Trinity College Dublin
Coláiste na Tríonóide, Baile Átha Cliath
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"People would have died."

How the involvement of community pharmacy in COVID-19 vaccination was delayed: A multi-method policy implementation case study of Ireland (Dec 2020 to June 2021)

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Declaration

I hereby declare that this dissertation is the result of my own work and includes nothing which is the outcome of work done in collaboration with others, except where specifically indicated in the text. This dissertation does not exceed the word limit set by the Degree Committee. I agree that the library may lend or copy this dissertation upon request.

Aaron C.C. Koay

16th Nov 2022

Acknowledgements

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Abstract

Introduction: When the National COVID-19 Vaccination Programme began in Ireland, there was a delay in involving community pharmacy despite its role being outlined in the associated Strategy and Implementation Plan. **Aim and Objective:** I aimed to explore how the policy implementation process was delayed, framed between 15th Dec 2020 (publication of the Strategy and Implementation Plan) and 14th June 2021 (commencement of vaccination by community pharmacies). My objective was to understand how policy dynamics like institutional structures, power, politics and actors shaped the implementation process. **Conceptual Framework:** I used the Five-stream Framework to inform my analytic thinking, especially for documentary analysis. **Methodology**: Situated in a Big Q paradigm and through a critical realist lens, I reflexively carried out a multi-method case study: 1) I used stakeholder involvement to guide my methodology design; 2) I analysed 190 systematically scoped documents by directed qualitative content analysis against the Five-stream Framework to inform my interview topic guide, clarify the timeline and identify relevant policy actors; and 3) I undertook semi-structured elite interviews with eleven policy actors and approached the data using reflexive thematic analysis. My analysis shifted between deductive and inductive, critical and experiential as well as semantic and latent modes; and 4) I integrated and situated my data within the literature to develop a complex and multi-dimensional analysis. **Analysis:** I developed three themes: 1) In "On a rational basis", I illustrated that the delay was inevitable due to significant operational barriers that impeded the role of community pharmacy. This was supported by two sub-themes, i.e. "When was the right time?" and "Not to take chances with the vaccine", which respectively dealt with efficiency and safety aspects of the operation; 2) In "[Nonsense] and obfuscation" I articulated that the perceived operational challenges was unjustifiable and was based on a perceived deficit of the profession; 3) In "Politics with a small p", I articulated that the chronic lack of the ability of the (community) pharmacy sector to influence health policies was because "Pharmacy has shot itself in the foot" - a lack of strategic leadership and cohesion - and "Doctor knows best" - the strong dominance of the medical profession and their political leverage to influence health policies. **Conclusions:** My research elucidated a highly complex and politicised policy implementation process shaped by socio-political, institutional, regulatory and technical factors, which was arguably driven by a chronic lack of clear and strategic direction for pharmacy in the health system.

Preface

"The sociological imagination enables us to grasp history and biography and the relations between the two within society…No social study that does not come back to the problems of biography, of history and of their intersections within a society has completed its intellectual journey." (Mills, 2000, p. 6)

As a welcome to my intellectual endeavour, I will introduce to you the origin of my dissertation, a fruit born out of a relational exploration of self in and with society and history.[1]

Like many of my pharmacist peers, I often wonder why the pharmacy profession has been significantly underutilised and under-recognised worldwide and in Ireland. I was frustrated with the stagnant state of the profession, so much so that I had considered exiting my pharmacy training. When I qualified as a pharmacist in 2020, I was none the wiser - full of pharmaceutical knowledge but void of meaningful insights as to why and how the pharmacy profession had come to be what it was. It was not until late 2020 that I was introduced to the world of health policy research. I was fascinated by the complex and dynamic relationships between institutions, policy actors, political ideologies, economics, history and vested interests that have coloured, and continue to colour, the Irish healthcare system.

In the beginning of 2021, I felt like all of these were unfolding in real-time in front of me. As the Irish state started rolling out COVID-19 vaccination, mass vaccination centres were rapidly stood up and general practices were swiftly deployed before two months had passed. No news for community pharmacies. What followed were months of campaigning and criticisms by pharmacists on the news, radio and social media as to why community pharmacy had, yet again, been neglected by the state despite there being a plan to include community pharmacy. What was different this time was, of course, this was happening during a highly politicised pandemic to which too many lives were lost.

[1] My research design and theoretical underpinnings require me to reflexively interrogate and situate my subjectivity within my research process (see Chapter 3).

