

Title	The Drug Use in Higher Education in Ireland (DUHEI) Survey 2021: Main Findings
Authors	Byrne, Michael;Dick, Samantha;Ryan, Lisa;Dockray, Samantha;Davoren, Martin;Heavin, Ciara;Ivers, Jo-Hanna;Linehan, Conor;Vasiliou, Vasilis
Publication date	2022-01
Original Citation	Byrne, M., Dick, S., Ryan, L., Dockray, S., Davoren, M, Heavin, C., Ivers, JH., Linehan, C. and Vasiliou, V. (2022) The Drug Use in Higher Education in Ireland (DUHEI) Survey 2021: Main Findings, Cork: University College Cork.
Type of publication	Report
Link to publisher's version	http://www.duhei.ie/
Download date	2025-07-05 06:38:47
Item downloaded from	https://hdl.handle.net/10468/12454



UCC

University College Cork, Ireland
Coláiste na hOllscoile Corcaigh



DUHEI

2021

DUHEI SURVEY

The Drug Use in Higher
Education in Ireland (DUHEI)
Survey 2021: Main Findings

Michael Byrne¹ Samantha Dick¹ Lisa Ryan¹ Samantha Dockray¹
Martin Davoren¹ Ciara Heavin¹ Jo-Hanna Ivers² Conor Linehan¹ Vasilis Vasiliou¹

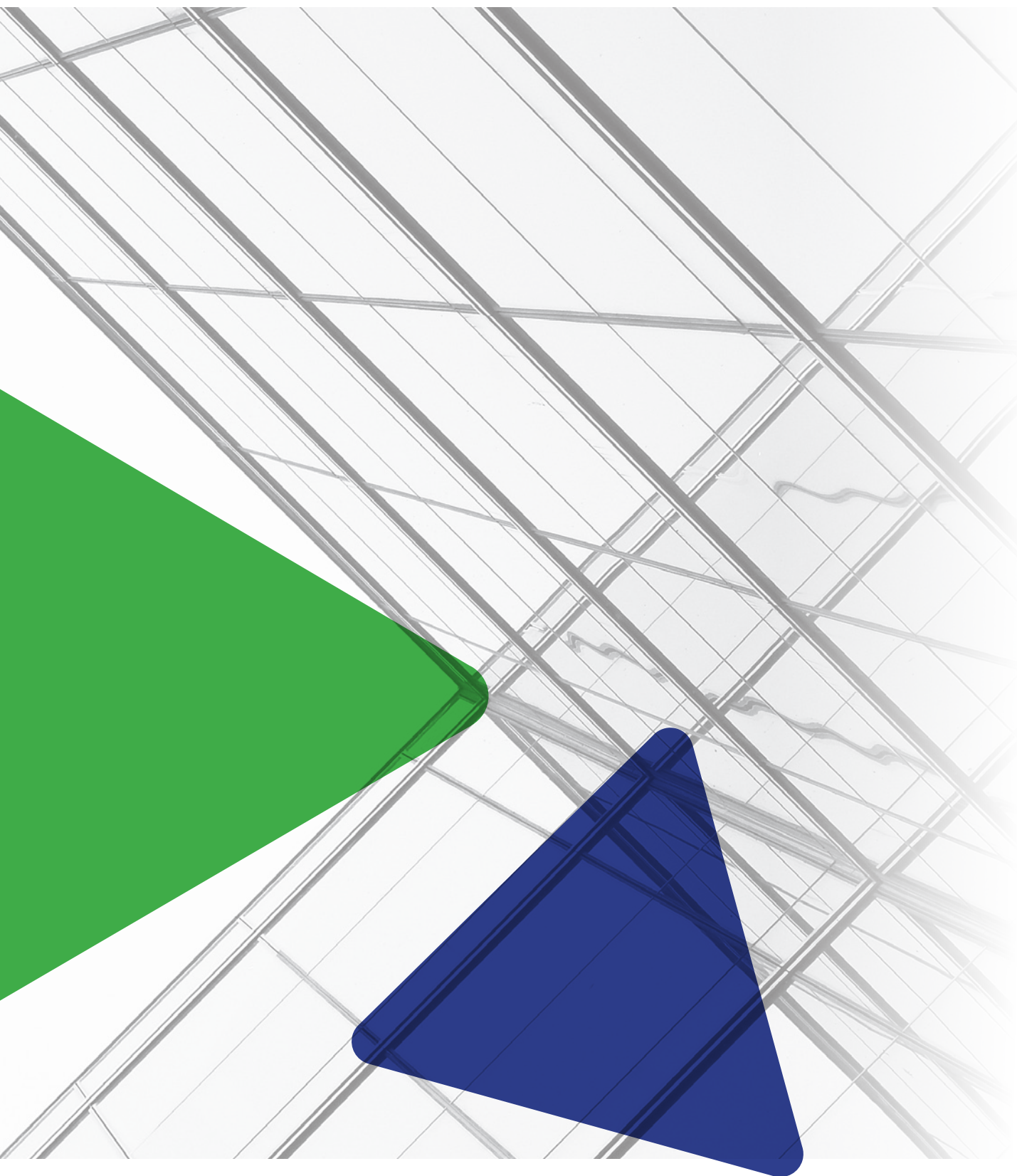
¹University College Cork

²Trinity College Dublin



UCC

University College Cork, Ireland
Coláiste na hOllscoile Corcaigh



Citation information Byrne, M., Dick, S., Ryan, L., Dockray, S., Davoren, M, Heavin, C., Ivers, JH., Linehan, C., Vasiliou, V. (2022) The Drug Use in Higher Education in Ireland (DUHEI) Survey 2021: Main Findings. Cork: University College Cork.

An electronic copy is available at:
<https://www.duhei.ie/DUHEI21>

CONTENTS

1.1	Figures	4	6.6	Student Supports	17	9.4	Cognitive Enhancers	66
1.2	Tables	5	6.7	Survey Content	17	9.5	Student Wellbeing	66
2	FOREWORD	6	6.8	Data Collection	21	9.6	Social norms	67
2.1	President of UCC	6	6.9	Data Cleaning	21	9.7	Drug Use and Sexual Activity	67
2.2	USI VP Welfare	7	6.10	Data Analysis	22			
			6.11	Report Layout	22			
3	ACKNOWLEDGEMENTS	8	7	FINDINGS - INTRODUCTION	24	10	DISCUSSION	68
4	EXECUTIVE SUMMARY	9	7.1	Response Rate, Completion Rate, Data Cleaning	24	10.1	Summary of Findings	68
4.1	Introduction	9	7.2	Demographics	25	10.2	Comparison with previous literature	71
4.2	Overview	9	7.3	Drug Use Overall	26	10.3	Implications	74
4.3	Key findings	10				10.4	Recommendations	77
4.4	Recommendations	12	8	FINDINGS - CURRENT AND RECENT USERS	30	10.5	Strengths and Limitations	77
5	INTRODUCTION	14	8.1	Drug Use	30	11	APPENDICES	79
5.1	Drug Use in Higher Education	14	8.2	Student Life	41	11.1	Appendix 1 - Framework for Response to the Use of Illicit Substances in HE	79
5.2	Drug Use in Ireland	14	8.3	Readiness to change	43	11.2	Appendix 2 - Rapid Response Group Members	80
5.3	Drug Use in Higher Education in Ireland (DUHEI) Survey	15	8.4	Behaviour change	44	11.3	Appendix 3 - Probability Proportion to Size (PPS) Sampling	81
5.4	Aim and Objectives of the DUHEI Survey	15	8.5	Effectiveness of Interventions	46	11.4	Appendix 4 - Institution Breakdown and Sample Size Calculation	81
6	METHODOLOGY	16	8.6	Cognitive enhancers	48	11.5	Appendix 5 - DUHEI Survey	82
6.1	Timing of Survey	16	8.7	Student Wellbeing	49	11.6	Appendix 6 - Data Cleaning Process	97
6.2	Ethical Approval	16	8.8	Social Norms	52			
6.3	Promotion of Survey	16	8.9	COVID-19 and Drug Use	53			
6.4	Sampling Strategy	17	8.10	Drug Use and Sexual Activity	56			
6.5	Distribution and Administration	17	8.11	Drug and Alcohol Recovery	57			
			9	FINDINGS - PRIOR AND NEVER USERS	60			
			9.1	Drug Use	60	12	REFERENCES	98
			9.2	Student Life	64			
			9.3	Effectiveness of Interventions	64			

Figures

Figure 1	Participating HEIs	16
Figure 2	Survey Pathways	18
Figure 3	User Groups	19
Figure 4	DUHEI Gender Breakdown (All Participants)	25
Figure 5	HEA Gender Breakdown	25
Figure 6	Age of Participants (All Participants)	25
Figure 7	Target Sample vs Responders by Year of Study	26
Figure 8	Drugs Used by Overall Cohort (All Participants)	26
Figure 9	Word Cloud of “Other” Drugs (All Participants)	27
Figure 10	Drug User Groups (All Participants)	27
Figure 11	Drug User Group by Gender (All Participants)	28
Figure 12	Drug User Group by Year of Study (All Participants)	28
Figure 13	Drug User Group by Disability Support Service Registration (All Participants)	29
Figure 14	Responses to DAST-10 (Current Users)	30
Figure 15	Level of Risk of Drug Use Harm (Current Users)	30
Figure 16	Percentage Reporting Use of Each Drug Type (Current Users)	31
Figure 17	Age at First Use (Current Users)	31
Figure 18	Number of Days of Use in Last 30 Days (Current Users)	32
Figure 19	Location of Use (Current Users)	32
Figure 20	Main Reason for Use (Current Users)	33
Figure 21	Effects of Drug Use (Current Users)	33
Figure 22	Drug Use Negative and Positive Effects (Current Users)	34
Figure 23	Drug-Related Past Year Experiences (Current Users)	34
Figure 24	Responses to DAST-10 (Recent Users)	35
Figure 25	Level of Risk of Drug Use Harm (Recent Users)	36
Figure 26	Percentage Reporting Use of Each Drug Type (Recent Users)	37
Figure 27	Age at First Use (Recent Users)	37
Figure 28	Frequency of Use in Last 12 Months (Recent Users)	38
Figure 29	Location of Drug Use (Recent Users)	38
Figure 30	Main Reason for Use (Recent Users)	39
Figure 31	Effects of Drug Use (Recent Users)	39
Figure 32	Drug Use Negative and Positive Effects (Recent Users)	40
Figure 33	Past Year Adverse Consequences (Recent Users)	40
Figure 34	Opinion of Effects of Drug Use on Student Life (All Participants)	41
Figure 35	Opinions of Drug Use in Student Life (All Participants)	42
Figure 36	Opinion of Effects of Drug Use on Student Life (All Participants)	42
Figure 37	Stages of Change (Recent and Current Users)	43

Figure 38	Word Cloud Representation of Participant Methods to Reduce or Stop Drug Use (Current or Recent Users)	44
Figure 39	Perceived Effectiveness of Interventions (Current Users)	47
Figure 40	Perceived Effectiveness of Interventions (Recent Users)	47
Figure 41	Word Cloud Representation of Participant Reasons for Never Using Smart Drugs (All Participants)	48
Figure 42	Use of Smart Drugs for Performance Enhancing Purposes (All Participants)	49
Figure 43	Student Wellbeing (All Respondents)	50
Figure 44	Student Wellbeing by User Group (All Respondents)	50
Figure 45	Happiness in Relationships (All Respondents)	51
Figure 46	Participant Perception of Drug Use vs Actual Drug Use (All Participants)	52
Figure 47	Participant Perception of Student Drug Use Across User Groups (All Participants)	52
Figure 48	Impact of Increased Drug Use Since Start of COVID-19 Pandemic (All Respondents)	54
Figure 49	Negative and Positive Impacts of Increased Drug Use (All Respondents)	54
Figure 50	Impact of Decreased Drug Use Since Start of COVID-19 Pandemic (All Respondents)	55
Figure 51	Negative and Positive Impacts of Decreased Drug Use (All Respondents)	55
Figure 52	Context of Drug Use Pre- and Post- Start of COVID-19 Pandemic (Current or Recent Users)	56
Figure 53	Time Since Resolving Drug or Alcohol Problem (All Respondents)	58
Figure 54	Participant Definition of Recovery (All Respondents)	59
Figure 55	Number of Serious Attempts at Recovery (All Respondents)	59
Figure 56	Percentage Reporting Use of Each Drug Type (Prior Users)	60
Figure 57	Age at First Use (Prior Users)	61
Figure 58	Location of Drug Use (Prior Users)	61
Figure 59	Main Reason for Drug Use (Prior Users)	62
Figure 60	Drug Use Effects (Prior Users)	62
Figure 61	Drug Use Negative and Positive Effects (Prior Users)	63
Figure 62	Perceived Effectiveness of Interventions (Prior Users)	65
Figure 63	Perceived Effectiveness of Interventions (Never Users)	65

1.2

Tables

Table 1	Drug User Group Definitions	19
Table 2	Survey Response Rate	24
Table 3	Survey Completion Rate	24
Table 4	Overview of the Data Cleaning Process	24
Table 5	Drug User Group by Year of Study	28
Table 6	DAST-10 Risk Categorisation and Suggested Actions	36
Table 7	Comparison of Drug Use Prevalence: CLAN (2002-2003) v DUHEI (2021)	72

FOREWORD

2.1

President of UCC

On behalf of University College Cork, I'm delighted to welcome this insightful report on Drug Use in Higher Education in Ireland. This analysis provides the first significant body of evidence on drug use among students in Ireland and will help policymakers, professionals, and practitioners when considering responses to the challenge of reducing harms arising from drug use in higher education.

An individual's wellbeing is one of the key factors likely to determine their experience of their time in higher education. Threats to a student's health and wellbeing will almost certainly impact their personal development, their academic outcomes, and their personal success. This report gives insights as to the effects of drug use on student success and their health and wellbeing.



These insights will greatly assist the higher education sector and higher education institutions in supporting our students' health and wellbeing, particularly in the area of drug use and drug use related harms.

We are very proud of our commitment to the health, welfare, and wellbeing of our students in University College Cork, and I would like to congratulate the authors of the report on their magnificent efforts in gathering these data in collaboration with their colleagues from other higher education institutions throughout the country.

I thank them for adding greatly to our understanding of the issues involved, and I look forward to seeing how these data are used to aid recovery and reduce harms from drug use among students in higher education in Ireland and beyond.

I welcome this report and look forward to working with all stakeholders to address the issue of drug use in higher education and beyond.

Professor John O'Halloran Ph.D. DSc.

President
University College Cork

2.2

Vice President for Welfare

The Union of Students of Ireland thanks The Department of Further and Higher Education, Research, Innovation and Science, the DUHEI research team, the institutions who contributed, and most importantly, the students for their time and participation in this incredibly important research.

As the report stresses, over half of the participants had engaged in some kind of recreational drug use while in college, which shines a light on the normalisation of drug culture within the student community and highlights the need for tailored supports specifically directed at student drug users. This can be achieved through the consideration of the recommendations of the report, particularly through the implementation of the Framework for Response to the Use of Illicit Substances in HE, which encourages the development of unique and specific institutional policies. The USI also supports the inclusion of drug harm reduction within the Healthy Campus Framework, and believes it is an integral aspect of the Framework.

The USI supports the recommendation that the study be repeated at 5-yearly intervals to monitor trends in drug use prevalence, attitudes, and behaviours amongst students in Ireland. This will build an incredibly valuable wealth of information on trends and attitudes that can be used to both develop relevant policy and legislation to protect, assist, and support students who may engage in recreational drug use, while also being relevant to the development of addiction and drug harm reduction supports nationally.

Somhairle Brennan,

Vice President For Welfare
Union of Students in Ireland



ACKNOWLEDGEMENTS

The DUHEI project team acknowledge with appreciation the funding and support provided by the Department of Education and Skills to undertake this research. We also deeply appreciate the support and encouragement of the Minister of State for Higher Education, Mrs Mary Mitchell O'Connor, who invited us to gather these data to assist in the implementation of the Framework for Response to the Use of Illicit Substances within Higher Education.

We would like to thank Minister Harris and the Department of Further and Higher Education, Research, Innovation and Science for their support in relation to the production of this report.

We thank the members of the MyUSE research team from University College Cork.

We acknowledge the input, advice, and guidance provided by our collaborators:

Professor Mary Cannon
Professor of Psychiatric Epidemiology and Youth Mental Health
Royal College of Surgeons in Ireland

Dr Eamon Keenan
HSE National Clinical Lead-Addiction Services
Assistant National Director Primary Care

We thank Dr Seán R. Millar, School of Public Health, UCC, for his expertise and commitment in undertaking proof-reading and a close review of the final version of the report.

The strong leadership shown by various Students' Unions in University College Cork for DUHEI has enabled the research team in a number of ways. From encouraging student participation in focus groups to develop and revise the survey, through to the promotion of the rollout of the survey in 2021, their support has been invaluable and is deeply appreciated.

The student leaders, local students' unions, and the individuals in each of the 21 HEI's who were the nominated DUHEI contact persons for their institution, all helped champion the roll-out of DUHEI locally. We thank you for your considerable efforts in overcoming local challenges and for your enthusiasm in promoting the survey.

We thank the USI for their strong support of this survey at a national level.

We are grateful to the Presidents and Provosts of the participating institutions for encouraging their own institutions to participate, and to President John O'Halloran of University College Cork for his continuing endorsement of the efforts of the DUHEI and MyUSE teams at a local and national level.

Finally, the most important contributors to this report are the 11,592 students in higher education in the Republic of Ireland who took the time to participate in this survey. For your time, effort, and contribution we are extremely grateful.

Thank you all.

Go raibh mile maith agaibh go léir.

The DUHEI Project Team

EXECUTIVE SUMMARY

4.1

Introduction

In response to concerns about drug and substance use among students, the Minister of State for Higher Education convened a Rapid Response Group in September 2019, to examine issues relating to the use of illicit substances within higher education in Ireland. Based on the report of the Rapid Response Group, the *Framework for Response to the Use of Illicit Substances in Higher Education* was published by the Department of Education in February 2020. This Framework contained 4 Core recommendations and 12 other recommendations. One of the Core recommendations was that “Each Higher Education Institution (HEI) should facilitate student engagement with the collection of national level data on drug use in HEIs.” The Drug Use in Higher Education Institutions (DUHEI) survey was funded by the Department of Education to fulfil this recommendation.

4.2

Overview

The overall aim of the DUHEI Survey was to determine the prevalence and correlates of drug use among the student population in the Republic of Ireland, to inform future policy and practice in the area.

The survey population included undergraduate and postgraduate students aged 18 years and over in publicly funded HEIs. The sampling strategy used ensured that a random representative sample of the student population was invited to participate in the survey.

The questionnaire used validated scales where available and comprised 10 sections covering: Demographics; Student Life; Drug Use; Readiness to Change; Behaviour Change; Cognitive Enhancers; Student Wellbeing; Social Norms; COVID-19 and Drug Use; Drug and Alcohol Recovery.

The DUHEI survey reports drug use prevalence data for different user groups defined by date of last drug use. These groups are never users; prior users (last used more than 12 months ago), recent users (last used in past 12 months), and current users (last used in past 30 days).

Twenty-one publicly funded HEIs in the Republic of Ireland participated in DUHEI. Data collection was completed in early 2021 via a secure online survey platform. Over 11,500 participant responses were included for analysis of which 60% were female, the median age was 21; 81% were undergraduates, 9% were registered with a Disability Support Service, and 90% were EU students. The response rate to the survey was 29%.

11,500+
participant responses
were included for analysis

Key findings

4.3.1 Student Drug Use

- Over half of participants reported ever using an illicit drug, with over one-third reporting drug use in the last year, and one-fifth reporting using drugs in the last month.
- Over half of participants felt drug use is a normal part of student life, but over half also felt drug use has a somewhat negative or an extremely negative impact on student life.
- Participants overestimated the percentage of their peers they believe had used drugs in the last year; they thought around 60% had used drugs in last year. The actual figure is 37%.
- Participants underestimated the percentage of their peers they believe never use drugs; they thought around 37% never use drugs. The actual figure is 43%.
- The most commonly used drugs are cannabis (52%); cocaine (25%); ecstasy (23%); ketamine (16%); mushrooms (12%); amphetamines (9%) and New Psychoactive Substances (8%). This order of prevalence of drugs/drug types is maintained across all three user groups.
- Current drug users who use cannabis do so approximately twice weekly; those current users who use cocaine or ketamine do so approximately once monthly.
- Four out of ten current drug users reported using two or more drugs on the same occasion
- One in four males report current drug use; one in six females report current use.
- Current drug use rises year on year to peak in last the two years in college for undergraduates; from one in six first year students, to one in five in second year, and then to one in four in third and fourth year.
- One in seven postgraduates reported current drug use.
- Nearly one in four students registered with Disability Support Services (DSS) reported current use, compared to one in six participants not registered with a DSS.
- For the majority of drug types, the age of first use was between 19—21, whereas for cannabis it was between 16—18.
- One in four current users reported using cannabis when they were less than 16 years old.

4.3.2 Harms and Effects

- Based on their DAST-10 scores, one in three recent users, and over one in two current users, are at moderate or substantial risk of harms arising from their drug use.
- Just under one in two current or recent drug users report having unprotected or unintended sex, or getting into fights, on at least one occasion in the preceding year.
- Most current users and recent drug users felt that their drug use had neither negative nor positive effects on many aspects of their lives.
- Where negative or positive effects were felt, for current users, negative effects were at least twice as frequently reported than positive effects across all the domains, except socialising.
- One in three current users believe drugs have a negative effect on student life.

- One in five current users believe drugs have a positive effect on student life.
- Six out of ten current users reported engaging in sexual activity under the influence of drugs; one in three of these reported that the drug used was cocaine.

4.3.3 Changing Drug Use Behaviours

- One in two drug users reported they would not like to reduce their drug use.
- One in three drug users reported that they had tried to reduce their drug use.
- The most commonly reported means of changing drug use were avoiding environments where drugs are used and avoiding friends and peers who use drugs.
- For all participants, face-to-face interventions were perceived as being more effective than online interventions to reduce harm from drug use.
- Education was perceived as being the least effective intervention to reduce harm.
- Counselling was perceived as being the most effective intervention to reduce harm.

4.3.4 Student Wellbeing

- Four out of ten students who participated in the survey reported low levels of wellbeing.

4.3.5 Cognitive Enhancers - “Smart Drugs”

- Less than one in twenty (3.4%) of participants reported using smart drugs to enhance their academic performance.
- One in ten of current drug users reported using smart drugs to enhance their academic performance.

4.3.6 COVID-19 and Drug Use

- Of those who had used drugs during COVID-19, one in three had decreased their use; while just less than one in four had increased their use over this period.
- One in ten participants reported using drugs for the first time since COVID-19 began.

4.3.7 Recovery from Drug and Alcohol Addiction

- Over one in twenty participants reported that they previously had a drug or alcohol problem; for half of these this had resolved within the previous 2 years.
- One in four of those with a previous problem identified themselves as currently in active recovery.

4.3.8 Students Who Never Use Drugs

- One in three males have never used drugs; one in two females have never used drugs.
- Three out of four who choose not to use drugs do so because they have no interest in drugs.
- Six out of ten choose not to do so because of concerns for their physical or mental health.

Recommendations

**1.**

HEIs should begin to implement the suite of actions contained in the “*Framework for Response to the Use of Illicit Substances within Higher Education*” (Appendix 1), in partnership with students and their representatives.

2.

HEIs should embed actions on drugs and alcohol within the new Healthy Campus Framework, as part of the Healthy Campus initiative¹.

3.

HEIs should benefit from the expertise and support of the Health Service Executive in implementing actions on drugs and alcohol.

4.

This DUHEI survey should be repeated at 5-yearly intervals to monitor trends in drug use prevalence, attitudes, and behaviours amongst students in Ireland.



INTRODUCTION

5.1

Drug Use in Higher Education

The use of illicit drugs is a public health issue worldwide, with the annual prevalence of drug use increasing over the past decade (2–5). International research from Ireland, the UK, and the US suggests that approximately one-quarter of students in Higher Education Institutes (HEIs) report using illicit drugs within the last 12 months (6–11). In addition to the use of illicit drugs for recreational and other purposes, studies have reported students using legal prescription medication to enhance their academic performance (12,13). Although some individuals may use drugs without experiencing significant harm, in others, harms can accumulate and become self-perpetuating, placing the drug user at higher risk of experiencing a range of adverse effects on their physical and mental health (3,7-15). These adverse effects include an increased risk of developing depressive symptoms, psychosis, self-harm, suicidal ideation, and attempted suicide (11,14). Drug use can result in adverse legal and financial consequences for individuals, and may increase risk-taking behaviours, including risky sexual activity (14). Other harms include a negative impact on academic outcomes and career trajectories, as well as adverse effects on personal relationships. The rising prevalence of drug use, the wide range of associated harms to users, and the potential threats to student success and academic integrity, all serve to highlight the importance of addressing the issue of drug use in higher education.

5.2

Drug Use in Ireland

In the context of the Republic of Ireland, a recent study confirmed that 50% of young adults present with at least a low risk of problems resulting from their drug use (9,15). In Ireland between 2008 and 2017, a 24.7% increase in the number of deaths linked to drug use occurred (16). Media reports of the deaths of students whilst using drugs highlight that the higher education sector is vulnerable to drug-related tragedies (17–20), but existing research on drug use among students in higher education in Ireland does not adequately capture the scale and impact of the issue. Firstly, research on this topic has focused largely on understanding the use of cannabis and alcohol, with little focus on other drugs that have gained popularity in recent years. Secondly, while the recently completed My World Survey II (9) reported on the mental health of young people in Ireland and collected data on drug use in higher education, the data collected were limited. Thirdly, the most comprehensive in-depth survey on drug use and alcohol use that focussed solely on the higher education sector in Ireland was undertaken in academic year 2002–2003 (8). It is reasonable to expect that drug-related behaviours and attitudes have changed in the intervening years.

There is therefore a lack of comprehensive recent data on drug use amongst students in higher education in the Republic of Ireland. This extends beyond a lack of prevalence data. There is also a lack of understanding on students' motivations to start using drugs, their desire and capacity to change use or stop using drugs, and a lack of data on the effects and adverse consequences experienced by students resulting from drug use. There is no recent data on the use of cognitive enhancers ("smart drugs"), or on the use of chemsex substances among students in Ireland, and there is little population-level data in Ireland on students who are in recovery from drug use or alcohol problems. Finally, it is not yet known how the COVID-19 pandemic has impacted drug use trends and behaviours, with recent studies yielding conflicting results (21–23).

Drug Use in Higher Education in Ireland Survey

In September 2019, The Minister of State for Higher Education, Mary Mitchell O'Connor T.D established a Rapid Response Group (RRG) to address the issue of Drug Use in Higher Education in Ireland. This group was comprised of representatives of various stakeholder groups (Appendix 2), as well as experts in the fields of Student Health, Mental Health, and Drug Treatment and Addiction Services. Minister Mitchell O'Connell tasked the group with recommending a suite of specific actions appropriate to the Higher Education setting and in line with the Government's national drugs strategy, *"Reducing Harm, Supporting Recovery. A health-led response to drug and alcohol use in Ireland 2017–2025"* with the overall aim being to reduce harms experienced by students through the use of drugs (24).

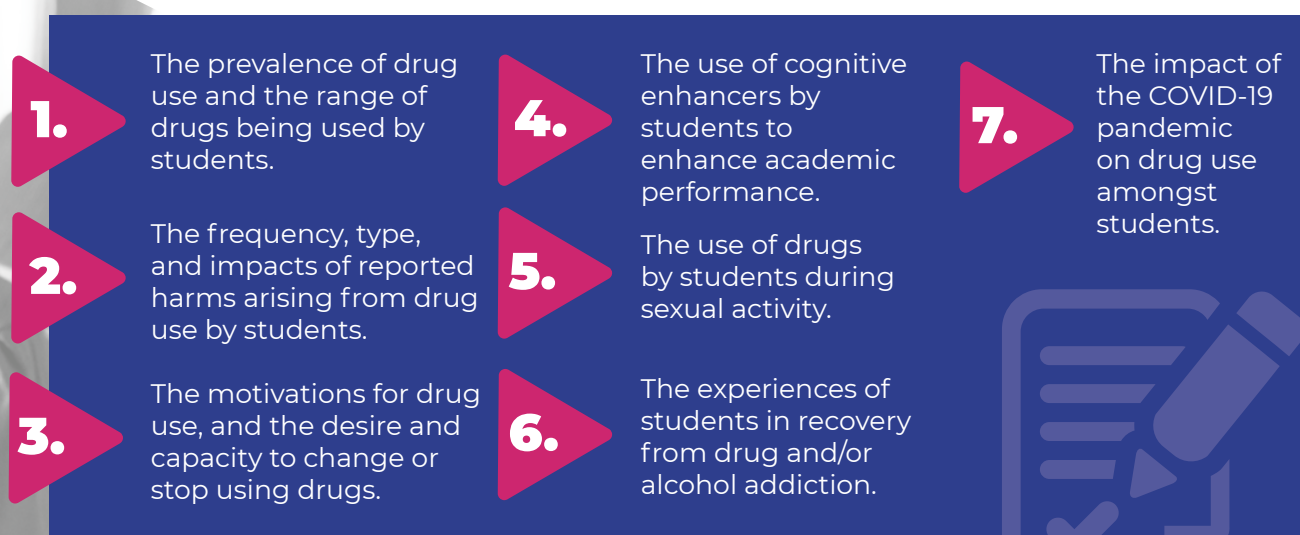
In its report (25) the RRG stated "it is critical that there are accurate data to help inform future actions and strategy in this area" and recommended "a data gathering exercise which would be a sector-specific in-depth look at drug use amongst our students," looking in particular at "their motivations to use and not to use drugs, the adverse consequences suffered, their willingness and capacity to change their drug use or to remain abstinent, as well as the impact drugs have on their academic experiences." The Minister accepted this recommendation and endorsed data collection as one of four Core Actions in the Framework for Response to the Use of Illicit Substances within Higher Education (Appendix 1).

The My Understanding of Substance-use Experiences (MyUSE) research team in University College Cork (UCC), led by Dr Michael Byrne, was selected to develop the Drug Use in Higher Education in Ireland (DUHEI) Survey, supported by collaborators Assistant Professor Jo-Hanna Ivers of Trinity College Dublin, Professor Mary Cannon, of the Royal College of Surgeons in Ireland, and Dr Eamon Keenan, HSE National Clinical Lead-Addiction Services.

Aim and Objectives of the DUHEI Survey

The overall aim of the DUHEI Survey was to determine the prevalence and correlates of drug use among the HE student population in Ireland to help inform future policy and practice in the area.

The objectives were to explore or determine:



1. The prevalence of drug use and the range of drugs being used by students.
2. The frequency, type, and impacts of reported harms arising from drug use by students.
3. The motivations for drug use, and the desire and capacity to change or stop using drugs.
4. The use of cognitive enhancers by students to enhance academic performance.
5. The use of drugs by students during sexual activity.
6. The experiences of students in recovery from drug and/or alcohol addiction.
7. The impact of the COVID-19 pandemic on drug use amongst students.

METHODOLOGY

6.1

Timing of Survey

The DUHEI survey was commissioned in October 2019 and due to be delivered to students in March 2020. Due to the COVID-19 pandemic and subsequent campus closures, the survey was postponed and rescheduled for early in 2021. The timing of the survey in each institution was chosen to avoid a clash with the Student Survey (26), an annual survey conducted in all HEIs in Ireland. All 23 publicly funded HEIs² in Ireland were invited by the Minister to participate in the DUHEI Survey. A total of 18 HEIs completed the survey in Phase 1 in January 2021 and 4 HEIs completed the survey in Phase 2 in March 2021. Data are reported as a single dataset for all 21 participating HEIs. One HEI declined to participate. Figure 1 presents an overview of the participating HEIs.



Figure 1 - Participating HEIs

6.2

Ethical Approval

The Social Research Ethics Committee at University College Cork provided ethical approval for the survey to be carried out in all Irish HEIs. In addition, a number of institutions also received approval from their local ethics committees as a condition for their participation in DUHEI.

6.3

Promotion of Survey

A staff member in each institution was nominated as the point of contact to liaise with the DUHEI project team and assist with promotion and preparation for the survey rollout locally. A social media strategy for promotion was developed. Each institution's Students' Union was provided with personalised graphics, social media templates, and newspaper/newsletter articles for publication. Social media promotion via Twitter was carried out in the two weeks prior to the survey launch and continued throughout the rollout period. The Union of Students in Ireland, local Students' Unions, members of the RRG, institutional points of contact, and government representatives actively promoted the survey across social media. Promotion of the survey reached over 91,000 Twitter accounts during Phase 1 and 9,000 Twitter accounts during Phase 2 of the survey.

6.4

Sampling Strategy

This survey used a probability proportional to size (PPS) sampling strategy to recruit students (27). Given that there is a significant variation in population sizes of each institution, this sampling strategy ensured that each student from each institution had an equal opportunity of being randomly selected to be invited to take part in the study, and that the data would be broadly representative across year groups (Appendix 3). Proportionally representative samples of undergraduate and postgraduate students were drawn from each participating institution (Appendix 4). This methodology had been successfully used in a pilot drug use survey conducted in UCC in 2018 (28).

6.5

Distribution and Administration

A secure online survey platform was used to collect the data. The software provides each participant with a unique participant ID which distinguishes their data from others but cannot be traced to them. Given the potentially sensitive nature of the topic, the survey was designed to meet the General Data Protection Regulation (GDPR) definition of anonymity (29), with no identifiable information collected from participants. A standard email containing the link to the online survey was provided to each institution. The survey invitation email was co-signed by a nominated senior member of the institution (President or other), and a representative from the Students' Union (President or Welfare Officer).

On the survey launch dates the survey invitation email was sent to the student email addresses randomly selected according to the sampling strategy described in Section 6.4. The survey remained open for 14 days with reminder emails sent on day 7 and day 11.

6.6

Student Supports

Students were provided with links to the contact details of national and institution-specific supports services in the survey invitation email, and these contact details were also visible at the start and end of the online survey. These supports included the institution's student services that respond to student wellbeing needs, a national drug helpline, and national sexual health service.

6.7

Survey Content

The DUHEI survey was based on a pilot drug use survey conducted in UCC in 2018 (28), which was then developed further in consultation with the DUHEI collaborators. Validated questionnaires were used where available, and additional questions were developed where existing, validated questionnaires were not available. Permission to include the validated questionnaires was secured from the author(s) of all questionnaires used.

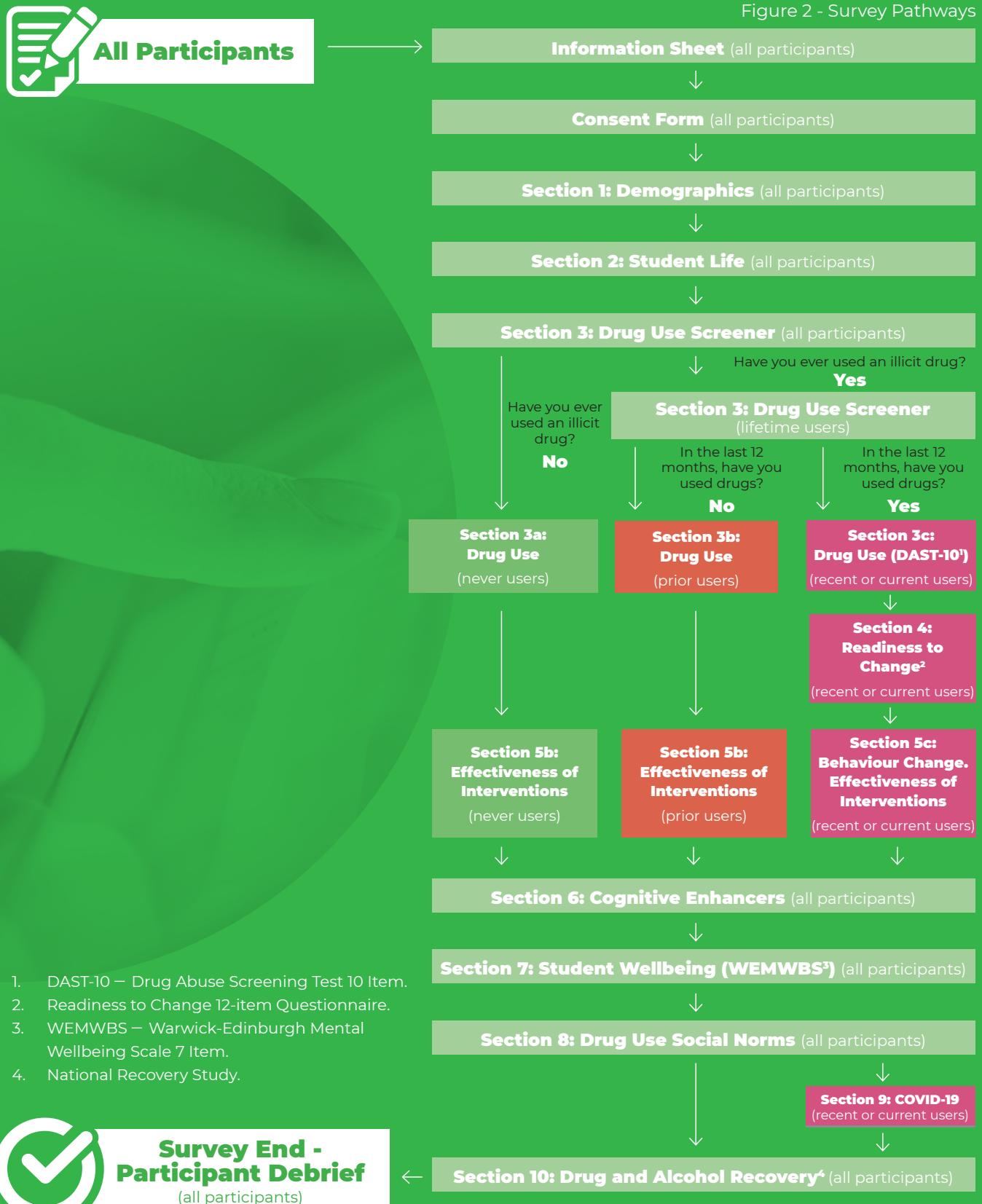
The DUHEI survey consists of ten sections:

- | | |
|------------------------|-------------------------------|
| 1. Demographics | 6. Cognitive Enhancers |
| 2. Student Life | 7. Student Wellbeing |
| 3. Drug Use | 8. Social Norms |
| 4. Readiness to Change | 9. COVID-19 and Drug Use |
| 5. Behaviour Change | 10. Drug and Alcohol Recovery |

According to their response to a question at the start of Section 3 on their use or non-use of drugs, participants were routed through one of three pathways in the survey, “never user,” “prior user” (more than 12 months previously), or “recent or current user” (within the past 12 or 1 months respectively). A small number of pathway-specific questions are visible only to the participants on each pathway, with remaining questions visible to all participants.

