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Dr Seán L'Estrange UCD School of Sociology September 15, 2020 Research Note

COLLEGES AND COVID-19 IN THE REPUBLIC OF IRELAND: THE "CAMPUS EXPERIENCE" AS PUBLIC HEALTH PROBLEM

UPDATE (as at 15/9/20)

0.1 In the two weeks since this research note was written, the prevalence and incidence of Covid-19 in Ireland has continued to rise despite four weeks of new restrictions being in place. Thus the 7 day rolling average has doubled in the past weeks, rising from 102 new cases per day on Monday the 31st of August to 203 new cases per day on Monday 14th of September. The cumulative 14-Day Total per 100,000 population has risen by 56%—from 30.7 on the last day of August to 47.8 today. In this time, the distribution of new cases across age groups has shifted slightly, with the proportion of new cases amongst those in the 15-24 age group declining slightly from just under a quarter (24%) to a little over a fifth (20.4%). Most curiously, however, is the decline in the average number of close contacts reported to contact-tracers by confirmed cases amongst this group, a drop of almost half—from 11.27 to 5.88. What hasn't changed, however, is that 15-24 age group remain the section of the population more likely than any other to contract a case of Covid-19 and more likely to have more close contacts than any other, hence the pursuit of "the campus experience" remains a significant public health challenge.

0.2 Below are updated tables comparing the currently available data with that of two weeks ago. This update includes a summary of the main points of the Research Note in an Appendix.

	Pop (2020e)	%Pop- Total	Two Week Period 18/8/20-31/8/20			Two Week Period 1/9/20-14/9/20			
Age Group			14- Day- Case- Total	%Cas- es/14	Cases: Pop	14- Day- Case- Total	%In- crease over 2 weeks	%Cases/ 14	Cas- es: Pop
0 - 4 years	309,500	6.2%	48	3.2%	0.51	95	98%	4.3%	0.69
5-14 years	694,100	13.9%	120	8.0%	0.57	210	75%	9.4%	0.68
15-24 years	631,100	12.7%	360	24.0%	1.89	455	26%	20.4%	1.61
25-34 years	616,200	12.4%	312	20.8%	1.68	427	37%	19.2%	1.55
35-44 years	780,200	15.7%	242	16.1%	1.03	345	43%	15.5%	0.99
45-54 years	674,500	13.6%	203	13.5%	1.00	271	33%	12.2%	0.90
55-64 years	551,600	11.1%	125	8.3%	0.75	200	60%	9.0%	0.81
65+ years	720,100	14.5%	89	5.9%	0.41	222	149%	10.0%	0.69
TOTAL	4,977,300	100.0%	1499	100.0%		2225	48.4%	100.0%	

Table 0.1 Shares of Infections According to Age Group

Table 0.2 - Average Number of Close
Contacts for Confirmed Case

Age Group	@14/8/20	@28/8/20
0-14 years	3.35	4.04
15-24 years	11.27	5.88
25-44 years	5.66	5.01
45-64 years	4.01	5.52
65-79 years	3.88	3.64
80 years and over	2.06	2.25
All ages	6.46	5.01

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Research Note

COLLEGES AND COVID-19 IN THE REPUBLIC OF IRELAND: THE "CAMPUS EXPERIENCE" AS PUBLIC HEALTH PROBLEM

ABSTRACT

The re-opening of college campuses in pursuit of the "campus experience" involves multiplying physical interactions and extending and amplifying social contact chains amongst college populations. In the midst of a global pandemic this creates conditions for an increase in viral transmission. In circumstances of a worsening epidemiological profile, and where the section of the population to be mobilised in this endeavour comprises those most likely to contract infection with Covid-19 and to expose others to infection, colleges committing to recreating the "campus experience" pose a very particular challenge to public health. Measures to counter this threat have evolved piecemeal over recent months and continue to be elaborated in local settings in a largely *ad hoc* manner, leaving many hostages to fortune. Accordingly, one may ask: Does the pursuit of "the campus experience" at third level institutions in Ireland constitute a significant and underrecognised public health risk? Evidence on recent Covid-19 infection patterns and pathways suggests it probably does.

1. RECENT INFECTIONS: DEMOGRAPHIC PATTERNS AND PATHWAYS

1.1 According to the most recent data sources published by the Health Protection Surveillance Centre (HPSC), people aged 15-24 account for almost a quarter (24%) of all Covid-19 infections recorded in the State over the past two weeks (between 16 August to 29 August). This is despite accounting for only one eighth (12.7%) of

the population and represents a situation where the share of total infections amongst this demographic has now risen to almost twice its share of the population—a doubling of its share of total infections since early June and in a context where overall infections have increased more than tenfold during the same time.¹ (By contrast, the obverse is true of the youngest (0-4 years) and oldest (65+ years) demographics whose share of infections is less than half their share of the population (see Table 1)). Accordingly, it is clear that the section of the population currently most likely to contract a case of Covid-19 are those within the 15-24 age group.