It appeared to me that no one in the public domain really knew what was going on behind the closed doors of health policy. With academic training in pharmacy, population health and sociology and an interest in health policy and inequalities, I decided to embark on this research journey to explore why and how the delay happened. I also envisioned this work to be much bigger than that - it would be a vehicle, a lens through which to understand how the role of pharmacy has been recursively shaped by a multitude of socio-political, historical and economic factors.

You will have seen that I have entitled my work using a rather emotive quote - "people would have died". This was a quote that I extracted from my interview data[2] to highlight that as much as my dissertation was a labour of intellect, curiosity and tenacity, it was really about the people. It was about learning from history. It was about making things better for the people in the future.

Dissertation Outline

In a Big Q qualitative and critical realism paradigm (see Chapter 3), I actively situated my social locations within my dissertation research process by reflexively interrogating how my inevitable researcher's subjectivity has shaped my research rather than denying it. Synergising my background in health and social sciences, my research is an interdisciplinary multi-method case study aimed to explore how the policy implementation process regarding the role of community pharmacy in the National COVID-19 Vaccination Programme in Ireland was delayed. I framed my study timeline of interest from the publication of the National COVID-19 Vaccination Programme Strategy and Implementation Plan (15th Dec 2020) to the commencement of COVID-19 vaccination in community pharmacies (14th June 2021). Through this enquiry, I also sought to explore how institutions, power, politics, actors, history and vested interests shaped the implementation process.

[2] This was articulated by interviewee IPU_2 (see Chapter 3).

In **Chapter 1: Background**, I will outline the impact of COVID-19 on the Irish healthcare system and community pharmacy practice as well as the implementation process of the National COVID-19 Vaccination Programme. I will also explore the wider historical landscape of the community pharmacy sector. The chapter will end with an articulation of the aim and objectives of my research study and how they aligned with national and international policies and strategies.

Following that, in **Chapter 2: Conceptual Framework**, I will justify the use of a conceptual framework in policy implementation research and how I used the Five-Stream Framework to support my analysis.

Chapter 3: Methodology is where I will establish how I carefully ensured the overall methodological coherence of my study, from my philosophical and theoretical underpinnings all the way to how I collected and analysed my data. I will detail how I synergically integrated stakeholder involvement, documentary analysis and semi-structured elite interviews to generate a rich and multi-faceted analysis to answer my research question. I will also address some thorny ethical issues that I encountered here.

The bulk of this dissertation is concentrated on **Chapter 4: Analysis**, in which I will present a brief timeline of events and a tripartite analytical output from my research that is tightly interwoven with the literature. Each of the themes and sub-themes has been demarcated and is rich and multi-dimensional. Together, they will elucidate the answer to my research question in a highly nuanced manner.

Chapter 5: Conclusions is where I will highlight my key research contributions and the strengths and limitations of my work. This Chapter will end with my thoughts and aspirations regarding the future directions of this line of enquiry.

I will conclude my dissertation with a brief **Postface**. Lists of tables, figures and abbreviations are at the beginning of this dissertation to assist you in your reading of this dissertation. References and appended materials can be found at the end of this dissertation if you are interested.

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List of Abbreviations

Abbreviation	Full form
BCPhA	British Colombia Pharmacy Association
CP	Community pharmacy
CPR	Cardiopulmonary resuscitation
CSO	Central Statistics Office
CUREC	Central University Research Ethics Committee (University of Oxford)
DoH	Department of Health
DoHC	Department of Health and Children
FEMPI	Financial Emergency Measures in the Public Interest
FIP	Fédération Internationale Pharmaceutique or International Pharmaceutical Federation
FOI	Freedom of information
FSF	Five-stream Framework
GP	General practice
GRIPP2	Guidance for Reporting Involvement of Patients and the Public 2
HLTF	High-Level Task Force for COVID-19 Vaccination
HSE	Health Service Executive
ICGP	Irish College of General Practitioners
IIOP	Irish Institute of Pharmacy
IMO	Irish Medical Organisation
IPU	Irish Pharmacy Union
IT	Information technology
MVC	Mass vaccination centre
NCVP	National COVID-19 Vaccination Programme
NIAC	National Immunisation Advisory Committee
NPHET	National Public Health Emergency Team
OECD	Organisation for Economic Co-operation and Development
PAMT	Medicines Administration (Parenteral)
PGEU	Pharmaceutical Group of the European Union

POL	Political party
PSI	Pharmaceutical Society of Ireland
RCPI	Royal College of Physicians of Ireland
RESMA	Responding to an Emergency Situation and Management of Anaphylaxis
RTÉ	Raidió Teilifís Éireann
UN	United Nations
WHO	World Health Organisation
WP	Work package

Chapter 1: Background

I will establish the background of my research topic. Then, I will set out my research question and how it aligns with wider policy goals.

