0,8	0,8	1	33
hr_32	no	66%	34%	14	0,4	1,3	1	35
hr_37	yes	88%	12%	42	1,2	1,1	2	34
hr_42	yes	89%	11%	31	0,9	0,8	1	35
hr_44	yes	81%	19%	24	0,8	0,9	1	32
hr_45	yes	94%	6%	36	1,0	0,6	1	36
hr_46	yes	100%	0%	44	1,2	0,4	1	36
hr_47	yes	97%	3%	48	1,3	0,6	1	36

Table 4A: Changes between the Delphi rounds one and two (zero refers to no change, minus to lower agreement, plus to higher agreement – coding from 1 (strongly disagree) to 5 (strongly agree), calculated is second round minus first round, in the second round no middle category “3” was offered for responses)

Nr.	-4		-3		-2		-1		0		1		2		3		4		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
sel_1	0	0%	0	0%	1	3%	6	17%	24	67%	3	8%	2	6%	0	0%	0	0%	36
sel_5	0	0%	0	0%	0	0%	8	26%	16	52%	5	16%	1	3%	1	3%	0	0%	31
ind_7	0	0%	0	0%	1	4%	6	24%	8	32%	10	40%	0	0%	0	0%	0	0%	25
ind_8	0	0%	0	0%	3	11%	4	15%	12	44%	4	15%	4	15%	0	0%	0	0%	27
ind_11	0	0%	0	0%	1	3%	2	6%	19	56%	9	27%	3	9%	0	0%	0	0%	34
ind_13	0	0%	0	0%	3	9%	4	12%	16	47%	9	27%	2	6%	0	0%	0	0%	34
ind_16	0	0%	0	0%	3	13%	4	17%	9	39%	6	26%	1	4%	0	0%	0	0%	23
ind_17	0	0%	0	0%	2	6%	5	14%	16	46%	8	23%	4	11%	0	0%	0	0%	35
ind_19	0	0%	0	0%	3	9%	7	20%	21	60%	1	3%	2	6%	0	0%	1	3%	35
ind_20	0	0%	0	0%	1	3%	7	21%	16	47%	6	18%	3	9%	1	3%	0	0%	34
ind_23	0	0%	1	3%	0	0%	3	9%	18	53%	9	27%	2	6%	1	3%	0	0%	34
mix_26	0	0%	0	0%	1	3%	3	9%	16	46%	13	37%	2	6%	0	0%	0	0%	35
mix_28	0	0%	1	3%	1	3%	5	14%	13	36%	14	39%	2	6%	0	0%	0	0%	36
mix_29	0	0%	0	0%	2	7%	2	7%	18	58%	8	26%	1	3%	0	0%	0	0%	31
hr_32	0	0%	1	3%	3	9%	6	18%	17	50%	6	18%	1	3%	0	0%	0	0%	34
hr_37	1	3%	1	3%	1	3%	0	0%	16	49%	10	30%	4	12%	0	0%	0	0%	33
hr_42	0	0%	1	3%	1	3%	4	12%	16	49%	11	33%	0	0%	0	0%	0	0%	33
hr_44	0	0%	1	4%	1	4%	4	14%	13	46%	9	32%	0	0%	0	0%	0	0%	28
hr_45	0	0%	0	0%	1	3%	1	3%	19	59%	11	34%	0	0%	0	0%	0	0%	32
hr_46	0	0%	0	0%	0	0%	3	9%	18	55%	10	30%	1	3%	1	3%	0	0%	33
hr_47	0	0%	0	0%	0	0%	3	9%	16	47%	12	35%	3	9%	0	0%	0	0%	34

Protocol for the systematic literature review

1. Review title

A systematic review on the effectiveness of selective and indicated interventions for prevention and harm reduction of methamphetamine use.

2. Review question

This review seeks to identify, through the available literature, what is best practice for prevention and harm reduction of methamphetamine use. The specific review question to be addressed is:

What selective or indicated prevention interventions and what harm reduction measures addressing methamphetamine use are considered as effective?