An overview of the survey pathways is presented in Figure 2.

Figure 2 - Survey Pathways



**Survey End -
Participant Debrief**
(all participants)

6.7.1 Demographics

In Section 1 of the survey, participants were asked about their age, gender identity, relationship status, student status, year of study, and Disability Support Service registration status. All participants could respond to this section.

6.7.2 Student Life

In Section 2 of the survey, participants were asked about their perceptions of drug use and effects on students. Participants were also asked about their participation in student activities. All participants could respond to this section.

6.7.3 Drug Use

In Section 3 of the survey, participants were assigned to one of four groups according to their response to the preliminary screening question: “Have you ever used an illicit drug such as cannabis, cocaine, MDMA?” These groups correspond to the periods of recall of drug use used in population prevalence studies by the European Centre for Monitoring of Drugs and Drug Addiction (ECMDDA) (30).

The four groups were never users, prior users, recent users, and current users. The definitions of these groups of drug users and their ECMDDA equivalent are shown in Table 1 and Figure 3.

Table 1 - Drug User Group Definitions

DUHEI Group	DUHEI Definition	ECMDDA Categories
Never User	Participant reporting never using drugs.	Never
Prior User	Participant reporting using drugs at least once, but more than 12 months ago.	Lifetime
Recent User	Participant reporting using drugs within the last 12 months, but not within the last 30 days.	Last Year (12 months)
Current User	Participant reporting using drugs in the last 30 days.	Last Month (30 days)

Figure 3 - User Groups



In the report, the data in each section are reported to show the results for the overall cohort initially, and then subgroup analysis present data by group of drug user where available and appropriate. This approach is consistent with the recommended best practice in conducting prevalence studies on drug use in populations and allows the development of responses to the issue of drug use that best fit the needs of the population or the individual drug-user (30).

6.7.3.1 Never User Pathway

Participants on this pathway were asked about reasons as to why they had never used drugs.

6.7.3.2 Prior User Pathway

Participants on this pathway were asked to indicate which drug(s) they had ever used from a list of seven drugs frequently used by students (28,31). Participants were also asked their age at first drug use, typical location of use, reasons for use, perceived effect on others, whether they had engaged in sexual activity under the influence of drugs, and their reasons for no longer using drugs.

6.7.3.3 Recent or Current User Pathway

Participants on this pathway were asked to indicate which drug(s) they had ever used from a list of seven drugs frequently used by students (28,31). Participants were also asked to report their age at first use, typical location of use, reasons for use, perceived effect on others, and whether they had engaged in sexual activity under the influence of drugs. In addition, these participants were asked to complete the Drug Abuse Screening Test 10-item questionnaire (DAST-10) (32). This questionnaire yields a score estimating the degree of harm(s) related to a person's drug use and is validated for use in student populations (33). Participants on this pathway were also asked to identify how recently they had used drugs, their frequency of drug use, recent changes in drug use, and harms resulting from their drug use.

6.7.4 Readiness to Change

In Section 4, participants in the “recent or current user” pathway were asked questions on their readiness to change. The Readiness-to-Change questionnaire was used. This questionnaire has been validated for use in student populations (34). Only participants in the “recent or current user” pathway could respond to this section.

6.7.5 Behaviour Change

In Section 5, participants on the “recent or current user” pathway were asked questions about their desire, motivations, and capability to change drug-use behaviour as well as questions on methods used in previous attempts to change. Several open-text questions were included to allow participants to expand on their responses. All participants were asked their views as to the effectiveness of different educational or counselling interventions on reducing harms from drug use.

6.7.6 Cognitive Enhancers

In Section 6, participants were asked questions on the use and the motivation for use of cognitive enhancers; prescription and non-prescription substances, sometimes known as “smart drugs”. All participants could respond to this section.

6.7.7 Student Wellbeing

In Section 7, participants were asked about their wellbeing. Participant wellbeing was measured using the Short Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS) 7-item questionnaire (35). This questionnaire has been validated for use in student populations. Participants were also asked as to their level of happiness with key relationships in their life. All participants could respond to this section.

6.7.8 Social Norms

In Section 8, participants were asked questions around the descriptive and injunctive norms of student drug use. Descriptive norms reflect an individual's perceptions of which behaviours are typically performed by others. Injunctive norms reflect an individual's perceptions of what behaviours are approved or disapproved by others. All participants could respond to this section.

6.7.9 COVID-19

In Section 9, participants reporting drug use in the last 12 months were asked questions about the impact of the COVID-19 pandemic on their drug use. Questions from this section were drawn from recent surveys in this area, including the Global Drug Survey COVID-19 Special Edition (22) and the Alcohol, Tobacco, and Cannabis Use during COVID-19 Lockdown Survey (36). Only participants in the "recent or current user" pathway could respond to this section.

6.7.10 Drug and Alcohol Recovery

In Section 10, participants were asked questions exploring their recovery and treatment for drug and alcohol problems. Questions in this section were adapted from the National Recovery Study (37). Several open-text questions were included to allow participants to expand on their responses. All participants could respond to this section.

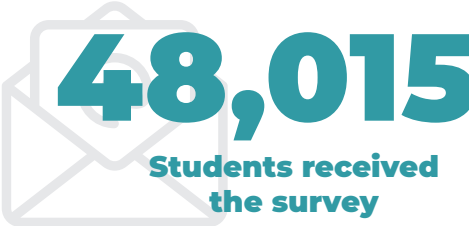
The full DUHEI questionnaire is included in Appendix 5.

6.8

Data Collection

All students aged 18 years and over, registered at a participating HEI in the Republic of Ireland institution in the 2020/2021 academic year, were eligible to be invited to participate and, if randomly selected, to then complete the survey. On opening the online survey, students aged under 18 years of age, or students who did not give consent to participate, were unable to view or answer questions and were automatically routed to the end of the survey.

As participants progressed through the survey, responses were submitted at the end of each page. There was no option for participants to go back and change their answers once they proceeded to the next page of the survey. The survey was open for a 14-day period during each of its two Phases. Phase 1 of the DUHEI survey ran from the 18th January to 31st January 2021. Phase 2 ran from the 18th March to 3rd April 2021³. A total of 48,015 students were sent the survey: 37,441 in Phase 1 and 10,574 in Phase 2.



48,015
Students received
the survey

6.9

Data Cleaning

Data cleaning was carried out on the datasets for Phase 1 and Phase 2 separately; findings are reported for the full combined dataset. The data cleaning process was undertaken to arrive at a final dataset from persons who consented to participate, were aged 18 years and over, and free from potential bias that might render the dataset unrepresentative of the population surveyed. The dataset was cleaned by removing responses where there was judged to be evidence of straight-lining, bogus open-text responses, and extreme short or long completion times. Appendix 6 outlines details on data cleaning.

³One institution ran the survey later, from the 24th March to the 3rd April.

6.10

Data Analysis

All quantitative data analysis, including the calculation of frequencies, descriptive statistics (average, mean, median, range etc.), and cross-tabulations to compare groups was completed using IBM SPSS Version 27 (IBM Corp., Armonk, NY, USA). Qualitative data were extracted for analysis by two researchers. Each researcher coded the data separately, following an inductive, open-coding approach (38). Following this, the two researchers discussed and agreed on final codes. Any disagreements were settled by discussion and consensus agreement with a third coder.

6.11

Report Layout

The layout of the report corresponds broadly with the layout of the DUHEI questionnaire. This report presents both raw numbers and percentages. Unless otherwise specified, percentages are presented as calculations of the entire eligible population/sub-group relevant to each section. Note where participants accidentally omitted to respond or actively chose not to respond to a question, the total may not reach 100% for that question.

An introductory findings chapter is presented first, presenting detail on the response and completion rates and data cleaning, respondent demographics, and introducing the drug use categories as defined in this report. The remainder of the findings are presented as two separate chapters; one for current and recent users; and one for prior and never users.



FINDINGS

INTRODUCTION

7.1

Response Rate, Completion Rate, Data Cleaning

In total, 13,681 participants responded to the survey across the two phases: 10,571 participants (Phase 1), and 3,110 participants (Phase 2) with response rates of 28% and 29% respectively, and an overall response rate of 28.5%. There were 9,832 participants who completed the survey in full, and 3,849 submitted partial responses, resulting in a completion rate of 72%. Table 2 and Table 3 present the response and completion rates.



13,681

Responses

Table 2 - Survey Response Rate

Phase	Total Surveyed	Responses	Response Rate
Overall	48,015	13,681	28.5%
Phase 1	37,441	10,571	28.2%
Phase 2	10,574	3,110	29.4%

Table 3 - Survey Completion Rate

Responses	Complete	Partial	Completion Rate
13,681	9,832	3,849	72%



11,592

**Final number of responses
available for analysis**

The data cleaning process removed responses where consent was invalid, if there was less than 13% of the survey completed, or open text responses showed evidence of bias. The final number of responses available for analysis was 11,592. Table 4 presents an overview of the data cleaning process.

Table 4 - Overview of the Data Cleaning Process

Total Responses	Removed: Invalid or No consent	Removed: <13% survey completed	Removed: Response bias	Final no. responses after data cleaning
13,681	1,558	503	28	11,592

Demographics

Of the 11,592 participants who took part in DUHEI, the gender breakdown of participants was 60.2% (n=6,981) female, 37.9% (n=4,397) male, 0.9% (n=110) non-binary, 0.3% (n=29) other, and 0.5% (n=54) of participants preferring not to disclose. Figure 4 and Figure 5 illustrate the DUHEI gender breakdown, compared with the gender breakdown recorded by the Higher Education Authority (HEA)⁴(39).

Figure 4 - DUHEI Gender Breakdown (All Participants)

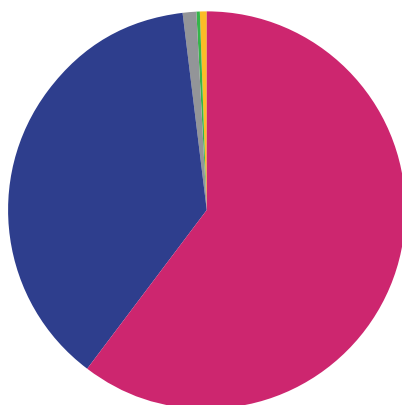
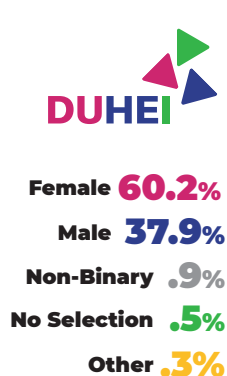
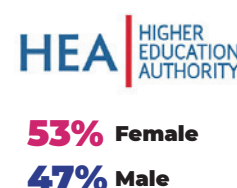
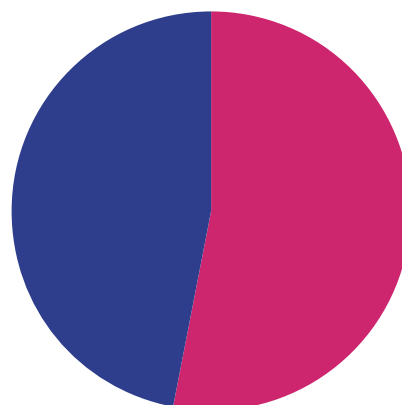
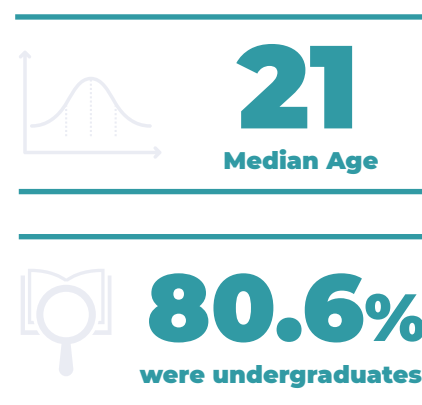
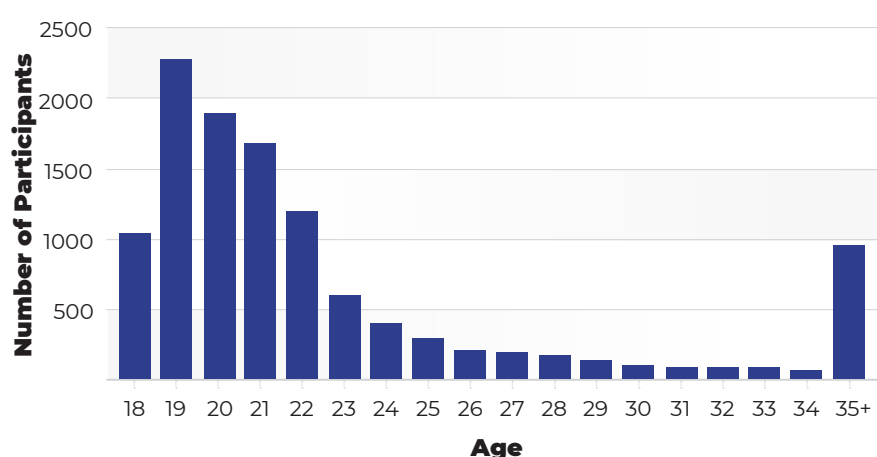


Figure 5 - HEA Gender Breakdown



Regarding relationship status, just over half (54.4%; n=6,306) of respondents reported being single, 43.6% (n=5,049) reported being in a relationship, and 1.7% (n=192) reported their relationship status as “other”. The range of ages was 18—75, with a median age of 21. The range of ages (18—75) is illustrated in Figure 6. Participants over 35 are grouped together.

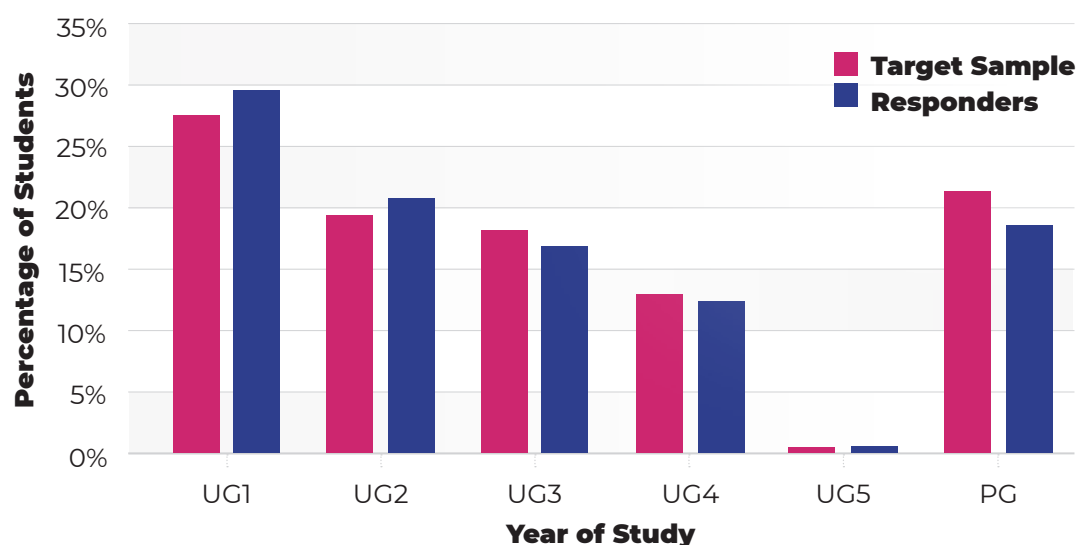
Figure 6 - Age of Participants (All Participants)



The majority of participants (80.6%; n=9,342) were undergraduates. By year of study, 29.5% (n=3,419) of participants were first year, 20.7% (n=2,402) second year, 17.0% (n=1,976) third year, 12.3% (n=1,428) fourth year, 0.9% (n=110) fifth year or higher, and 18.6% (n=2,157) were postgraduates. The proportion of survey responders was broadly in line with the target sample, with a slight over-response from first year undergraduates, and an under-response of postgraduates. Figure 7 details the percentage of responders per year of study, compared with our target sample.

⁴HEA reports only include data on the breakdown of gender as male or female.

Figure 7 - Target Sample vs Responders by Year of Study



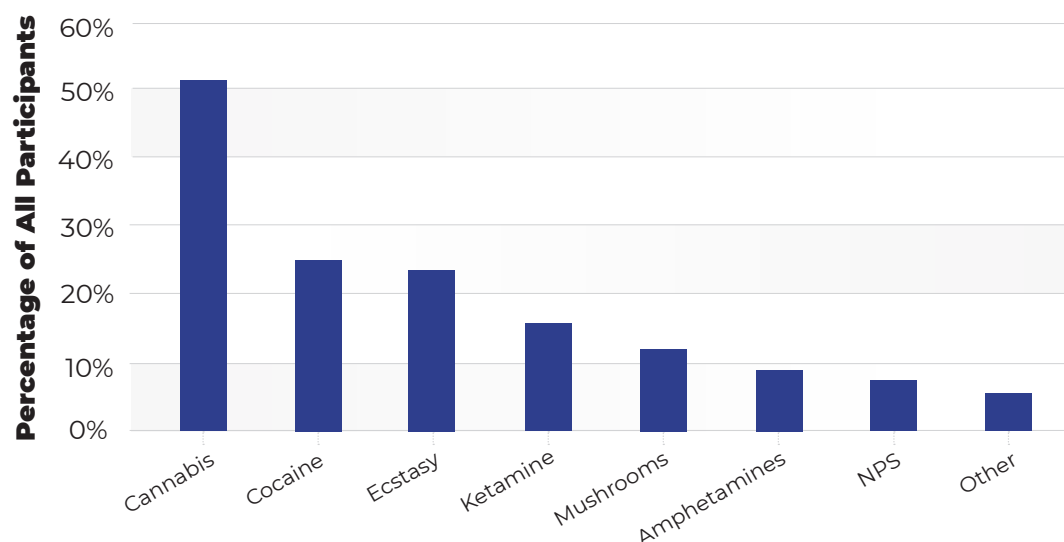
The majority of participants (89.8%; n=10,405) were EU students⁵, with 6.3% (n=730) being non-EU students. A total of 8.6% (n=999) of participants reported being registered with the Disability Support Service at their institution. The latest national data for academic year 2019–20 shows that 6.3% of the total population of students registered in HEIs in Ireland are registered with their institution's Disability Support Services (40). These data indicate an over-response rate amongst students registered with the institutions' Disability Support Services.

7.3

Drug Use Overall

All 11,592 participants responded to this section. Of these, 55.3% (n=6,408) reported ever using an illicit drug, 43.2% (n=5,008) reported never using drugs, and 1.5% (n=176) preferred not to say. Participants who reported never using drugs were routed to the “never user” pathway (n=5,008). For those confirming ever using a drug, cannabis was the most commonly used drug, with over half (51.6%) of all participants reporting they had used it at least once. Figure 8 illustrates the percentage of all participants who have tried a given drug/drug type⁶.

Figure 8 - Drugs Used by Overall Cohort (All Participants)

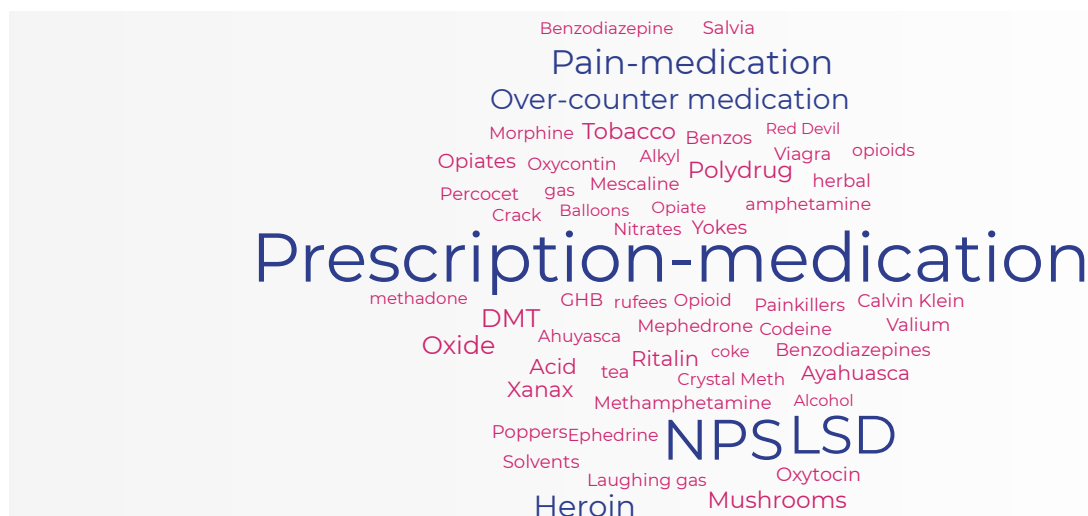


⁵An EU student is defined as “a student who has been ordinarily resident in an EU/EEA/Swiss State/United Kingdom for at least three of the five years preceding their entry to their third-level course”

⁶NPS refers to New Psychoactive Substances; drugs that are newly synthesised or newly available, and which do not fall under the control of United Nations Drug Conventions.

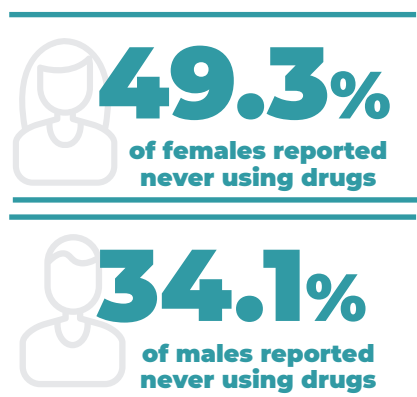
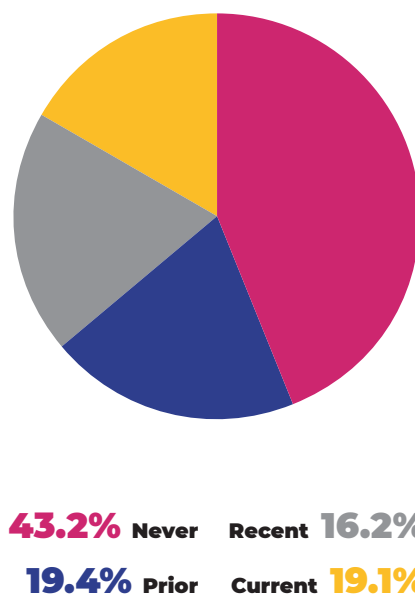
Figure 9 shows the names of “other” types of drugs participants mentioned using at least once. The size of the words relates to the frequency of the mentions.

Figure 9 - Word Cloud of “Other” Drugs (All Participants)



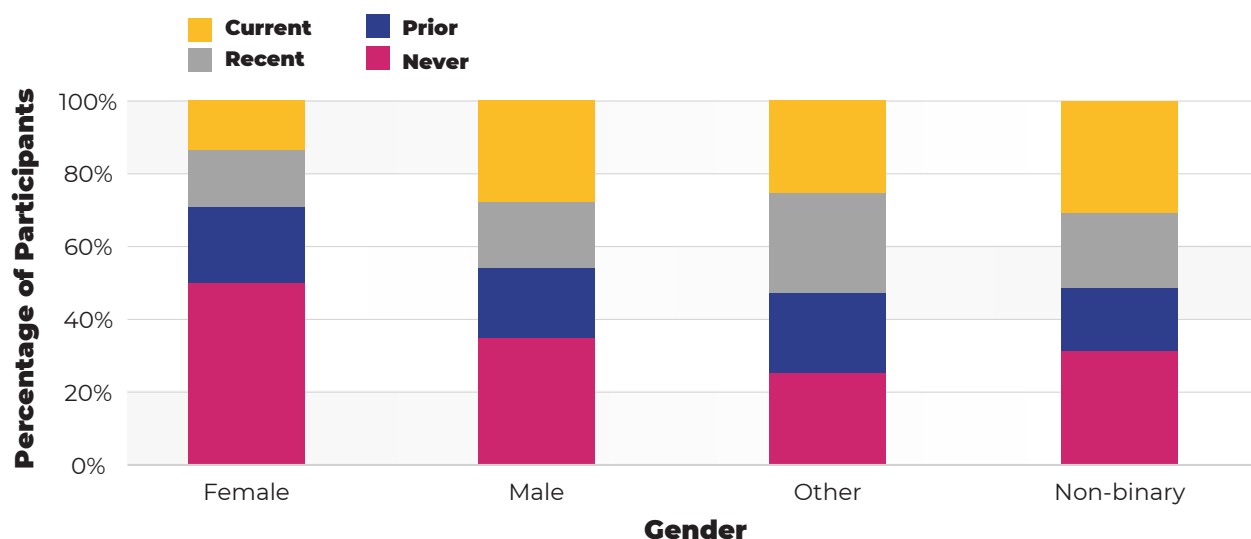
Of the participants who reported ever using an illicit drug (n=6,408), 64.2% (n=4,112) reported use in the last 12 months, 35.1% (n=2,248) of participants reported no use in the last 12 months, and less than 1% (n=48) preferred not to say. Participants who reported no use in the last 12 months were routed to the “prior use” pathway. Participants who reported use in the last 12 months (n=4,112) were categorised as either “recent users”, i.e., those reporting use in the last 12 months, but not in the last 30 days (45.7%; n=1,880); or “current users” i.e., those reporting drug use in the last 30 days (53.7%; n=2,209). A small number of participants (n=23) in the “current or recent user” pathway later reported (in open text responses) that they had not used drugs in the last 12 months and were therefore excluded from the current/recent user sub-group analysis. Figure 10 illustrates the breakdown of user groups.

Figure 10 - Drug User Groups (All Participants)



In terms of drug use and gender differences, half of females 49.3%; (n=3439) reported never using drugs, while 14.1% (n=984) reported using drugs in the last 30 days. Over a third of males (34.1%; n=1501) reported never using drugs, while over a quarter (26.8%; n=1178) reported using in the last 30 days. Among participants identifying as “other,” equal numbers (24.1%; n=7) reported never using drugs, as using drugs in the last 30 days. Similarly, participants identifying as non-binary reported never using drugs (30.9%; n=34) and using drugs in the last 30 days (30.0%; n=33). Figure 11 illustrates the full breakdown of drug use group by gender.

Figure 11 - Drug User Group by Gender (All Participants)

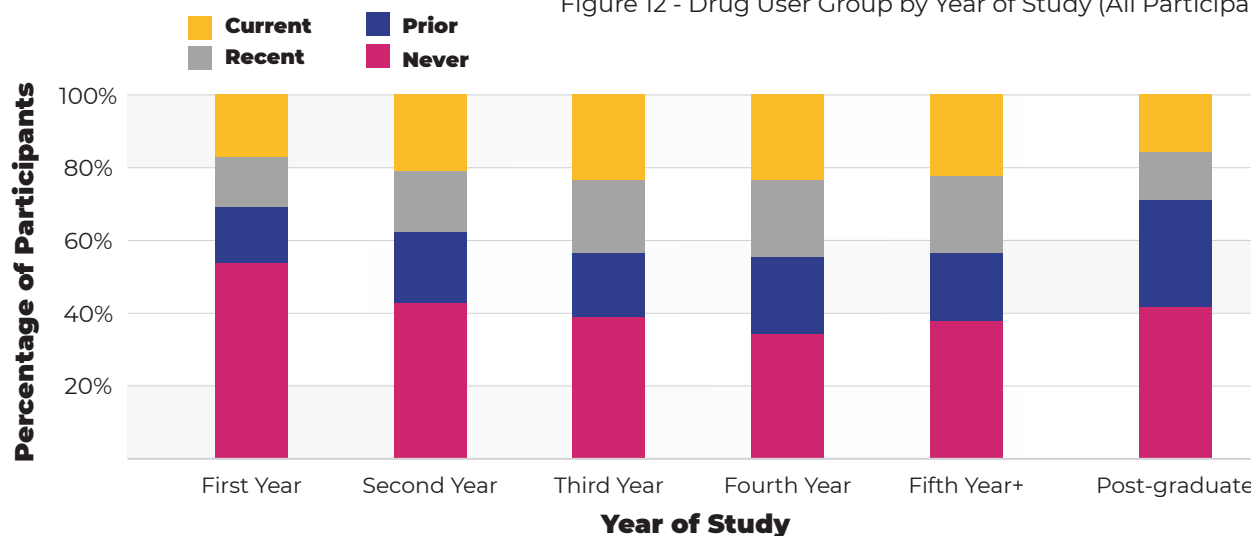


Participants were asked to specify whether they were undergraduate or postgraduate, and their year of undergraduate study. Over half of both undergraduate students (54.2%; n=5,063) and postgraduate students (57.1%; n=1,231) report ever using a drug. The percentages of each year group by group of drug user is shown in Table 5 and illustrated in Figure 12.

Table 5 - Drug User Group by Year of Study

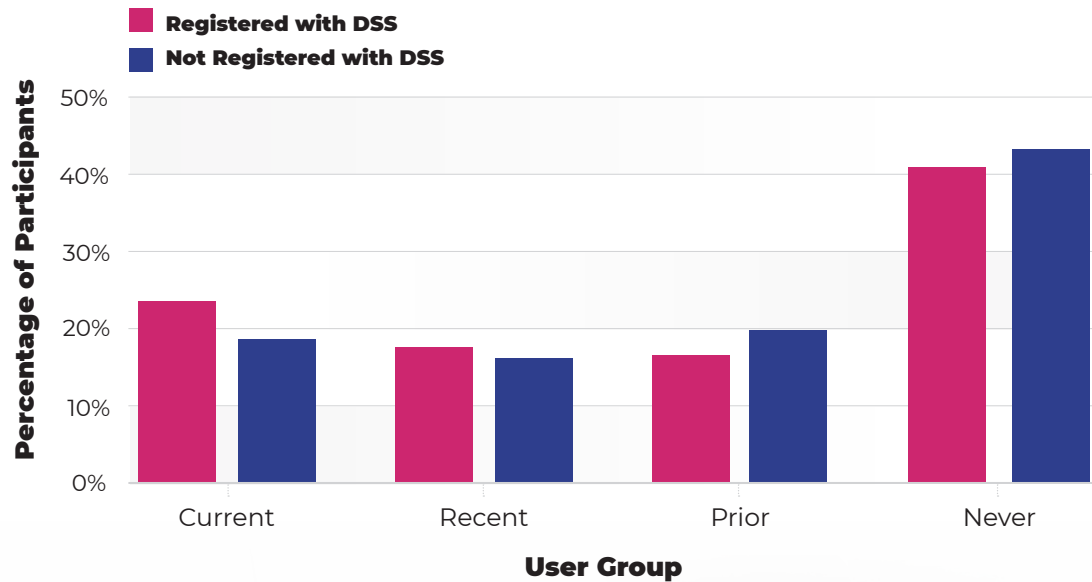
	Current	Recent	Prior	Never
First Year	16.1	13.8	15.6	51.9
Second Year	20.6	16.4	17.6	43.1
Third Year	23.7	19.0	17.7	37.9
Fourth Year	23.7	20.3	21.3	33.1
Fifth Year +	22.7	20.0	18.2	36.4
Post-graduate	14.6	14.6	27.8	41.2

Figure 12 - Drug User Group by Year of Study (All Participants)



Participants were asked to indicate whether they were registered with the Disability Support Service (DSS) in their institution. Over half (57.2%; n=571) of participants registered with the DSS reported ever using drugs, compared with 54.5% (n=5,740) of participants not registered with the DSS. Just under a quarter of participants registered with the DSS (23.1%; n=231) report current use of drugs, in comparison with 18.7% (n=1,966) of participants not registered with the DSS. Figure 13 illustrates the breakdown of user groups of participants registered and not registered with the DSS.

Figure 13 - Drug User Group by Disability Support Service Registration (All Participants)



FINDINGS

CURRENT AND RECENT USERS

8.1

Drug Use

8.1.1 Current User

Participants reporting use of drugs in the last month were routed to this section (n=2,209). Drug Abuse Screening Test (DAST-10) scores were calculated for 2,164 participants who answered all 10 questions. The mean DAST score was 3.04. Percentages of participants answering Yes/No for each of the DAST-10 questions are illustrated in Figure 14.

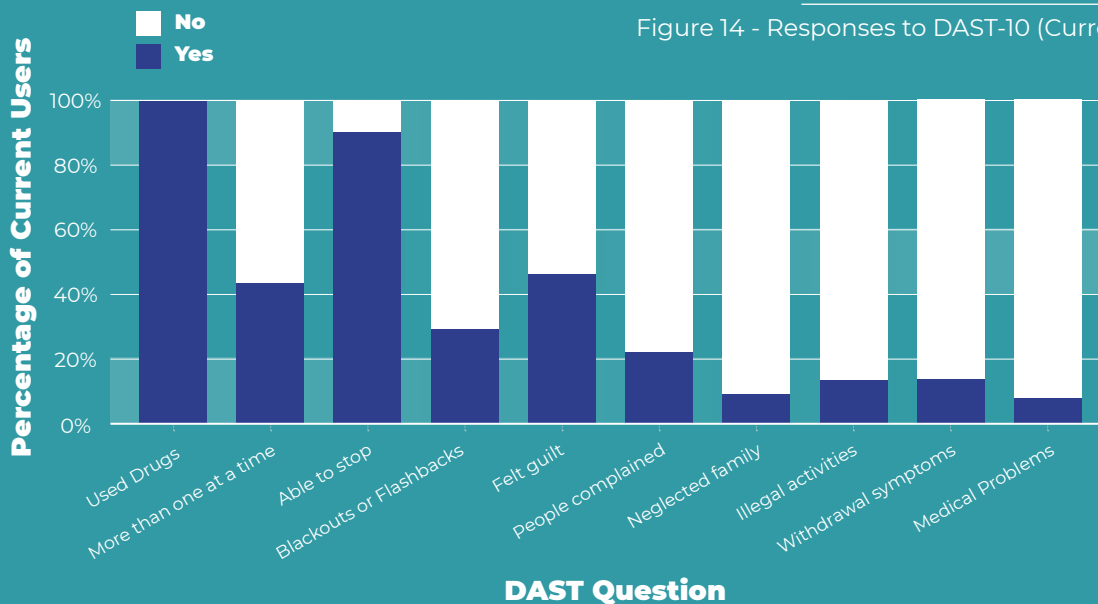
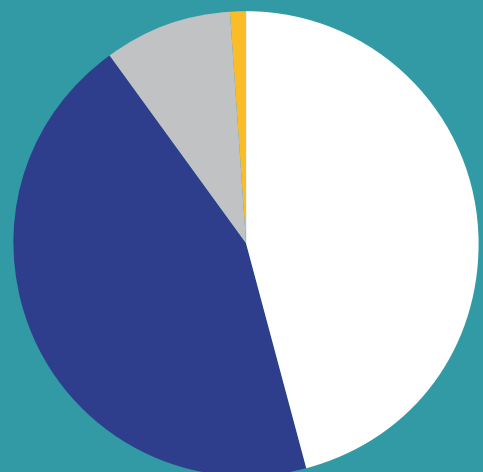


Figure 15 - Level of Risk of Drug Use Harm (Current Users)

Just under half (45.7%; n=988) of current users were found to be at a low risk of drug use harm, a similar percentage were at moderate risk (43.8%; n=948), 9.1% (n=197) were at substantial risk, and 1.4% (n=31) indicated severe risk. Figure 15 illustrates the percentage of participants in each level of risk.

52.9%
of current users were found to be at moderate or substantial risk of drug use harm

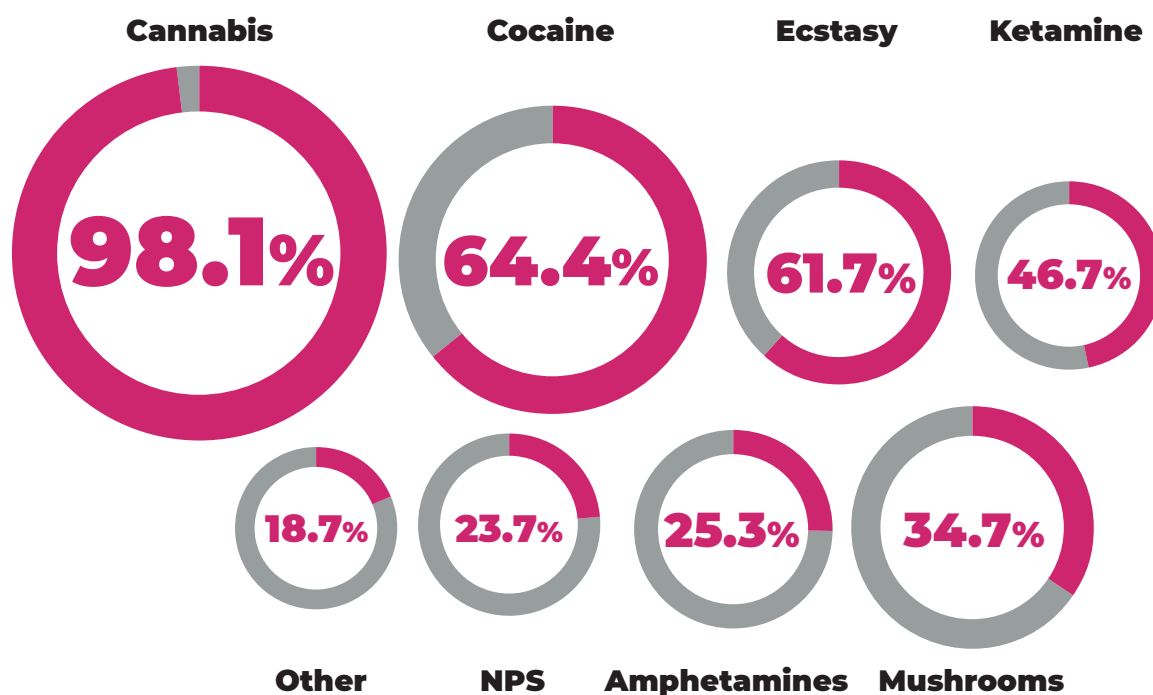
46% Low
44% Moderate
9% Substantial
1% Severe



In considering the responses to the individual DAST-10 questions, it is notable that 43.8% of current users reported simultaneous polydrug use, i.e., using two or more drugs on the same occasion.