1.1 Influence of COVID-19 on community pharmacy

The World Health Organisation (WHO) declared COVID-19 a pandemic in March 2020 (WHO, 2020a). The COVID-19 pandemic caused significant shocks to healthcare systems worldwide (WHO, 2020b; Thomas et al., 2020), resulting in increased mortality and disease burden, delayed urgent non-COVID care, acute economic loss, decreased mental health and well-being, and enlarged social and health inequalities (Burke et al., 2021).

Catastrophic events, such as economic crises or the COVID-19 pandemic, can pave way for significant health system reorientation or reform (Burke et al., 2021; Devitt, 2022; Pierson, 1996). In Ireland, the COVID-19 pandemic accentuated the chronically deficient public health infrastructure, underfunded primary healthcare, absence of universal healthcare and pandemic unpreparedness, where significant and fast-paced health system reorientation was warranted to meet the challenges posed by COVID-19 (Burke et al., 2021; DoH, 2020a; Houses of the Oireachtas, 2017; Kennelly et al., 2020; Nolan et al., 2021). As outlined by Kennelly et al. (2020), these measures included, inter alia, augmenting the public hospital capacity by using private hospital facilities to provide COVID-19 and non-COVID-19 care, recruiting and deploying healthcare workers, implementing COVID-19 referral systems in primary care and increasing telemedicine services.

In April 2020, the Organisation for Economic Co-operation and Development (OECD) expressed that the COVID-19 crisis "can provide opportunities to change the traditional roles of different health care providers and expand the roles of some providers like nurses and **pharmacists**[3]" to relieve pressure from doctors and strengthen healthcare capacity (OECD, 2020). Internationally, the role of pharmacists has been expanded to conduct a wide array of interventions and practices during COVID-19, including extending prescription validity,

[3] Emphasis added.

administering COVID-19 tests and prescribing (Aruru, Truong and Clark, 2020; Costa et al., 2021; OECD, 2021a; Pantasri, 2021). In a scoping review by Costa et al. (2021), it was found that various practice, policy, regulatory and legislative changes were made to expand the role of community pharmacy (CP) to provide 31 pharmacy interventions on COVID-19 in 32 European countries. These interventions, some of which are detailed in Table 1, spanned four key phases of disaster response (Watson, 2019): prevention (reduce health risks), preparedness (ensure timely and effective healthcare system responses), response (immediate actions) and recovery (return to 'normal' activities).

Table 1. Examples of pharmacy interventions on COVID-19; adapted from Costa et al. (2021).

Prevention	**Preparedness**	**Response**	**Recovery**
Patient information and education on preventive measures	Business continuity plan	Point-of-care antigen test-based referral pathways for suspected cases	Re-establishing normal patient care services and stock levels
Protocols in place for the disinfection of pharmacy surfaces	Stock and supply of essential medicines	Emergency supply of medications (without prescriptions)	Dealing with new vulnerable patients due to the pandemic
Restriction on pharmacy opening hours	Quantity limits for the supply of individual medicines	Temporarily waived prescription co-payments for vulnerable patients	**COVID-19 vaccination**[4]

By early August 2022, there are 6851 registered pharmacists (PSI, 2022a) and 1906 registered CPs (PSI, 2022b) in Ireland. In 2019, Ireland has 107 registered pharmacists[5] per 100,000 population (higher than the OECD35 average of 86) and 38 CPs per 100,000 population (higher than the OECD27 average of 25) (OECD, 2021b). Indeed, CPs provide highly accessibly primary

[4] Emphasis added.

[5] Data includes pharmacists in patient-facing and non-patient-facing roles.

care to the public in Ireland where more than 50% of the population in Ireland can access a pharmacy within one km and 85% within five km (IPU, 2022a). During the pandemic, the urgent need to maintain the continuity of timely and effective (pharmaceutical) care by CPs and to relieve pressure off general practices (GPs) and the healthcare system was acknowledged (Cadogan and Hughes, 2020; Hayden and Parkin, 2020). This was evidenced by the regulatory amendments made by the Pharmaceutical Society of Ireland (PSI), the regulator of the pharmacies and pharmacists in Ireland, to augment the pharmacist workforce and enable CPs to provide an expanded model of pharmaceutical care for patients (Lynch and O'Leary, 2021); see Table 2.

Table 2. Temporary regulatory amendments for pharmacy practice in Ireland; adapted from Lynch and O'Leary (2021).