PICO Scheme

Participants	Intervention	Comparison	Outcomes
Methamphetamine users	selective or indicated prevention programs and harm reduction measures	received no or different prevention intervention	effectiveness of prevention or harm reduction measure

3. Inclusion criteria

Types of participants

This review will consider all peer-reviewed studies that involve human subjects of any age who use methamphetamine and took part in a selective or indicated prevention measure or utilized harm reduction measures (resp. people who were part of a control group if envisaged in study design).

Types of interventions

Interventions of interest include those related to the efficacy of prevention interventions who aim to prevent methamphetamine use of members of risk groups (selective prevention) and interventions which address methamphetamine users who already show risky consumption patterns (indicative prevention and harm reduction). Interventions which are designed for selective/indicated prevention and harm reduction of stimulant use in general which thus also address methamphetamine use, can be included too.

Types of outcome measure

The outcome of interest is prevention of methamphetamine use of members of risk groups, reduction/cessation or harm reduction of methamphetamine use of users with risky consumption patterns.

Types of studies

This review will consider all peer-reviewed studies evaluating the efficacy of interventions/strategies relating to selective and indicated methamphetamine prevention and harm reduction. In the absence of this type of study, those that evaluate interventions and programs that address stimulant use in general will also be considered. Only quantitative studies of following designs will be included: (cluster) randomized control trials (RCT), quasi-experimental (interrupted time series, cross-sectional, pre-post, stepped design), longitudinal studies, implementation studies; reviews and meta-analyses.

Further characteristics/restrictions

Language: English

Location: worldwide

Publication date: from 2000 onwards

No restrictions regarding age, setting, target group.

4. Exclusion criteria

Not eligible for inclusion are papers that discuss opinions, policies or preferences without any original data, conference abstracts, grey literature (doctoral theses, reports), books, papers that have not been published.

Further we will exclude studies that assess universal prevention measures as well as general programs that address licit drugs only.

5. Search strategy

The search terms will be:

1. Methamphetamine [tiab] OR Crystal Meth [tiab] OR Meth [tiab] OR Yaba [tiab] OR amphetamine* [tiab]
2. prevention [tiab] OR indicated prevention [tiab] OR selective prevention [tiab] OR harm reduction [tiab] OR risk reduction [tiab] OR health promotion [tiab] OR deter [tiab]
3. evaluation [tiab] OR evidence-based [tiab] OR best practice [tiab] OR good practice [tiab] OR effective* [tiab] OR assess* [tiab]
4. intervention [tiab] OR randomized controlled trial [tiab] OR RCT [tiab] OR cluster randomized controlled trials [tiab] OR CRCT [tiab] OR quasi-experimental [tiab] OR interrupted time series [tiab] OR cross-sectional [tiab] OR pre-post [tiab] OR stepped design [tiab] OR implementation study [tiab] OR implementation strateg* [tiab] OR longitudinal study [tiab] OR review [tiab] OR meta-analysis [tiab]
5. #3 OR #4

Limit to

- a. language: English;
- b. publication date: 2000 to 2020
- c. exclusion of animal studies
6. (((english[Language]) AND ("2000/01/01"[Date - Publication] : "2020/12/31"[Date - Publication]))) NOT (rats)) NOT (animal*)

7. #1 AND #2 AND #5 AND #6

Following databases will be searched:

- Medline (PubMed) (Ovid)
- PsycInfo (Ovid)
- PSYINDEX (Ovid)
- Cochrane Drugs and Alcohol Group's Trials Register
- Web of Science Core Collection
- CINAHL (EBSCO)
- SocIndex (EBSCO)

Full copies of articles identified by the search, and considered to meet the inclusion criteria, based on their title and abstract, will be obtained for data synthesis.