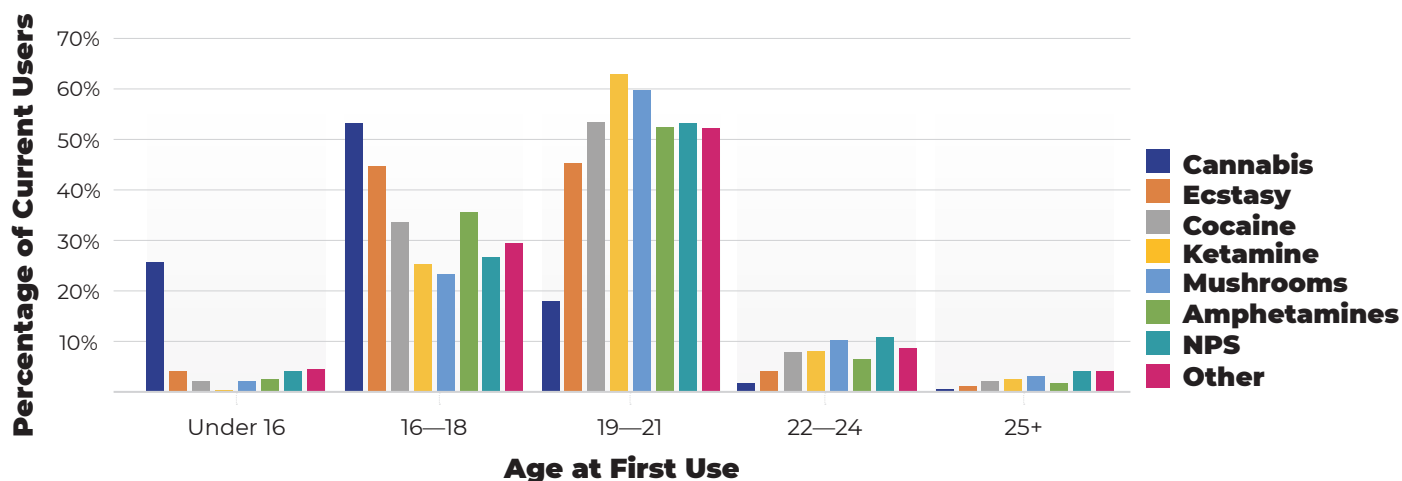
The majority of current users reported ever using cannabis (98.1%; n=2,166). Approximately two-thirds (64.4%; n=1,422) had used cocaine, 61.7% (n=1,362) had used ecstasy, 46.7% (n=1,032) had used ketamine, 34.7% (n=766) had used magic mushrooms, 25.3% (n=559) had used amphetamines, 23.7% (n=523) had used novel psychoactive substances, and 18.7% (n=414) reported other drug use, such as LSD, use of prescription medications (including benzodiazepines, pain medication), and cognitive enhancers, various NPS, alkyl nitrites (poppers), DMT, and nitrous oxide (laughing gas). Figure 16 illustrates the percentage of participants reporting ever use of each drug type.

Figure 16 - Percentage Reporting Use of Each Drug Type (Current Users)



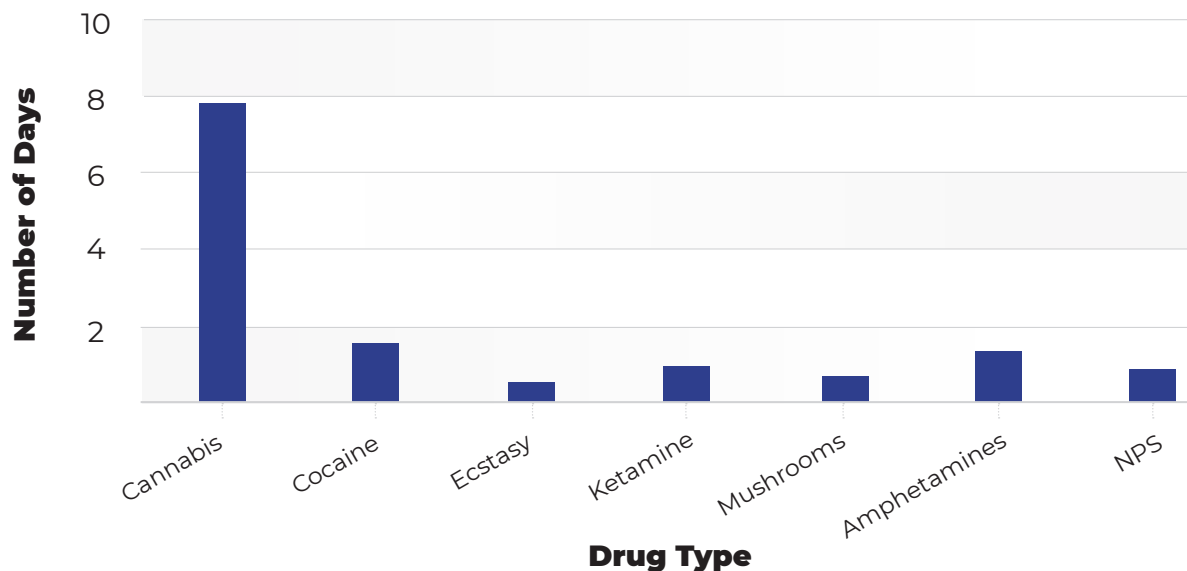
The age at first use for current users was 19—21 years for the majority of drugs, except cannabis, which was 16—18 years for over half of current users. One-quarter (25.9%) of current users reported using cannabis for the first time when they were under 16 years of age. Almost equal numbers of current users reported using ecstasy for the first time between 16—18, and 19—21 years of age. The age at first use by drug type is illustrated in Figure 17.

Figure 17 - Age at First Use (Current Users)



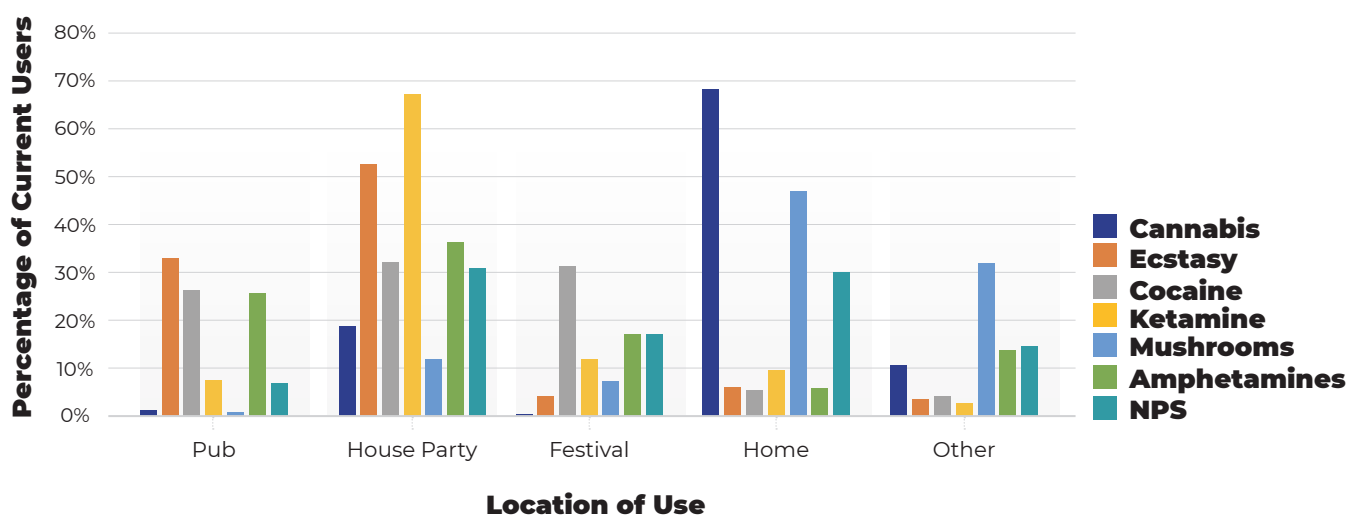
The mean number of days participants reported using each drug type is illustrated in Figure 18. This represents a pattern of cannabis use twice weekly, with cocaine, ketamine, and amphetamine use being reported at a frequency of approximately once per month.

Figure 18 - Number of Days of Use in Last 30 Days (Current Users)



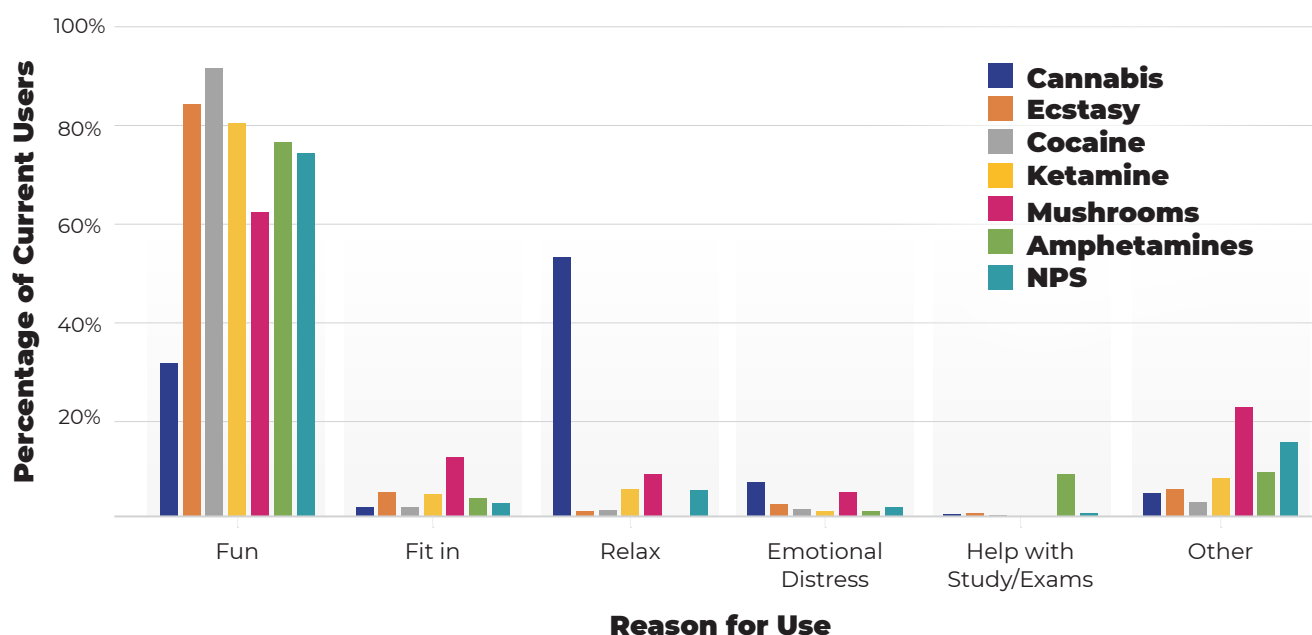
The most commonly reported location for use of drugs varied by substance. Own house or apartment was the most commonly reported location for cannabis and mushrooms; own home or house parties were equally common locations for NPS use; house parties were the most commonly reported location for cocaine, ketamine, and amphetamines use; and house parties and festivals were equally common locations for ecstasy use. Figure 19 illustrates the location of use per drug type.

Figure 19 - Location of Use (Current Users)



The most commonly reported reason for use across all drug types was to have fun, apart from cannabis, for which the most commonly reported reason was to relax. Other reasons across drug types included to fit in, and to deal with emotional distress. A substantial number of participants reported “other” reasons for drug use. Figure 20 illustrates the main reason for use among current users.

Figure 20 - Main Reason for Use (Current Users)

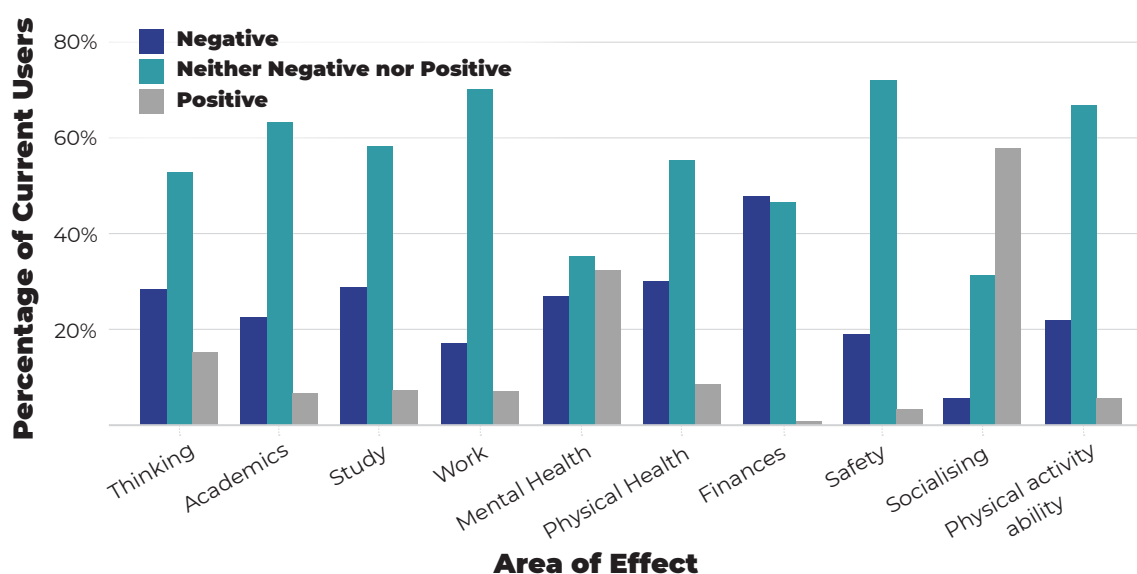


The most commonly reported day of the week for drug use during the college semester was Friday (38.2%; n=795), followed by Saturday (34.7%; n=760), and Thursday (14.1%; n=279).

Most participants felt that their use had decreased (40.9%; n=903) or remain unchanged (24.9%; n=550) in the previous 12 months. Just under one-third (32.8%; n=724) of participants felt that their use had increased in that period.

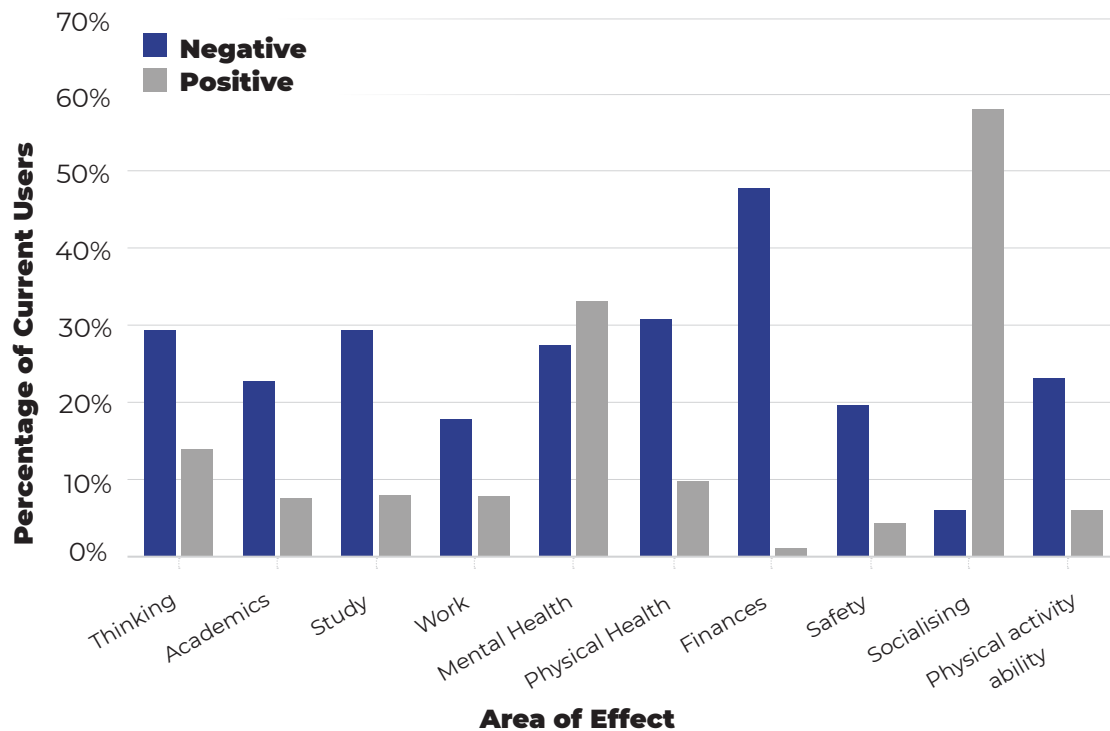
In the main, participants felt that their drug use had neither positive nor negative effects on various aspects of their lives, with the exception of the ability to socialise, for which the majority reported a positive effect. However, a slight majority of participants reported negative effects on their finances. Over a quarter of current users reported negative effects on their ability to think, ability to study, and their mental and physical health and well-being. Figure 21 illustrates the reported effects of drug use among current users.

Figure 21 - Effects of Drug Use (Current Users)



When responses showing “neither negative nor positive” are removed, the relative effects of drug use on current users are shown in Figure 22.

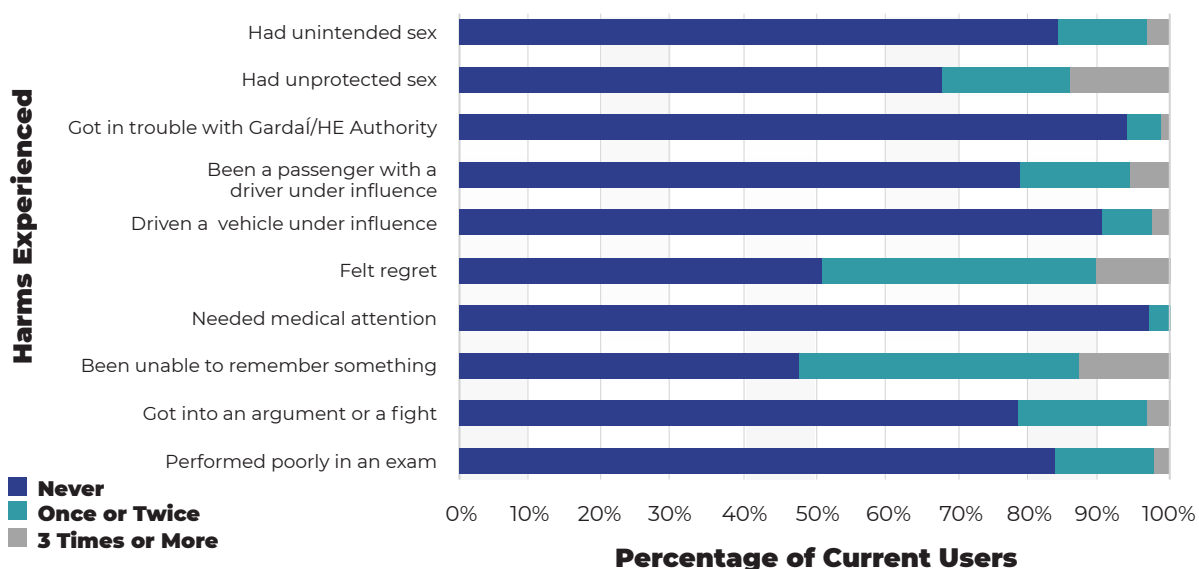
Figure 22 - Drug Use Negative and Positive Effects (Current Users)



In terms of effects on their personal relationships, the majority of participants reported that their drug use had neither negative nor positive effects on their family (63.2%; n=1,397), friends (62.8%; n=1,388), housemates (60.0%; n=1,324), and romantic relationships (52.3%; n=1,155).

In terms of adverse consequences due to their drug use in the last year, on one or two occasions, 37.8% (n=834) of participants reported being unable to remember what they said or did, 37.1% (n=819) reported feeling regret over something, 17.3% (n=383) reported having unprotected sex, 17.3% (n=383) reported getting into an argument or fight, and 11.6% (n=257) report having unintended sex. On three occasions or more, 12.9% (n=285) of participants reported having unprotected sex, 11.9% (n=262), that they were unable to remember something they did or said, and 9.5% (n=209) felt regret over something. The majority of participants reported never experiencing the listed adverse consequences from their drug use in the last year. Figure 23 illustrates the frequency of adverse consequences due to drug use in the past year.

Figure 23 - Drug-Related Past Year Experiences (Current Users)



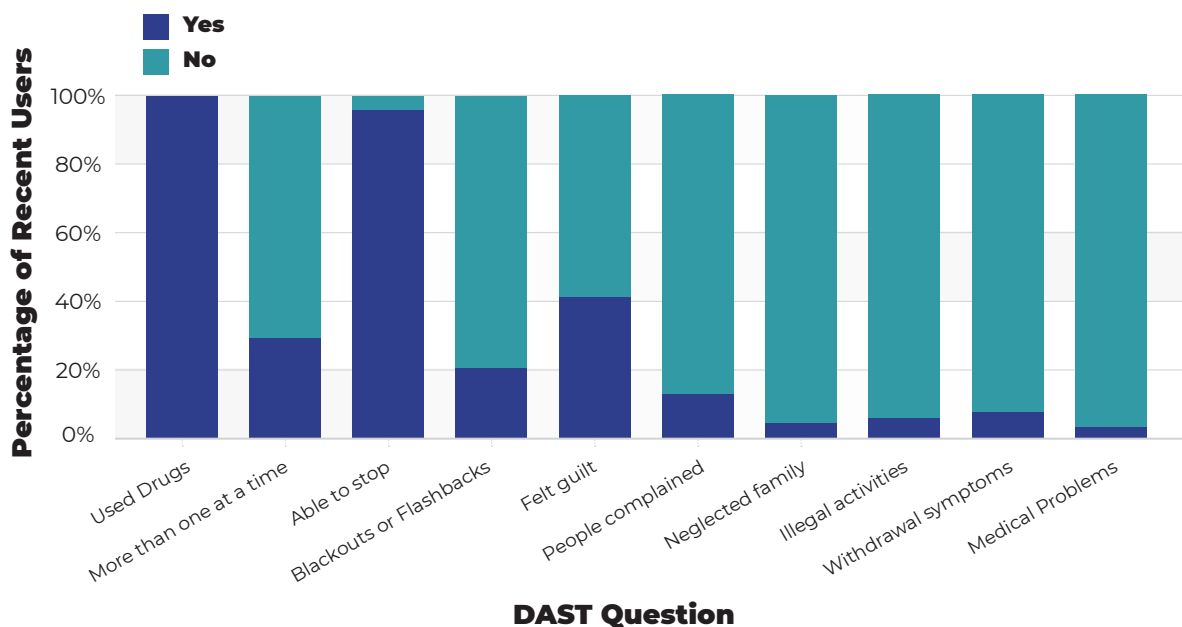
While using drugs, the majority of participants reported rarely or never (53.7%; n=1,010) thinking about alternatives to drug taking, with fewer reporting occasionally (15.8%; n=297), and frequently or always (9.3%; n=174) thinking about alternatives. When asked about considering the negative consequence of drug use on themselves or others, 31.0% (n=582) participants reported that they rarely or never considered them, 24.9% (n=468) did so occasionally, and 23.4% (n=440) did so frequently or always. When asked about considering the possible positive consequences to themselves or others, 40.2% (n=755) reported rarely or never doing so, 21.4% (n=403) reported doing so occasionally; and 17.5% (n=329) reported frequently or always doing so.

The majority of participants reported sourcing their drugs from someone they knew well, such as a friend, classmate, or colleague (59.4%; n=1,116), with fewer reporting sourcing drugs from a stranger (11.3%; n=213) or online (2.1%; n=39). A minority reported sourcing their drugs elsewhere, such as in a country where drug use was legal, or from an acquaintance or a trusted dealer.

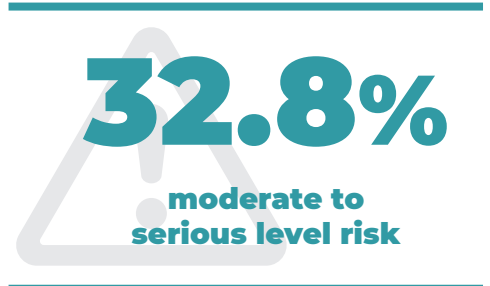
8.1.2 Recent User

Participants reporting use of drugs in the last year, but not in the last month were routed to this section (n=1,880). Drug Abuse Screening Test (DAST-10)⁷ scores were calculated for 1,774 participants who answered all ten questions in the test. The mean DAST score was 2.3. Percentages of participants answering Yes/No for each of the DAST-10 questions are illustrated in Figure 24.

Figure 24 - Responses to DAST-10 (Recent Users)



Based on their DAST-10 scores, over two-thirds (67.2%; n=1,192) of recent users were found to be at a low-level risk of drug use harm, 28.3% (n=502) were at a moderate level of risk, 3.8% (n=67) at a substantial level of risk, and 0.7% (n=13) were at a severe level of risk. Figure 25 illustrates the percentage of participants in each level of risk. The recommended actions for each level of risk are displayed in Table 6.



⁷ Each "Yes" response to the DAST-10 questions scores one point, with the exception of question 3, for which a "No" response scores one point. The points are summed and a score is calculated. Scoring indicates relevant risk of harm from drug use.

Figure 25 - Level of Risk of Drug Use Harm (Recent Users)

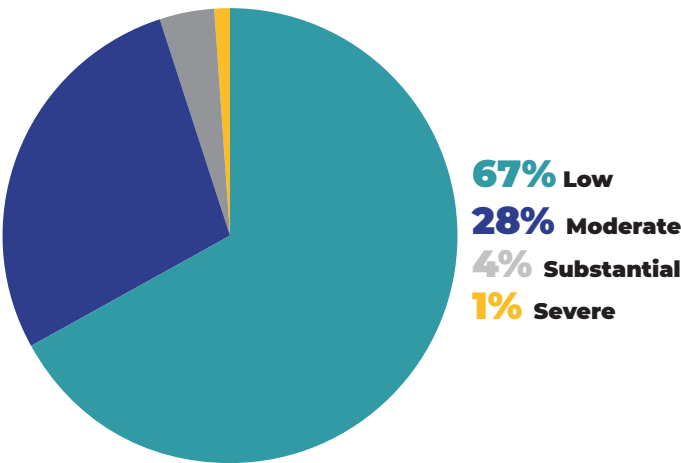


Table 6 - DAST-10 Risk Categorisation and Suggested Actions

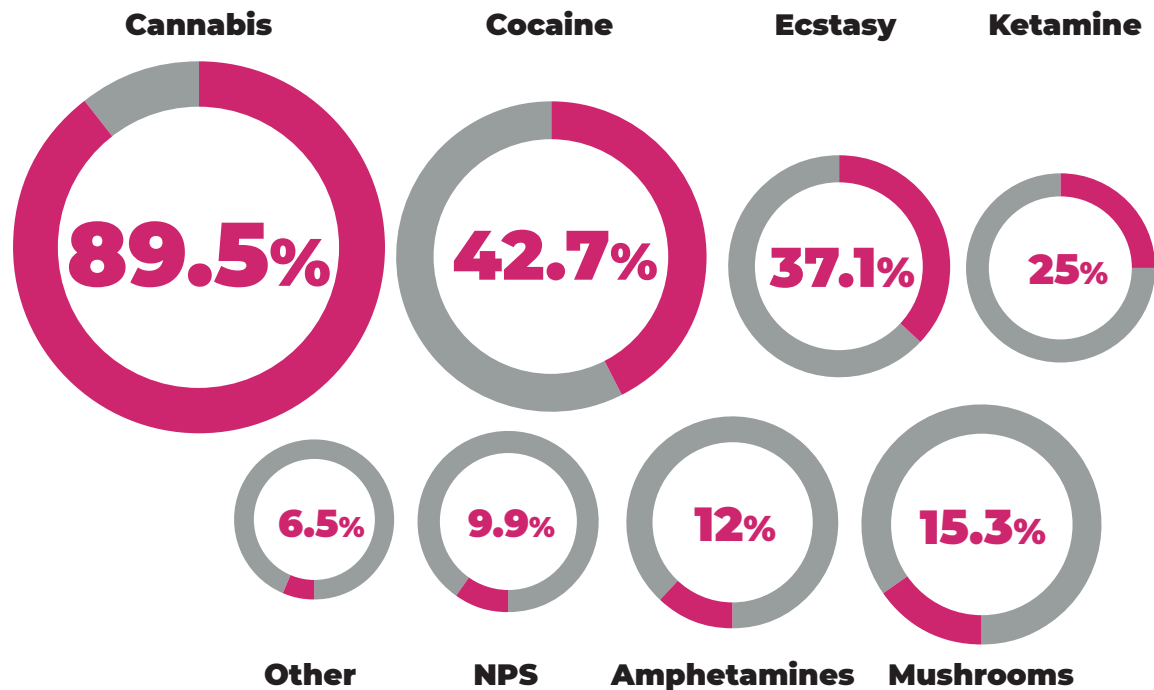
DAST-10 Score	Risk level Related to Drug Use	Suggested Action
0	No problems reported	None at this time
1-2	Low level risk	Monitor, re-assess at a later date
3-5	Moderate level risk	Further investigation
6-8	Substantial level risk	Intensive assessment
9-10	Severe level risk	Intensive assessment

In considering the responses to the individual DAST-10 questions, it is notable that 29.6% of recent users reported simultaneous polydrug use, i.e., using two or more drugs on the same occasion.

A majority of participants reported ever using cannabis (89.5%; n=1,683). Under half of recent users (42.7%; n=802) had used cocaine, 37.2% (n=700) had used ecstasy, 25.0% (n=470) had used ketamine, 15.3% (n=288) had used magic mushrooms, 12.0% (n=226) had used amphetamines, 9.9% (n=186) had used NPS, and 6.5% (n=122) reported using other drugs, such as LSD, prescription medications (including benzodiazepines and pain medication), cognitive enhancers, alkyl nitrites (poppers), DMT, and nitrous oxide (laughing gas). Figure 26 illustrates the percentage of participants reporting ever use of each drug type.

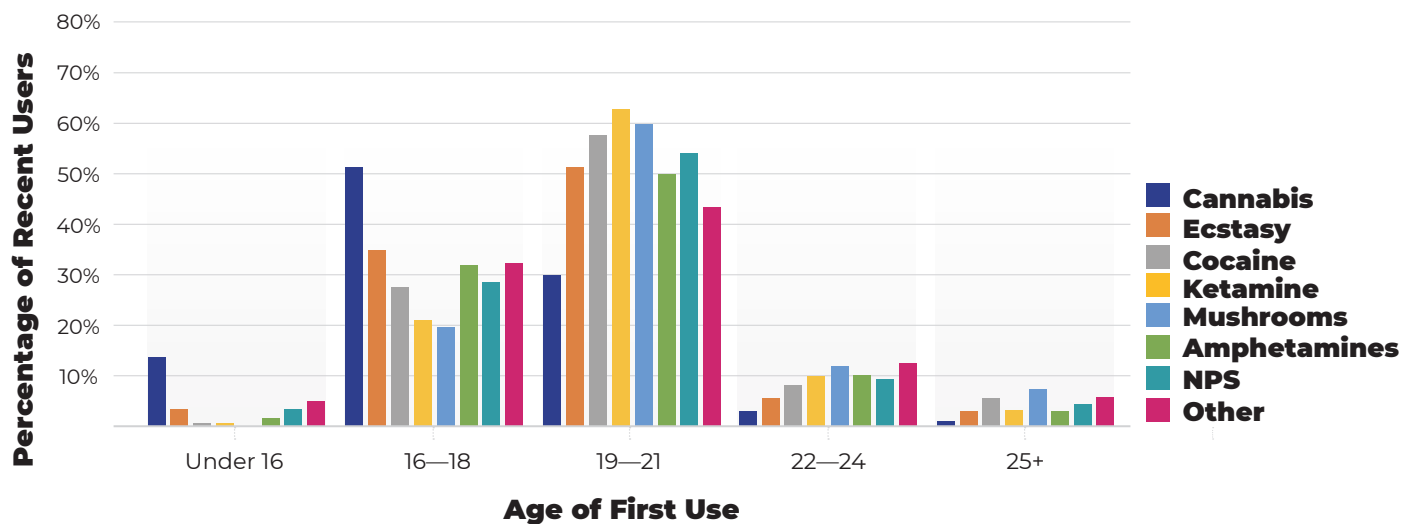


Figure 26 - Percentage Reporting Use of Each Drug Type (Recent Users)



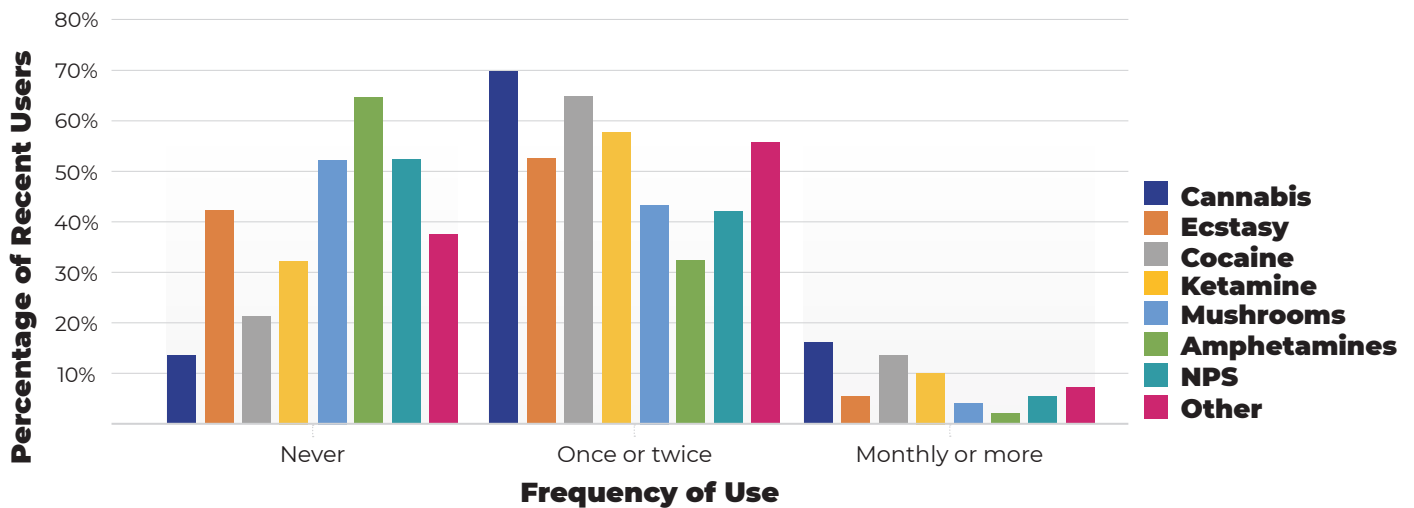
The age at first use for most drugs was between 19—21 years except cannabis, when age of first use was between 16—18 years. Over one-third (35.4%) of recent users reported using ecstasy for the first time between 16—18 years. A third (32.6%) also reported the use of amphetamine and other drugs between 16—18 years. The age at first use breakdown by drug type is illustrated in Figure 27

Figure 27 - Age at First Use (Recent Users)



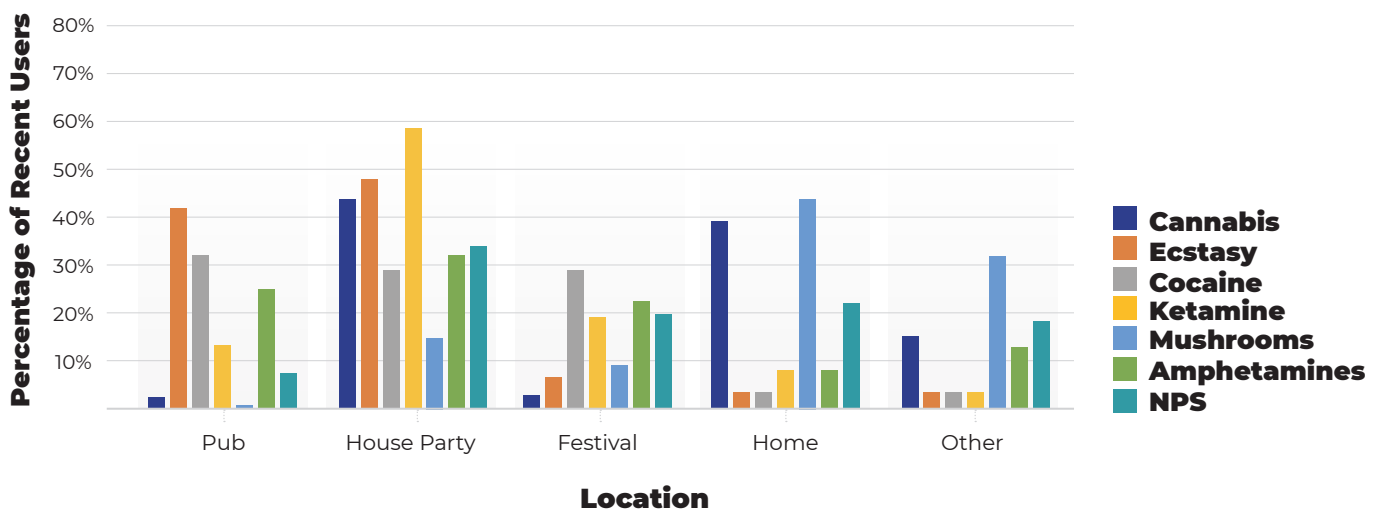
For most drug types, the majority of participants reported using them once or twice in the last 12 months, apart from mushrooms, amphetamines and NPS, where the majority reported never using in the last 12 months. Figure 28 illustrates the frequency of use of each drug type in the last 12 months.

Figure 28 - Frequency of Use in Last 12 Months (Recent Users)



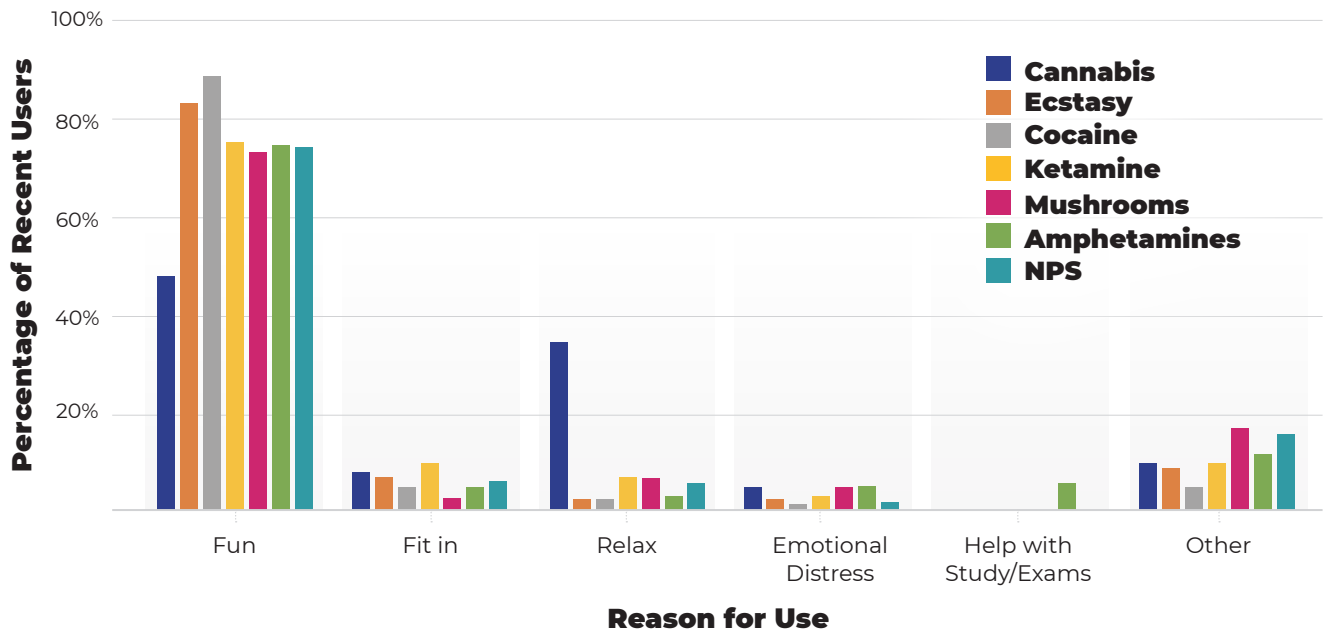
The most commonly reported location for the use of drugs varied by substance. Own house or apartment was the most commonly reported location for mushroom use; house parties were the most commonly reported location for cannabis, NPS, cocaine, ketamine, and amphetamines use; and pubs, bars or nightclubs were the most commonly reported location for ecstasy use. Figure 29 illustrates the location of use for each drug type.