Temporary Regulatory Changes	**Associated Amendments**
Temporary restoration to the Register of Pharmacists • Allow previously registered pharmacists to be restored to the Register without registration fees	• Emergency Measures in the Public Interest (COVID-19) Act in March 2020
Changes to the supply of medicines (including controlled medicines) • Permitting electronic transmission of prescriptions • Extending prescription validity • Increasing the number of occasions in which a pharmacist can lawfully repeat a prescription • Increasing the quantity of prescription-only medicines that can be supplied by pharmacists at the request of a patient in an emergency	• Medicinal Products (Prescription & Control of Supply) Regulations 2020 • Misuse of Drugs (Amendment) Regulations 2020

• Permitting supplies of controlled drugs at the request of a patient or practitioner in an emergency	

1.2 COVID-19 vaccination in community pharmacy

Global scientific efforts produced several COVID-19 vaccines that can reduce transmission, mortality, hospitalisation and mortality which began to be rolled out in some highly industrialised countries[6] in Dec 2020 (WHO, 2021). Interestingly, between 2016 and 2020, the number of countries in which pharmacists are allowed to administer vaccines doubled from 13 to 26, immunising the global population with 36 types of vaccines, including seasonal influenza, typhoid, herpes zoster and pneumococcus vaccines (FIP, 2016, 2020a). Countries where pharmacists could administer vaccines include Ireland, the United Kingdom, Canada, the Philippines, the United States and New Zealand (FIP, 2020a). Due to their vaccination track records (MacDougall et al., 2016; Turcu-Stiolica et al., 2021), their experience dealing with the H1N1 pandemic in 2009 (Schwerzmann et al., 2017) and their public health contributions during the COVID-19 pandemic (Costa et al., 2021; Paudyal et al., 2021a), there were continued calls and campaigning by national and international pharmacy organisations worldwide to involve CP in COVID-19 vaccination programmes to increase coverage (Aruru et al., 2020; Costa et al., 2021; Maidment et al., 2021; Paudyal et al., 2021b; Sousa Pinto et al., 2021). Pharmacists in Europe also expressed their readiness to provide COVID-19 vaccination (Paudyal et al., 2021a).

In Ireland, pharmacists[7] started administering seasonal influenza vaccines in 2011 and the service was subsequently expanded to cover other vaccines like herpes zoster and pneumococcal polysaccharide vaccines (Henman, 2020). Evidence demonstrates that not only was the involvement of CPs in flu vaccination positively received by the public, but it also helped to increase vaccine uptake, especially in those who are at risk of severe flu symptoms, e.g. older and immunocompromised people. Community pharmacists are highly trusted by

[6] Here, I want to acknowledge that catastrophically unjust global (COVID-19) vaccine inequities between high- and low-income countries still exist today; see Harman et al. (2021).

[7] Subject to training requirements.

the public in Ireland (Ipsos, 2021) and nine out of ten people would like them to deliver more services (PSI, 2016a). In 2020, pharmacists were also authorised to administer influenza vaccines to children aged 6 months and older and provide influenza vaccination offsite from the pharmacy premises (PSI, 2021a).

The High Level Task Force (HLTF) on COVID-19 Vaccination, established by the Irish Government on 10th November 2020, aimed to support the Department of Health (DoH) and the Health Service Executive (HSE) in deploying the National COVID-19 Vaccination Programme (NCVP). Published on 15th Dec 2020, the goal of the NCVP was "to build on the public health response to COVID-19 to date through the efficient provision of safe and effective vaccines to the population" (DoH, 2021a, p. 5) with the primary objective of reducing COVID-19-related mortality and morbidity, and the secondary objective of allowing society re-opening, community reconnection and economy growth resumption (DoH, 2021b). The NCVP would also allow non-COVID health and social services to continue to operate.

A three-phase approach to COVID-19 vaccination roll-out, namely Initial Roll-out, Mass Ramp-up and Open Access, would be adopted with CPs, GPs and mass vaccination centres (MVCs) involved in the latter two phases when more doses become available (DoH, 2021b). The Implementation Plan highlighted that CPs, owing to their successful annual flu vaccination programme, should be utilised to enhance vaccination capacity (DoH, 2021b). This was welcomed by the Irish Pharmacy Union (IPU), a trade association for CPs: "1,800 [CPs] have been included in this vital public health effort, as the contribution of Irish [CPs] will be essential to ensure success" (IPU, 2021a).

The first delivery of vaccines, approximately 10,000 Pfizer/BioNTech COVID-19 vaccines, arrived on 26th Dec 2020 (Boland, 2020). The number of COVID-19 vaccines delivered to Ireland (Table 3), which was last updated on 12th May 2021 presuming due to the HSE cyberattack on 14th May 2021 (Department of Taoiseach, 2021), was extracted from data available on the DoH website (DoH, 2021c).