6. Data collection and extraction

Results of search in different databases will be documented in a logbook. All results from the 7 databases will be transferred to a reference manager. Duplications will be removed and eligibility criteria will be checked using the title and abstract. Promising publications will be checked more in-depth using the full text. Relevant data will be extracted using a data extraction tool specifically developed for this purpose.

7. Risk of bias (quality) assessment.

Adaptions of the "Risk of Bias tools" (PICO, SPIDER,..) will be used to assess the quality of study results and to inform the ranking of interventions.

8. Data synthesis

Extracted data will be summarized and structured in tables; a systematic review will be created.

9. Keywords.

systematic review, selective prevention, indicative prevention, harm reduction, methamphetamine, evaluation, good practice

Logbook: A systematic review on the effectiveness of selective and indicated interventions for prevention and harm reduction of methamphetamine use.

1. Research question

What selective or indicated prevention interventions and what harm reduction measures addressing methamphetamine use are considered as effective?

2. Search aspects

Search aspect 1	Search aspect 2	Search aspect 3	Search aspect 4	Filter
Methamphetamine	Prevention	Evaluation	Intervention	English no animal studies publication date: 2000-2020

3. Databases

PubMed
PsycInfo
PSYINDEX
CINAHL
SocIndex
Web of Science Core Collection
Cochrane Library

4. Search strategy (for PubMed; will be applied for queries in other databases)

Aspect #1	Methamphetamine	Methamphetamine [tiab] OR Crystal Meth [tiab] OR Yaba [tiab] OR amphetamine* [tiab]
Aspect #2	Prevention	prevention [tiab] OR indicated prevention [tiab] OR selective prevention [tiab] OR harm reduction [tiab] OR risk reduction [tiab] OR health promotion [tiab] OR deter [tiab]
Aspect #3	Evaluation	evaluation [tiab] OR evidence-based [tiab] OR best practice [tiab] OR good practice [tiab] OR effective* [tiab] OR assess* [tiab]
Aspect #4	Intervention	intervention [tiab] OR randomized controlled trial [tiab] OR RCT [tiab] OR cluster randomized controlled trials [tiab] OR CRCT [tiab] OR quasi-experimental [tiab] OR interrupted time series [tiab] OR cross-sectional [tiab] OR pre-post [tiab] OR stepped design [tiab] OR implementation study [tiab] OR implementation strateg* [tiab] OR longitudinal study [tiab] OR review [tiab] OR meta-analysis [tiab]
Aspect #5		#3 OR #4
Aspect #6 (Filter)	Language: English	((english[Language]) AND ("2000/01/01"[Date - Publication] : "2020/12/31"[Date - Publication]))) NOT (rats) NOT (animal*)

	no animal studies publication date: 2000-2020	
--	-----------------------------------------------------	--

Combining aspects

1 AND #2 AND #5 AND #6

5. Search history

Search	PubMed Query 26-02-2021	Items found
#7	#1 AND #2 AND #5 AND #6	553
#6	((english[Language]) AND ("2000/01/01"[Date - Publication] : "2020/12/31"[Date - Publication]))) NOT (rats)) NOT (animal*)	13621764
#5	#3 OR #4	7479278
#4	intervention [tiab] OR randomized controlled trial [tiab] OR RCT [tiab] OR cluster randomized controlled trials [tiab] OR CRCT [tiab] OR quasi-experimental [tiab] OR interrupted time series [tiab] OR cross-sectional [tiab] OR pre-post [tiab] OR stepped design [tiab] OR implementation study [tiab] OR implementation strateg* [tiab] OR longitudinal study [tiab] OR review [tiab] OR meta-analysis [tiab]	2814662
#3	evaluation [tiab] OR evidence-based [tiab] OR best practice [tiab] OR good practice [tiab] OR effective* [tiab] OR assess* [tiab]	5698909
#2	prevention [tiab] OR indicated prevention [tiab] OR selective prevention [tiab] OR harm reduction [tiab] OR risk reduction [tiab] OR health promotion [tiab] OR deter [tiab]	644863
#1	Methamphetamine [tiab] OR Crystal Meth [tiab] OR Meth [tiab] OR Yaba [tiab] OR amphetamine* [tiab]	41718