Figure 29 - Location of Drug Use (Recent Users)



The most commonly reported reason for use across all drug types was to have fun. A large minority also reported “to relax” as their main reason for cannabis use. Other reasons across drug types included to fit in, and to deal with emotional distress. A small percentage of participants reported help with study or exams as the main reason for their use of amphetamines. A substantial number of participants reported “other” reasons for drug use. Figure 30 illustrates the main reason for use among recent users.

Figure 30 - Main Reason for Use (Recent Users)

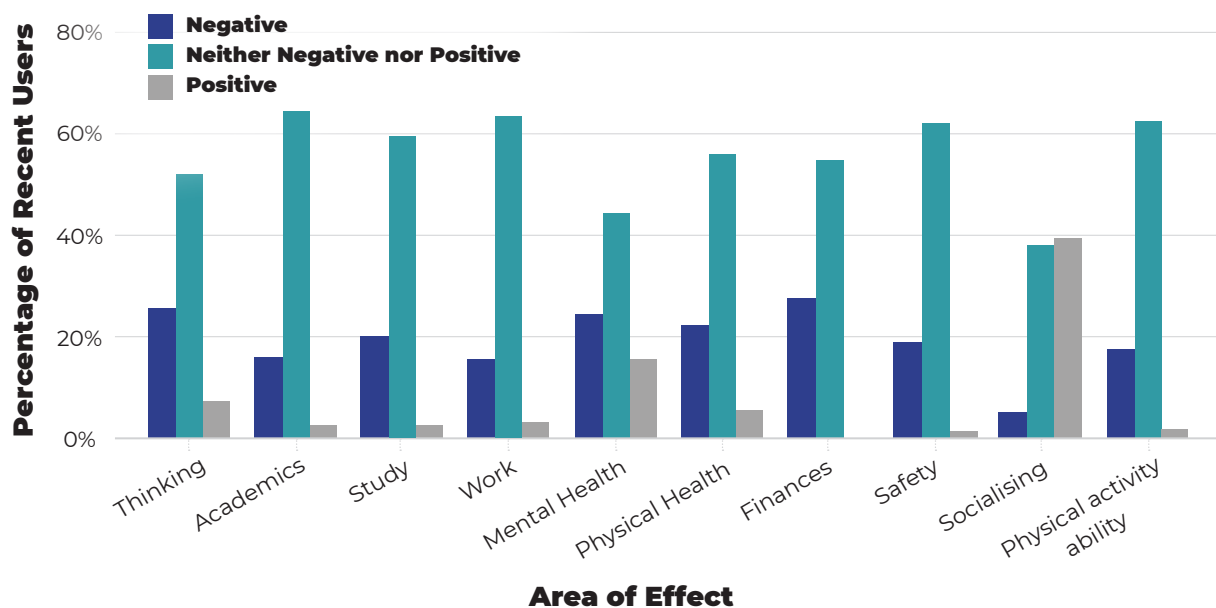


The most common day of the week for drug use during the college semester was Saturday (32.0%; n=601), followed by Friday (23.5%; n=441), and Thursday (12.0%; n=225).

Less than 10% (9.1%; n=171) of participants felt that their use had increased in the last 12 months, under one-quarter (22.2%; n=418) felt it had remained the same, while the majority felt that their use had decreased (52.9%; n=994).

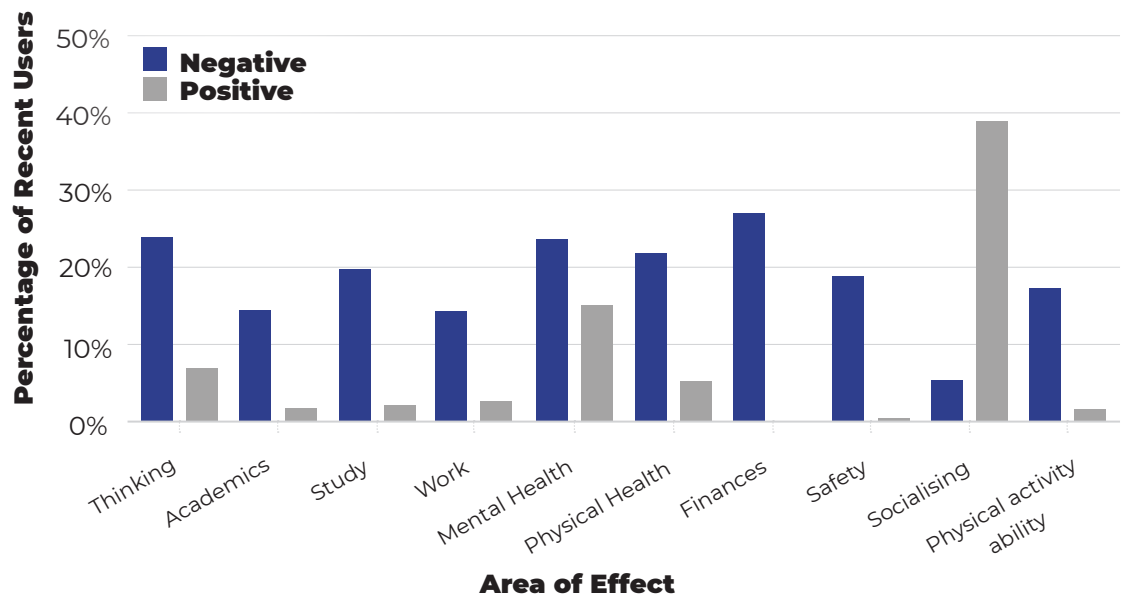
In the main, participants felt that their drug use had neither positive nor negative effects on various aspects of their lives, except for the ability to socialise, for which the majority reported a positive effect. However, around a quarter of recent users reported negative effects on their ability to think, their finances, and their mental well-being. Figure 31 illustrates the reported effects of drug use among recent users.

Figure 31 - Effects of Drug Use (Recent Users)



When responses showing “neither negative nor positive” are removed, the relative effects of drug use on recent users are shown in Figure 32.

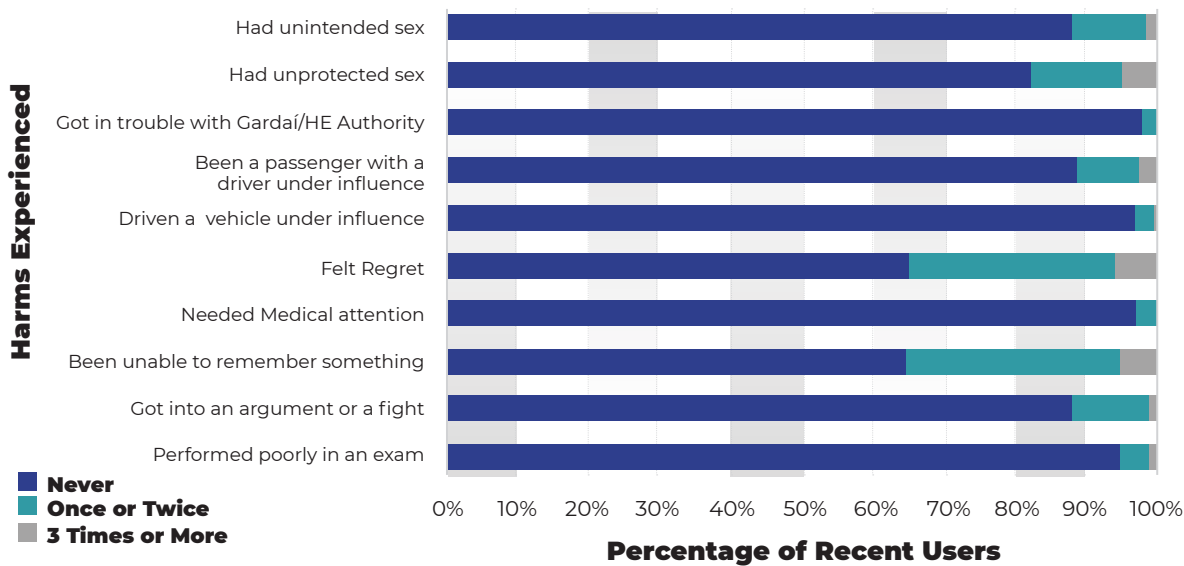
Figure 32 - Drug Use Negative and Positive Effects (Recent Users)



In terms of personal relationships, the majority of participants reported neither negative nor positive effects on their family (55.9%; n=1,050), friends (58.6%; n=1,102), housemates (54.4%; n=1,022), or romantic relationships (48.8%; n=917).

In terms of adverse consequences due to their drug use in the the past year, students reported that on one or two occasions they experienced adverse consequences: 25.2% (n=474) of participants reported being unable to remember what they said or did, 24.0% (n=452) reported feeling regret over something, 10.1% (n=189) reported having unprotected sex, 9.1% (n=171) reported getting into an argument or fight, and 7.9% (n=148) report having unintended sex. On three occasions or more, 4.4% (n=82) of participants felt regret over something, 4.3% (n=80) were unable to remember something they did or said, and 4.2% (n=79) of participants reported having unprotected sex. The majority of participants reported never experiencing the listed adverse consequences from their drug use in the last year. Figure 33 illustrates the frequency of adverse consequences due to drug use in the past year.

Figure 33 - Past Year Adverse Consequences (Recent Users)



While using drugs, the majority of participants reported rarely or never (53.7%; n=1,010) thinking about alternatives to drug taking, with fewer reporting occasionally (15.8%; n=297), and frequently or always (9.3%; n=174) thinking about alternatives. When asked about considering the negative consequence of drug use on themselves or others, 31.0% (n=582) participants reported that they rarely or never considered them, 24.9% (n=468) did so occasionally, and 23.4% (n=440) did so frequently or always. When asked about considering the possible positive consequences to themselves or others, 40.2% (n=755) reported rarely or never doing so, 21.4% (n=403) reported doing so occasionally; and 17.5% (n=329) reported frequently or always doing so.

The majority of participants reported sourcing their drugs from someone they knew well, such as a friend, classmate, or colleague (59.4%; n=1,116), with fewer reporting sourcing drugs from a stranger (11.3%; n=213) or online (2.1%; n=39). A minority reported sourcing their drugs elsewhere, such as in a country where drug use was legal, or from an acquaintance or a trusted dealer.

8.2

Student Life

Of all participants (n=11,592), 28.3% (n=3,276) reported being an active member of a sports club; 22.9% (n=2,650) reported being an active member of a student society, and 8.6% (n=996) reported being a member of both.

When asked about their opinions of drug use among students, 53.5% (n=6,198) stated that they felt drug use was a normal part of student life; 29.8% (n=3,460) felt it was not, and 16.5% (n=1,915) gave no opinion. Those who responded to this question were further asked what effect they felt drug use has on student life. Almost one-fifth (19.1%; n=2,241) felt that drug use has an extremely negative effect, 37.3% (n=4,319) felt that drug use has a somewhat negative effect, 19.7% (n=2,279) felt that it has a neither negative nor positive effect on student life, 6.2% (n=713) felt the effect was somewhat positive, and 0.9% (n=101) felt that drug use has an extremely positive effect on student life. Figure 34 illustrates the opinions of effects of drug use on student life.

28.3%
reported being actively
part of a sports club

22.9%
reported being actively
part of a student society

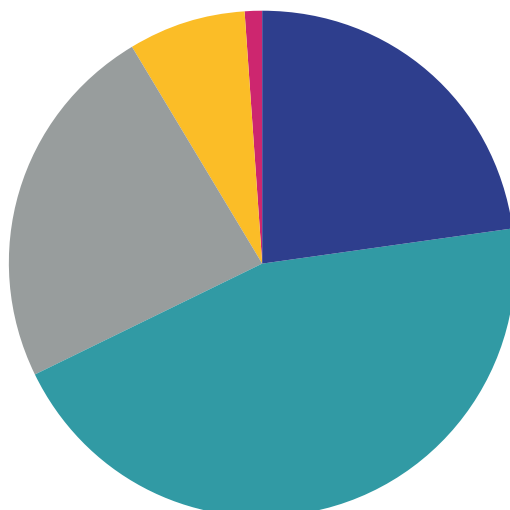


Figure 34 – Opinion of Effects of Drug Use on Student Life
(All Participants)

37.3% Somewhat Negative
19.1% Extremely Negative
19.7% Neither
6.2% Somewhat Positive
0.9% Extremely Positive

Figure 35 illustrates the opinions of drug use in student life across each of the groups of drug user. Figure 36 illustrates the opinions of the effects of drug use on student life.

Figure 35 - Opinions of Drug Use in Student Life (All Participants)

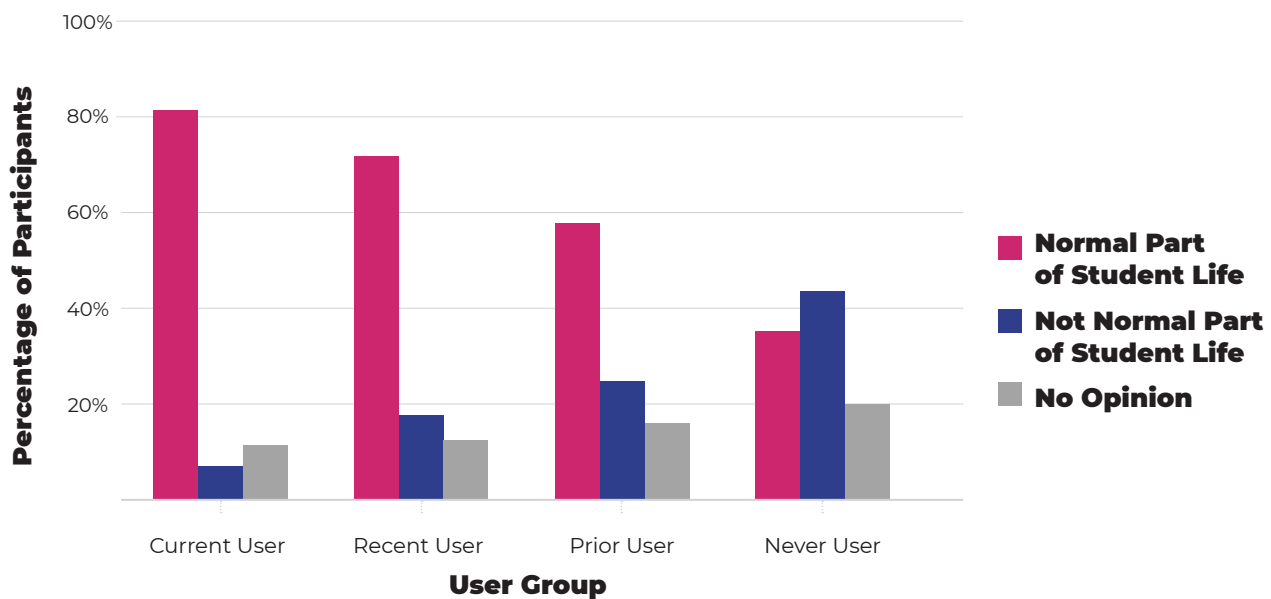
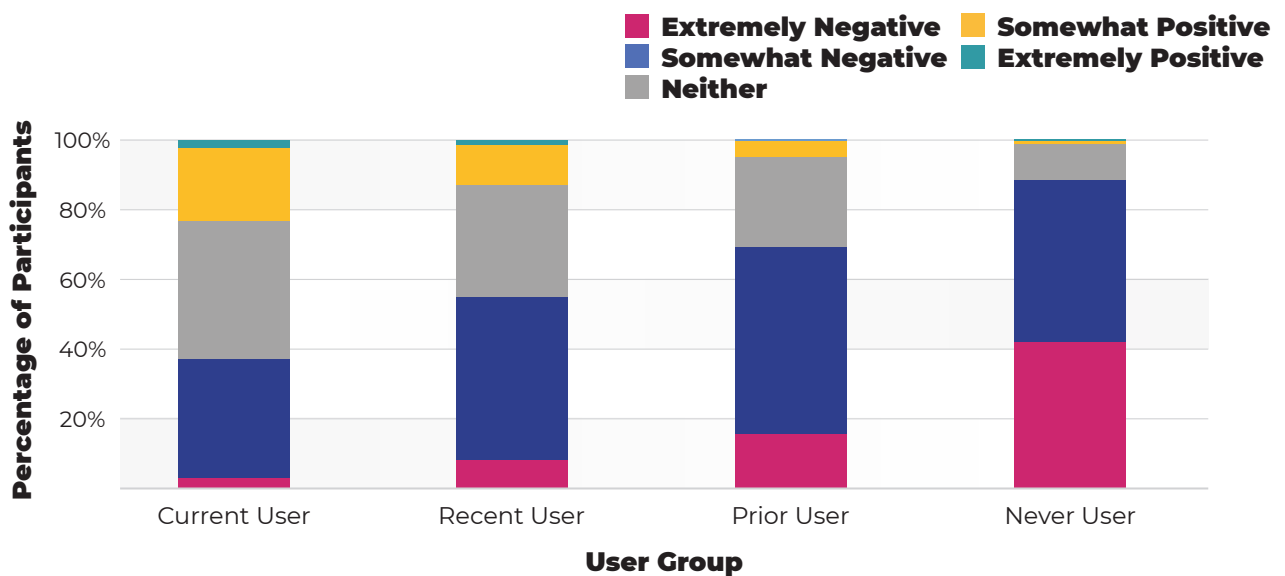


Figure 36 - Opinion of Effects of Drug Use on Student Life (All Participants)



8.2.1 Current User

Of the participants reporting use of drugs in the last month (n=2,209), 29.5% (n=651) reported being an active member of a sports club; and 24.7% (n=545) reported being an active member of a student society.

When asked about their opinions of drug use among students, 81.7% (n=1,805) stated that they felt drug use was a normal part of student life; 7.5% (n=166) felt it was not, and 10.7% (n=236) gave no opinion. Those who responded to this question were asked what effect they felt drug use has on student life; 2.9% (n=65) felt that drug use has an extremely negative effect, 30.1% (n=665) felt that drug use has a somewhat negative effect, 35.7% (n=788) felt that it has a neither negative or positive effect on student life, 18.1% (n=399) felt the effect was somewhat positive, and 2.4% (n=52) felt that drug use has an extremely positive effect on student life.

8.2.2 Recent User

Of participants reporting use of drugs in the last 12 months, but not the last month (n=1,880), 29.3% (n=550) reported being an active member of a sports club, and 23.6% (n=443) reported being an active member of a student society.

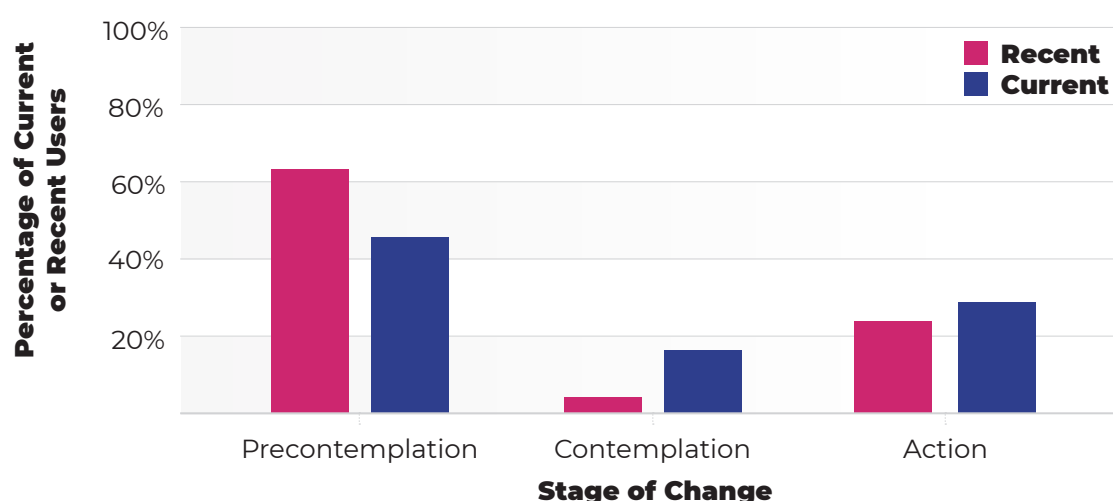
When asked about their opinions of drug use among students, 70.9% (n=1,332) stated that they felt drug use was a normal part of student life, 16.8% (n=316) felt it was not, and 12.2% (n=229) gave no opinion. Those who responded to this question were asked what effect they felt drug use has on student life; 6.5% (n=123) felt that drug use has an extremely negative effect, 41.1% (n=772) felt that drug use has a somewhat negative effect, 29.5% (n=554) felt that it has a neither negative or positive effect on student life, 8.9% (n=168) felt the effect was somewhat positive, and 1.6% (n=30) felt that drug use has an extremely positive effect on student life.

8.3

Readiness to Change

Participants reporting recent or current drug use were presented with questions assessing their readiness to change using a validated questionnaire (34). Individuals were identified as being at one of three stages of change according to their responses to this questionnaire: precontemplation stage, contemplation stage, or action stage. The precontemplation stage indicates that the participant has not yet considered changing their behaviour. The contemplation stage indicates that the participant recognised their behaviour as potentially problematic and were considering a change. The action stage indicates that the participant had recently made a change to their behaviour and intends to continue with this change. Figure 37 illustrates the stages of change among recent and current users.

Figure 37 - Stages of Change (Recent and Current Users)



8.3.1 Current User

Readiness to change was calculated for 1,829 current users who completed the full questionnaire. The majority of current users were in precontemplation stage (46.4%; n=848). One sixth were in the contemplation stage (16.8%; n=371). Finally, over a quarter of current users were in the action stage (27.6%; n=610).

8.3.2 Recent User

Readiness to change was calculated for 1,321 recent users who completed the full questionnaire. The majority of recent users were in the precontemplation stage (62.9%; n=831). Less than one in twenty were in the contemplation stage (4.5%; n=59). Finally, under a quarter of recent users were in the action stage (22.9%; n=431).

8.4

Behaviour change

Participants reporting current or recent drug use were presented with a number of questions designed to prompt reflection around their use.

Just over half (56.1%; n=2292) reported that they would not like to reduce their drug use. When asked why this was the case, 1,889 participants indicated their reasons. The most common reasons were perceived low or occasional use (55.5%; n=1,049), not perceiving their use as harmful (18.2%; n=343), getting some benefits from their drug use (8.9%; n=162), such as helping to relax, benefitting mental health, perceiving their use as responsible or controlled (7.3%; n=138), and enjoying their drug use (5.6%; n=105).

Over a third (36.7%; n=1,499) reported that they had attempted to change their drug use, 40.5% (n=1,656) reported that they had not. Of those who had attempted, the most commonly reported method to change their drug use was avoiding environments which contributed to drug use (43.6%; n=653), followed by avoiding friends or peers who frequently used drugs (37.0%; n=554), or by taking up a new hobby (23.1%; n=346). A further 26.9% (n=403) of participants reported other reasons, such as just stopping or choosing not to take drugs (12.3%; n=184), and goal setting (2.5%; n=37). Finally, 85.7% (n=1,285) of respondents reported that their attempts were successful, whereas 6.9% (n=103) reported that they were not. Figure 38 is a word-cloud representation of the words used by current or recent users to describe their methods to reduce or stop taking drugs.

Figure 38 - Word Cloud Representation of Participant Methods to Reduce or Stop Drug Use (Current or Recent Users)



8.4.1 Current User

Less than 10% of current drug users (9.4%; n=208) reported that a relative, friend or medical professional had been worried about their drug use in the last year. A further 9.1% (n=201) reported that this has happened previously, but more than a year ago. The majority (71.2%; n=1,573) reported that they had not experienced this.

One-third of participants (32.7%; n=724) reported that they would like to reduce their drug use. Of those participants, the most common reason for wanting to reduce use was concern about impacts on physical health and wellbeing (64.0%; n=463), followed by concerns about mental health and wellbeing (62.4%; n=452), concerns about impact on finances (57.0%; n=413), concerns about impact on future career prospects (48.1%; n=348), concerns about legal implications (47.0%; n=340), and concerns about impact on academic progress or performance (50.7%; n=367). Just over half (56.7%; n=1,252) reported that they would not like to reduce their drug use.

Just under half of participants (45.7%; n=1,009) reported that they had not thought about ways in which they could reduce their drug use, whereas 40.7% (n=899) reported that they had. Participants indicated that they would consider avoiding certain environments which might contribute to drug use (48.7%; n=1,076), taking up a new hobby (48.7%; n=1,076) and learning about the potential risks and side effects of drug use (43.1%; n=952), looking for information online (45.3%; n=1,001), and avoiding certain friends and peers who use drugs (40.2%; n=887). Participants reported that they would not consider seeking help from a helpline or addiction and recovery service (64.3%; n=1,421) or seeking help from a student service (63.2%; n=1,397) or seeking help from a friend or family member (53.8%; n=1,188). A small number of participants (1.7%; n=38) suggested other options they would consider, which included making an active decision not to use drugs, and just saying no.

Participants were asked how capable they believed they were at reducing or stopping their drug use. The mean score for this was 8.64 out of 10, indicating a very high degree of confidence that they were able to stop taking drugs.

Under one-half (44.1%; n=975) reported that they had attempted to change their drug use, 39.8% (n=879) reported that they had not. Of those who had attempted to change (n=975), 43.3% (n=422) had tried once, 23.3% (n=227) had tried twice, and 31.2% (n=304) had tried three or more times. Participants reported their most recent attempt in the last year (42.4%; n=413), in the last six months (27.6%; n=269), in the last month (19.5%; n=190) and in the last week (5.2%; n=51). The most commonly reported method for changing drug use was avoiding environments which contributed to drug use (41.6%; n=406), followed by avoiding friends or peers who frequently used drugs (33.0%; n=322), and by taking up a new hobby (28.4%; n=277). A further 32.3% (n=315) of participants reported other reasons (as illustrated in Section 8.4). Finally, 82.7% (n=806) reported that their attempts were successful, whereas 9.1% (n=89) reported that they were not.

8.4.2 Recent User

A small minority of recent users (2.4%; n=46) reported that a relative, friend or medical professional had been worried about their drug use in the last year. A further 5.6% (n=106) reported that this had happened previously, but more than a year ago. The majority (68.7%; n=1,292) reported that they had not experienced this.

A fifth of participants (20.2%; n=380) reported that they would like to reduce their drug use. Of those participants, the most common reasons for wanting to reduce use were concerns about impacts on mental health and wellbeing (58.9%; n=224), followed by concerns about physical health and wellbeing (57.9%; n=220), concerns about legal implications (56.3%; n=214), concerns about impact on future career prospects (48.9%; n=186), concerns about impact on academic

progress or performance (41.8%; n=159), a previous bad experience with drugs (41.6%; n=158), concerns about impact on body image (41.3%; n=157), and concerns about impact on finances (41.1%; n=156). Over half (55.3%; n=1,040) reported that they would not like to reduce their drug use.

Just over half of participants (51.2%; n=963) reported that they had not thought about ways in which they could reduce their drug use, whereas 21.8% (n=410) reported that they had. Participants indicated that they would consider avoiding certain environments which might contribute to drug use (43.0%; n=808), learning about the potential risks and side effects of drug use (39.6%; n=745), looking for information online (36.0%; n=677), taking up a new hobby (34.0%; n=640), and avoiding certain friends and peers who use drugs (40.0%; n=751). Participants reported that they would not consider seeking help from a helpline or addiction and recovery service (50.7%; n=953), seeking help from a student service (50.3%; n=942), or seeking help from a friend or family member (42.7%; n=802). A small number of participants (1.5%; n=29) suggested other options they would consider, which included making an active decision not to use drugs, and just saying no.

Participants were asked how capable they believed they were of reducing or stopping their drug use. The mean score for this was 9.42 out of 10, indicating a very high degree of confidence that they were able to stop taking drugs.

Under one-third (27.9%; n=524) of participants reported that they had attempted to change their drug use, 41.3% (n=777) reported that they had not. Of those who had attempted to change (n=524), 62.4% (n=327) had tried once, 13.5% (n=71) had tried twice, and 20.0% (n=105) had tried three or more times. Over half of participants (59.7%; n=313) reported that their most recent attempt to change their drug use had been in the last year; 23.7% (n=124) reported that it had been in the last six months, 5.3% (n=28) that it had been in the last month and 2.1% (n=11) that it had been in the last week. The most commonly reported method for changing drug use was avoiding environments which contributed to drug use (47.1%; n=247), followed by avoiding friends or peers who frequently used drugs (44.3%; n=232), learning about potential side effects of drug use (n=118) and by taking up a new hobby (20.8%; n=109). A further 27.7% (n=145) of participants reported other reasons (as illustrated in Section 8.4). Finally, 91.4% (n=479) reported that their attempts were successful, whereas 2.7% (n=14) reported that they were not.

8.5

Effectiveness of Interventions

8.5.1 Current User

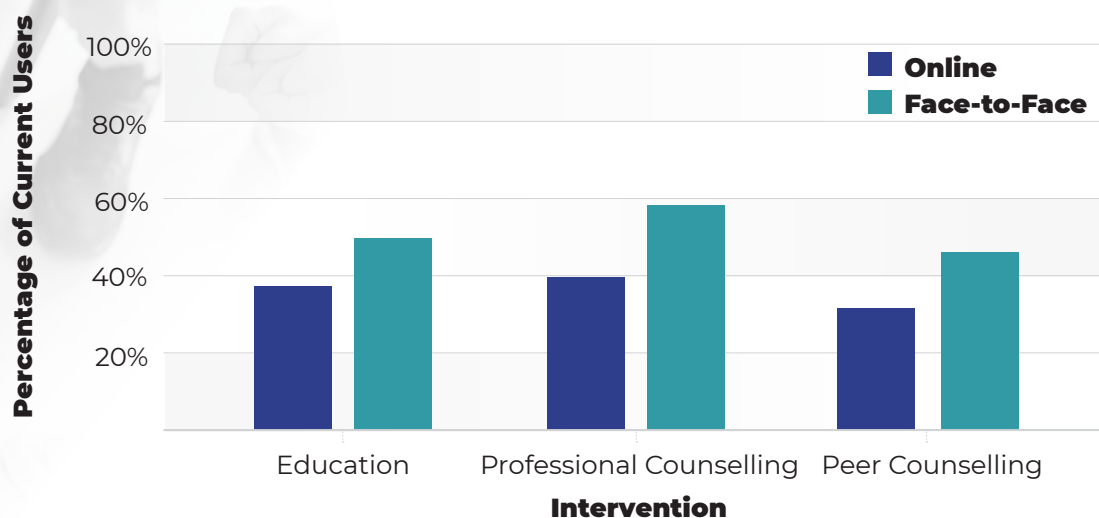


Under a third of participants felt that they were fully informed about the risks of using drugs (29.5%; n=652), with similar percentages reporting that they knew very much (27.2%; n=601), or a moderate amount (22.8%; n=504), with a small minority reporting that they knew very little or nothing at all (3.0%; n=67).

Overall, current users perceived face-to-face interventions to be more effective than online

interventions in reducing harm from drug use. Online and face-to-face education was perceived as being the least effective interventions for drug use harm reduction. Face-to-face professional counselling was perceived as being the most effective intervention. Figure 39 illustrates the perceived effectiveness of online and face-to-face interventions.

Figure 39 - Perceived Effectiveness of Interventions (Current Users)



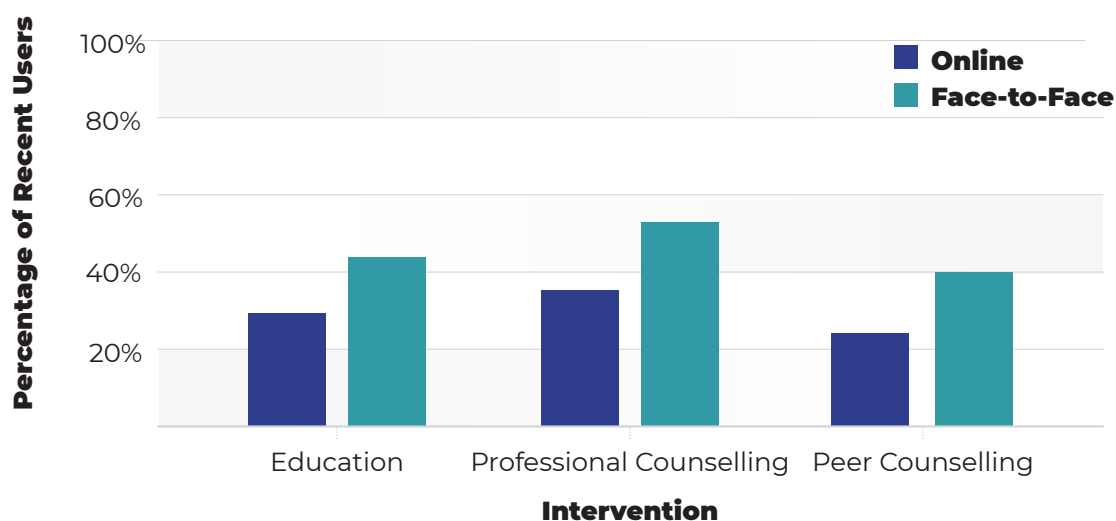
8.5.2 Recent User

Under a quarter of participants felt that they were fully informed about the risks of using drugs (22.0%; n=414), with similar percentages reporting that knew very much (22.2%; n=418), or a moderate amount (21.6%; n=406), with a small minority reporting that they knew very little or nothing at all (2.4%; n=45).

Overall, recent users perceived face-to-face interventions to be more effective than online interventions in reducing harm from drug use. Online and face-to-face education was perceived as being the least effective intervention for drug use harm reduction. Face-to-face professional counselling was perceived as being the most effective intervention. Figure 40 illustrates the perceived effectiveness of online and face-to-face interventions.

22.0%
feel they were fully informed about the risks of using drugs

Figure 40 - Perceived Effectiveness of Interventions (Recent Users)



Cognitive enhancers

All participants were asked about the use of cognitive enhancers, sometimes known as “smart drugs.” These are prescription and non-prescription drugs that some students use believing that they will improve their thinking processes and performance.

A small number of participants (1.8%; n=204) had been issued a prescription stimulant by a health professional in the last 12 months, 81.9% (n=9,499) had not.

Over one-third of participants (36.4%; n=4,222) indicated that they had heard of smart drugs, but they were not interested in them; 29.4% (n=3,404) stated that they had never heard of smart drugs and were not interested in them, 12.7% (n=1,469) reported having some interest in them, but never trying them; while 3.4% (n=397) had used smart drugs for the purposes of enhancing their thinking processes and/or performance, and 1.4% (n=160) had used smart drugs, but not for performance enhancing purposes.

The majority of participants (90.0%; n=1,316) who reported some interest in smart drugs, but had never used them, gave a reason for this, which included a lack of need, desire, opportunity or access, or concern around side effects. Detailed reasons for never trying them are presented by user-type in the next section. Figure 41 is a word-cloud of the words used by participants to describe why they have never tried smart drugs. The size of the words reflects the frequency of the words.

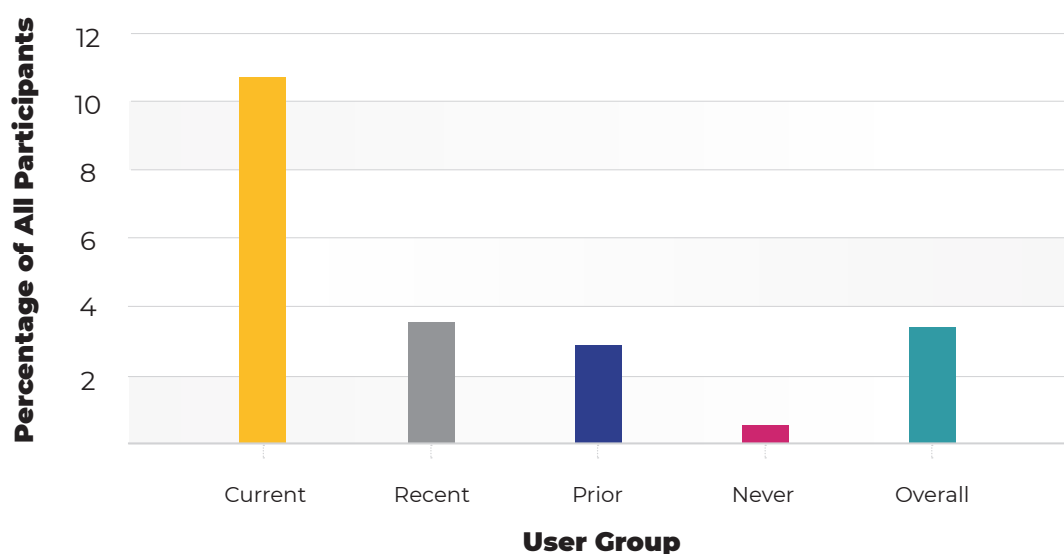
Figure 41 - Word Cloud Representation of Participant Reasons for Never Using Smart Drugs (All Participants)



A number of participants who had used smart drugs, but not for the purpose of enhancing their thinking (n=46/160), gave a reason for their use, with the majority reporting curiosity about the effects of the drugs as their main reason for using them. Other reasons included a medical need for the drugs, believing it would enhance their mood, or believing it would help their sleeping. A small number believed smart drugs would enhance their thinking processes.

Of participants who had used smart drugs for performance enhancing purposes (n=397), 41.1% (n=163) reported that they had not used them in the last 12 months, 33.5% (n=133) had done so once or twice in the last 12 months, 9.8% (n=39) reported daily or almost daily use; 9.1% (n=36) reported monthly use; and 6.3% (n=25) reported weekly use. Figure 42 illustrates the percentages of each user group who reported ever using smart drugs for performance enhancing purposes.

Figure 42 - Use of Smart Drugs for Performance Enhancing Purposes (All Participants)



8.6.1 Current User

One-tenth, 10.8% (n=239) of current users reported using smart drugs for performance enhancing purposes, of which 36.0% (n=86) reported not doing so in the last 12 months; 38.9% (n=93) reported doing so once or twice in past 12 months; 11.3% (n=27) reported using them monthly, 5.9% (n=14) reported using them weekly, and 7.9% (n=19) reported daily or almost daily use.