Table 3. Number of COVID-19 vaccines; data from DoH (2021c).

Timeline	Pfizer/BioNTech[8]	Moderna[9]	AstraZeneca[10]	Janssen[11]	Total
To end February 2021	393,120	40,800	86,400	0	520,320
To end March 2021	737,100	109,200	340,800	0	1,187,100
To 12th May 2021	1,521,000	218,400	566,000	26,400	2,331,800

Nonetheless, CPs in Ireland faced months of significant delay in the realisation of their role. The Initial Roll-out phase commenced on 29th Dec 2020 when the first nursing home resident received the vaccine (RTÉ, 2020), with the Mass Ramp-up phase on 16th Jan 2021 when three MVCs were opened for priority healthcare workers (O'Brien, 2021). GPs also started providing the vaccines on 8th Feb 2021 (Murray and Dywer, 2021). It was not until 31st May 2021 when the Minister for Health Stephen Donnelly announced the commencement of CP-based COVID-19 vaccination (Houses of the Oireachtas, 2021) and CPs subsequently started vaccinating people over 50 years old with Janssen vaccines on 14th June 2021 (Murphy and Heaney, 2021). During this period, the IPU repeated calls for clarification on the role of CP in the NCVP (see Table 4).

This is in stark with high-income Western countries like the United Kingdom, the United States, Canada, France, Italy and certain cantons in Switzerland where CPs were swiftly utilised as COVID-19 vaccination outlets within the first quarter of 2021 (BCPHA, 2021; Costantino et al., 2022; PGEU, 2021; Piraux et al., 2022; Stämpfli et al. 2021; Wickware, 2021). The United Kingdom, for instance, involved CPs in COVID-19 vaccination since January 2021 (PGEU, 2021)

[8] Vaccine name is Comirnaty.

[9] Vaccine name is Spikevax.

[10] Vaccine name is Vaxzevria.

[11] Vaccine name is Jcovden.

and over 1.7 million vaccines were already administered by CPs by 22nd March 2021 (Wickware, 2021). Various studies also found that CP-based COVID-19 vaccination services were positively perceived by the public, including vulnerable populations, across Europe (Kowalczuk et al., 2022; Piraux et al., 2022; Rose et al., 2022; Stämpfli et al. 2021).

Table 4. IPU media releases between 15th Dec 2020 to 2nd June 2021; adapted from IPU (2022b).

Date	**Title**
15th Dec 2020	Pharmacists key role in Vaccine Plan welcomed by IPU
19th Jan 2021	Pharmacists welcome plan to allow them vaccinate public against COVID-19
8th Jan 2021	Pharmacy staff must be prioritised for COVID vaccine
4th Feb 2021	Pharmacists have solutions to some of the Covid vaccine complications
23rd Feb 2021	IPU strongly endorses statement of European colleagues on vital role of pharmacy during COVID crisis
5th Mar 2021	Call for pharmacists to be utilised to stop vaccine targets being missed
25th Mar 2021	Postcode lottery could slowdown vaccine rollout
29th Mar 2021	Pharmacists call for urgent clarity on when they can begin vaccinating against COVID-19
2nd June 2021	Minister announces that pharmacists are to commence COVID-19 vaccination

Notably, by the end of 2020, Ireland had the highest growing infection rate in the European Union (DoH, 2020b). On 24th Dec 2020, aggressive public health restrictions (Level 5 with adaptations) were introduced to rapidly suppress the virus over the Christmas holidays (DoH, 2020c). By 8th Jan 2021, there had been 150,926 cases of COVID-19 with 2,327 deaths, and this increased to 249,394 cases and 4,903 deaths by 30th Apr 2021 (CSO, 2021). Thus, it was unclear why CPs in Ireland were not included in the NCVP earlier to aid the suppression of the virus but international evidence suggests that despite the clear value of pharmacists for vaccination programmes, their potential is often hindered by a multitude of political, organisational and resource hindrances (Burson et al., 2016). This was true in the context of

COVID-19 where CPs in European countries faced legislative, regulatory and resource barriers that prevented them from being involved in COVID-19 vaccination (Paudyal et al., 2021b).