Search	PsycInfo Query 01-03-2021	Items found
#7	limit 6 to (human and English language and yr="2000 - 2020")	398
#6	1 and 2 and 5	493
#5	3 or 4	1703358
#4	(intervention or randomized controlled trial or RCT or cluster randomized controlled trials or CRCT or quasi-experimental or interrupted time series or cross-sectional or pre-post or stepped design or implementation study or implementation strateg* or longitudinal study or review or meta-analysis).ab,ti.	730758
#3	(evaluation or evidence-based or best practice or good practice or effective* or assess*).ab,ti.	1260240
#2	(prevention or indicated prevention or selective prevention or harm reduction or risk reduction or health promotion or deter).ab,ti.	138684
#1	(Methamphetamine or Crystal Meth or Meth or Yaba or amphetamine*).ab,ti.	17628

Search	PSYNDEX Query 02-03-2021	Items found
#7	limit 6 to (human and English language and yr="2000 - 2020")	4

#6	1 and 2 and 5	10
#5	3 or 4	76941
#4	(intervention or randomized controlled trial or RCT or cluster randomized controlled trials or CRCT or quasi-experimental or interrupted time series or cross-sectional or pre-post or stepped design or implementation study or implementation strateg* or longitudinal study or review or meta-analysis).ab,ti.	26350
#3	(evaluation or evidence-based or best practice or good practice or effective* or assess*).ab,ti.	60230
#2	(prevention or indicated prevention or selective prevention or harm reduction or risk reduction or health promotion or deter).ab,ti.	8320
#1	(Methamphetamine or Crystal Meth or Meth or Yaba or amphetamine*).ab,ti.	271

Search	CINAHL Query 03-03-2021	Items found
S6	1 and 2 and 5	266
S5	3 or 4	1,011,482
S4	TI (intervention or randomized controlled trial or RCT or cluster randomized controlled trials or CRCT or quasi-experimental or interrupted time series or cross-sectional or pre-post or stepped design or implementation study or implementation strateg* or longitudinal study or review or meta-analysis) OR AB (intervention or randomized controlled trial or RCT or cluster randomized controlled trials or CRCT or quasi-experimental or interrupted time series or cross-sectional or pre-post or stepped design or implementation study or implementation strateg* or longitudinal study or review or meta-analysis)	549,189
S3	TI (evaluation or evidence-based or best practice or good practice or effective* or assess*) OR AB (evaluation or evidence-based or best practice or good practice or effective* or assess*)	746,113
S2	TI (prevention or indicated prevention or selective prevention or harm reduction or risk reduction or health promotion or deter) OR AB (prevention or indicated prevention or selective prevention or harm reduction or risk reduction or health promotion or deter)	95,192
S1	TI (Methamphetamine or Crystal Meth or Meth or Yaba or amphetamine*) OR AB (Methamphetamine or Crystal Meth or Meth or Yaba or amphetamine*)	2,445
General Filter	Language English/peer reviewed/ no animal studies/ publication date: 2000-2020	
Permanent link	https://tinyurl.com/6kdwfuwm	