Age Group	Pop (2020e)	%Pop- Total	14- Day- Case- Total	%Cas- es/14	Cas- es: Pop
0 - 4 years	309,500	6.2%	48	3.2%	0.5
5-14 years	694,100	13.9%	120	8.0%	0.6
15-24 years	631,100	12.7%	360	24.0%	1.9
25-34 years	616,200	12.4%	312	20.8%	1.7
35-44 years	780,200	15.7%	242	16.1%	1.0
45-54 years	674,500	13.6%	203	13.5%	1.0
55-64 years	551,600	11.1%	125	8.3%	0.8
65+ years	720,100	14.5%	89	5.9%	0.4
TOTAL	4,977,300	100.0%	1499	100.0%	

Table 1 — Shares of Infections According to Age Group

1.2 According to the most recent data derived from contact-tracing operations and published by the Central Statistic Office (CSO), the average number of close con-

¹ On the 13 June the 15-24 age group accounted for 12% of total infections, proportional to its share of the population, while before this date the proportions were consistently *less* than its population share of 12.7%. With respect to total cases amongst all age groups, the 7 day total number of infections was at its lowest on Sunday 28 June with a weekly total of 65, but stood at 807 nine weeks later on Sunday 30 of August. Putting percentage shares and overall volumes together, we find that in the week ending Sunday 28 June there was a total of only 10 confirmed cases amongst the 15-24 age group, whereas two months later that figure was 360—thirty-six times higher than 9 weeks previously.

tacts for confirmed cases of Covid-19 was found to be 11.27 amongst those in the 15-24 age group. This is precisely twice as high as the age group (25-44) with the next highest number of close contacts (5.66), is close to twice (1.75 times) the average for all ages (6.46), and is more than three times the number (3.35) recorded for the youngest age group of 0-14 years. Accordingly it is clear that the section of the population most exposed to infection and most likely to expose others to infection are those in the 15-24 age group.

Case			
Age Group	Ave Contacts		
0-14 years	3.35		
15-24 years	11.27		
25-44 years	5.66		
45-64 years	4.01		
65-79 years	3.88		
80 years +	2.06		
All ages	6.46		

Table 2 - Average Number of
Close Contacts for Confirmed
Case

1.3 According to CSO data and data published by the Higher Education Authority (HEA), there are some 630,000 people within the 15-24 age group, a quarter of whom (~158,000) are enrolled on courses with some 24 third-level institutions due to recommence teaching operations in the coming weeks. Many of these institutions have committed to recreating what they call "the campus experience" in the midst of a global pandemic and in worsening local epidemiological conditions. This involves committing to gathering as many students as possible on their campuses in order to realise that ambition. In doing so, these institutions are committing to organising, facilitating, encouraging and requiring activities and interactions of large

numbers of those who belong to the section of the population already most likely to contract a case of Covid-19 and already most likely to expose others to infection.² In addition to this planned multiplication of interpersonal interactions amongst this group, and the consequent expansion of pre-existing social contact chains, this initiative also involves the creation of adventitious circumstances and situations incidental to teaching and learning that create additional opportunities for the further-ance of viral transmission.

2. REGULATING RISK: DEVICES AND COUNTER-MEASURES

2.1 To offset this large-scale planned enhancement of risk there exists a continually expanding corpus of documents aimed at regulating circumstances, situations and activities conducive to viral spread.³ Many of these documents are 'iterative' in nature, and together they comprise collections of guidelines, principles, protocols, procedures, recommendations and suggestions designed to operate within a framework of laws and regulations and public health advice.⁴ Drawn up at different

² Another 70,000 people, aged 24 and above, will also be recommencing third-level studies, resulting in close to one quarter of a million people being mobilised to (re-)engage in third-level activities by the end of September, when most institutions plan on being fully operational again with respect to their teaching activities.

³ These documents include the following: (i) the Return to Work Safely Protocol, a 29 page document drawn up under the aegis of the Department of Business, Enterprise and Innovation and published on the 9 May 2020 (not subsequently revised); (ii) the Roadmap for Reopening Society and Business, a changing online resource drawn up by the Department of the Taoiseach and Department of Health and first published on the 18 June 2020 and last revised on the 7 August 2020; (iii) a 24 page document entitled "Guidance for Further Education and Higher Education for returning to on-site activity in 2020: Roadmap and Covid-19 Adaptation Framework", drawn up by the freshly created Department for Further and Higher Education, Research, Innovation and Science in late June and published in July; (iv) a 12 page document "Implementation Guidelines for Public Health Measures in Higher Education Institutions (HEIs)", drawn up under the aegis of the Irish Universities Association and self-published on the 5 August 2020. To these one must also add series of *ad hoc* local documents drawn up and circulated within HEIs by different governing and administrative units within each one.