1.3 Contextualising the community pharmacy sector in Ireland

As shown in the case of the NCVP, the advancement of the role of CPs in Ireland can face impediments. Mounting evidence demonstrates the population health and cost benefits CPs can contribute to primary care in Ireland by delivering expanded services like minor ailment scheme, chronic disease management, medication review and oral contraception (IPU, 2018, 2019a; PSI, 2016b). Despite persistent campaigning by the IPU, this has failed to gain significant policy traction. In 2008, an Independent Body on Pharmacy Contract Pricing led by Seán Dorgan recommended the DoH to establish a new CP contract to appropriately reform the inadequate remuneration model and increase pharmacy services (IPU, 2017). However, after a little more than a decade of consistent advocacy by the pharmacy profession, the negotiations still have not commenced in 2022 (IPU, 2022c). Additionally, the potential for CPs in Ireland to be leveraged was also not recognised by policymakers (Henman, 2020) in the landmark Sláintecare report in 2017 (Houses of the Oireachtas, 2017) that aimed to overhaul the health system.

The IPU often purported that the profession should be leveraged to deliver more services to strengthen primary care capacity (IPU, 2018a). This is particularly since GPs have been facing huge shortage issues where about 30% of general practitioners are due to retire by 2026 (IMO, 2021) and more than 2,000 new general practitioners are needed by the state over the next decade to meet the primary healthcare demand (ICGP, 2022). Notably, professional rivalries between CPs and GPs are evident. The expansion of the role of CP can sometimes be perceived as encroachment and financial extractions from GP (Bradley, 2009; Henman, 2020). The Irish Medical Organisation (IMO), a trade union for doctors, strongly opposed the expansion of CP services, including vaccination, and stated that the government should "resource GP services properly not substitute them with inappropriate alternatives like pharmacists" for economic reasons (IMO, 2015). Interestingly, Bradley (2009) found that the relationship between CPs and the health service was perceived by policymakers as one of industrial nature and that the retail nature of pharmacy has impeded its role advancement.

Over the past two decades, funding cuts and austerity have put the CP sector in a precarious position. In 2021, CPs dispensed approximately 82 million items, a dramatic 19.5% increase in output since 2009 (IPU, 2022c). CPs depend on state dispensing schemes for about two-thirds of their turnovers (IPU, 2017) but there have been successive cuts in dispensing fees from an average of €6 per item in 2009 to €4.74 per item in 2020. The turnover of CPs from the schemes decreased by 33% between 2009 and 2016 (IPU, 2017) against the backdrop of an 18.5% increase in staff costs in the past decade (IPU, 2022c). Some prescription items were also under-reimbursed by the HSE, e.g. refrigerated medicines were found to be under-reimbursed by 4.8% (IPU, 2017). The Financial Emergency Measures in the Public Interest (FEMPI) induced by the 2008 economic crash coupled with other non-FEMPI related measures, such as the introduction of medicine reference pricing, to reduce pharmacy reimbursement also extracted approximately €3.1 billion from the CP sector between 2009 and 2017 (IPU, 2018b). As Ireland emerged from the austerity, the FEMPI funding cut was reversed for GPs in July 2019 (IMO, 2019) and for high-paying public servants in July 2022 (Ryan, 2022). Nevertheless, no plan has been made to reverse the cut for CPs (Wall, 2018). Additionally, funding cuts over €50 million (for fees paid for standard dispensing, phased dispensing and High-Tech drug care) were proposed by the DoH in 2019, which was subsequently suspended upon campaigning by the IPU (Cullen, 2019; McConnell, 2019).

Potential links could be drawn between the crises of professional development stagnation, financial precarity and pharmacist workforce retention in recent years. Approximately 20% pharmacists have changed their area of practice away from patient-facing roles to seek more professional satisfaction, career advancement and better salary and work benefits package (IPU, 2022e). Similar evidence was generated by a survey in 2019 where only approximately 50% of community pharmacists are satisfied with their jobs, citing issues like a high administrative burden, over-regulation by the PSI, low professional career progression, stressful working conditions and staff shortage issues (IPU, 2019b). This was further

compounded by COVID-19 where CP staff experienced stress, anxiety and burn-out but lacked resource support from the DoH and HSE (Curley, 2022; Fleming et al., 2020).[12]

1.4 Policy implementation research

Health policy[13] embodies "courses of action (and inaction) that affect the set of institutions, organisations, services and funding arrangements of the health system" (Buse, Mays and Walt, 2007, p. 5-6). The policy process could be delineated into five stages: agenda-setting, policy formulation, decision-making, policy implementation and policy evaluation (Howlett, 2019). Although high-income countries are sophisticated in conducting health services research on primary and secondary care, there is a chronic lack of focus on health policy research (Mills, 2012). Indeed, the body of health policy research is small both internationally (Mills, 2012; Tuohy, 1999; Walt, 1994) and in Ireland (Burke, 2013).