Search	SocINDEX Query 03-03-2021	Items found
#7	S6 NOT (animal* OR rats)	86

#6	1 and 2 and 5	86
#5	3 or 4	292,484
#4	TI (intervention or randomized controlled trial or RCT or cluster randomized controlled trials or CRCT or quasi-experimental or interrupted time series or cross-sectional or pre-post or stepped design or implementation study or implementation strateg* or longitudinal study or review or meta-analysis) OR AB (intervention or randomized controlled trial or RCT or cluster randomized controlled trials or CRCT or quasi-experimental or interrupted time series or cross-sectional or pre-post or stepped design or implementation study or implementation strateg* or longitudinal study or review or meta-analysis)	206,400
#3	TI (evaluation or evidence-based or best practice or good practice or effective* or assess*) OR AB (evaluation or evidence-based or best practice or good practice or effective* or assess*)	121,469
#2	TI (prevention or indicated prevention or selective prevention or harm reduction or risk reduction or health promotion or deter) OR AB (prevention or indicated prevention or selective prevention or harm reduction or risk reduction or health promotion or deter)	21,965
#1	TI (Methamphetamine or Crystal Meth or Meth or Yaba or amphetamine*) OR AB (Methamphetamine or Crystal Meth or Meth or Yaba or amphetamine*)	1007
General Filter	Language: English/ peer reviewed/ publication date: 2000-2020	
Permanent link	https://tinyurl.com/4c7nnzmc	

Search	Web of Science Core Collection Query 09-03-2021	Items found
#8	#6 NOT #7	1,161
#7	animal* OR rats	1,738,792
#6	#1 and #2 and #5	1,280
#5	#3 or #4	11,296,391
#4	intervention or randomized controlled trial or RCT or cluster randomized controlled trials or CRCT or quasi-experimental or interrupted time series or cross-sectional or pre-post or stepped design or implementation study or implementation strateg* or longitudinal study or review or meta-analysis	4,634,451
#3	evaluation or evidence-based or best practice or good practice or effective* or assess*	8,365,818
#2	prevention or indicated prevention or selective prevention or harm reduction or risk reduction or health promotion or deter	884,907
#1	Methamphetamine or Crystal Meth or Meth or Yaba or amphetamine*	34,719

General Filter	Language: English / publication date: 2000-2020 / no Books / no chemical indexes	
----------------	----------------------------------------------------------------------------------	--

Search	Cochrane Library Query 09-03-2021	Items found
#9	#7 NOT #8	69
#8	#1 AND (animal* OR rats)	165
#7	#1 AND #2 AND #3 AND #6	95
#6	#1 AND (#4 OR #5)	7770
#5	#1 AND (intervention or randomized controlled trial or RCT or cluster randomized controlled trials or CRCT or quasi-experimental or interrupted time series or cross-sectional or pre-post or stepped design or implementation study or implementation strateg* or longitudinal study or review or meta-analysis)	7770
#4	#1 AND (evaluation or evidence-based or best practice or good practice or effective* or assess*)	3710
#3	#1 AND (prevention or indicated prevention or selective prevention or harm reduction or risk reduction or health promotion or deter)	1819
#2	#1 AND (Methamphetamine or Crystal Meth or Meth or Yaba or amphetamine*)	446
General Filter: #1	publication date: 2000-2020 / Drugs and Alcohol Group / title and abstract	

6. Hits for all databases

Databases	Number of Hits	Search date
PubMed	553	26-02-2021
PsycInfo	398	01-03-2021
PSYINDEX	4	02-03-2021
CINAHL	266	03-03-2021
SocIndex	86	03-03-2021
Web of Science Core Collection	1161	09-03-2021
Cochrane Library	69	09-03-2021
Total	2537	