Current or recent drug users who reported some interest in smart drugs but had never tried them (n=791) cited the main reasons for not using as no access (28.6%; n=181), no need (23.1%; n=146), no interest or desire (14.7%; n=93), no opportunity (13.0%; n=82), fear of adverse effects (6.2%; n=39), a fear of dependency (6.0%; n=38) and having not sought them (5.2%; n=33).

10.8%

reported using smart drugs for performance enhancing purposes

8.6.2 Recent User

Of the 3.5% (n=66) of recent users who reported using smart drugs for performance enhancing purposes, 45.5% (n=30) reported not doing so in the last 12 months; 33.3% (n=22) reported doing so once or twice; 7.6% (n=5) reported using them monthly, 6.1% (n=4) reported using them weekly, and 7.6% (n=5) reported daily or almost daily use.

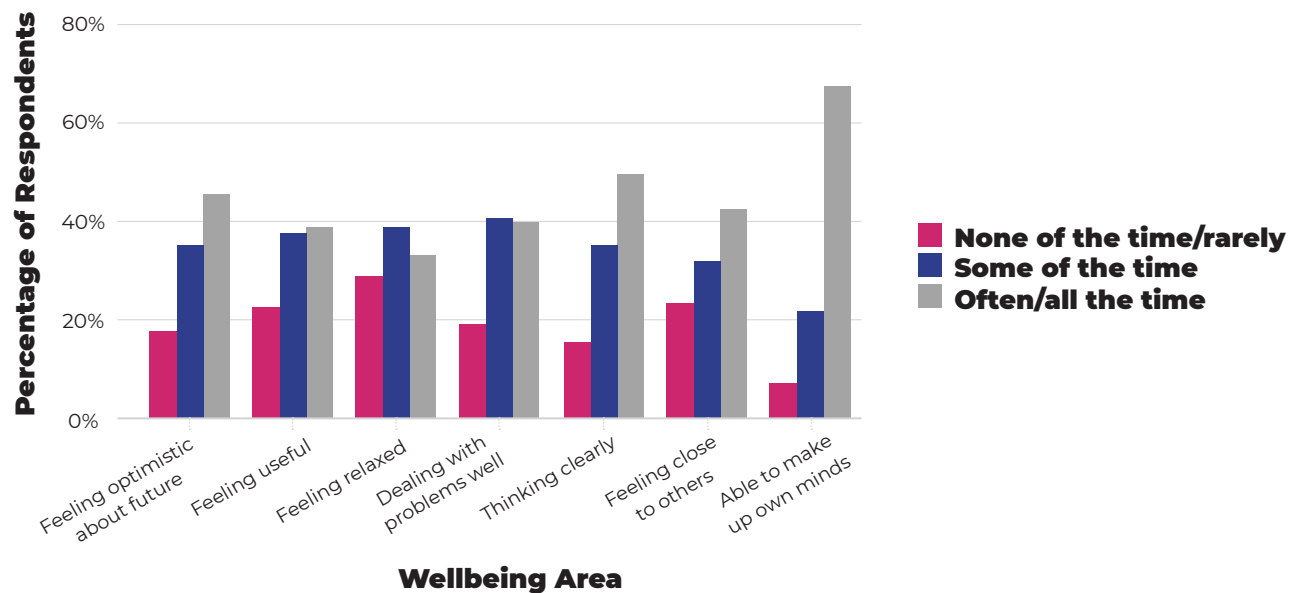
8.7

Student Wellbeing

Participant wellbeing was measured using the 7-item Warwick-Edinburgh Mental Wellbeing Scale. As a large number of participants (>2000) chose not to respond to these questions, the following are shown as percentages of those who responded to each question. A sizable minority reported “none of the time” or “rarely” experiencing these positive feelings or thoughts, with 22.2% (n=2,579) reporting not feeling relaxed, 18.0% (n=2,091) reporting not feeling close to others, 18.0% (n=2,086) reporting not feeling useful, and 14.1% (n=1,632) reporting not dealing with problems well. Over

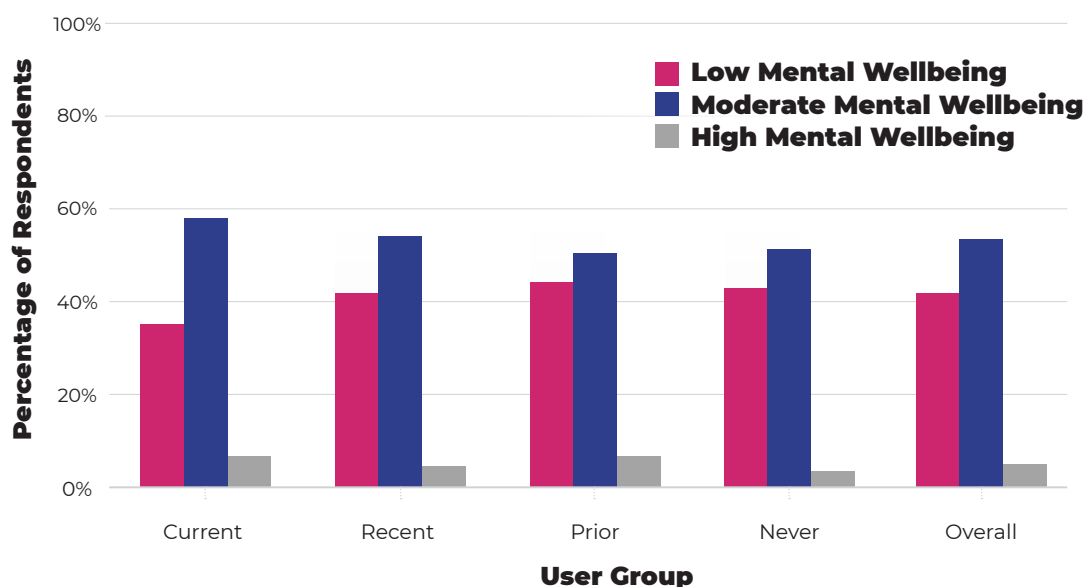
half (51.9%; n=6,011) of respondents felt they were often or always able to make up their own mind, and 37.8% (n=4,376) felt they were often or always able to think clearly. Figure 43 illustrates the responses to each statement in the questionnaire.

Figure 43 - Student Wellbeing (All Respondents)



Mental wellbeing scores were calculated for 8,665 participants who responded to all seven questions. Of these participants, 52.8% (n=4,575) were categorised as having Moderate Mental Wellbeing, 41.6% (n=3,606) were categorised as having Low Mental Wellbeing, and 5.6% (n=484) were categorised as having High Mental Wellbeing. Figure 44 illustrates the student wellbeing by user group.

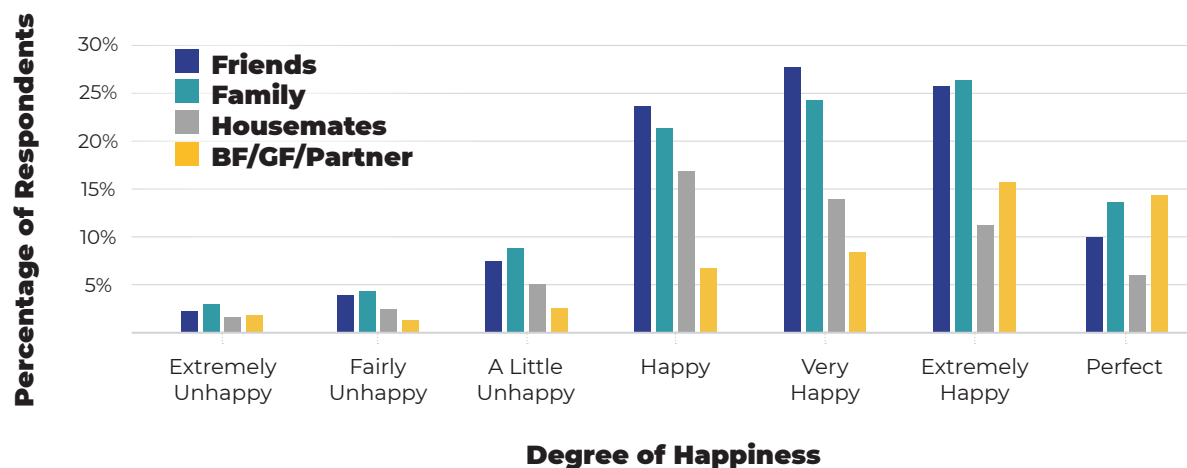
Figure 44 - Student Wellbeing by User Group (All Respondents)



Participants were asked about their happiness with important relationships, including friends, family, housemates, and boyfriends/girlfriends/partner, if applicable. The majority of respondents reported being happy with these relationships, with over a quarter reporting being extremely happy with both friend (25.4%; n=2,425) and family (26.3%; n=2,428) relationships. Less than 10% reported being a little unhappy with friend (7.2%; n=684), family (8.3%; n=767) and housemate (5.2%; n=472) relationships, while less than 3% reported being extremely unhappy in their relationships.

Figure 45 illustrates participants' happiness in their important relationships. Just under half, 44% (n=3,984) of respondents selected N/A for housemates, and 51% (n=4,634) selected N/A for relationships, so have been excluded from Figure 45.

Figure 45 - Happiness in Relationships (All Respondents)



8.7.1 Current User

Wellbeing scores were calculated for 1,601 current users who completed all seven questions. Over half were categorised as having Moderate Wellbeing (58.0%; n=929), 34.2% (n=547) were categorised as having Low Wellbeing, and 7.8% (n=125) were categorised as having High Wellbeing.

When reporting on relationships, 55.8% (n=1,232) of current users were at least very happy with their friend relationships, 45.6% (n=1,008) with family relationships, 41.2% (n=666) with housemate relationships, and 47.7% (n=661) with romantic relationships. Family relationships had the highest percentage of respondents reporting unhappiness, with 12.5% (n=277) reporting at least a little unhappiness with those relationships.

58.0%
reported as having
moderate wellbeing

8.7.2 Recent User

Wellbeing scores were calculated for 1,159 recent users who completed all seven questions. Over half were categorised as having Moderate Wellbeing (53.7%; n=610), 41.3% (n=478) were categorised as having Low Wellbeing, and 6.0% (n=70) were categorised as having High Wellbeing.

When reporting on relationships, 46.4% (n=873) of recent users were at least very happy with their friend relationships, 40.3% (n=758) with family relationships, 28.2% (n=382) with housemate relationships, and 36.8% (n=470) with romantic relationships. Family relationships had the highest percentage of respondents reporting unhappiness, with 10.0% (n=187) reporting at least a little unhappiness with those relationships.

53.7%
reported as having
moderate wellbeing

Social Norms

All participants were asked about their perception of drug use among their peers, and about how their family or friends would feel about their engagement with drug use.

The majority of participants (63.2%; n=7,322) felt that their friends or family would approve if they did not use drugs; 52.5% (n=6,086) reported that their friends or family would disapprove if they used drugs occasionally, and 75% (n=8,698) stated that their friends or family would disapprove if they used drugs regularly.

Participants were asked about their perceptions of drug use among students in Ireland. Participants believed a majority of their peers to be drug users, reporting an average percentage of 58.4% for drug use in the last year. Participants perceived that 37.0% of students had never use drugs. Figure 46 presents the perceptions of the prevalence of drug use amongst students compared with the actual prevalence figures reported in this survey.

Figure 46 - Participant Perception of Drug Use vs. Actual Drug Use
(All Participants)

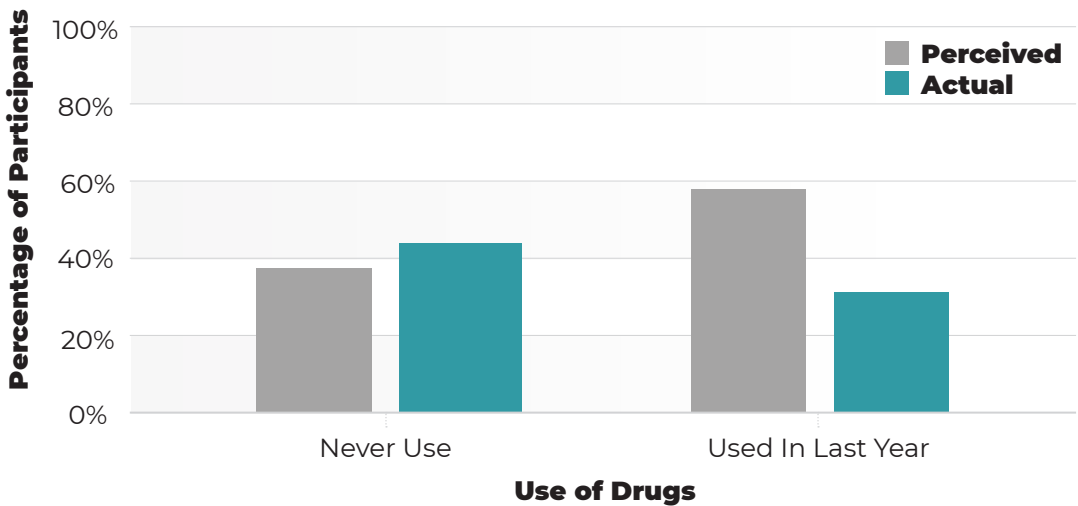
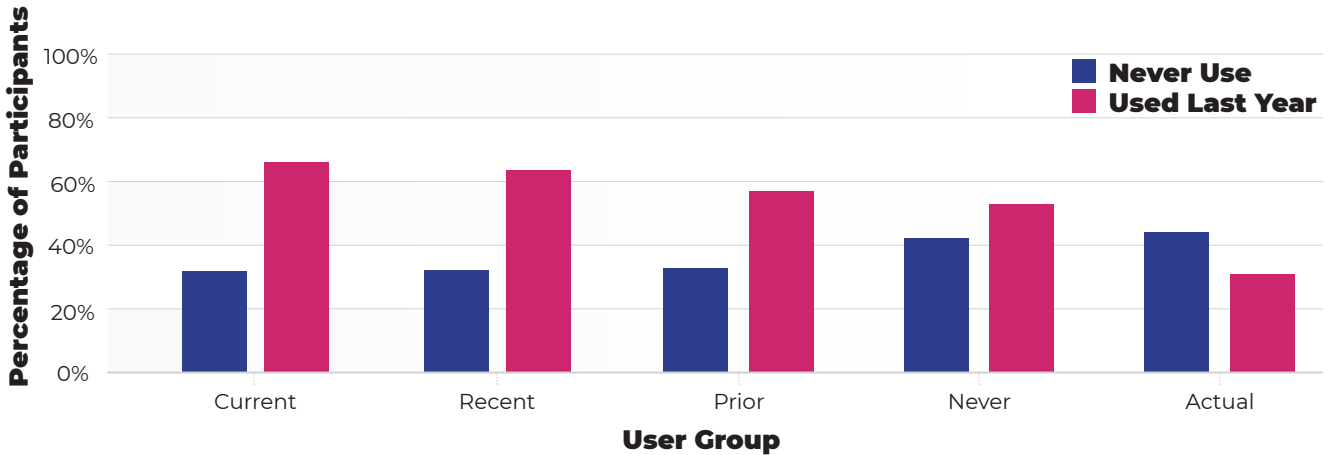


Figure 47 illustrates the perceptions of the prevalence of drug use among students in Ireland by user group, compared with the actual prevalence figures reported in this survey.

Figure 47 - Participant Perception of Student Drug Use Across User Groups
(All Participants)



8.8.1 Current User

Over half of current users (50.8%; n=1,123) felt that their friends or family would approve if they did not use drugs, 41.1% (n=908) felt that their friends or family would not care if they used drugs occasionally and 63.3% (n=1,443) felt that their friends or family would disapprove if they took drugs regularly.

When asked about the prevalence of drug use among students in Ireland, current users believed that 31.1% of students had never used drugs and that 64.4% of students had used drugs in the last year.

8.8.2 Recent User

Nearly half of recent users (47.4%; n=892) felt that their friends or family would approve if they did not use drugs, 30.3% (n=569) felt that their friends or family would not care if they used drugs occasionally and 60.4% (n=1,135) felt that their friends or family would disapprove if they took drugs regularly.

When asked about the prevalence of drug use among students in Ireland, recent users believed that 32.6% of students never use drugs, and that 61.8% of students used drugs in the last year.

8.9

COVID-19 and Drug Use

Participants reporting drug use in the last year (recent or current users) were asked a number of questions about COVID-19 pandemic and their drug use.

In terms of how often they had used drugs since the pandemic began, 35.5% (n=1,450) felt that the frequency of their drug use had decreased since the start of the pandemic, while 13.6% (n=555) felt it had remained the same, and 23.5% (n=960) felt it had increased. In terms of amount used, 30.3% (n=1,241) felt that the quantity of their drug use had decreased, 24.5% (n=1,001) felt there had been no change, and 17.7% (n=722) felt that it had increased.

Over a tenth of participants (11.7%; n=480) reported that they had used drugs for the first time after 12th March 2020, the date the Government of Ireland announced campus closures. The majority of participants (55.8%; n=268) reported that this had nothing to do with lockdown. Reasons given for using drugs for the first time since 12th March 2020 were boredom (33.7%; n=152), loss of daily structure (16.9%; n=81), loneliness (12.3%; n=59), increased tension with family or work (10.8%; n=52), and a lack of sports or activities (10.2%; n=49).

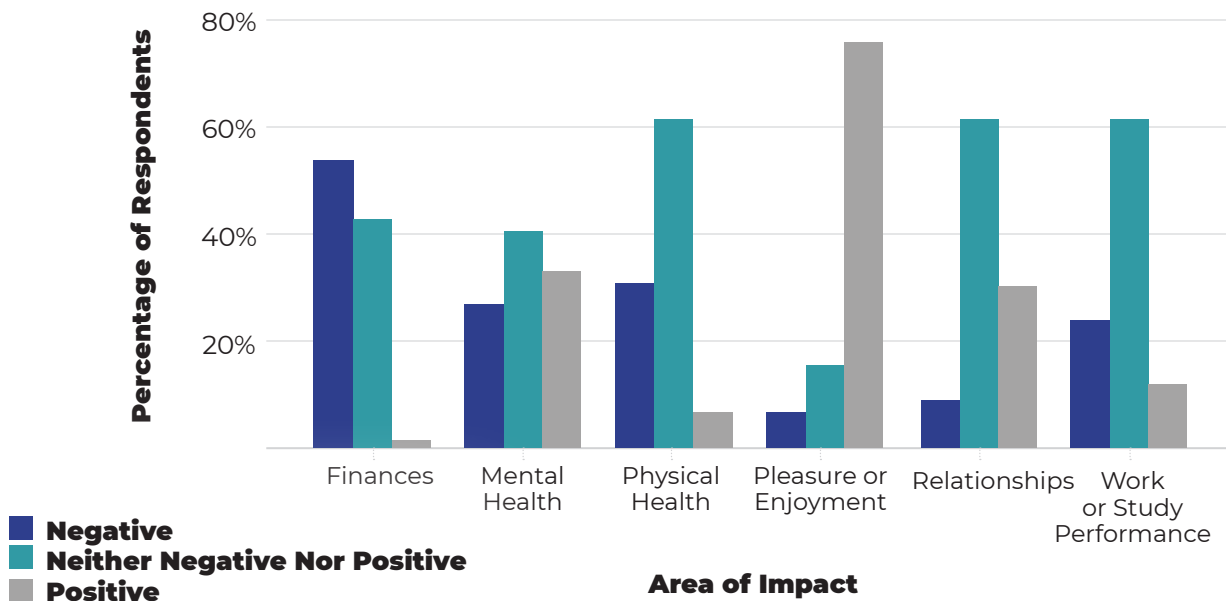
8.9.1 Increase in Drug Use

For those who reported an increase in frequency and/or quantity of drug use, the main reasons reported were boredom (45.0%; n=432), having more time to use drugs (35.6%; n=342), being more stressed by what is going on (28.0%; n=269), spending more time using drugs with household or partner (25.7%; n=247), using drugs as a reward for coping with what is going on (19.8%; n=190), feeling depressed (19.2%; n=184). However, 19.1% (n=183) of respondents reported that their increase was only slight, and not a big deal for them.

Participants were asked how they felt their increased drug use had impacted them. The predominant response in four of six areas (mental health, physical health, relationships, and work or study performance) was that their increased drug use had neither a positive nor negative impact on them. In the remaining two areas, the predominant response was positive impact for pleasure

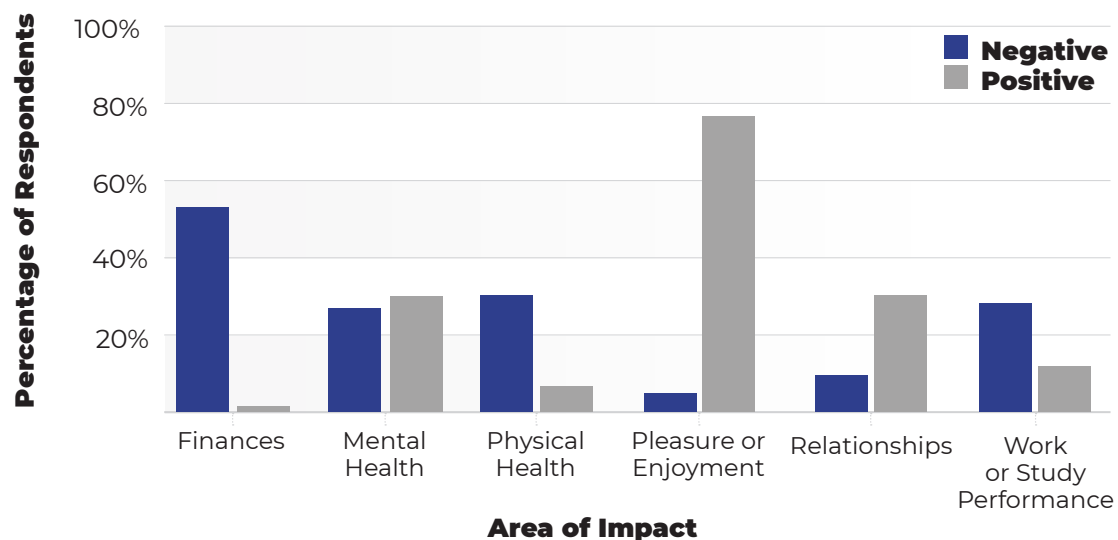
or enjoyment, and negative impact for finances. Over half (52.2%; n=501) of participants reported a negative impact on their finances; 38.9% (n=373) reported neither negative nor positive impact on their mental health; 58.8% (n=564) reported neither negative nor positive impact on their physical health; 72.8% (n=699) reported a positive impact on their pleasure or enjoyment; 58.3% (n=560) reported neither negative nor positive impact on their relationships; 58.6% (n=563) reported neither negative nor positive impact on their work or study. Figure 48 illustrates the reported impacts of increased drug use since the start of the COVID-19 Pandemic.

Figure 48 - Impact of Increased Drug Use Since Start of COVID-19 Pandemic
(All Respondents)



For each of the six areas, the percentages of participants who reported their increased drug use had either a negative or positive impact on them is shown in Figure 49.

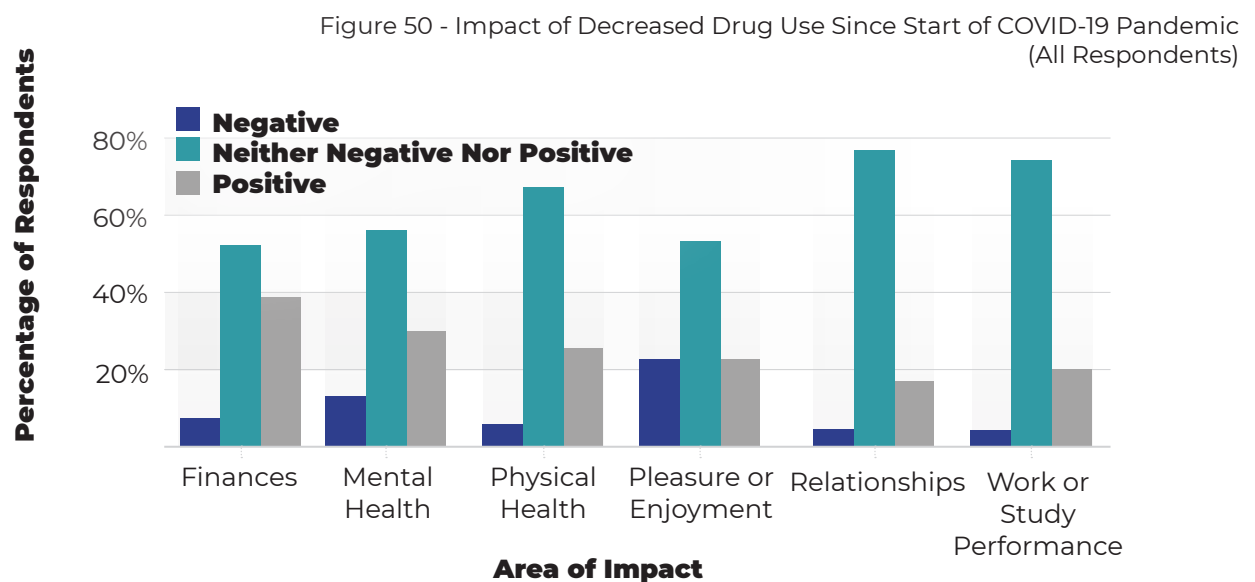
Figure 49 - Negative and Positive Impacts of Increased Drug Use
(All Respondents)



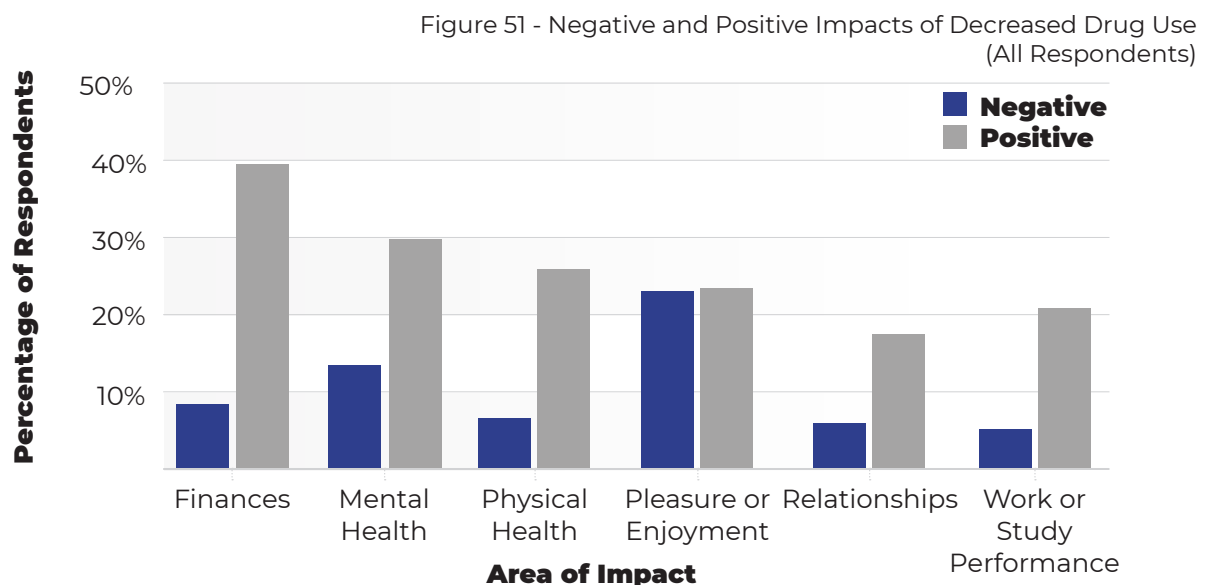
8.9.2 Decrease in Drug Use

For those who reported a decrease in frequency and/or quantity of drug use, the main reasons reported were; having less occasions where they would normally use drugs (73.7%; n=1,068), having less contact with the people they normally use drugs with (58.3%; n=846), not feeling like using drugs at home (41.1%; n=596), not feeling like using drugs in a pandemic (38.6%; n=559), difficulty accessing drugs (23.7%; n=343), using this time to get healthier (21.5%; n=312), spending more time with partner or family (19.5%; n=283), and having less time now they are at home (19.1%; n=277).

Participants were asked how they felt their decreased drug use had impacted them. The predominant response in all six areas was that their decreased drug use had neither negative nor positive impact on them. Three-quarters (75.2%; n=1,090) reported neither negative nor positive impact on their relationships; 72.3% (n=1,048) reported neither negative nor positive impact on their work or study; 66.1% (n=958) reported neither negative nor positive impact on their physical health; 55.2% (n=801) reported neither negative nor positive impact on their mental health; 52.4% (n=760) reported neither negative nor positive impact on their pleasure or enjoyment, and just over half (51.2%; n=743) reported neither negative nor positive impact on their finances. Figure 50 illustrates the reported impacts of decreased drug use.



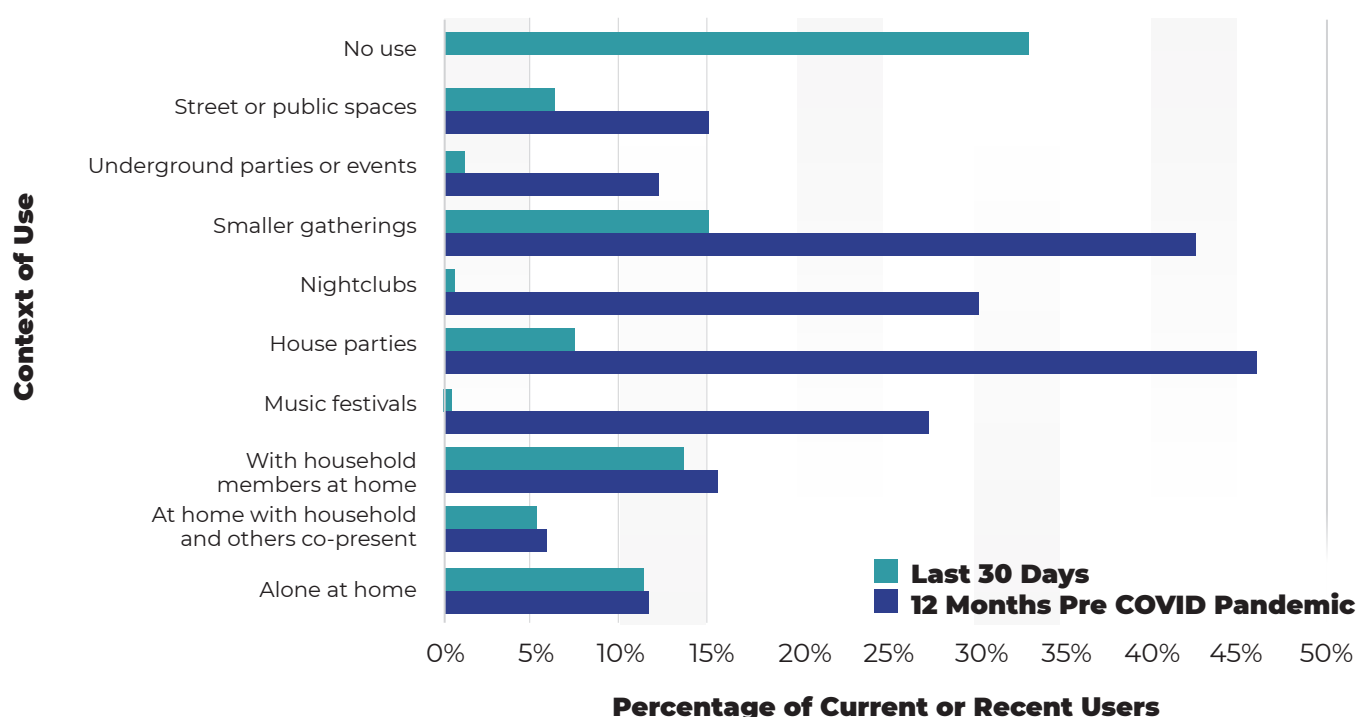
For each of the six areas, the percentages of participants who reported their decreased drug use had either a negative or positive impact on them is shown in Figure 51.



8.9.3 Context of Use Pre- and Post the start of the COVID-19 Pandemic

Participants were asked about their usual context of taking drugs, in the 12 months prior to the start of the COVID-19 pandemic, and in the past 30 days. In the 12 months prior to the pandemic, 45.4% (n=1,858) of respondents were using drugs at house parties, 42.8% (n=1,750) in smaller gatherings, 30.2% (n=1,235) in nightclubs, and 27.1% (n=1,107) at music festivals. In the last 30 days, 32.7% (n=1,339) reported not using drugs at all. Those who had used drugs in the last 30 days reported using drugs in smaller gatherings (15.1%; n=618), with household members at home (13.8%; n=564), and alone at home with no contact with other people (11.3%; n=462). Figure 52 compares the contexts of use of drugs pre- and post- the start of the COVID-19 Pandemic.

Figure 52 - Context of Drug Use Pre- and Post- Start of COVID-19 Pandemic (Current or Recent Users)



Just over one-fifth, (21.8%; n=891) of current or recent users report using drugs alone. When asked if they had noticed a change in how often they were using drugs alone since the onset of the pandemic, 44.1% (n=393) felt that they were using drugs alone more often, 29.1% (n=259) felt they were using drugs alone less often, and 26.0% (n=232) felt they were using drugs alone in about the same amount.

8.10

Drug Use and Sexual Activity

Participants who reported drug use were presented with four questions around engaging in sexual activity whilst under the influence of drugs.

8.10.1 Current User

Over half of current users (57.8%; n=1,276) reported ever engaging in sexual activity under the influence of drugs, 33.8% (n=746) reported never doing so, and 1.6% (n=36) preferred not to say.

Of the participants who reported engaging in sexual activity under the influence of drugs, the most commonly reported drug was none (40.8%; n=520), followed by cocaine (35.8%; n=457), other drugs (24.0%; n=306), ketamine (12.4%; n=158), and GBL/GHB (2.4%; n=31), crystal meth (0.7%; n=9) or mephedrone (0.7%; n=9).

The majority of participants reported engaging in sexual activity under the influence of drugs monthly or less (70.2%; n=896), followed by never (16.6%; n=212), 2—4 times a month (8.3%; n=106), 2—3 times a week or more (3.4%; n=42). Participants reported that they engaged in sexual activity under the influence of drugs with one person (84.9%; n=1,083), two people (6.5%; n=83) three people (2.5%; n=32), and four or more people (3.5%; n=45).

As outlined above, a high percentage of participants identified “none” when asked what drug they used when engaging in sexual activity. This was despite them answering “yes” to the initial question confirming that they had engaged in sexual activity when under the influence of drugs. This suggests a possible lack of understanding in answering the questions. As a result, we removed those participants from the dataset, and present the following section focusing on those participants who declared use of GBL/GHB, crystal meth, mephedrone, the most used chemsex drugs in Ireland (41—43).

8.10.2 Recent User

Just under one-third of recent users (31.5%; n=593) reported ever engaging in sexual activity under the influence of drugs, 46.8% (n=879) reported never doing so, and 1.4% (n=26) preferred not to say.

Of the participants who reported engaging in sexual activity under the influence of drugs, the most commonly reported drug was none (51.6%; n=306), followed by cocaine (25.1%; n=149), other drugs (18.7%; n=111), ketamine (8.6%; n=51), and GBL/GHB (1.1%; n=6), crystal meth (0.3%; n=2) or mephedrone (0.2%; n=1).

The majority of participants reported engaging in sexual activity under the influence of drugs monthly or less (65.0%; n=386), followed by never (30.2%; n=179), 2—4 times a month (2.7%; n=16), 2—3 times a week or more (0.5%; n=3). Participants reported that they engaged in sexual activity under the influence of drugs with one person (83.8%; n=497), two people (6.9%; n=41) three people (2.5%; n=15), and four or more people (2.9%; n=17).

8.10.3 Chemsex

There were 101 participants who reported engaging in sexual activity under the influence of drugs associated with Chemsex. The majority of these (59.4%; n=60) reported using GBL/GHB, followed by mephedrone (22.8%; n=23) and crystal meth (17.8%; n=18). Over half, (55.4%; n=56) of participants reported engaging in sexual activity under the influence of chemsex drugs monthly or less, 24.8% (n=25) reported 2—4 times per month, and 13.9% (n=14) reported doing so 2—3 times per week or more. The majority of participants (58.4%; n=59) reported engaging in sexual activity under the influence of chemsex drugs with one person, 12.9% (n=13) reported doing so with two people, and 30.1% (n=31) reported doing so with three or more people.

8.11

Drug and Alcohol Recovery

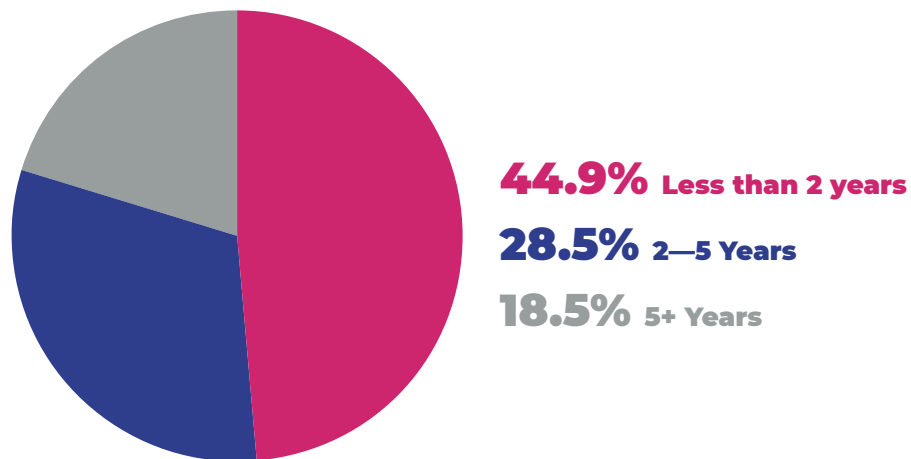
All participants were asked a number of questions in relation to recovery from a drug or alcohol problem. A total of 9,259 participants responded to this section. Of these, 6.6% (n=610) reported that they had once had a problem with drugs or alcohol, but no longer did.

Of those who reported a previous problem, 44.9% (n=274) reported that it had been less than two years since they resolved their problem; 28.5% (n=174) reported that it had been 2—5 years since they

^aGBL (gamma butyrolactone) and GHB (gamma hydroxybutyrate) sometimes called “G” or “Liquid Ecstasy” causing users to experience a loss of inhibitions, increased confidence, and a higher sex drive.

resolved their problem; and 18.5% (n=113) reported it had been five or more years since they had resolved their problem. The most commonly reported support was none (61.6%; n=376), followed by sober living environments (16.9%; n=103), and national or local community organisations, e.g., Narcotics/Alcoholics Anonymous (8.5%; n=52). Figure 53 illustrates the time since participants reported resolving their problem with drugs or alcohol.

Figure 53 - Time Since Resolving Drug or Alcohol Problem



More than one-quarter (28.7%; n=175) of those reporting a previous problem self-identified as being currently “in recovery”; 51.4% of these (n=90) reported that they had been “in recovery” for less than two years, 24.6% (n=43) reported that they were 2–5 years into their recovery, and 19.4% (n=34) reported they were five or more years into their recovery.