Policy implementation[14] could be understood as "what develops between the establishment of an apparent intention on the part of government to do something, or to stop doing something, and the ultimate impact in the world of action" (O'Toole Jr, 2000, p. 266). Successful implementation is dependent on a multitude of socio-political, epistemological, behavioural and contextual factors (Spicker, 2006). Therefore, policy implementation scholarship is interdisciplinary, straddling public administration, public management, political sciences and organisation theory research (Schofield and Sausman, 2004). Some examples of

[12] I am aware that there is ongoing research exploring the psychological well-being of community pharmacists during COVID-19, which is being conducted by Dr Sean Curley at University College Dublin and Dr John Hayden at the Royal College of Surgeons in Ireland.

[13] Since the NCVP deals with issues bigger than and beyond the CP sector itself, I have framed this research as primarily a health policy study. This is different from pharmaceutical policy research (often seen as a subset of health policy analysis) which is "concerned with the provision and use of medicines. It, therefore, covers medicine development, manufacture, marketing, distribution, pricing and reimbursement, formulary management, pharmacovigilance, patient eligibility, prescribing practice and professional services, particularly pharmaceutical services" (Morrow, 2015, p. 1).

[14] This is not to be confused with implementation science which primarily focuses on how to facilitate the uptake of evidence-based practices by healthcare practitioners. The two fields have significant similarities as well as differences; see Nilsen et al. (2013) for more information.

Irish health policy implementation research include studies exploring the 2001 primary care policy (Kelly, Garvey and Palcic, 2016; Mercille, 2019), the 2011 health system reform plan (Devitt, 2022), 2017 Sláintecare strategy (Burke et al., 2020; Thomas et al., 2021) and oral health policies from 1994 to 2021 (McAuliffe et al., 2022). Using multi-method approaches often combining elite interviews and documentary analysis, these studies highlighted the highly politicised nature of health policy implementation in Ireland, which is shaped by factors like national mood, crises and vested interests. In addition, Nolan et al. (2021) descriptively compared COVID-19 policies across Ireland and Northern Ireland in the first half of 2020.

Whilst there are some pharmaceutical policy studies investigating the impact of pharmacy market deregulation in numerous Nordic countries (Almarsdóttir, Morgall and Grímsson, 2000; Anell, 2005; Larsen, Vrangbæk and Traulsen, 2006), research interrogating the health policy processes relevant to the practice of pharmacy is scant in Ireland. Bradley (2009) interviewed policy stakeholders on their perspectives on the role of CP in health promotion in Ireland, concerning the agenda-setting stage. In terms of pharmaceutical policy implementation[15] research in Ireland, this includes a study exploring the 2010 mandatory co-payment policy (O'Brien et al., 2020) and another exploring the 2007 Pharmacy Act (Lynch and Kodate, 2020). Both studies used a bottom-up approach to study the perception of pharmacists, the 'street-level bureaucrats' (Lipsky, 1980), on the impact of implementation, rather than how and why elite policy actors implemented them from a top-down lens (Gilson and Raphaely, 2008). Furthermore, two studies exploring the policy, regulatory and practice changes to CPs in Ireland during COVID-19 were published, one focusing on Ireland (Lynch and O'Leary, 2021) whereas the other compared the Irish and Northern Irish contexts (Barry et al., 2022). However, they were largely descriptive documentary analyses.

Overall, the complex and dynamic socio-political, economic and historical factors recursively shaping the role of CP in Ireland remain a significantly unexplored territory.

[15] As per my previous footnote, this is not to be confused with implementation science. Principles of implementation science have been widely used in studying barriers and facilitators influencing the uptake of innovative clinical services in pharmacy; see, for instance, Weir et al. (2019).

1.5 Aim and Objective

I aimed to explore this research question in my dissertation:

How was the process of implementing the role of CP in the National COVID-19 Vaccination Programme delayed?

To that end, my timeline of interest was between 15th Dec 2020 (publication of the NCVP on 15th Dec 2020, which outlined the role of CP) and 14th June 2021 (commencement of CP-based COVID-19 vaccination). My objective was to understand how policy dynamics, including institutional structures, power, politics, actors and vested interests, shaped the implementation process. Thus, it can be interpreted that I explored the implementation process using a top-down approach.