References of literature included in the systematic review

- Alammehrjerdi, Z., N. E. Briggs, A. Biglarian, A. Mokri and K. Dolan (2019). "A Randomized Controlled Trial of Brief Cognitive Behavioral Therapy for Regular Methamphetamine Use in Methadone Treatment." *Journal of Psychoactive Drugs* 51(3): 280-289.
- Baker, A., N. K. Lee, M. Claire, T. J. Lewin, T. Grant, S. Pohlman, J. B. Saunders, F. Kay-Lambkin, P. Constable, L. Jenner and et al. (2005). "Brief cognitive behavioural interventions for regular amphetamine users: a step in the right direction." *Addiction (Abingdon, England)* 100(3): 367-378.
- Burgess, K., G. Parkhill, J. Wiggins, S. Ruth, M. Stoovè and M. Stoovè (2018). "Re-Wired: treatment and peer support for men who have sex with men who use methamphetamine." *Sexual Health* (14485028) 15(2): 157-159.
- Carrico, A. W., A. Flentje, V. A. Gruber, W. J. Woods, M. V. Discepola, S. E. Dilworth, T. B. Neilands, J. Jain and M. D. Siever (2014). "Community-Based Harm Reduction Substance Abuse Treatment with Methamphetamine-Using Men Who Have Sex with Men." *Journal of Urban Health-Bulletin of the New York Academy of Medicine* 91(3): 555-567.
- Carrico, A. W., W. Gomez, J. Jain, S. Shoptaw, M. V. Discepola, D. Olem, J. Lagana-Jackson, R. Andrews, T. B. Neilands, S. E. Dilworth, J. L. Evans, W. J. Woods and J. T. Moskowitz (2018). "Randomized controlled trial of a positive affect intervention for methamphetamine users." *Drug and Alcohol Dependence* 192: 8-15.
- Carrico, A. W., A. Nation, W. Gómez, J. Sundberg, S. E. Dilworth, M. O. Johnson, J. T. Moskowitz and C. D. Rose (2015). "Pilot trial of an expressive writing intervention with HIV-positive methamphetamine-using men who have sex with men." *Psychol Addict Behav* 29(2): 277-282.
- Carrico, A. W., T. B. Neilands, S. E. Dilworth, J. L. Evans, W. Gómez, J. P. Jain, M. Gandhi, S. Shoptaw, K. J. Horvath, L. Coffin, M. V. Discepola, R. Andrews, W. J. Woods, D. J. Feaster and J. T. Moskowitz (2019). "Randomized controlled trial of a positive affect intervention to reduce HIV viral load among sexual minority men who use methamphetamine." *J Int AIDS Soc* 22(12): e25436.
- Colfax, G., G. M. Santos, P. Chu, E. Vittinghoff, A. Pluddemann, S. Kumar and C. Hart (2010). "HIV in people who use drugs 5 Amphetamine-group substances and HIV." *Lancet* 376(9739): 458-474.
- Colyer, S. P., D. M. Moore, Z. S. Cui, J. Zhu, H. L. Armstrong, M. Taylor, J. Edward, T. Howard, C. Dickie, G. Olarewaju, J. S. G. Montaner, R. S. Hogg, E. A. Roth and N. J. Lachowsky (2020). "Crystal Methamphetamine Use and Initiation among Gay, Bisexual, and Other Men Who Have Sex with Men Living with HIV in a Treatment as Prevention Environment." *Substance Use & Misuse* 55(14): 2428-2437.