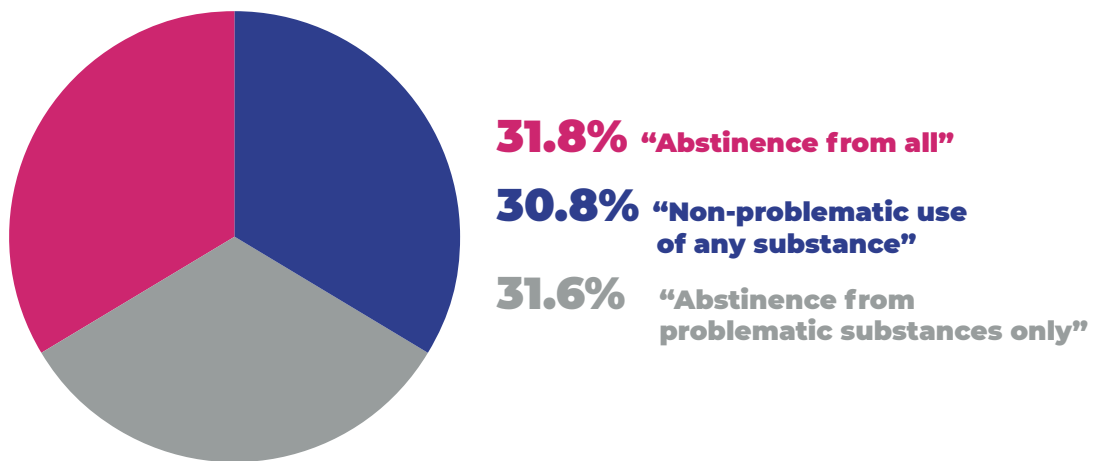
More than two-thirds of those reporting a previous problem (67.0%; n=409) did not self-identify as being currently “in recovery.” Of these participants, just under one-third (29.8% n=122) self-identified that they had been “in recovery” at one time. Moreover, 75.4% (n=92) of these participants reported that they were “in recovery” for less than two years, a further 8.2% (n=10) reported that they were “in recovery” for 2–5 years, and 8.2% (n=10) for five or more years.

Participants who indicated that they self-identified as being “in recovery,” at one time, but no longer were, were asked why this was. A total of 114 participants responded in the open text. Just over half (51.8%; n=59) self-identified that they had “recovered.” Under one-sixth (14.0%; n=16) suggested they had resolved the issue. A tenth (9.6%; n=11) suggested they had gained control over their use of drugs and/or alcohol, and were able to use in moderation, 8.8% (n=10) suggested they had improved their relationship with alcohol or drugs.

Participants were asked what the definition of recovery meant to them. For 31.8% (n=194) participants the definition of recovery meant abstinence from all alcohol or drugs, 30.8% (n=188) felt that recovery meant abstinence only from alcohol or drugs which had previously been a problem, but that non-problematic or moderate use of other alcohol or drugs was ok; and 31.6% (n=193) felt that recovery meant non-problematic or moderate use of alcohol or drugs including those with which they had previously had a problem. Figure 54 illustrates the participant definitions of recovery.

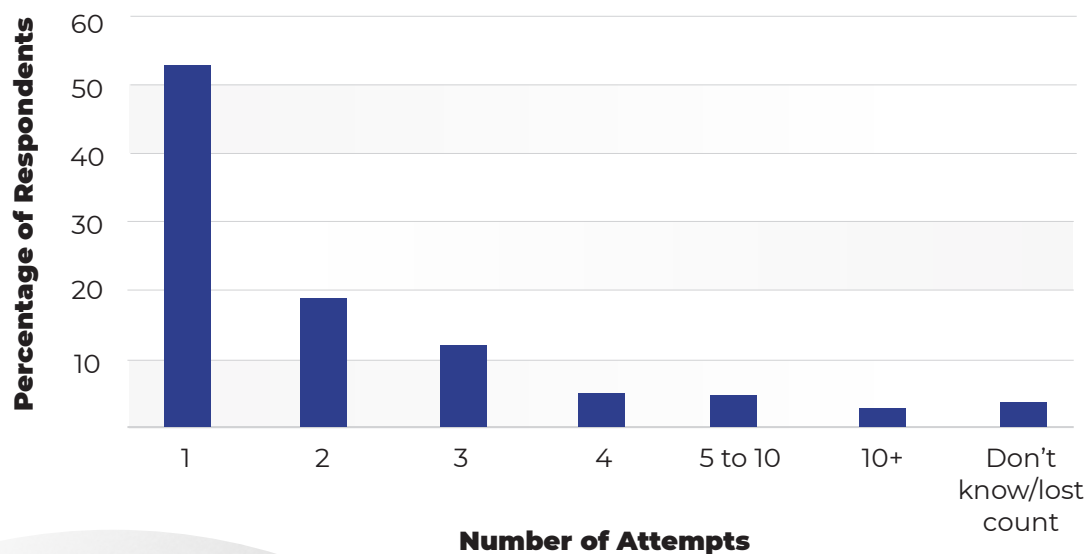
51.8%
students who said they had a drug or alcohol problem reported that they have recovered.

Figure 54 - Participant Definition of Recovery (All Respondents)



Of the 527 participants who reported the number of serious attempts they had made to resolve their drug or alcohol problem, over half (53.1%; n=280) reported making one serious attempt to resolve their drug or alcohol problem while, 18.8% (n=99) reported making two attempts. Figure 55 illustrates the reported number of attempts to resolve a drug or alcohol problem.

Figure 55 - Number of Serious Attempts at Recovery



FINDINGS

PRIOR AND NEVER USERS

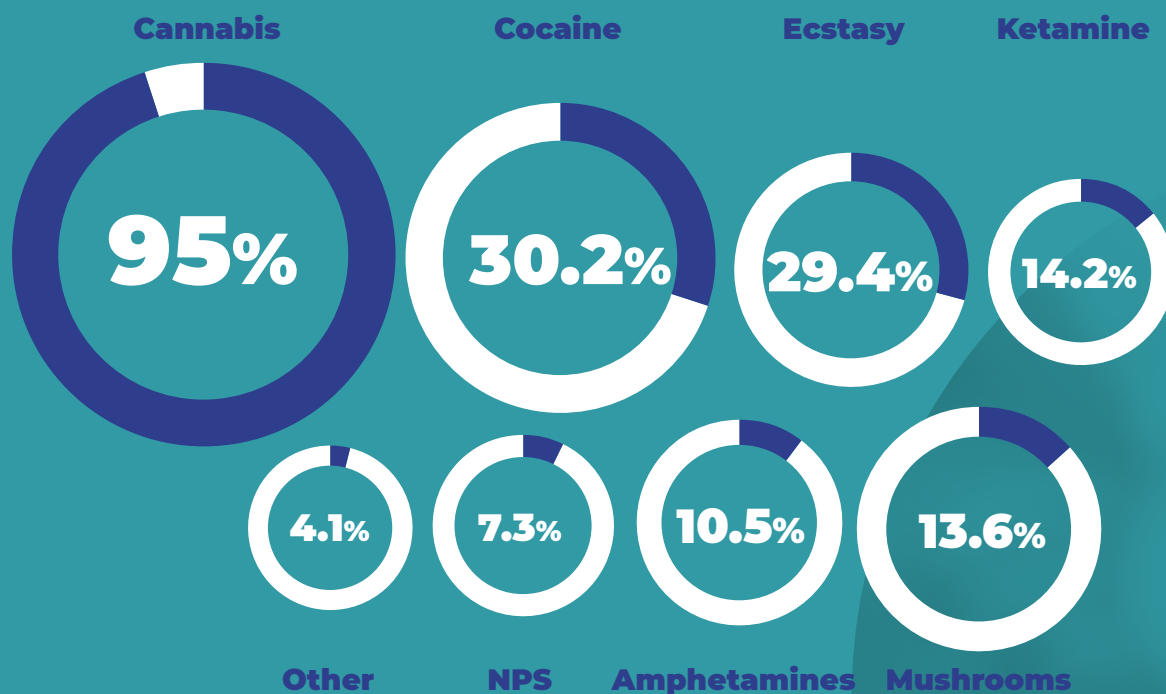
9.1

Drug Use

9.1.1 Prior User

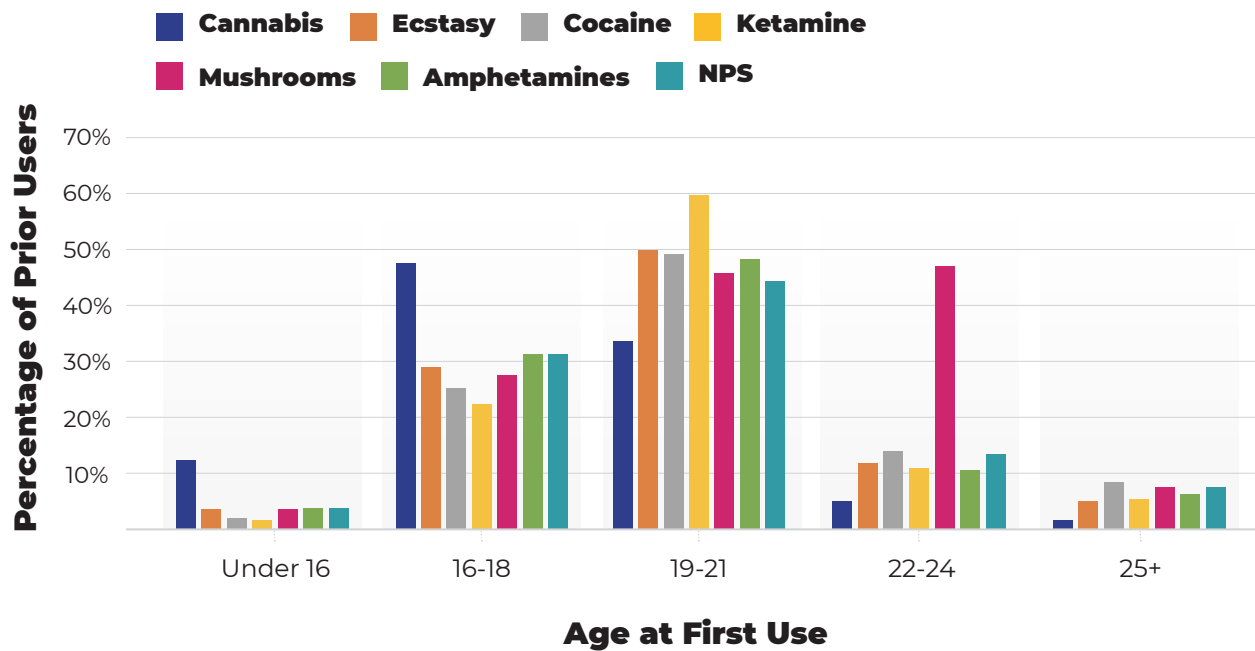
Participants reporting lifetime use of drugs, but no use within the last 12 months were routed to this section (n=2,248). The majority of participants in this section reported using cannabis (95.0%; n=2,135); 30.2% (n=678) had used cocaine, 29.4% (n=662) had used ecstasy, 14.2% (n=319) had used ketamine, 13.6% (n=305) had used magic mushrooms, 10.5% (n=237) had used amphetamines, 7.3% (n=165) had used novel psychoactive substances (NPS), and 4.1% (n=92) reported other drug use, such as LSD (2.2%; n=50), prescription medication use; including benzodiazepines and pain medication (0.5%; n=12), heroin (0.2%; n=6), and alkyl nitrates (poppers) (0.2%; n=4). Figure 56 illustrates the proportion of these 2,248 participants reporting ever use of each drug.

Figure 56 - Percentage Reporting Use of Each Drug Type (Prior Users)



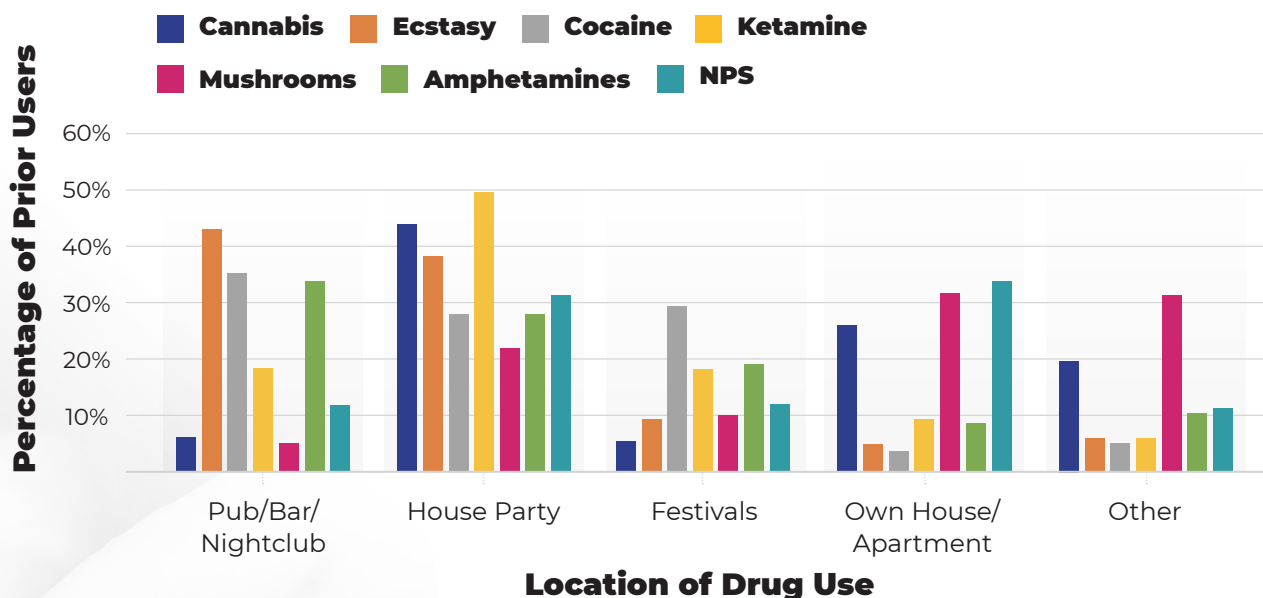
When asked about the age at which they had first used each drug, participants reported that for all drugs other than cannabis, age at first use was between 19—21 years; for cannabis, the most frequently cited age range for onset of use was between 16—18 years. Figure 57 illustrates the breakdown of age at first use by drug type.

Figure 57 - Age at First Use (Prior Users)



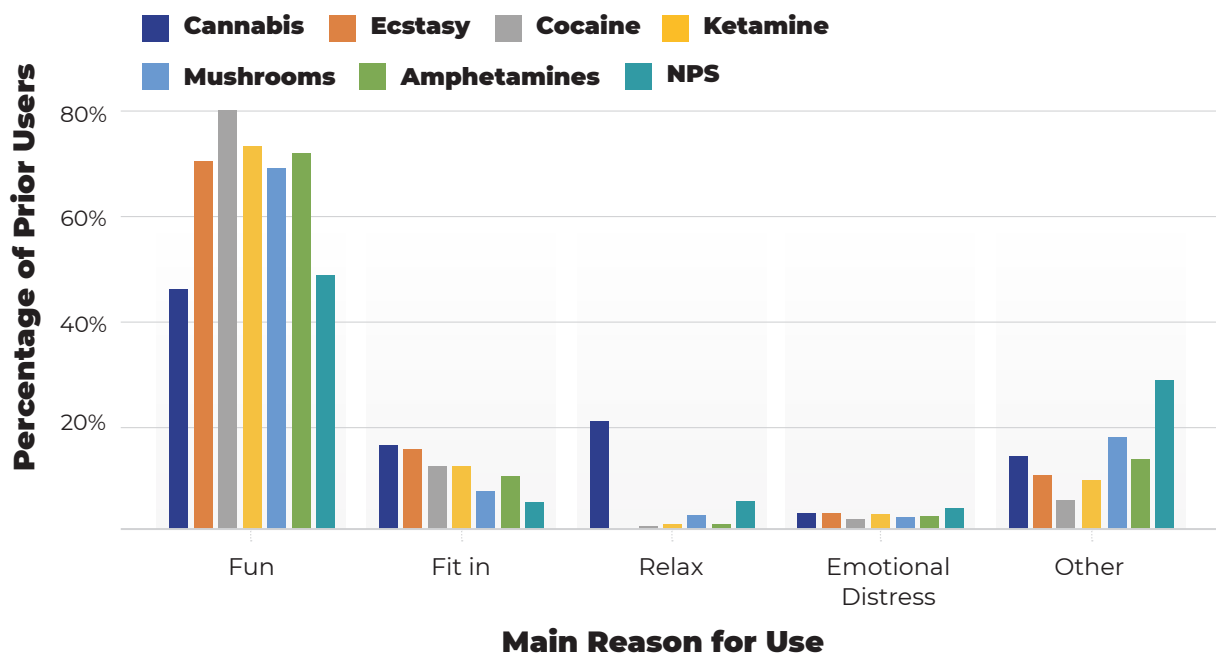
The most commonly reported location for use of drugs varied by substance. Pubs, bars, or nightclubs were the most commonly reported location for ecstasy, cocaine, and amphetamine use; house parties were the most commonly reported location for cannabis and ketamine use; own house or apartment was the most commonly reported location for mushroom and NPS use. Figure 58 illustrates the location of use per drug type.

Figure 58 - Location of Drug Use (Prior Users)



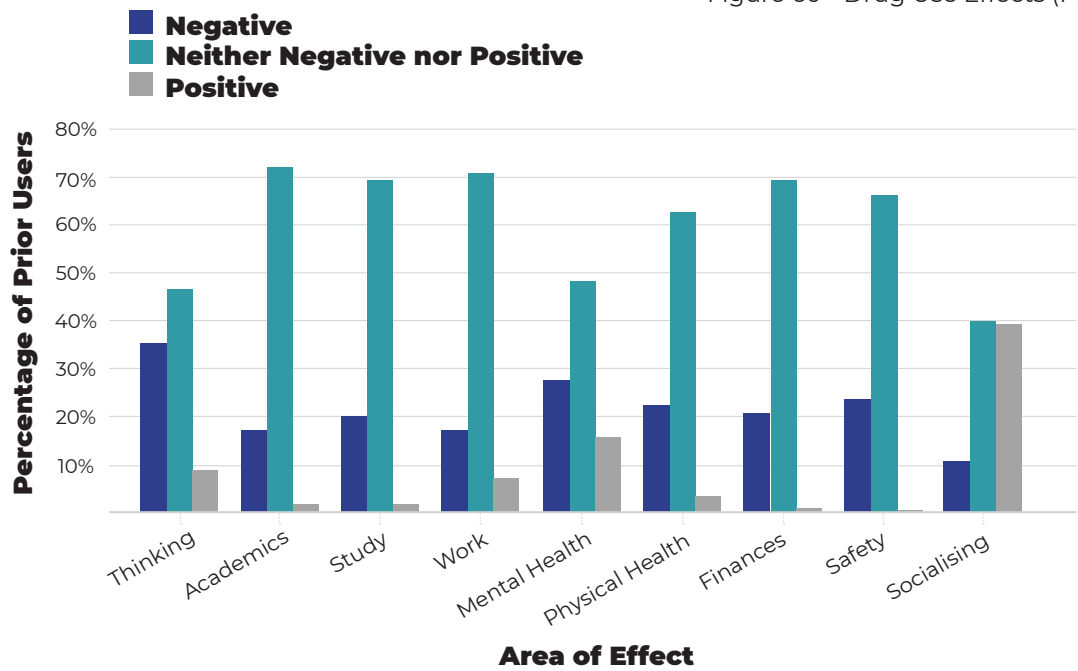
The most commonly given reason for use across all drug types was to have fun. Other reasons reported included to fit in, to relax, and to deal with emotional distress. A notable minority of participants reported other reasons for drug use. Figure 59 illustrates the main reasons for use among prior drug users.

Figure 59 - Main Reason for Drug Use (Prior Users)



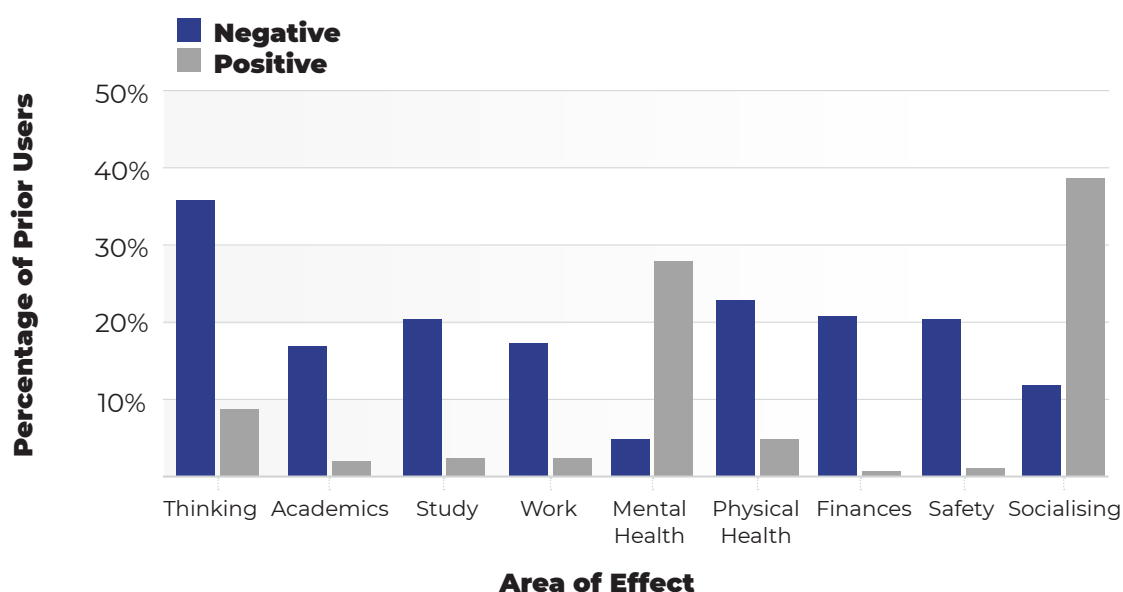
Prior users in the main reported that their drug use had neither positive nor negative effects on various aspects of their lives. However, over a third of participants reported negative effects on their ability to think (35.9%), and over a quarter reported negative effects on their mental health and well-being (28.0%). Over one-third (38.6%) of participants reported a positive effect on their ability to socialise. Figure 60 illustrates the reported effects of drug use among prior users.

Figure 60 - Drug Use Effects (Prior Users)



When responses showing “neither negative nor positive” are removed, the relative effects of drug use in prior users are shown in Figure 61.

Figure 61 - Drug Use Negative and Positive Effects (Prior Users)



In terms of personal relationships, the majority of participants reported neither negative nor positive effects on their housemates (59.3%; n=1,333), friends (58.9%; n=1,323), family (58.5%; n=1,315), and romantic relationships (54.9%; n=1,234).

While previously using drugs, the majority of participants reported rarely or never (59.4%; n=1,335) thinking about alternatives to drug taking, with fewer reporting occasionally (17.4%; n=391) and frequently or always (13.8%; n=311) thinking about alternatives. When asked about considering the negative consequence of drug use on themselves or others, over a third of participants reported frequently or always considering them (35.5%; n=797); 29.9% (n=673) rarely or never considered them; and 25.6% (n=576) did so occasionally. When asked about considering the possible positive consequences to themselves or others, 43.9% (n=986) reported rarely or never doing so, 26.5% (n=595) reported doing so occasionally; and 20.7% (n=466) reported frequently/always doing so.

The majority of participants reported sourcing their drugs from someone they know well, such as friend, classmate, or colleague (75.5%; n=1,697), with fewer reporting sourcing drugs from a stranger (10.3%; n=231) or other sources (7.2%; n=161) such as a country where drug use is legal, circumstantial availability (e.g., given by a friend), from an acquaintance or a trusted dealer. A small number of participants (1.2%; n=27) reported sourcing their drugs online.

75.5%
reported sourcing their
drugs from someone
they know well

The most frequently reported reason for no longer using drugs was no longer being interested in them (56.3%; n=1,266). Other reasons included no exposure to drugs (28.5%; n=641), concerns about possible impacts on mental health and wellbeing (21.4%; n=482), concerns about possible impacts on physical health and wellbeing (16.2%; n=365), and concerns about the legal implications of drug use (12.9%; n=290). A number of participants (n=265) provided other reasons why they had not used drugs in the last 12 months. These reasons included that their use was experimental or once-off (4.0%; n=91), that they had no interest or desire to continue to use drugs (1.9%; n=42) or that there were circumstances or lifestyle changes that had caused them not to use drugs (1.4%; n=32).

9.1.2 Never User

Participants who reported never using illicit drugs were routed to this section (n=5,008). The most frequently reported reason for never using drugs was never having had an interest in drugs (77.7%; n=3,892). Other reasons included concerns about the possible impacts on; physical wellbeing and health (62.2%; n=3,117), mental health and wellbeing (61.7%; n=3,091), personal physical safety (47.9%; n=2,399), addiction (47.9%; n=2,398), legal implications (46.8%; n=2,344), academic progress (40.4%; n=2,025), and future career prospects (39.6%; n=1,984). The least commonly reported reasons for never using drugs among these respondents were that there were no opportunities to use drugs (16.9%; n=847), concerns about how other people perceive drug usage (19.0%; n=951), and concerns about impacts on social life (22.4%; n=1,122).

9.2

Student Life

9.2.1 Prior User

Of participants reporting not having used drugs in the last 12 months (n=2,248), 27.3% (n=614) reported being an active member of a sports club; and 19.5% (n=439) reported being an active member of a student society.

When asked about their opinions of drug use among students, 56.7% (n=1,274) stated that they felt drug use was a normal part of student life, 27.0% (n=608) felt it was not, and 16.1% (n=363) gave no opinion. Those who responded to this question were asked what effect they felt drug use has on student life, with 13.9% (n=312) reporting that they felt that drug use has an extremely negative effect, 44.5% (n=1001) felt that drug use has a somewhat negative effect, 20.2% (n=454) felt that it has a neither negative or positive effect on student life, 4.6% (n=104) felt the effect was somewhat positive, and 0.4% (n=10) felt that drug use has an extremely positive effect on student life.

9.2.2 Never User

Of the participants who reported having never used drugs (n=5,008), 28.0% (n=1,400) reported being an active member of a sports club, and 23.1% (n=1,159) reported being an active member of a student society.

When asked about their opinions of drug use among students, 33.3% (n=1,670) stated that they felt drug use was a normal part of student life; 46.3% (n=2,319) felt it was not, and 20.2% (n=1,011) gave no opinion. Those who responded were asked what effect they felt drug use has on student life with 34.0% (n=1,705) reporting that they felt that drug use has an extremely negative effect, 35.9% (n=1,799) felt that drug use has a somewhat negative effect, 8.8% (n=441) felt that it has a neither negative or positive effect on student life, 0.7% (n=37) felt the effect was somewhat positive, and 0.1% (n=7) felt that drug use has an extremely positive effect on student life.

9.3

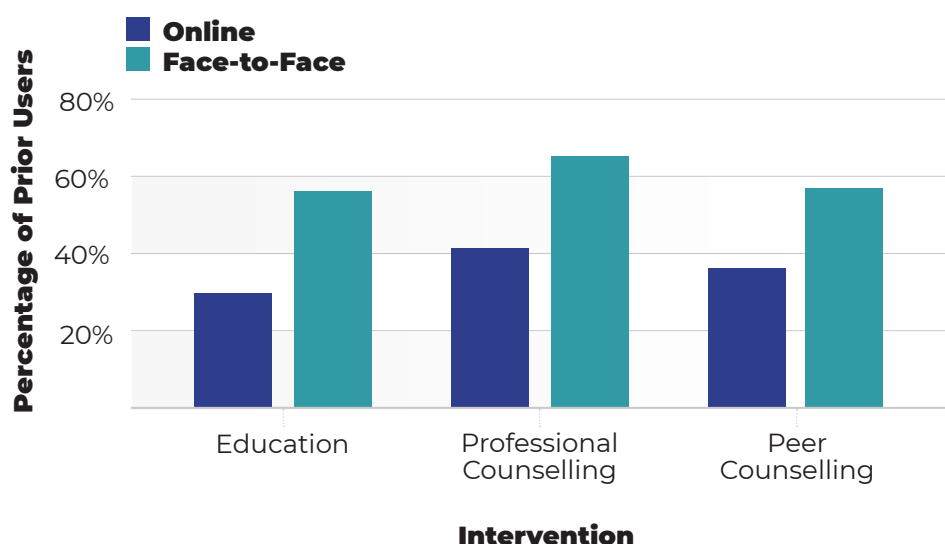
Effectiveness of Interventions

9.3.1 Prior User

Just under one-third of participants (32.0%; n=720) felt that were fully informed about the risks of using drugs, with fewer reporting that they feel they know very much (26.7%; n=601), a moderate amount (24.2%; n=544) or very little or nothing at all (2.8%; n=64).

Overall, prior users perceived face-to-face interventions to be more effective than online interventions in reducing harm from drug use. Online and face-to-face education was perceived as being the least effective intervention for drug use harm reduction. Face-to-face professional counselling was perceived as being the most effective intervention. Figure 62 illustrates the perceived effectiveness of online and face-to-face interventions.

Figure 62 - Perceived Effectiveness of Interventions (Prior Users)

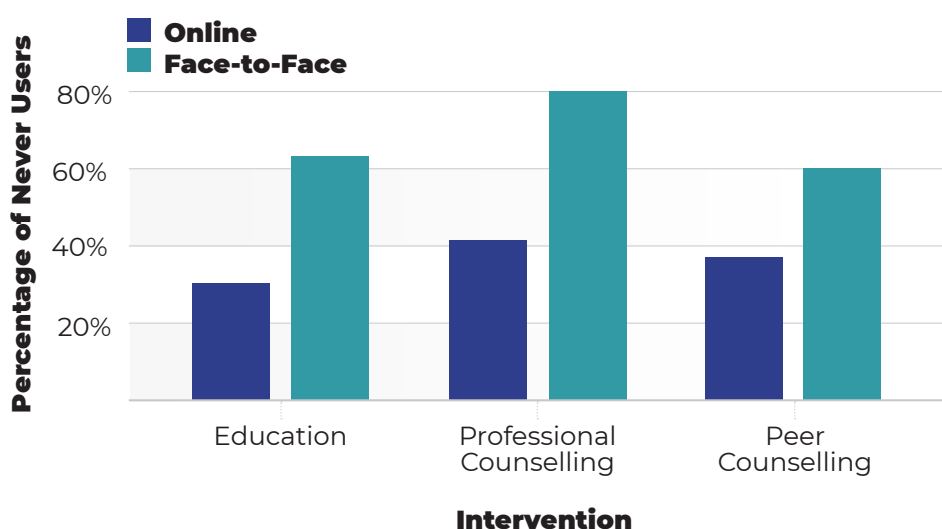


9.3.2 Never User

Participants were asked about their knowledge of the risks of using drugs, and their views on the effectiveness of different types of interventions to reduce harms from drug use. Just under half (45.7%; n=2,291) of participants felt that they knew a moderate amount about the risks of using drugs, with fewer reporting that they felt that they knew very much (26.4%; n=1,322), that they felt fully informed (15.7%; n=785) or very little or nothing at all (7.9%; n=394).

Overall, never users perceived face-to-face interventions to be more effective than online interventions in reducing harms from drug use. Online and face-to-face education was perceived as being the least effective intervention for drug use harm reduction. Face-to-face professional counselling was perceived as being the most effective intervention. Figure 63 illustrates the perceived effectiveness of online and face-to-face interventions.

Figure 63 - Perceived Effectiveness of Interventions (Never Users)



Cognitive Enhancers

9.4.1 Prior User

Of prior users, 2.9% (n=64) confirmed use of smart drugs for performance enhancing purposes. Prior users who reported some interest in smart drugs, but never trying them (n=294) cited the main reasons as no access (26.4%; n=63), no interest or desire (20.5%; n=49), fear of adverse effects (13.8%; n=33), no opportunity (12.6%; n=30), a fear of dependency (10.8%; n=26), and no medical need (5.9%; n=14).

9.4.2 Never User

A small number 0.54% (n=27) of never users confirmed use of smart drugs for performance enhancing purposes. Never users who reported some interest in smart drugs but had never tried them (n=382) cited the main reasons for not doing so as no opportunity (17.6%; n=56), no access (15.4%; n=49), no interest or desire (15.4%; n=49), no need (14.7%; n=47), fear of adverse effects (13.8%; n=44), fear of dependency (12.2%; n=39), and health concerns (6.9%; n=22).

Student Wellbeing

9.5.1 Prior User

Wellbeing scores were calculated for 1,684 prior users who completed all seven questions. Almost half (49.8%; n=839) were categorised as having Moderate Wellbeing, 43.0% (n=724) were categorised as having Low Wellbeing, and 7.2% (n=121) were categorised as having High Wellbeing.

When reporting on relationships, 50.3% (n=1,130) of prior users were at least very happy with their friend relationships, 47.2% (n=1,060) with family relationships, 36.7% (n=526) with housemate relationships, and 51.7% (n=787) with romantic relationships. Family and friend relationships had the highest percentage of respondents reporting unhappiness, with 13.7% (n=308) and 11.9% (n=268) reporting at least a little unhappiness with those relationships, respectively.

9.5.2 Never User

Wellbeing scores were calculated for 4,205 never users who completed all seven questions. Over half of never users were categorised as having Moderate Wellbeing (52.1%; n=2,189), 44.0% (n=1,848) were categorised as having Low Wellbeing, and 4.0% (n=168) were categorised as having High Wellbeing.

When reporting on relationships, 55.5% (n=2,781) of never users were at least very happy with their friend relationships, 60.2% (n=3,013) with their family relationships, 41.0% (n=1,215) with their housemate relationships, and 60.2% (n=1,525) with their romantic relationships. Housemate relationships had the highest percentage of respondents reporting unhappiness, 8.4% (n=419) of respondents reporting at least a little unhappiness with those relationships.

9.6

Social Norms

9.6.1 Prior User

The majority of prior users (64.8%; n=1,457) felt that their friends or family would approve if they did not use drugs, 50.4% (n=1,134) that their friends or family would disapprove if they used drugs occasionally and 77.0% (n=1,730) that their friends or family would disapprove if they took drugs regularly.

When asked about the prevalence of drug use among students in Ireland, prior users perceived that 35.4% of students had never used drugs, and that 58.4% of students had used drugs in the last year.

9.6.2 Never User

The majority of never users (76.6%; n=3,835) felt that their friends or family would approve if they did not use drugs, 77.1% (n=3,861) felt that their friends or family would disapprove if they used drugs occasionally and 87.3% (n=4,372) felt that their friends or family would disapprove if they took drugs regularly.

When asked about the prevalence of drug use among students in Ireland, never users believed that 41.1% of students had never use drugs, and that 55.0% of students used drugs in the last year.

9.7

Drug Use and Sexual Activity

9.7.1 Prior User

Under one-quarter (24.7%; n=556) of participants in the prior user group reported ever engaging in sexual activity under the influence of drugs, 62.8% (n=1,411) reported never doing so, and 0.8% (n=17) preferred not to say.

Of the participants who reported engaging in sexual activity under the influence of drugs, the most commonly reported drug was cocaine (37.4%; n=208), followed by none (36.5%; n=203), other drugs (22.3%; n=124), ketamine (7.4%; n=41), and GBL/GHB (4.1%; n=23), crystal meth (1.3%; n=7) or mephedrone (2.3%; n=13).

The majority of participants reported engaging in sexual activity under the influence of drugs monthly or less (70.9%; n=394), followed by never (11.2%; n=62), 2–4 times a month (8.3%; n=46), and 2–3 times a week or more (6.5%; n=36). Participants reported that they engaged in sexual activity under the influence of drugs with one person (86.2%; n=479), two people (5.9%; n=33) three people (1.8%; n=10), and four or more people (2.2%; n=12).

DISCUSSION

10.1

Summary of Findings

The DUHEI Survey ran over two phases in January and March 2021, with 13,681 students from 21 HEIs responding to the survey. After data cleaning, 11,592 responses were included in the analysis. The sample comprised 60% female, 81% undergraduates, 9% registered with a Disability Support Service, 90% EU students, with a median age of 21. Just over half of all respondents felt drug use is a normal part of student life, however, just over half also felt that drug use has a somewhat negative, or an extremely negative impact on student life.

10.1.1 Student Drug Use

Just over half of participants report ever using an illicit drug, with over one-third reporting drug use in the last year, and one-fifth reporting use in the last month. The social norms around drug use were found to be skewed, with students over-estimating that a sizeable 58% of their peers had used drugs in the last year, and under-estimating that only 37% of their peers had never used drugs. The actual figures as determined in this study are 35% and 43%, respectively. The most commonly used drugs among prior, recent, and current users were cannabis, followed by cocaine and ecstasy. Higher percentages of current users reported ketamine, mushroom, and NPS use, than both recent and prior users. The age at first use for most drugs was between ages 19—21, apart from cannabis, which was between ages 16—18 years. Early age of onset of drug use was most pronounced among current users, with over a quarter of current users reporting cannabis use for the first time under the age of 16, and almost half using ecstasy for the first time between the ages 16—18. Pubs, bars and nightclubs, house parties, festivals and own home were the most common locations for most drug use. However, pubs, bars and nightclubs were not frequently reported as locations for any drug use among current users.

The majority of students reported that their main reason for using most drugs as “to have fun”, however many current users report using cannabis “to relax”. For each of cannabis and cocaine, over 15% of prior users report using them “to fit in,” and 10% reported using each of ecstasy, ketamine, and amphetamines for the same reason, whereas “fitting in” as a reason was much lower (at less than 6%) in the current use group. A sizeable proportion reported “other” reasons for using each of magic mushrooms and NPS. Most students reported sourcing their drugs from someone they knew well, with very few sourcing online.

The majority of participants reported that drug use had neither negative nor positive effects on most aspects of their lives. However, all groups of drug users reported positive effects on their ability to socialise. Over one-quarter of current users reported negative impacts on their finances and their physical and mental health. The majority of participants reported that their drug use had neither negative nor positive impact on their important relationships.

For students who reported never using drugs, their main reasons for not using drugs were that they had no interest, concerns about impacts on physical and mental health, legal implications, and addiction. Among prior users, the main reasons reported for no longer using drugs were a lack of interest, no exposure, and concerns about impacts on physical and mental health.