⁴ Laws and regulations change intermittently and often at short notice, while public health advice fluctuates—sometime abruptly—in response to changing epidemiological analyses that is itself governed by shifting interpretations of the course and trajectory of a genetically drifting and naturally evolving virus subject to competing international virological and medical analyses and interpretations.

times, by different parties, with different purposes, and in different political, epidemiological and economic circumstances, these documents constitute an expanding melange of text with three prominent characteristics: (i) an inherently wide latitude for rival interpretation that simultaneously leaves significant leeway for local discretion; (ii) limited specification of clear and effective mechanisms and procedures for interpretative oversight or arbitration of disputes over the meaning of the text(s)' provisions; and (iii) limited specifications for the kinds of enforcement, sanctions and appeals that would provide the regulatory measures envisaged in these documents with the kinds of traction required for optimal effectiveness.⁵

2.2 It is an open question whether this corpus of documents and their various local interpretations and translations into practice will be adequate to ensure that gathering large numbers of students on college campuses in pursuit of the "campus experience" will not accelerate, amplify and multiply numbers of infections and onward transmissions—not only on campuses across the country but also in the dispersed families, households and communities from which they will come and go each day and week over the course of the teaching terms. Given that the plan involves assembling together those already most likely to be infected and infecting, then serious, stringent, effective and enforceable countermeasures would need to be in place in these settings if this is not to happen. Readers of these documents can

⁵ Absences and ambiguities of this sort are in part a recognition of the diversity amongst the 24 HEIs and the heterogeneous nature of colleges as multi-site, multi-functional and multi-activity social spaces, many of which operate on the scale of towns and small cities. Thus UCD has more students than Kilkenny City has inhabitants, UCC's student body is more numerous than the population of Wexford town, and there are more students on the books of NUIG than there are people living in Sligo. This, however, suggests the *greater* importance of effective regulations given the scale of HEI operations, and naturally prompts the question of how a single institution's regulatory resources could be made to match those of a properly incorporated town or small city equipped with an established array of officials from police to public health doctors to health and safety inspectors to social workers.

form their own judgements as to whether they outline sufficiently strong, credible, effective and enforceable counter-measures adequate for and proportionate to the risks they aim to regulate.

3. CONCLUSION: STOKING THE EMBERS? OR ADDING FUEL TO THE FIRE?

3.1 On the basis of the foregoing, it is difficult to deny that the re-opening of colleges in active pursuit of "the campus experience" poses a very particular public health risk. To date this has been obscured by the extensive attention public discurse has afforded to schools, 'wet' pubs, and before those, international travel—all of which are, in principle, more easily regulable than college campuses.⁶ Yet context is everything. For these concerns would be moot if the virus responsible for Covid-19 was effectively suppressed to such a level that the risk of drawing it on to university campuses in which it could accelerate its circulation and amplify its overall transmission was minimal-to-vanishing—as appeared to be the case at the end of June 2020 when many of the key documents governing the resumption of third-level teaching activities were devised and drawn up.

3.2 However, circumstances change. And as colleges have begun the process of inviting students back to their campuses, the national incidence of infection is on an

⁶ Pubs are discrete social settings with clear physical boundaries, clear authority structures vested in the owner(s)-proprietor(s), and for whom enlightened self-interest provides the motive force for exercising responsibility with respect to the relatively simple measures required to dampen down the inherent risks of viral transmission in those settings. Schools are also mostly discrete and highly controlled settings comprised of classrooms, corridors and outdoor congregation areas, and also with clear lines of authority and responsibility vested in teachers and principals overseeing the activities of minors. Ports and airports are similarly controlled environments with dedicated supervisory and policing officials capable of regulating traveller through-put without much fuss. Colleges, by contrast, lack the regulatory apparatus of ports and airports, the disciplinary apparatus of schools, and the private interest of pubs, as well as being large-scale environments both in physical and population terms, while constituted in the main by legal adults who just so happen at this moment in time to be disproportionately vectors of the SARS-CoV-2 virus.

upwards course, having been consistently rising for five weeks during which time it has risen by a factor of six.⁷ Indeed, the rate of new infections is now higher than at any time since the 21st of May when it was on a downwards course as a result of an effective national lockdown.⁸ Since then the demographic profile of those contracting Covid-19 has also shifted, with the share of new infections belonging to those in the 15-24 age group more than doubling while the average number of close contacts in that age group has tripled.⁹ Accordingly, it is difficult to avoid the conclusion that unless the counter-measures designed to offset the effects generated by committing to "the campus experience" are sufficiently rigorous and robust both in theory and in practice—then one can predict that colleges will accelerate the spread of the virus and amplify the upward curve of infections amongst college populations and the wider public more generally.