- Galai, N., B. Sirojorn, A. Aramrattana, K. Srichan, N. Thomson, A. Golozar, J. M. Flores, N. Willard, J. M. Ellen, S. G. Sherman and D. D. Celentano (2018). "A cluster randomized trial of community mobilization to reduce methamphetamine use and HIV risk among youth in Thailand: Design, implementation and results." *Social Science & Medicine* 211: 216-223.
- Haggerty, K. P., M. Skinner, C. B. Fleming, R. R. Gainey and R. F. Catalano (2008). "Long-term effects of the Focus on Families project on substance use disorders among children of parents in methadone treatment." *Addiction (Abingdon, England)* 103(12): 2008-2016.
- Humeniuk, R., D. A. L. Newcombe, V. Dennington and R. Ali (2018). "A randomised controlled trial of a brief intervention for illicit drug use linked to ASSIST screening in a primary healthcare setting: results from the Australian component of the World Health Organization Phase III ASSIST studies." *Australian Journal of Primary Health* 24(2): 149-154.
- Mimiaga, M. J., S. L. Reisner, D. W. Pantalone, C. O'Cleirigh, K. H. Mayer and S. A. Safren (2012). "A Pilot Trial of Integrated Behavioral Activation and Sexual Risk Reduction Counseling for HIV-Uninfected Men Who Have Sex with Men Abusing Crystal Methamphetamine." *AIDS Patient Care & STDs* 26(11): 681-693.
- Morgenstern, J., D. A. Bux, J. Parsons, B. T. Hagman, M. Wainberg and T. Irwin (2009). "Randomized Trial to Reduce Club Drug Use and HIV Risk Behaviors Among Men Who Have Sex With Men." *Journal of Consulting and Clinical Psychology* 77(4): 645-656.
- Myers, B., T. Carney, F. A. Browne and W. M. Wechsberg (2019). "A trauma-informed substance use and sexual risk reduction intervention for young South African women: a mixed-methods feasibility study." *BMJ Open* 9(2): e024776.
- Nyamathi, A., C. J. Reback, S. Shoptaw, B. E. Salem, S. Zhang and K. Yadav (2017). "Impact of Tailored Interventions to Reduce Drug Use and Sexual Risk Behaviors Among Homeless Gay and Bisexual Men." *American Journal of Mens Health* 11(2): 208-220.
- Page, K., A. W. Carrico, E. Stein, J. Evans, M. Sokunny, P. Maly, C. Sophal, Y. Neak, S. Ngak, C. McCulloch and et al. (2019). "Cluster randomized stepped-wedge trial of a multi-level HIV prevention intervention to decrease amphetamine-type stimulants and sexual risk in Cambodian female entertainment and sex workers." *Drug and alcohol dependence* 196: 21-30.
- Parsons, J. T., C. Lelutiu-Weinberger, M. Botsko and S. A. Golub (2014). "A randomized controlled trial utilizing motivational interviewing to reduce HIV risk and drug use in young gay and bisexual men." *Journal of consulting and clinical psychology* 82(1): 9-18.

- Pitpitan, E. V., S. J. Semple, J. Zians, S. A. Strathdee and T. L. Patterson (2018). "Mood, Meth, Condom Use, and Gender: Latent Growth Curve Modeling Results from a Randomized Trial." *Aids and Behavior* 22(9): 2815-2829.
- Radfar, S. R., S. Mohsenifar and A. Noroozi (2017). "Integration of Methamphetamine Harm Reduction into Opioid Harm Reduction Services in Iran: Preliminary Results of a Pilot Study." *Iranian Journal of Psychiatry and Behavioral Sciences* 11(2).
- Reback, C. J. and J. B. Fletcher (2017). "Outcomes from a homegrown HIV prevention program for extremely high-risk, substance-using men who have sex with men with multiple health disparities." *Journal of Gay & Lesbian Social Services* 29(2): 167-181.
- Reback, C. J., J. B. Fletcher and A. A. Leibowitz (2019). "Cost effectiveness of text messages to reduce methamphetamine use and HIV sexual risk behaviors among men who have sex with men." *Journal of Substance Abuse Treatment* 100: 59-63.
- Reback, C. J., J. B. Fletcher, S. Shoptaw and G. Mansergh (2015). "Exposure to Theory-Driven Text Messages is Associated with HIV Risk Reduction Among Methamphetamine-Using Men Who have Sex with Men." *Aids and Behavior* 19: S130-S141.
- Reback, C. J., J. B. Fletcher, D. A. Swendeman and M. Metzner (2019). "Theory-Based Text-Messaging to Reduce Methamphetamine Use and HIV Sexual Risk Behaviors Among Men Who Have Sex with Men: Automated Unidirectional Delivery Outperforms Bidirectional Peer Interactive Delivery." *Aids and Behavior* 23(1): 37-47.
- Reback, C. J., D. L. Grant, J. B. Fletcher, C. M. Branson, S. Shoptaw, J. R. Bowers, M. Charania and G. Mansergh (2012). "Text Messaging Reduces HIV Risk Behaviors Among Methamphetamine-Using Men Who Have Sex with Men." *Aids and Behavior* 16(7): 1993-2002.
- Semple, S. J., S. A. Strathdee, J. Zians, J. R. McQuaid and T. L. Patterson (2011). "Drug assertiveness and sexual risk-taking behavior in a sample of HIV-positive, methamphetamine-using men who have sex with men." *Journal of Substance Abuse Treatment* 41(3): 265-272.
- Sherman, S. G., C. Sutcliffe, B. Srirojn, C. A. Latkin, A. Aramratanna and D. D. Celentano (2009). "Evaluation of a peer network intervention trial among young methamphetamine users in Chiang Mai, Thailand." *Social Science & Medicine* 68(1): 69-79.
- Smout, M. F., M. Longo, S. Harrison, R. Minniti, S. Cahill, W. Wickes and J. M. White (2010). "The Psychostimulant Check-Up: A pilot study of a brief intervention to reduce illicit stimulant use." *Drug and Alcohol Review* 29(2): 169-176.