Among students who reported recent use of drugs, the average DAST-10 score was 2.3, indicating

a low-risk of drug use harms for just over two thirds of this cohort. However, the remaining one-third of recent drug users were found to be at moderate, substantial, or severe level of risk of harm. Among students reporting current use of drugs, the average DAST-10 score was 3.04, indicating a moderate risk of drug use harms for over half this cohort, with a further one in 10 current users at substantial or severe risk of harm. As a result of their drug use, just under half of students reported being unable to remember what they said or did, feeling regret, having unprotected or unintended sex, and getting into arguments or fights on at least one occasion in the last year. However, the majority reported not having experienced these harms in the last year. Almost one in 10 current users report that a friend, family member, or medical professional had been worried about their drug use at some time in the past. One-third of current users indicated that they would like to reduce their drug use, citing concerns about physical and mental wellbeing, impacts on finances, career and academic progress, and legal implications. However, two-thirds reported not wanting to change their use, citing perceived low or non-harmful use, and perceived benefits from use.

Less than one in twenty students reported using smart drugs for the purposes of enhancing their thinking or academic performance. Of the user types, current users were most likely to have used smart drugs for performance enhancing purposes, with one in 10 current users reporting use of smart drugs. Over one-third of students had heard of smart drugs but were not interested in using them. Of the students who had never tried smart drugs, the most reported reasons for non-use included no need, desire, opportunity or access, and concern around adverse side effects.

10.1.2 Behaviour Change and Interventions

Of those who have thought about ways to reduce drug use, participants reported that they would consider avoiding environments and friends who use drugs, that they would take up a new hobby, as well as learn more about the risks associated with drug use such as looking for information online. However, students reported that they would not consider helplines or addiction services, or help from student services, friends, or family members. Participants indicated a very high level of confidence that they were capable of reducing or stopping their drug use if they wanted to. However, just under half had tried to change their use, using methods such as avoiding environments or friends who use drugs, taking up a new hobby, willpower (just stopping), cutting down, and goal setting. Most participants who tried felt that their attempts had been successful.

A majority of all students felt that they knew at least a moderate amount about the risks and harms of drug use. In terms of interventions to reduce harms from drug use, most students perceived face-to-face interventions to be more effective than online interventions, with both online and face-to-face education being perceived as the least effective intervention, and online or face-to-face professional counselling rated as the most effective intervention.

10.1.3 COVID-19 Pandemic and Drug Use

Just under one-quarter of participants reporting drug use in the last 12 months stated that they had increased the frequency of their drug use since the 12th of March 2020, citing reasons such as boredom, having more time to use drugs, and having stocked up on drugs. Of the one-third of participants who reported a decrease in use since the pandemic commenced, the cited reasons for decreased use included less occasions and less contact with people who use drugs, not wanting to use drugs during a pandemic, and access difficulties. In the main, there was neither negative nor positive impacts on six areas of their lives reported by either those who had increased or those who had decreased drug use since the start of the pandemic. The exceptions were that those who had increased their drug use during the pandemic reported a negative impact on their finances and a strongly positive impact on their levels of pleasure and enjoyment. One in 10 participants reported using drugs for the first time since campus closures. However, over half of these stated that this was nothing to do with the lockdown, with others reporting boredom, loss of daily structure, and loneliness as main reasons for starting to use drugs.

Prior to 12th March 2020, students reported using drugs at house parties, in smaller gatherings, at nightclubs and at festivals. In those students reporting using drugs in the last 30 days prior to completing the survey, this drug use had occurred in smaller gatherings, with household members at home, with just over one-fifth reporting using drugs alone. Just under a half of current users that reported using drugs alone did so more often now than they had prior to campus closures on March 12th, 2020.

10.1.4 Student Wellbeing

The majority of participants had a moderate or high level of wellbeing, but over two-fifths reported a low-level of wellbeing. Almost one-quarter reported not feeling relaxed, while just under a fifth reported not feeling close to others, and under a sixth reported not dealing with problems well. Most students reported feeling happy in their relationships.

10.1.5 Drug Use and Sexual Activity

Nearly three out of ten prior users and just over half of recent or current users reported engaging in sexual activity under the influence of drugs. A small number of both prior users and recent or current users report the use of chemsex drugs GBL/GHB, crystal meth, or mephedrone before or during sexual activity, with two-fifths of these doing so with two or more people. Just under one-third of participants engaging in sexual activity under the influence of GBL/GHB, crystal meth or mephedrone, report doing so at least 2–4 times per month.

10.1.6 Drug and Alcohol Recovery

Over one in 20 participants reported a previous problem with drugs or alcohol. Just under half of these reported that it had been two years or less since they resolved this issue, and most of these reported not using a support to do so.

More than a quarter of those reporting a previous problem self-identified as currently being in recovery, with the majority being so for less than two years. Over two-thirds did not self-identify as being in recovery, however a minority did self-identify as being in recovery at some time in the past, with most reporting that the period of recovery was of less than two years duration. Of those who reported making a serious attempt to resolve their drug or alcohol problem, the majority had made one attempt.



Comparison with Previous Literature

10.2.1 Drug Use Prevalence Data

There is a dearth of recent data on drug use among students in higher education, the most relevant studies conducted in Ireland and the UK suggest that the lifetime prevalence is between 40–50%, and last year prevalence is approximately 25% (6–10). Our findings suggest a higher prevalence of drug use among students in higher education in the Republic of Ireland, with the lifetime prevalence of drug use being 55%, and last year prevalence at 36%. The lifetime prevalence of drug use of 55% in this study is comparable to the lifetime prevalence of cannabis use of 53% reported for young adults in Ireland (a mixed cohort that included persons in full time employment as well as those in higher education), in the MyWorld II survey, a national study of youth mental health (9).

The only other comprehensive in-depth research on drug use in higher education in Ireland is the 2002-2003 College Lifestyle and Attitudinal National (CLAN) Survey (8). The CLAN survey was conducted in 21 HEIs in the Republic of Ireland, funded by the Department of Health and Children to “*establish a national student profile of lifestyle habits, to use the information in planning for student needs, and as a baseline to monitor trends and changes*”. No follow-up survey to CLAN has been conducted. This 2021 DUHEI survey is the first large scale study with a dataset on drug use prevalence that is comparable to the 2002-2003 CLAN dataset and while there is a substantial gap of eighteen years between these two data collection points, it is instructive to compare the two. Clear differences have emerged in the drugs being used by students in higher education in Ireland over this period. There has been a reduction in the past 12-month prevalence of cannabis use from 37.3% to 30.2% over this time, and an accompanying reduction in the past 30-day prevalence of cannabis use from 20% to 16.3%. Past 12-month prevalence of cocaine use has almost trebled over the period, from 5.8% to 15.7%, with cocaine now replacing ecstasy as the second most common drug used by students. Past 12-month use of ecstasy has risen from 8.0% to 11.3%. Past 12-month use of ketamine and NPS was reported by 9.5% and 3.1% of students respectively in 2021, with neither of these drugs featuring as one of the seven most commonly used drugs in 2002-2003. Amphetamine use has reduced over the period, from a prevalence of 4.5% to 2.7%.

These changes represent a shift in the drug use habits of students in higher education, much of which is of considerable concern. Whilst there has been a reduction in the reported prevalence of cannabis use, the reductions in prevalence are small, and any possible benefit from these reductions are more than likely offset by the significant increase in potency of cannabis that has been reported over recent years (44,45). Table 7 presents a comparison of drug use prevalence data from CLAN (2002-2003) with data from DUHEI (2021).

Table 7 - Comparison of Drug Use Prevalence:
CLAN (2002-2003) v DUHEI (2021)

Drug or Drug Type Use	CLAN (2002-2003)	DUHEI (2021)
Cannabis Past 12-Month	37.3%	30.2%
Cannabis Past 30-Day	20.0%	16.3%
Cocaine Past 12-Month	5.8%	15.7%
Ecstasy Past 12-Month	8.0%	11.3%
Ketamine Past 12-Month	-	9.5%
Magic Mushrooms Past 12-Month	4.9%	5.2%
NPS Past 12-Month	-	3.1%

This change in the patterns of drug use among students may reflect the change in prevalence of drug use seen in the general population in Ireland over this period. Past 12-month cocaine use among males in the general population aged 25-34 years increased from 1.8% in 2002-2003, to 9.4% in 2019-2020, and ecstasy use among males aged 25-34 increased from 2.2% to 9.7% over the same period (46).

10.2.2 Demographic Differences

Drug use literature frequently cites that males are more likely than females to engage in drug use, and with higher frequency, however some studies have found that the gender divide is less pronounced in students in higher education compared with persons not in higher education (6,7,11,47). Our findings support previous literature, with higher percentages of males than females reporting lifetime use or recent or current drug use. Non-binary, and other-gender participants reported the highest prevalence of lifetime use, and non-binary participants reported the highest prevalence of recent or current drug use.

We found that a sizeable minority of students used drugs for the first time during secondary school years. Of participants who had used drugs, cannabis was reported as being used for the first time by over half of these between the ages of 16–18, with a further one-fifth reporting first use under the age of 16. A sizeable proportion of students also reported using cocaine and ecstasy for the first time between the ages of 16–18 years. This is in line with current research which has shown an increase in younger first-time drug use. The European School Survey Project on Alcohol and Other Drugs (ESPAD) reported that 20% of 17–18 year-olds in Ireland had used any drug; 19% had used cannabis, 2.6% had used ecstasy, 2.6% amphetamines, and 1.6% methamphetamine (48). Similarly, the Growing Up in Ireland Study reported that almost one-third of 17–18 year-olds had used cannabis, with 2-4% having used ecstasy, cocaine, painkillers, or aerosols/solvents (49).

Our findings do not support existing research which suggests that a substantial proportion of students cease drug use by their final year of college (6,11,50,51). Our data suggest that drug use prevalence is lowest among students in their first year of study, increases in the second year, and is highest in third and fourth year, with no evidence of a fall-off in usage found in these final years.

There was little difference observed between never and recent or current user groups in relation to club or society membership. Slightly fewer of the prior user group reported being a member of a student society. However, there was no compelling data to indicate either a protective or risk effect of club or society membership in relation to drug use.

10.2.3 Drug Use Harms

Research on the effects of drug use on physical and mental health report a wide variety of harms including panic attacks, insomnia, and nausea (6,52), seizures, memory loss and unconsciousness (6). Our findings confirm these data. We found that almost one-third of both recent and current users reported general negative effects on their physical health. A fifth of recent users and over one-quarter of current users reported experiencing blackouts or flashbacks in the last year, and over one-third of recent users, and over half of current users had been unable to remember what they said or did after using drugs. Students also reported experiencing withdrawals, medical problems, needing medical attention, and being unable to stop using in the last year.

Over one-quarter of current users, and just under one-quarter of recent drug users reported negative effects on mental health. Concern about impacts on mental health was also one of the main reasons cited by prior users when asked why they had not used drugs in the last year.

A number of studies report violence and aggression resulting from drug use, particularly linked to specific drugs such as cocaine and methamphetamine (6,11,47). We found that just over one in five current users reported getting into a fight or argument on at least one occasion in the last year as a result of their drug use. Just under half of current users reported feeling guilty in the last year, and feeling regret over something on at least one occasion. This is in line with findings by Palmer et al. (47) who reported that almost half of their survey sample indicated feeling embarrassed, guilty, or ashamed by their drug use.

Several studies discuss the legal implications of drug use (11,47), such as engaging in illegal activity and coming to the attention of college or legal officials. However, as Skidmore (11) highlights, less than 10% of their population had come to the attention of officials, suggesting that a substantial amount of problematic drug use goes undetected. Similarly, we found that only 4% of current users had been in trouble with the Gardaí or college officials in the last year. Less than 10% indicated that they had driven a vehicle while under the influence of drugs or engaged in illegal activities to obtain drugs. However, almost one in five reported being a passenger in a vehicle with someone who was under the influence of drugs. Further, almost half of recent or current users reported polydrug use (the use of more than one drug at a time), which is linked to higher risk of adverse consequences (53).

Our findings support previous research suggesting that drug use during college is associated with an increase in risky sexual behaviour (11). We found that just under one in six current users had unprotected sex in the last year, and one in seven had unintended sex. In addition to this, we found that over half of recent or current users reported the use of drugs during sexual activity. Sexual activity accompanied by drug use is likely to result in less informed decision making, increases in unprotected sex, and sex that is later regretted (54).

Previous research has listed a range of academic impacts linked to drug use, including lower attendance (55), getting lower grades (47), failure to attain a degree (56), and an impact on career trajectories (57). Over a quarter of both current and prior users reported negative effects of drug use on their academic performance, their ability to study, their ability to think, and their work behaviour. We found that 10% of current drug users report having performed poorly in an exam on at least one occasion in the last year.

Research has highlighted the impact of drug use on personal relationships with regard to increasing the likelihood of developing dysfunctional or strained relationships (4,58), or losing a close relationship (47). The majority of both current and prior users reported that their drug use had neither negative nor positive effects on all reported relationships, including friends, family, housemates, and partner. However, one in five current users reported that people close to them had complained about their drug use in the last year.

The misuse of prescription medications by students in higher education for performance enhancing purposes (smart drugs or nootropics) has been widely discussed in the United States, and more recently in the UK and Europe (12). Anecdotal evidence from Student Unions, and media reports indicate the use of cognitive enhancers may be increasing in Ireland also, but robust data to support this is lacking (59,60). Findings from this study appear to refute the anecdotal reports of widespread use of smart drugs among higher education students in Ireland. The majority of students reported having no interest in smart drugs, with just less than 4% having used them for performance enhancing purposes. One-third of students reported having some interest in smart drugs; however, the reported reasons for never using them included a lack of need, desire, opportunity or access, and concern around adverse side effects. Students who used drugs for recreational purposes were far more likely to use smart drugs than those students who had never used recreational drugs.

10.2.4 Other Behaviours

A small number of participants mentioned “Dry January” or “Sober October” as a reason why they had decided to change their drug use. Research on this kind of goal setting initiative for alcohol use is limited, but suggests that there may be some short-term benefits, such as changes toward healthier drinking (61), reduced problem drinking and capacity to refuse alcohol (62), changes in beliefs linked to harmful drinking (63), and improvements to wellbeing (64). Although this research pertains to alcohol use, it is possible that this type of health promotion initiative could be applied to the area of drug use.

10.3

Implications

This is the first national, in-depth, representative study of drug use among students in higher education in Ireland. The findings from this study provide much-needed insights into the drug use trends and behaviours of students. This study highlights that although the majority of students do not use drugs frequently, there is still a considerable proportion who do. Over one third of DUHEI respondents reported drug use in the last year, one fifth in the last month. Extrapolating this figure to the entire student population, suggests that some 78,000 students are recent or current drug users in Ireland. This has significant implications for the physical and mental wellbeing of students, for their academic progress, for the reputations of their institutions, and for the attitudes and behaviours in relation to drug use in wider society. Appropriate and timely intervention is key to address this issue, following both primary and secondary preventative approaches. Possible such interventions are discussed below.

Firstly, the majority of students who do not use drugs, should be empowered, and supported to copper-fasten this choice and continue these positive behaviours. Secondly, students who do report recent or current drug use should have access to targeted information, behavioural-change interventions, and services that are non-judgemental, supportive, tailored according to their motivations, and that take account of their readiness, ability and motivation to change their drug use behaviours. We found that a sizeable proportion of students would not consider seeking help from a helpline, an addiction service, a student service, or from a friend or family member. This has implications for the choice of format and mode of delivery of drug use interventions and confirms existing research that show a relatively low level of attendance by students with drugs-related issues at student health services, despite experiencing harms from their use of drugs (65).

Our findings support previous research around gender as a risk factor for drug use, as a higher percentage of males than females reported lifetime or recent or current drug use. However, males are under-represented in this survey, suggesting that we may not be capturing the full extent of

the issue. (66) Furthermore, we observed that non-binary and other-gender participants reported higher levels of drug use. This supports recent literature identifying that gender minorities report increased drug use than the cis-gender population (67,68). This highlights the need not only for additional education and intervention for male students, but additional or tailored supports for gender minorities in relation to their drug use.

Social norms were exaggerated among all students in this survey. However, current users had the most exaggerated perceptions (believing 63% of students used drugs in the last year; 32% never use drugs), while never users had the least exaggerated perceptions of student drug use (believing 55% of students used drugs in the last year; 41% never use drugs.). The correct figures are 37.3% and 43.2% respectively. A similar trend was observed when we asked participants about whether they thought drug use was a normal part of student life or not; most current users felt that it was, whereas the majority of never users felt that it was not. Similar patterns were observed in the perceived effects of drug use on student life; much higher percentages of current users perceived drug use to have neither negative or positive effects, or a somewhat or extremely positive effects on student life whereas the majority of prior and never users felt that effects were somewhat or extremely negative. This suggests that those with less exaggerated perceptions of social norms are less likely to ever use drugs, and vice versa, highlighting the need to deliver interventions and messaging focused on norm correction to students.

When exploring reasons for use, we noted that “to fit in” was mentioned more frequently among prior users (those who had not used in the last 12 months), than in the current users; 15% reported fitting in as the main reason for cannabis and cocaine use, and 10% for ecstasy, ketamine, and amphetamines. The highest percentage of users reporting “to fit in” as their reason for use in the current user group was 6% for ketamine. This could indicate that peer pressure and social norms around drug use in college play a role in “once-off” or occasional drug use. The age profile of students in higher education in Ireland may lead to a higher sensitivity to social cues for inclusion and exclusion, with enhanced sensitivity to social evaluation, affecting their perceived norms and feelings of peer pressure. Interventions that target norm correction and decision-making skills could be of particular benefit to this group of students and may reduce the number who use drugs for this reason.

In addition, a minority of students selected “other” as their reasons for use, particularly for magic mushrooms (20% current users; 15% prior users), and ketamine (15% current users). This highlights a gap in the knowledge and understanding around students’ reasons for using drugs and a possible gap in intervention targets. As demonstrated, reasons for use vary by drug type, so further research is recommended to explore the specific motivations for use of these less frequently used groups of drugs.

Most groups of drugs were found to be used by students for the first time between the ages of 19–21 years, i.e., typical college years. However, the majority of students reporting current or prior use of cannabis reported that they did so for the first time between the ages of 16–18, i.e., typical secondary school years, with one in five reporting doing so under the age of 16. Furthermore, a greater number of students in the recent or current user group reported that they had started to use drugs during secondary school years, suggesting that earlier drug use is likely to be a risk factor for continuing to use drugs on a regular basis in future years. These differences were particularly notable for ecstasy and cocaine. There are two main implications from these findings. The first being that there is a need to develop drug use interventions aimed at second-level students. Secondly, a significant percentage of students who currently use drugs reported that their drug use commenced prior to entrance into higher education. Therefore, the provision of early interventions that target students on entry to, during induction, and continuing into the whole of first year may help prevent drug use becoming a regular and sustained habit for these students during the remainder of their college years and beyond.

Pubs, clubs, and bars were not reported as a predominant location for use for any type of drug among current users, whereas it made up the majority location for most drugs among prior users. We note that this change may be due to the COVID-19 pandemic and associated closures of same. Although we did not specify a timeframe on this question, instead asking “where do you usually use?” it is probable that participants would respond thinking about their most recent circumstances or experiences. These findings may indicate a shift in trend toward other locations for use. We recommend that this issue be explored further to ensure that public health messaging and harm reduction interventions are delivered in the locations where drug use is most likely to take place.

The use of cognitive enhancers, or smart drugs, was considerably higher in the recent or current user group than in prior or never users. Furthermore, the most common reason for not using cognitive enhancers by both recent, current, and prior users was a lack of need, desire or opportunity to access, or not knowing where to source them. Although the level of use of cognitive enhancers was low in the overall population, some students, in particular, those who had used other drugs indicated that they might be more likely to use them if they became more readily available. This is an area which should continue to be monitored for changes in availability and usage.

Just under one-quarter of the students who reported being registered with the Disability Support Service (DSS) in their institution indicated current drug use, compared with less than one-fifth of those not registered with a DSS. This suggests that students requiring additional supports may be at a higher risk for drug use. Further research should explore this in greater depth to assess the scope of the issue and to develop tailored supports in partnership with the local DSS.

Research on sexual activity and drug use has primarily focused on the chemsex phenomenon among gay, bisexual and men who have sex with men (MSM) (69,70). Recently, engagement in sex-related drug use among other groups has also been explored supporting the need for a more expansive approach rather than just the “biomedical conceptions of sexual enhancement limited to stamina, function and libido” (71). This study adds to the literature around chemsex and the use of drugs during sexual activity among students. Despite an apparent lack of understanding around the concept of chemsex, over half of recent or current drug users reported engaging in sexual activity while under the influence of drugs, with no difference between females and males in this regard. Although we did not explore sexual orientation in this survey, it is likely that sexual activity under the influence of drugs is also taking place outside of the MSM community among students. HEIs should consider this when developing sexual health and wellbeing material and campaigns to ensure sexual activity under the influence of drug use is included and addressed, with specific supports available.

College is a transitional stage for young people. It is a period marked by decreased supervision and structure, with increased freedom including significant opportunities to engage in recreational drug use. For students who are recovering from addiction and who wish to start or return to college, such environments have few supports and can present additional challenges and risk of relapse (72). The main challenge is the perceived lack of peer support for moderation or abstinence from drug and alcohol use in these settings, with young people having a difficult time either finding or developing a social community that is drug- and alcohol-free. In addition, non-disclosure of a previous drug or alcohol problem may lead a student to experience significant pressure, whilst self-disclosure with non-recovering peers can result in stigma, shame, and isolation. The lack of recovery support is likely to have been made worse by the COVID-19 pandemic and associated periods of social isolation and restrictions. Social connection is central to recovery, but this has been challenged by essential life-saving public health measures such as lockdown, shielding, and social distancing. Therefore, an area in need of immediate development is recovery support in colleges and universities. The establishment of collegiate recovery supports is a necessary step to support the recovering student and to increase access to treatment for the student in active addiction.

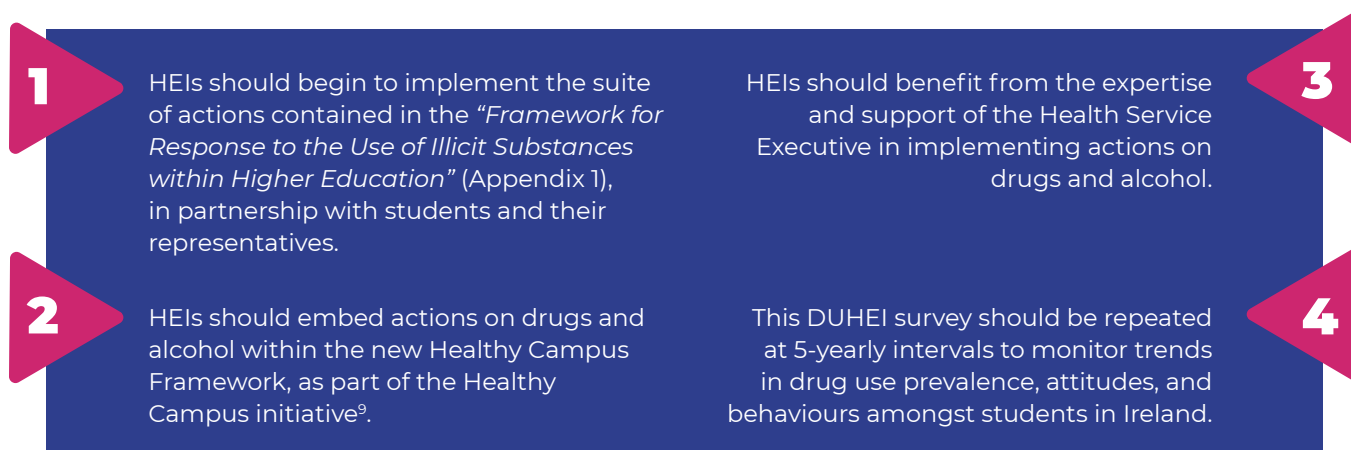
Recommendations

Students in this survey reported a wide range of harms arising from their drug use, with just over half of current drug users at moderate or substantial risk of harm based on their DAST-10 score. Interventions targeted at the level of the individual are clearly required in our HEIs. It is clear however that interventions at institution-level and sector-level are also required, to support those who do not use drugs, and to aid the recovery and reduce the harms experienced by those who do.

Collaboration must continue at the national level among key stakeholder organisations to support the implementation of measures targeting students, in line with the Government's national drugs strategy, *Reducing Harm, Supporting Recovery. A health-led response to drug and alcohol use in Ireland 2017–2025*.

It is imperative that any actions taken to address the issue of drug use in higher education are undertaken based on evidence and data, and that the evidence and data must be specific to the students that, study, learn, research, and live part of their lives in higher education in Ireland.

The following are recommended:



Strengths and Limitations

This is the first in-depth national study on drug use trends and behaviours among students in higher education in Ireland, across 21 HEIs, with a total student population in excess of 240,000. We used a robust, representative, and random sampling strategy to ensure that every student registered at a participating institution had an equal chance of being selected for inclusion. We achieved a good response rate of 28.5%, and a completion rate of 72%. The survey was completely anonymous, giving participants the confidence to respond to questions around their drug use behaviours.

We acknowledge the impact of COVID-19 pandemic on data collection. Due to delays caused by campus closures, we had to defer the survey from March 2020, to January-March 2021. Drug and alcohol use behaviours among students are likely to have been impacted by campus closures, hospitality closures, and restricted social gatherings. In addition, the roll-out of DUHEI was split between two phases, one in January 2021, and the second in March 2021. Although Ireland was under Level 5 public health restrictions during both data collection points (this included campus closures, a ban on social gatherings, and closure of all hospitality (73)), each cohort would have had

⁹The Healthy Campus Initiative, co-ordinated by the Higher Education Authority (HEA), aims to support HEIs to take action to promote the health and wellbeing of their students and staff through the adoption of the Healthy campus Charter and the implementation of the Healthy campus Framework.

slightly different contexts when answering time-frame related questions.

We note a small number of limitations in the interpretation of our findings in relation to chemsex and injunctive norms. It is clear from some of the contradictory responses given by participants that chemsex is not well understood. Questions around chemsex that were included in DUHEI were taken from the The European MSM Internet Survey (EMIS survey), a survey targeted at gay, bisexual and other men, so it is likely that this cohort would be more familiar with the definition of chemsex, than the general student population.

In our questions exploring injunctive norms, i.e., perceptions of how behaviours are approved or disapproved by others, we asked about family and friends together. A small number of participants used the open-text fields to highlight the key differences between these relationships in relation to perceptions of drug use. We acknowledge that this format may not have produced the most accurate responses, as students tend to view family and friend relationships very differently. Drug use often takes place in social settings with friends; therefore, friends are likely to have differing opinions to family. Any future iteration of DUHEI should distinguish between these two important relationships.



APPENDICES

11.1

Appendix 1 - Framework for Response to the Use of Illicit Substances in HE

Four Core Actions Recommended for Higher Education Institutions.

In order to reduce the number of students who decide to use drugs and reduce the harm experienced by those students who have chosen to use drugs, HEIs are recommended to undertake the following four core actions:

1. Each higher education institution should develop a Drug and Alcohol Policy specific to the HEI.
2. Each higher education institution should develop and implement a Drug and Alcohol Action Plan specific to the HEI and their students
3. Each higher education institution should assign to a Senior Officer of the HEI the responsibility for leading the development of the Policy and the implementation of the Action Plan.
4. Each higher education institution should facilitate student engagement with the collection of national level data on drug use in HEIs

An additional 12 recommendations under 4 themes are also proposed.

Institutional Leadership

1. HEIs should complete a formal evaluation of the effectiveness of their own Drugs and Alcohol Action Plan at least once every three years.
2. HEIs should provide drug, substance, alcohol and tobacco-free student accommodation and on-campus alcohol-free social spaces.
3. HEIs should allocate space on the HEI campus for support groups working with those struggling with drug and alcohol abuse.

Student Engagement

4. HEIs should provide and actively promote to students an on-line educational, screening and brief intervention tool.
5. Safety issues in the context of intoxicants such as drugs and alcohol should be considered while planning all large-scale student events.
6. HEIs should develop and implement a Student Community Support system.

Community Engagement

7. HEIs should hold an annual meeting with local stakeholders.
8. HEIs should develop partnerships with relevant local community groups.

Service Provision

9. Drugs and Alcohol counselling services should be available to students in the HEI.
10. HEIs should develop a visible and accessible referral pathway for addiction assessment and treatment services for students.
11. HEIs should provide interventions that target higher risk groups.
12. HEIs should provide training for staff and students in how to deliver brief intervention and advice.

11.2

Appendix 2 - Rapid Response Group Members

- Dr Andrew Power, (Chair) Registrar and the Vice President of Equality and Diversity, IADT.
- Dr Michael Byrne, (Lead) Head of Student Health Department, University College Cork.
- Dr Eamon Keenan, National Clinical Lead-Addiction Services, National Social Inclusion Office, Health Service Executive.
- Paul Moriarty, Director of Student Experience, University College Cork.
- Mai Fanning, President, National Parents Council Post Primary.
- John Hannon, Director of Student Services, National University of Ireland, Galway.
- Fr Ben Hughes, Chaplain, National University of Ireland, Galway.
- Róisín O'Donovan, Vice President Welfare Officer, Union of Students in Ireland.
- Jimmy McGovern, Seas Suas Programme Manager, National University of Ireland, Galway.
- John O'Driscoll, Assistant Commissioner, Special Crime Operations, Gardaí.
- Orla McPartlin, Assistant Commissioner, Community Engagement & Public Safety.
- Roisin O'Connell, Head of Communications, The Technological Higher Education Association.
- Lia O'Sullivan, Head of Communications, Irish Universities Association.
- Dr Jo-Hanna Ivers, Assistant Professor in Addiction, Trinity College Dublin.
- Professor Mary Cannon, Psychiatrist, Royal College of Surgeons in Ireland.
- Terry Twomey, VP Academic Affairs & Registrar, Limerick Institute of Technology.
- Meabh McGuinness, Education Project Manager, Health Service Executive (Healthy Ireland).
- Gertie Raftery, Chairperson, Psychological Counsellors in Higher Education Ireland.
- Nicki Killeen, Development Worker, National Social Inclusion Office Health Service Executive.

11.3

Appendix 3 - Probability Proportion to Size (PPS) Sampling

Probability proportion to size (27,74) is a sampling procedure commonly used when sampling individuals in clusters, such as students in higher education in separate years of study. The strategy is based on the probability of a unit being selected being proportional to the size of the ultimate unit.

PPS provides a probability (i.e., random, representative) sample.

In order to ensure that all students at each of the HEI's had the same probability of selection irrespective of the size of their institution or their year of study, PPS was chosen. Each institution was sampled according to its population's size relative to the overall population of all participating institutions. Each year of study in each institution was sampled according to their size in relation to the overall population of that institution.

PPS facilitated greater control over the ultimate sample size, as demonstrated in previous research with students registered in HEI's in Ireland.

11.4

Appendix 4 - Institution Breakdown and Sample Size Calculation

Institution	Undergrad	Postgrad	Total	% Total	Sample Size
AIT	5,617	906	6,523	2.72	1305
DCU	12,222	4,047	16,269	6.78	3254
DKIT	4,406	224	4,630	1.93	926
GMIT	7,249	1,192	8,441	3.52	1688
IADT	2,019	354	2,373	0.99	475
IT Carlow	6,236	1,150	7,386	3.08	1477
IT Sligo	7,111	1,182	8,293	3.45	1659
LIT	5,790	399	6,189	2.58	1238
LYIT	3,846	536	4,382	1.83	876
MIC	3,708	724	4,432	1.85	886
MTU-Cork	9,284	1,137	10,421	4.34	2084
MTU-Kerry	2,907	166	3,073	1.28	615
MU	11,849	2,328	14,177	5.91	2835
NCAD	1,174	95	1,269	0.53	254
NUIG	14,403	4,667	19,070	7.94	3814
RCSI	2,535	1,302	3,837	1.60	767
TCD	13,284	5,456	18,740	7.81	3748
TUD	21,577	3,286	24,863	10.36	4973
UCC	15,821	6,634	22,455	9.35	4491
UCD	18,881	8,606	27,487	11.45	5497
UL	12,578	5,528	18,106	7.54	3621
WIT	6,862	804	7,666	3.19	1533
Totals	189,359	50,723	240,082	100%	48,016

Appendix 5 - DUHEI Survey

Drug-Use in Higher Education in Ireland (DUHEI) Survey

Section 1: Demographics (all respondents)

Number	Question	Responses
1	What age are you?	Open text box
2	What is your gender identity	1. Female 2. Male 3. Non-binary 4. Other (please specify) 5. Prefer not to say
3	What is your relationship status?	1. Single 2. In a relationship 3. Other
4a	Student status: are you?	1. Undergraduate 2. Postgraduate
4b	Student status: are you?	1. EU student 2. Non-EU student
5	What year of your degree are you in?	1. First year 2. Second year 3. Third year 4. Fourth year 5. Fifth year +
6	Are you registered with the Disability Support Service at your institution?	1. Yes 2. No

Section 2: Student life (all respondents)

Number	Question	Responses
1	Are you an active member of a sports club?	1. Yes 2. No
2	Are you an active member of a student society?	1. Yes 2. No
3	In your opinion, do you think drug use is a normal part of student life?	1. Yes 2. No 3. No opinion
4	In your opinion, what effect does drug use have on student life?	1. Extremely negative effect 2. Somewhat negative effect 3. Neither negative or positive effect 4. Somewhat positive effect 5. Extremely positive effect

Section 3: Drug use screening (all respondents)

Number	Question	Responses
1	Have you ever used an illicit drug (such as cannabis, cocaine, MDMA)? (ever use)	1. Yes 2. No 3. Prefer not to say <i>If NO, declared never-use to Section 5a</i>
2a	In the past 12 months... 1. Have you used drugs other than those required for medical reasons?	1. Yes 2. No 3. Prefer not to say <i>If NO to q1, declared non-current use to Section 3c</i>
2b	2. Do you use more than one drug at a time? 3. Are you always able to stop using drugs when you want to? 4. Have you ever had blackouts or flashbacks as a result of drug use? 5. Do you ever feel bad or guilty about your drug use? 6. Does anyone close to you (friends/family/housemates/boyfriend/girlfriend) ever complain about your involvement with drugs? 7. Have you neglected your family because of your use of drugs? 8. Have you engaged in illegal activities in order to obtain drugs? 9. Have you ever experienced withdrawal symptoms (felt sick) when you stopped taking drugs? Have you had medical problems as a result of your drug use (e.g. memory problems, hepatitis, convulsions, bleeding)?	1. Yes 2. No

Section 3a: Drug use (declared never-use only)

Number	Question	Responses
1	What are the main reasons you have never used drugs?	1. I have had no opportunity to use drugs 2. I have never been interested 3. I have concerns about possible impacts on my mental health/wellbeing 4. I have concerns about possible impacts on my social life 5. I have concerns about possible impacts on my physical wellbeing/health 6. I have concerns about possible impacts on my academic progress or performance 7. I have concerns about possible impacts on my ability to do physical activity. 8. I have concerns about possible impacts on my finances 9. I have concerns about possible impacts on my work performance 10. I have concerns about possible impact of drugs on my body image 11. I have concerns about how other people perceive drug usage. 12. I have concerns about possible impact of drugs on future career prospects 13. I have concerns about my personal physical safety 14. I have concerns about the legal implications of drug use 15. I have concerns about addiction 16. Other (please state)

Section 3b: Drug use (declared prior use only)

Number	Question	Responses
1	Please indicate which drugs you have ever used	1. Cannabis 2. Ecstasy 3. Cocaine 4. Ketamine 5. Mushrooms 6. Amphetamines 7. Novel Psychoactive Substances (NPS e.g. 2CB, synthetic cannabinoids etc.) 8. Other (please specify) 9. Prefer not to say
2	How old were you when you first used these drugs?	1. Under 16 2. 16-18 3. 19-21 4. 22-24 5. 25+
3	Where did you usually use these drugs?	1. In a pub/bar/nightclub 2. At a house party 3. At a concert/festival 4. In your house/apartment 5. At work 6. At a club/society event 7. Other
4	Which of the following describes the main reason you took these drugs?	1. To help with study or exams 2. To relieve physical pain 3. To improve performance in sport/ at the gym 4. To have fun/more fun 5. To fit in 6. To cope with emotional distress or upset 7. To relax 8. Other (please specify)
5	What effect did your drug use have on your... 1. Ability to think 2. Academic performance 3. Ability to study 4. Work behaviour 5. Mental wellbeing health 6. Physical wellbeing/health 7. Finances 8. Personal physical safety 9. Physical activity ability 10. Ability to socialise	1. Positive effect 2. Negative effect 3. No effect

Section 3b: Drug use (declared prior use only)(contd.)

6	<p>How did you feel your drug use affected others?</p> <ol style="list-style-type: none"> 1. Friends 2. Family 3. Housemates 4. Boyfriends/girlfriends/partner 	<ol style="list-style-type: none"> 1. Positive effect 2. Negative effect 3. No effect 4. N/A
7	<p>When using drugs, did you ever...</p> <ol style="list-style-type: none"> 1. Think about alternatives to drug taking 2. Think about the possible negative consequences to myself or others 3. Think about the possible positive consequences to myself or others 	<ol style="list-style-type: none"> 1. Never 2. Rarely 3. Occasionally 4. Frequently 5. Always
8	<p>Where did you normally source your drugs? (tick all that apply)</p>	<ol style="list-style-type: none"> 1. From someone you know well (a friend, classmate, colleague) 2. From a stranger 3. Online 4. Other (please state)
9	<p>What are the main reasons you haven't used drugs in the last 12 months? (tick all that apply)</p>	<ol style="list-style-type: none"> 1. I haven't had any exposure 2. I am no longer interested in using drugs 3. I had concerns about possible impacts on my mental health/ wellbeing 4. I had concerns about possible impacts on my social life 5. I had concerns about possible impacts on my physical health/ wellbeing 6. I had concerns about possible impacts on my academic progress or performance 7. I had concerns about possible impacts on my ability to do physical activity. 8. I had concerns about possible impacts on my finances 9. I had concerns about possible impacts on my work performance 10. I had concerns about possible impacts of drugs on my body image 11. I had concerns about possible impacts of drugs on future career prospects 12. I had a previous bad experience with drugs 13. I am concerned about my personal physical safety 14. I had concerns about the legal implications of drug use 15. I had concerns about how other people perceive drug use. 16. I had concerns about addiction 17. Other (please state)

Section 3b: Drug use (declared prior use only)(contd.)