3.3 In this case it is also difficult to avoid the conclusion that many campuses will eventually choose to close or be forced to close for shorter or longer periods. In such a scenario, the "campus experience", which in the best of plans still appears as a pale replica of what was possible before the pandemic took hold, will be brought to an abrupt end. Of course, should that happen, it will not simply constitute a failure to achieve a particular goal, but it will also involve having caused harm in pursuit of that goal—reverting to remote or online teaching will not reverse the

⁷ On Tuesday 28th of July the 7 day rolling average of new cases nationally was 19 and the 14 day total cases per 100,000 people was 5.5. The corresponding figures for Tuesday 1 September are 120 and 31.3 respectively.

⁸ On Thursday the 21 May 2020 the 7 day rolling average for new cases stood at 81, having fallen from 206 the week before, and falling further to 66, 48, and then to 17 in the subsequent three weeks.

⁹ On 21 May 2020 the share of total infections belonging to the 15-24 age group was 10% and the average number of close contacts of those in this group was 3.81.

damage done to the epidemiological profile of the country and to the health experiences of many different people who otherwise might have been spared a personal encounter with Covid-19 as a result of this pursuit.

3.4 Of course, it is entirely possible that the prevalence and level of incidence of Covid-19 remains below the threshold where colleges act as accelerants and catalysts for the spread of disease-unlike in the United States where both prevalence and incidence is high and many colleges have reverted to remote and online teaching and learning activities within a matter of weeks of having re-opened their campuses. Yet nobody as yet knows what those thresholds are for college campuses to become institutional "super-spreaders"-there is no data as yet that would enable a credible calculation to be made. Equally, it is entirely possible that the regulatory measures envisaged in the variegated corpus of documents drawn up by HEIs will have an effect on the suppression and containment of viral transmission on college campuses. However, that too will depend on the extent to which the virus gains access to and passes through campus facilities-what may be sufficient for an occasional occurrence of an infection here and there may be insufficient for multiple simultaneous and independent outbreaks. What is clear however, is that the pursuit of the "campus experience" given the epidemiological characteristics of the constituency it centrally involves, is an exercise in playing with fire-though whether that consists in gently poking some dying embers or adding fuel to the flames remains to be seen, and should in any case become clear within the next month or SO.10

¹⁰ With thanks to colleagues in the School of Sociology for comment and critical feedback on an earlier version of this short research note.

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APPENDIX: SUMMARY OF 'COLLEGES AND COVID'

Summary of Research Note 'Colleges and Covid-19 in the Republic of Ireland: The "Campus Experience" as Public Health Problem' (available at: <u>https://www.ucd.ie/sociology/newsandevents/latestnews/drseanlestrangecollegesandcovid-19onthere-publicofirelandthecampusexperienceaspublichealthproblem/</u>)

1. DEMOGRAPHIC INFECTION PATTERNS

1.1 The section of the population more likely than any other to contract a Covid-19 infection are those in the 15-24 age group.

1.2. The section of the population more likely than any other to expose others to infection are those in the 15-24 age group.

1.3a Seventy percent of the quarter of a million people enrolled in third level institutions as students are in the 15-24 age group.

1.3b Many third level institutions have chosen to pursue the goal of re-creating "the campus experience" upon resumption of teaching in the coming weeks.

1.3c This pursuit entails multiplying social interactions and extending social contacts amongst college populations.

1.3d Given these populations are already the most exposed, most likely to contract an infection, and most likely to transmit an infection to others compared with all other sections of the population, this pursuit will amplify the rate and spread of infection within college communities and the wider society unless effective countermeasures are in place to suppress this effect.

2. COUNTER-MEASURES

2.1 A corpus of documents exists to counter this effect yet is characterised by significant indeterminacy of meaning, conspicuous absence of mechanisms for determining meaning in the case of disputes, and large questions over their efficacy both in theory and in practice.

2.2. It is an open to question whether these documents constitute an adequate bulwark against the acceleration of viral transmission occasioned by pursuit of the "campus experience".

3. CONCLUSIONS AND IMPLICATIONS

3.1 Colleges pursuing the "campus experience" constitute a very particular public health risk in the context of a rising level of infection disproportionally borne by those people being mobilised in this endeavour.

3.2. Without sufficiently robust measures in place, colleges will amplify the spread of Covid-19.

3.3 In such a scenario, colleges will be forced to close and/or abandon this pursuit, albeit having already caused irreversible harm.

3.4 In circumstances where the general prevalence and incidence of Covid-19 remains below a certain threshold, this scenario may be averted. However, it is not known what this threshold might be.