- Tait, R. J., R. McKetin, F. Kay-Lambkin, B. Carron-Arthur, A. Bennett, K. Bennett, H. Christensen and K. M. Griffiths (2015). "Six-month outcomes of a Web-based intervention for users of amphetamine-type stimulants: randomized controlled trial." *Journal of medical Internet research* 17(4): e105.
- Takano, A., Y. Miyamoto, T. Shinozaki, T. Matsumoto and N. Kawakami (2020). "Effect of a web-based relapse prevention program on abstinence among Japanese drug users: A pilot randomized controlled trial." *Journal of Substance Abuse Treatment* 111: 37-46.
- Valente, H., D. Martins, H. Carvalho, C. V. Pires, M. C. Carvalho, M. Pinto and M. J. Barratt (2019). "Evaluation of a drug checking service at a large scale electronic music festival in Portugal." *International Journal of Drug Policy* 73: 88-95.
- Ward, C. L., J. R. Mertens, G. F. Bresick, F. Little and C. M. Weisner (2015). "Screening and brief intervention for substance misuse: does it reduce aggression and HIV-related risk behaviours?" *Alcohol and alcoholism (Oxford, Oxfordshire)* 50(3): 302-309.
- Wells, E. A., D. M. Donovan, D. C. Daley, S. R. Doyle, G. Brigham, S. B. Garrett, M. H. Ingalsbe, M. A. Hatch-Maillette, H. I. Perl and R. Walker (2014). "Is level of exposure to a 12-step facilitation therapy associated with treatment outcome?" *Journal of Substance Abuse Treatment* 47(4): 265-274.
- Wright, T. E., R. Schuetter, E. Fombonne, J. Stephenson and W. F. Haning, III (2012). "Implementation and evaluation of a harm-reduction model for clinical care of substance using pregnant women." *Harm Reduction Journal* 9.
- Wu, E., N. El-Bassel, L. D. McVinney, L. Hess, R. H. Remien, M. Charania and G. Mansergh (2011). "Feasibility and Promise of a Couple-Based HIV/STI Preventive Intervention for Methamphetamine-Using, Black Men Who have Sex with Men." *Aids and Behavior* 15(8): 1745-1754.
- Zhang, S. X., S. Shoptaw, C. J. Reback, K. Yadav and A. M. Nyamathi (2018). "Cost-effective way to reduce stimulant-abuse among gay/bisexual men and transgender women: a randomized clinical trial with a cost comparison." *Public health* 154: 151-160.
- Zule, W. A., W. E. Poulton, C. M. Coomes, G. Mansergh, M. Charania, W. M. Wechsberg and H. E. Jones (2012). "Results of a Pilot Study to Reduce Methamphetamine Use and Sexual Risk Behaviors Among Methamphetamine-Using Men Who Have Sex with Men (MSM) Not Currently in Treatment." *Journal of Psychoactive Drugs* 44(5): 351-358.