10a	Have you ever engaged in sexual activity under the influence of drugs?	1. Yes 2. No 3. Prefer not to say
10b	If YES to 10a Did you ever use any of the following drugs before or during sexual activity? (tick all that apply)	1. Cocaine 2. Ketamine 3. GBL/GHB 4. Crystal Meth 5. Mephedrone 6. None 4. Others (please specify)
10c	If YES to 10a How often did you engage in sexual activity under the influence of drugs?	1. Never 2. Monthly or less 3. 2-4 times a month 4. 2-3 times a week 7. 4 or more times a week
10d	If YES to 10a With how many people (at a time) did you engage in sexual activity under the influence of drugs?	1. 1 person 2. 2 people 3. 3 people 4. 4 people 5. 5 people 5. 6 or more people

Section 3c: Drug use (declared recent or current use only)

Number	Question	Responses
1	Please indicate which drugs you have ever used	1. Cannabis 2. Ecstasy 3. Cocaine 4. Ketamine 5. Mushrooms 6. Amphetamines 7. Novel Psychoactive Substances (NPS e.g. 2CB, synthetic cannabinoids etc.) 8. Other (please specify) 9. Prefer not to say
2	How old were you when you first used these drugs?	1. Under 16 2. 16-18 3. 19-21 4. 22-24 5. 25+
3	How often have you used these drugs in the last 12 months?	1. Never 2. Once or twice 3. Monthly 4. Weekly 5. Daily or almost daily
4	How often have you used drugs in the last three months?	1. Never 2. Once or twice 3. Monthly 4. Weekly 5. Daily or almost daily

Section 3c: Drug use (declared recent or current use only) (contd.)

5	How many days did you use drugs in the last month?	1. Open text
6	Where do you usually use these drugs?	1. In a pub/bar/nightclub 2. At a house party 3. At a concert/festival 4. In your house/apartment 5. At work 6. At a club/society event 7. Other
7	Which of the following describes the main reason you take these drugs?	1. To help with study or exams 2. To relieve physical pain 3. To improve performance in sport/ at the gym 4. To have fun/more fun 5. To fit in 6. To cope with emotional distress or upset 7. To relax 8. Other (please specify)
8	Thinking about your use of drugs during the academic semester, which day are you most likely to use them?	1. Monday 2. Tuesday 3. Wednesday 4. Thursday 5. Friday 6. Saturday 7. Sunday 1. Don't know/can't say
9	How has your drug use changed within the last 12 months?	1. It has increased 2. It has stayed the same 3. It has decreased
10	What effect does your drug use have on your... 1. Ability to think 2. Academic performance 3. Ability to study 4. Work behaviour 5. Mental health/wellbeing 6. Physical health/wellbeing 7. Finances 8. Personal physical safety 9. Physical activity ability 10. Ability to socialise	1. Positive effect 2. Negative effect
11	How do you feel your drug use affects others? 1. Friends 2. Family 3. Housemates 4. Boyfriends/girlfriends/partner	1. Positive effect 2. Negative effect 3. No effect 4. N/A

Section 3c: Drug use (declared recent or current use only (contd.))

12	<p>Over the past year, how often have you experienced the following due to your drug use?</p> <ol style="list-style-type: none"> Performed poorly on a college exam or assignment Gotten into an argument or fight Been unable to remember what you did or said Needed medical attention Felt regret over something Driven a vehicle while under the influence Been a passenger in a vehicle driven by a person using drugs Been in trouble with Gardaí or college authorities Had unprotected sex Had unintended sex 	<ol style="list-style-type: none"> Never One or two occasions Three occasions or more
13	<p>When using drugs, do you ever...</p> <ol style="list-style-type: none"> Think about alternatives to drug taking Think about the possible negative consequences to myself or others Think about the possible positive consequences to myself or others 	<ol style="list-style-type: none"> Never Rarely Occasionally Frequently Always
14	Where do you normally source your drugs?	<ol style="list-style-type: none"> From someone you know well (a friend, classmate, colleague) From a stranger Online Other (please state)
15a	Have you ever engaged in sexual activity under the influence of drugs?	<ol style="list-style-type: none"> Yes No Prefer not to say
15b	<p>If YES to 15a</p> <p>In the last 12 months, have you used any of the following drugs before or during sex (tick all that apply)</p>	<ol style="list-style-type: none"> Cocaine Ketamine GBL/GHB Crystal Meth Mephedrone None Others (please specify)
15c	<p>If YES to 15a</p> <p>How often do you engage in sexual activity under the influence of drugs?</p>	<ol style="list-style-type: none"> Never Monthly or less 2-4 times a month 2-3 times a week 4 or more times a week
15d	<p>If YES to 15a</p> <p>With how many people (at a time) have you engaged in sexual activity under the influence of drugs?</p>	<ol style="list-style-type: none"> 1 person 2 people 3 people 4 people 5 people 6 or more people

Section 4: Readiness to Change (declared recent or current use only)

Number	Question	Responses
1	<p>To what extent do you agree or disagree with the following statements</p> <ol style="list-style-type: none"> I don't think I use drugs too much. I am trying to use drugs less than I used to. I enjoy using drugs, but sometimes take too much. Sometimes I think I should cut down on my drug use. It is a waste of time thinking about my drug use. Anyone can talk about wanting to do something about drug use, but I'm actually doing something about it. I'm at the stage where I should think about using less drugs. My drug use is a problem sometimes. There is no need for me to think about changing my drug use. I am actually changing my drug use habits now. Using less drugs would be pointless for me. 	<ol style="list-style-type: none"> Strongly agree Disagree Neither agree nor disagree Agree Strongly agree

Section 5a: Effectiveness of Interventions (declared non-use only)

Number	Question	Responses
1	How much do you know about the risks of using drugs?	<ol style="list-style-type: none"> Nothing at all Very little A moderate amount Very much I feel fully informed
2	<p>Thinking about drug use by college students, please indicate whether or not you believe the following would be effective in reducing harm from drug use?</p> <ol style="list-style-type: none"> Face-to-face education on reducing harm from drug use Online education on reducing harm from drug use Face-to-face counselling with a trained professional counsellor Online counselling with a trained professional counsellor Face-to-face counselling with a fellow student counsellor Online counselling with a fellow student counsellor Other (please state) 	<ol style="list-style-type: none"> Effective Not effective Don't know

Section 5b: Effectiveness of Interventions (declared prior use only)

Number	Question	Responses
1	How much do you know about the risks of using drugs?	<ol style="list-style-type: none"> Nothing at all Very little A moderate amount Very much I feel fully informed

Section 5b: Effectiveness of Interventions (declared prior use only)(Contd.)

2	Thinking about drug use by college students, please indicate whether or not you believe the following would be effective in reducing harm from drug use?	1. Effective
		2. Not effective
		3. Don't know
	1. Face-to-face education on reducing harm from drug use	
	2. Online education on reducing harm from drug use	
	3. Face-to-face counselling with a trained professional counsellor	
	4. Online counselling with a trained professional counsellor	
	5. Face-to-face counselling with a fellow student counsellor	
	6. Online counselling with a fellow student counsellor	
	7. Other (please state)	

Section 5c: Behaviour Change (declared recent or current use only)

Number	Question	Responses
1	Has a relative or a friend, a doctor or nurse, or anyone else, been worried about your drug use, or said that you should stop using drugs?	1. Yes, but not in the last year 2. Yes, during the last year 3. No
2a	Would you like to reduce your drug use?	1. Yes 2. No (if no, why not – open text)
2b	If YES to 2a	1. Yes
		2. No
		3. Don't know
	Why would you like to reduce your drug usage?	
	1. I am concerned about impacts on my mental wellbeing	
	2. I am concerned about impacts on my social life	
	3. I am concerned about impacts on my physical wellbeing/ health	
	4. I am concerned about impacts on my academic progress or performance	
	5. I am concerned about impacts on my ability to do physical activity	
	6. I am concerned about impacts on my finances	
	7. I am concerned about impacts on my work performance	
	8. I am concerned about the impact of drugs on my body image	
	9. I am concerned about the impact of drugs on future career prospects	
	10. I had a previous bad experience with drugs	
	11. I am concerned about my personal physical safety	
	12. I am concerned about the legal implications of drug use	
	13. I am concerned about addiction	
	14. Other (please state)	
3	Have you ever thought about potential ways in which you might reduce your drug usage?	

Section 5c: Behaviour Change (declared recent or current use only)(Contd.)

4	Thinking about ways to reduce your drug usage, would you ever consider any of the following?	1. Yes
		2. No
		3. Unsure
	1. Avoiding certain friends and peers who frequently use drugs	
	2. Avoiding certain environments which might contribute to drug use	
	3. Taking up a new hobby (joining a club, society, gym etc.)	
	4. Learning about potential risks and side effects of drug use	
	5. Learning about ways to change	
	6. Looking for information online	
	7. Seeking help from a friend or family member	
	8. Seeking help from a student service (welfare officer, student health service etc.)	
	9. Seeking help from a helpline or addiction and recovery service	
	10. Other (please state)	
5	When thinking about changing your drug use, how capable do you believe you are of reducing or stopping?	1. Extremely capable
		...
		10. Not at all capable
6a	Have you attempted to change your drug usage?	1. Yes
		2. No
6b	If YES to 6a How many times?	1. Once
		2. Twice
		3. Three times or more
6c	If YES to 6a When was your last attempt to change your drug usage?	1. In the last week
		2. In the last month
		3. In the last six months
		4. In the last year
6d	If YES to 6a Which methods have you tried?	1. Avoided friends or peers who frequently use drugs
		2. Avoided environments which contributed to drug use
		3. Took up a new hobby (joined a club, society, gym etc.)
		4. Learned about potential risks or side effects of drug use
		5. Learned about ways to change my drug use
		6. Looked for information online
		7. Sought help from a friend or family member
		8. Sought help from a student service (welfare officer, student health services etc.)
		9. Sought help from a helpline or addiction and recovery service
		10. Other (please state)
6e	If YES to 6a Were your attempts successful?	1. Yes
		2. No

Section 5c: Behaviour Change (declared recent or current use only)(Contd.)

7	How much do you know about the risks of using drugs?	1. Nothing at all 2. Very little 3. A moderate amount 4. Very much 5. I feel fully informed
8	Thinking about drug use by college students, please indicate whether or not you believe the following would be effective in reducing harm from drug use? 1. Face-to-face education on reducing harm from drug use 2. Online education on reducing harm from drug use 3. Face-to-face counselling with a trained professional counsellor 4. Online counselling with a trained professional counsellor 5. Face-to-face counselling with a fellow student counsellor 6. Online counselling with a fellow student counsellor 7. Other (please state)	1. Effective 2. Not effective 3. Don't know

Section 6: Cognitive Enhancers (all respondents)

Number	Question	Responses
Nonmedical use of prescription stimulants: Smart drugs, also known as cognitive enhancers, are prescription and non-prescription substances that students may use as they believe using the substance will improve their thinking processes and performance. Examples of smart drugs include; <ul style="list-style-type: none"> • Ritalin, Concerta (methylphenidate), • Dexedrine (dextroamphetamine), • Adderall (dextroamphetamine & amphetamine) • Provigil (modafinil) 		
1	Has a doctor or another health professional prescribed a prescription stimulant for you in the last 12 months (e.g. Ritalin....etc.)?	1. Yes 2. No
2a	Please indicate which statement applies to you:	1. I have never heard of "smart drugs" and I am not interested in them 2. I have heard of "smart drugs" and I am not interested in them 3. I have some interest in "smart drugs" but I have never tried any of them 4. I have used "smart drugs" but not for the purpose of enhancing my thinking processes and performance 5. I have used smart drug for the purpose of enhancing my thinking processes and/or performance
2b	If yes to response 3: Why have you never used this drug?	1. Open-text box
2c	If yes to response 4: What was your main reason for using these drugs?	1. Open-text box

Section 6: Cognitive Enhancers (all respondents)(Contd.)

2d	If yes to response 5: On how many occasions in the past 12 months have you used "smart drugs" for the purpose of enhancing your thinking processes and/or performance?	1. Never 2. Once or twice 3. Monthly 4. Weekly 5. Daily or almost daily
2e	If yes to response 5: What was your main reason for using these drugs?	1. I believed it would enhance my thinking processes 2. I believed it would help with my sleeping 3. I believed it would enhance my mood 4. I was curious to see the effects 5. Other (please state)

Section 7: Student Wellbeing (all respondents)

Number	Question	Responses
1	The following are some statements about your feelings and thoughts. Please indicate the response that best describes your experience of each over the last 2 weeks. 1. I've been feeling optimistic about the future 2. I've been feeling useful 3. I've been feeling relaxed 4. I've been dealing with problems well 5. I've been thinking clearly 6. I've been feeling close to other people 7. I've been able to make up my own mind about things	1. None of the time 2. Rarely 3. Some of the time 4. Often 5. All of the time
2	All things considered, what is your degree of happiness with... 1. Friends 2. Family 3. Housemates 4. Boyfriends/girlfriends/partner	1. Extremely unhappy 2. Fairly unhappy 3. A little unhappy 4. Happy 5. Very happy 6. Extremely happy 7. Perfect 8. Not applicable

Section 8: Social Norms (all respondents)

Number	Question	Responses
1	How do you think the people closest to you (friends/family etc.) would feel if you... 1. Didn't use drugs 2. Used drugs occasionally 3. Used drugs regularly	1. They would approve 2. They would disapprove 3. They wouldn't care
2	Approximately what percentage of Irish students... 1. Do not use drugs at all? 2. Used drugs in the last year?	1. 0% 3. 100%

Section 9: COVID-19 and Drug Use (declared recent or current use only)

Number	Question	Responses
1a	How has your drug use frequency (how many times you use) changed since the start of the COVID-19 pandemic	<ol style="list-style-type: none"> 1. Decreased a lot 2. Decreased a little 3. Stayed the same 4. Increased a little 5. Increased a lot
1b	How has your drug use quantity (the amount you use) changed since the start of the COVID-19 pandemic	<ol style="list-style-type: none"> 1. Decreased a lot 2. Decreased a little 3. Stayed the same 4. Increased a little 5. Increased a lot
1c	What are the reasons for your increased drug use?	<ol style="list-style-type: none"> 1. I have more time to use this drug; 2. I am bored; 3. I have more money to purchase this drug; 4. I am feeling lonely; 5. I am feeling depressed; 6. I am spending more time with my household; 7. I am using this drug as a reward for coping with what's going on; 8. I am taking part in more online social events; 9. The drug is now more available or easier to access; 10. I am having difficulties accessing other drugs or alcohol; 11. I have larger amounts than usual because I stocked up; 12. Other reasons (please state); 13. The increase is only slight and not a big deal to me; 14. I am more stressed by what's going on (feel anxious).

Section 9: COVID-19 and Drug Use (declared recent or current use only)(Contd.)

1d	What are the reasons for your decreased drug use?	<ol style="list-style-type: none"> 1. I have less contact with people I use this drug with; 2. I have less occasions where I usually use this drug; 3. It has been more difficult for me to access this drug; 4. I have less time now I am at home (remote work/study, childcare, domestic tasks); 5. I can't afford to take it as much; 6. I don't feel like using this drug as much in a pandemic. 7. I am using this time to get more healthy; 8. I am spending more time with partner/family; 9. I am spending more time volunteering/supporting my community; 10. I don't feel like using this drug at home; 11. I feel less stressed/more balanced; 12. I am concerned about the content/purity of this drug; 13. I don't want to risk COVID-19 infection through accessing or touching this drug; 14. Other reasons; 15. The decrease is only slight and not a big deal to me.
1e	What is the impact of your increased drug use on your; Finances Mental health Physical health Pleasure/enjoyment Relationships Work/study performance	
1f	What is the impact of your decreased drug use on your; Finances Mental health Physical health Pleasure/enjoyment Relationships Work/study performance	
3a	Did you use drugs for the first time after 12th March 2020 (Date Government of Ireland announced campus closures)?	<ol style="list-style-type: none"> 1. Yes 2. No

Section 9: COVID-19 and Drug Use (declared recent or current use only)(Contd.)

3b	What are the reasons you used drugs after the 12th March 2020?	<ol style="list-style-type: none"> Has nothing to do with lockdown; Fear of contamination; Reward after a hard-working day; Increased tension (family, work, etc.); Decreased tension (traffic, more sleep time, etc.); Stress from negative reporting; Loneliness; Lack of social contacts; Lack of activities or sports; More tension due to permanent presence of housemates; Boredom; Conviviality; Increased social control; Loss of daily structure; Seeing drug use in movies and series
4a	In what context did you use drugs in the 12 months prior to COVID-19?	<ol style="list-style-type: none"> Alone at home with no contact with other people; Alone at home with other people co-present (video/audio calls, chats, watch parties); With household members at home with other people co-present; With household members at home; Music festivals; House parties; Nightclubs; Smaller gatherings; Underground parties or events; Street or public spaces;
4b	In what context did you use drugs in the last 30 days?	<ol style="list-style-type: none"> Alone at home with no contact with other people; Alone at home with other people co-present (video/audio calls, chats, watch parties); With household members at home with other people co-present; With household members at home; Music festivals; House parties; Nightclubs; Smaller gatherings; Underground parties or events; Street or public spaces;

Section 9: COVID-19 and Drug Use (declared recent or current use only)(Contd.)

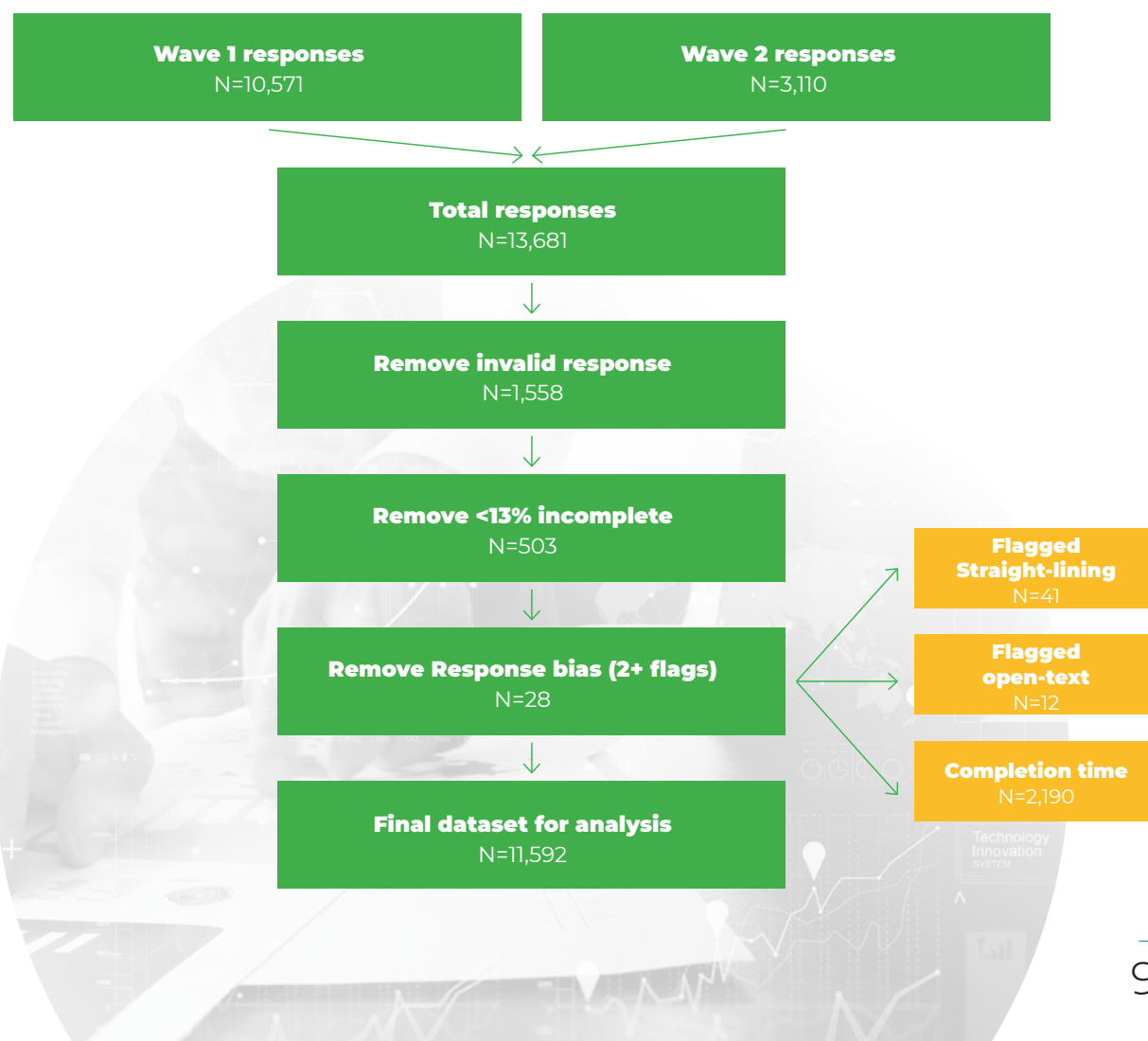
5a	Do you use drugs alone?	1. Yes 2. No
5b	Have you noticed a change in how often you use drugs alone since the 12th March 2020?	I am using drugs alone... 1. A lot less often 2. A little less often 3. About the same 4. A little more often 5. A lot more often

Section 10: Drug and Alcohol Recovery (all respondents)

Number	Question	Responses
1	Did you previously have a problem with drugs or alcohol, but no longer do?	1. Yes 2. No 3. Prefer not to say 4. I have never had a problem with drugs or alcohol
2-8	Questions adapted from the National Recovery Survey (37)	

11.6

Appendix 6 - Data Cleaning Process



12 REFERENCES

1. Healthy Ireland. Higher Education Healthy Campus Charter and Framework Ireland [Internet]. Government of Ireland; 2020. Available from: <https://assets.gov.ie/138922/9c478bc4-42b7-45cf-aa62-d7e16b698ee6.pdf>
2. European Monitoring Centre for Drugs and Drug Addiction. Annual Report 2012: The State of the Drug Problem in Europe [Internet]. Publications Office of the European Union; 2012. Available from: <https://data.europa.eu/doi/10.2810/64775>
3. World Health Organization. The health and social effects of nonmedical cannabis use [Internet]. World Health Organization; 2016. Available from: https://www.who.int/substance_abuse/publications/msbcannabis.pdf
4. United Nations Office on Drugs and Crime. World Drug Report 2018 [Internet]. 2018. Available from: <https://www.unodc.org/wdr2018/>
5. Substance Abuse and Mental Health Services Administration. Mental Health Services Administration. Key substance use and mental health indicators in the United States: results from the 2016 national survey on drug use and health. Rockville, MD: Center for Behavioral Health Statistics and Quality [Internet]. 2017 p. 17–044. Available from: <https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2015/NSDUH-FFR1-2015/NSDUH-FFR1-2015.pdf>
6. Bennett TH, Holloway KR. Drug misuse among university students in the UK: implications for prevention. *Subst Use Misuse*. 2014 Mar;49(4):448–55.
7. Cahill E, Byrne M. Alcohol and drug use in students attending a student health centre. *Ir Med J*. 2010;103(8):230–3.
8. Hope A, Dring C, Dring J. College Lifestyle and Attitudinal National Survey (CLAN). Health Promot Unit Dep Health Child [Internet]. 2005; Available from: <https://www.drugsandalcohol.ie/4327/1/2670-2853.pdf>
9. Dooley B, O'Connor C, Fitzgerald A, O'Reilly A. My World Survey 2 [Internet]. University College Dublin; Jigsaw National Centre for Youth Mental Health, Dublin; 2019. Available from: http://www.myworldsurvey.ie/content/docs/My_World_Survey_2.pdf
10. Davoren MP, Shiely F, Byrne M, Perry IJ. Hazardous alcohol consumption among university students in Ireland: a cross-sectional study. *BMJ Open*. 2015 Jan 1;5(1):e006045.
11. Skidmore CR, Kaufman EA, Crowell SE. Substance use among college students. *Child Adolesc Psychiatr Clin*. 2016 Oct;25(4):735–53.
12. Sharif S, Guirguis A, Fergus S, Schifano F. The Use and Impact of Cognitive Enhancers among University Students: A Systematic Review. *Brain Sci*. 2021 Mar 10;11(3):355.

13. Singh I, Bard I, Jackson J. Robust Resilience and Substantial Interest: A Survey of Pharmacological Cognitive Enhancement among University Students in the UK and Ireland. *PLOS ONE*. 2014 Oct 30;9(10):e105969.
14. Juan W, Jian-Xiong D, Lan G, Yuan H, Xue G, Jing-Hui H, et al. Non-medical use of psychoactive drugs in relation to suicide tendencies among Chinese adolescents. *Addict Behav*. 2015 Dec;51:31–7.
15. Barrett P, Bradley C. Attitudes and perceived risk of cannabis use in Irish adolescents. *Ir J Med Sci* 1971 -. 2016 Aug 1;185(3):643–7.
16. Health Research Board. National Drug-Related Deaths Index 2008-2017 Data [Internet]. [cited 2021 Apr 19]. Available from: https://www.hrb.ie/fileadmin/2._Plugin_related_files/Publications/2019_Publication_files/2019_HIE/NDRDI/2008-2017/National_Drug-Related_Deaths_Index_2008_to_2017_data.pdf
17. English E. UCC student died from heroin-based mix of drugs [Internet]. *Irish Examiner*. 2018 [cited 2021 May 19]. Available from: <https://www.irishexaminer.com/news/arid-20472658.html>
18. Walker A. Police arrest 10 people after four drug-related deaths in north-east England [Internet]. *The Guardian*. 2020 [cited 2021 May 19]. Available from: <http://www.theguardian.com/uk-news/2020/oct/05/police-issue-drugs-warning-as-four-die-in-north-east-england>
19. Gittens G, Mc Cormack C. Man (18) dies after taking the drug 'N-bomb': 'It's such a tragic loss of a precious young life' [Internet]. *Independent.ie*. [cited 2021 May 19]. Available from: <https://www.independent.ie/irish-news/man-18-dies-after-taking-the-drug-n-bomb-its-such-a-tragic-loss-of-a-precious-young-life-34390504.html>
20. Roche B. Drug-taking caused death of student at Co Cork music festival, inquest hears [Internet]. *The Irish Times*. [cited 2021 May 19]. Available from: <https://www.irishtimes.com/news/ireland/irish-news/drug-taking-caused-death-of-student-at-co-cork-music-festival-inquest-hears-1.4179522>
21. Mongan D. Impact of Covid-19 on drug use in Ireland [Internet]. *Drugnet Ireland*; 2021. Available from: https://www.drugsandalcohol.ie/33957/1/Drugnet_Ireland_76.pdf
22. Winstock A, Zhuparris A, Gilchrist G, Davies E, Puljević C, Potts L, et al. GDS COVID-19 Special Edition Key Findings Report [Internet]. 2020. Available from: <https://www.globaldrugsurvey.com/gds-covid-19-special-edition-key-findings-report/>
23. European Monitoring Centre for Drugs and Drug Addiction. Impact of COVID-19 on patterns of drug use and drug-related harms in Europe [Internet]. 2020. Available from: https://www.drugsandalcohol.ie/32260/1/EMCDDA-Trendspotter-Covid-19-Wave-2_1.pdf
24. Department of Health. Reducing Harm, Supporting Recovery: A Health-led Response to Drug and Alcohol Use in Ireland 2017-2025 [Internet]. Department of Health; 2017. Available from: http://www.drugs.ie/downloadDocs/2017/ReducingHarmSupportingRecovery2017_2025.pdf
25. Rapid Response Group. Framework for Response to the Use of Illicit Substances within Higher Education [Internet]. Department of Education and Skills; 2020 Feb. Available from: <https://www.gov.ie/en/publication/d3e6a0-framework-for-response-to-the-use-of-illicit-substances-in-higher-ed/>
26. studentsurvey.ie. Student Survey [Internet]. [cited 2021 Oct 12]. Available from: <https://studentsurvey.ie/>
27. Probability Proportional to Size (PPS) Sampling. In: *Encyclopedia of Survey Research Methods*

- [Internet]. 2455 Teller Road, Thousand Oaks California 91320 United States of America: Sage Publications, Inc.; 2008 [cited 2021 Jun 23]. Available from: <http://methods.sagepub.com/reference/encyclopedia-of-survey-research-methods/n405.xml>
28. Dick S, Vasiliou VS, Davoren MP, Dockray S, Heavin C, Linehan C, et al. Illicit substance use trends and behaviours in an Irish third-level student population. In: Building a Healthy Ireland: Promoting Health and Wellbeing in Educational Settings [Internet]. National University of Ireland, Galway; 2019. Available from: <http://www.nuigalway.ie/media/healthpromotionresearchcentre/conference2019/Online-abstract-&-biog-booklet-2019.pdf>
 29. General Data Protection Regulation. Not applicable to anonymous data [Internet]. [cited 2021 Jul 6]. Available from: <https://gdpr.eu/recital-26-not-applicable-to-anonymous-data/>
 30. European Monitoring Centre for Drugs and Drug Addiction. Statistical Bulletin 2021 — methods and definitions for prevalence of drug use statistics | www.emcdda.europa.eu [Internet]. [cited 2021 Oct 27]. Available from: <https://www.emcdda.europa.eu/data/stats2021/methods/gps>
 31. European Monitoring Centre for Drugs and Drug Addiction. European drug report: trends and developments 2019 [Internet]. Luxembourg: Publications Office of the European Union; 2019. Available from: https://www.emcdda.europa.eu/publications/edr/trends-developments/2019_en
 32. Skinner HA. The drug abuse screening test. *Addict Behav.* 1982;7(4):363–71.
 33. McCabe SE, Boyd CJ, Cranford JA, Morales M, Slayden J. A modified version of the Drug Abuse Screening Test among undergraduate students. *J Subst Abuse Treat.* 2006 Oct 1;31(3):297–303.
 34. Heather N, Rollnick S. Readiness to Change Questionnaire: User's Manual (revised version) [Internet]. Available from: <https://ndarc.med.unsw.edu.au/sites/default/files/ndarc/resources/TR.019.pdf>
 35. University of Warwick. The Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) [Internet]. Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS). [cited 2021 Feb 17]. Available from: <https://warwick.ac.uk/fac/sci/med/research/platform/wemwbs>
 36. Vanderbruggen N, Matthys F, Van Laere S, Zeeuws D, Santermans L, Van den Ameele S, et al. Self-Reported Alcohol, Tobacco, and Cannabis Use during COVID-19 Lockdown Measures: Results from a Web-Based Survey. *Eur Addict Res.* 2020;26(6):309–15.
 37. Kelly JF, Bergman B, Hoepfner BB, Vilsaint C, White WL. Prevalence and pathways of recovery from drug and alcohol problems in the United States population: Implications for practice, research, and policy. *Drug Alcohol Depend.* 2017 Dec 1;181:162–9.
 38. Hsieh H-F, Shannon SE. Three Approaches to Qualitative Content Analysis. *Qual Health Res.* 2005 Nov 1;15(9):1277–88.
 39. Student Demographics 2018/19 [Internet]. Higher Education Authority. [cited 2021 Jun 23]. Available from: <https://hea.ie/statistics/data-for-download-and-visualisations/enrolments/student-demographics-2018-19/>
 40. AHEAD Educational Press. Students with Disabilities Engaged with Support Services in Higher Education in Ireland 2019/20 [Internet]. p. 94. Available from: https://www.ahead.ie/userfiles/files/AHEAD_Research_Report_21_digital.pdf
 41. Citywide. GBL & GHB; A Growing Addiction & The Increasing Popularity of Chemsex [Internet]. Available from: https://www.citywide.ie/assets/files/pdf/chemsex_slides_20.pdf
 42. Man2Man. Chemsex [Internet]. [cited 2021 Dec 2]. Available from: <https://man2man.ie/alcohol-drugs-cigarettes/chemsex/>

43. Glynn RW, Byrne N, O'Dea S, Shanley A, Codd M, Keenan E, et al. Chemsex, risk behaviours and sexually transmitted infections among men who have sex with men in Dublin, Ireland. *Int J Drug Policy*. 2018 Feb;52:9–15.
44. Dujourdy L, Besacier F. A study of cannabis potency in France over a 25 years period (1992-2016). *Forensic Sci Int*. 2017 Mar;272:72–80.
45. Zamengo L, Bettin C, Badocco D, Frison G. Cannabis potency in North-East Italy: A ten-year study (2010-2019). *Forensic Sci Int*. 2020 Dec;317:110556.
46. Mongan D, Miller SR, Galvin B. The 2019–20 Irish National Drug and Alcohol Survey: Main findings [Internet]. Health Research Board; Available from: https://www.drugsandalcohol.ie/34287/1/HRB%20Irish%20National%20Drug%20and%20Alcohol%20Survey%202019_20.pdf
47. Palmer RS, McMahon TJ, Moreggi DI, Rounsaville BJ, Ball SA. College Student Drug Use: Patterns, Concerns, Consequences, and Interest in Intervention. *J Coll Stud Dev*. 2012 Feb;53(1):124–32.
48. The ESPAD Group. ESPAD report 2019. Results from the European School Survey Project on Alcohol and Other Drugs [Internet]. 2019 p. 136. Available from: http://www.espad.org/sites/espad.org/files/2020.3878_EN_04.pdf
49. McNamara E, Murphy D, Murray A, Smyth E, Watson D. THE LIVES OF 17/18-YEAR-OLDS [Internet]. p. 180. (Growing Up in Ireland. National Longitudinal Study of Children). Report No.: 7. Available from: <https://www.esri.ie/system/files/publications/BKMNEXT397.pdf>
50. Jeynes WH. The relationship between the consumption of various drugs by adolescents and their academic achievement. *Am J Drug Alcohol Abuse*. 2002 Jan 1;28(1):15–35.
51. Arria AM, Caldeira KM, Bugbee BA, Vincent KB, O'Grady KE. The academic opportunity costs of substance use during college. 2013. (College Park, MD: Center on Young Adult Health and Development).
52. Kunst LE, Gebhardt WA. Prevalence and Psychosocial Correlates of Party-Drug Use and Associated Problems among University Students in the Netherlands. *Subst Use Misuse*. 2018 Oct 15;53(12):2077–88.
53. European Monitoring Centre for Drugs and Drug Addiction. Polydrug use : patterns and responses [Internet]. LU: Publications Office; 2009 [cited 2021 Jun 23]. Available from: <https://data.europa.eu/doi/10.2810/26783>
54. Bellis MA, Hughes K, Calafat A, Juan M, Ramon A, Rodriguez JA, et al. Sexual uses of alcohol and drugs and the associated health risks: A cross sectional study of young people in nine European cities. *BMC Public Health*. 2008 May 9;8(1):155.
55. Arria AM, Caldeira KM, Bugbee BA, Vincent KB, O'Grady KE. The Academic Consequences of Marijuana Use During College. *Psychol Addict Behav*. 2015 Sep;29(3):564–75.
56. Horwood LJ, Fergusson DM, Hayatbakhsh MR, Najman JM, Coffey C, Patton GC, et al. Cannabis use and educational achievement: Findings from three Australasian cohort studies. *Drug Alcohol Depend*. 2010 Aug 1;110(3):247–53.
57. Arria AM, Garnier-Dykstra LM, Cook ET, Caldeira KM, Vincent KB, Baron RA, et al. Drug use patterns in young adulthood and post-college employment. *Drug Alcohol Depend*. 2013 Jan 1;127(1–3):23–30.
58. European Monitoring Centre for Drugs and Drug Addiction. Health and social responses to drug problems: a European guide [Internet]. Luxembourg: Publications Office of the European

- Union; 2017. Available from: https://www.emcdda.europa.eu/publications/manuals/health-and-social-responses-to-drug-problems-a-european-guide_en
59. de Brún R. Students turning to legal stimulants for exam edge [Internet]. Irish Examiner. 2013 [cited 2021 Jul 13]. Available from: <https://www.irishexaminer.com/lifestyle/arid-20230722.html>
60. Power J. How students at Irish universities are buying unprescribed 'study drugs' to deal with exams [Internet]. TheJournal.ie. [cited 2021 Jul 13]. Available from: <https://www.thejournal.ie/irish-students-study-drugs-dark-web-3173290-Jan2017/>
61. de Visser RO, Robinson E, Bond R. Voluntary temporary abstinence from alcohol during "Dry January" and subsequent alcohol use. *Health Psychol.* 2016;35(3):281–9.
62. de Visser RO, Robinson E, Smith T, Cass G, Walmsley M. The growth of 'Dry January': promoting participation and the benefits of participation. *Eur J Public Health.* 2017 Oct 1;27(5):929–31.
63. de Visser RO, Nicholls J. Temporary abstinence during Dry January: predictors of success; impact on well-being and self-efficacy. *Psychol Health.* 2020 Nov 1;35(11):1293–305.
64. de Visser RO, Piper R. Short- and Longer-Term Benefits of Temporary Alcohol Abstinence During 'Dry January' Are Not Also Observed Among Adult Drinkers in the General Population: Prospective Cohort Study. *Alcohol Alcohol.* 2020 Jun 25;55(4):433–8.
65. Schettino J, Leuschner F, Kasten L, Tossmann P, Hoch E. Treatment of cannabis-related disorders in Europe [Internet]. Publications Office of the European Union; 2015. Report No.: 929168760X. Available from: https://www.emcdda.europa.eu/publications/insights/2015/treatment-of-cannabis-related-disorders_en
66. Smith WG. Does Gender Influence Online Survey Participation? A Record-Linkage Analysis of University Faculty Online Survey Response Behavior [Internet]. 2008 [cited 2021 Jul 13]. Available from: <https://eric.ed.gov/?id=ED501717>
67. Cheung AS, Leemaqz SY, Wong JWP, Chew D, Ooi O, Cundill P, et al. Non-Binary and Binary Gender Identity in Australian Trans and Gender Diverse Individuals. *Arch Sex Behav.* 2020 Oct;49(7):2673–81.
68. Newcomb ME, Hill R, Buehler K, Ryan DT, Whitton SW, Mustanski B. High Burden of Mental Health Problems, Substance Use, Violence, and Related Psychosocial Factors in Transgender, Non-Binary, and Gender Diverse Youth and Young Adults. *Arch Sex Behav.* 2020 Feb;49(2):645–59.
69. Hibbert MP, Hillis A, Brett CE, Porcellato LA, Hope VD. A narrative systematic review of sexualised drug use and sexual health outcomes among LGBT people. *Int J Drug Policy.* 2021 Jul;93:103187.
70. Edmundson C, Heinsbroek E, Glass R, Hope V, Mohammed H, White M, et al. Sexualised drug use in the United Kingdom (UK): A review of the literature. *Int J Drug Policy.* 2018 May;55:131–48.
71. Moyle L, Dymock A, Aldridge A, Mechen B. Pharmacosex: Reimagining sex, drugs and enhancement. *Int J Drug Policy.* 2020 Dec;86:102943.
72. Perron BE, Grahovac ID, Uppal JS, Granillo MT, Shutter J, Porter CA. Supporting Students in Recovery on College Campuses: Opportunities for Student Affairs Professionals. *J Stud Aff Res Pract.* 2011;48(1):47–64.
73. Government of Ireland. Ireland placed on full Level 5 Restrictions of the Plan for Living with COVID-19 [Internet]. [cited 2021 Jun 23]. Available from: <https://www.gov.ie/en/press-release/066ce-ireland-placed-on-full-level-5-restrictions-of-the-plan-for-living-with-covid-19/>

74. Skinner CJ. Probability Proportional to Size (PPS) Sampling. In: Wiley StatsRef: Statistics Reference Online [Internet]. John Wiley & Sons, Ltd; 2016 [cited 2021 Dec 1]. p. 1–5. Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1002/9781118445112.stat03346.pub2>