My project is aligned with and will contribute evidence to policies and strategies at both international and Irish levels: 1) **Sustainable Development Goal 3 - Good Health and Well-being** (UN, 2015): Ensuring good health is universally attainable; 2) **Global Strategy on Human Resources For Health 2016** (WHO, 2016): Optimising the skillset of healthcare workers to match population health needs; 3) **Give It A Shot 2020** (FIP, 2020b): The expansion of CP-based vaccination services worldwide to expand immunisation coverage; 4) **Vision for Community Pharmacy 2030** (PGEU, 2019): Increasing quality of care and safety for patients by expanding the role of CP; 5) **Sláintecare 2017** (Houses of the Oireachtas, 2017): Leveraging the capability of primary healthcare workers to achieve universal healthcare Ireland; and 6) **Future Pharmacy Practice in Ireland Report 2016** (PSI, 2016b): Developing the scope of practice of the pharmacy profession in Ireland.

Chapter 2: Conceptual Framework

I will address the importance of doing policy (implementation) research theoretically. Next, I will briefly outline the characteristics of my conceptual framework of choice, i.e. Five-stream Framework, and why and how I used the Framework.

2.1 Theoretical lineage of policy implementation research

The "complex, multi-level, and multi-faceted nature of implementation creates difficulties [in] designing and conducting high-quality empirical research that can offer useful generalisations to those interested in improving the process of implementation and thus achieving better policy results" (Bullock et al., 2021, p. 2). Thus, the use of theoretical or conceptual tools could capture the characteristics, dynamics, mechanisms, actors and events constituting and driving the policy process (Althaus, Bridgman and Davis, 2013; Cairney, 2013). Of note, the body of health policy research has been criticised for being inadequate and lacking explicit theoretical or conceptual grounding (Gilson, 2012; John, 2013; Walt et al., 2008).

The theoretical history of policy implementation scholarship has been delineated by Howlett (2019), Nilsen et al. (2013) and Schofield (2001). Although policy implementation has attracted scholarship for over five decades, the field has been largely atheoretical, fragmented, divorced from other policy stages, and rife with conceptual and theoretical debates amongst scholars (Howlett, 2019; Nilsen, 2020; O'Toole Jr, 2004).

The first generation of policy implementation scholars drew heavily from atheoretical work in public administration, public management and law, and thus, implementation was largely regarded as neutral, technical and quasi-autonomic (Howlett, 2019; Keyes, 1996; Nicholson-Crotty, 2005). The focus was mainly on explaining implementation failure by central governments, insofar as it was dubbed 'misery research' (Rothstein, 1998). With the intention to achieve theoretical advancement, the second generation of research emerged in the early 1980s but it was, nevertheless, entangled in entrenched normative, theoretical, methodological and empirical debates between scholars espousing two competitive paradigms, i.e. top-down versus bottom-up, to understand implementation (Howlett, 2019; Nilsen et al., 2013; Schofield, 2001). The top-down approach posits that implementation is

largely a centralised process that requires careful administrative planning and procedural specifications from high-level decision makers. On the other hand, the bottom-up approach espouses the idea that implementation is a decentralised process shaped by interactions between individual agents and local institutional contexts in which the policy is discharged in practice. In the late 1980s, the third generation of scholars moved beyond the dichotomy by reconciling the two perspectives (Cairney, 2019) or developing theories, e.g. game theory and principal-agent theory, to better understand administrative and managerial behaviours in implementation (Howlett, 2019). Nevertheless, the shifts in the state-society relations towards more reliance on the market logics and less governmental interferences in the 1990s resulted in a theoretical stagnation with "the effects of institutional and inter-organisational relationships" gaining more focus (Nilsen et al., 2013, p. 3). The subsequent epistemological and methodological history of the field could be characterised by the rise of disciplinary, network governance approaches and complexity theory approaches (Nilsen et al., 2013).

However, despite the concerns and challenges of many scholars, the current policy implementation research landscape is still strongly underpinned by contradictory and competing conceptual or theoretical tools that were developed in the late 1980s or even earlier (John, 2013; Pump, 2011).

2.2 Five-stream Framework

Howlett (2019) argued that even though various theoretical tools have elucidated different key variables of implementation, none of them was a "fully-fledged model" (p. 423) that firmly situates implementation within the policy process. In a series of papers (Howlett, McConnell and Perl, 2015, 2016, 2017; Howlett, 2019), Howlett and colleagues synthesised three rival policy process frameworks in contemporary policy studies, namely the policy cycle framework, multiple streams framework and advocacy coalition framework. The outcome, then, was the Five-stream Framework (FSF) as shown in Figure 1. By drawing on the analytical strengths of the three policy process frameworks, the FSF can provide "complementary and cumulative insights" into policy implementation (Howlett, 2019, p. 417).

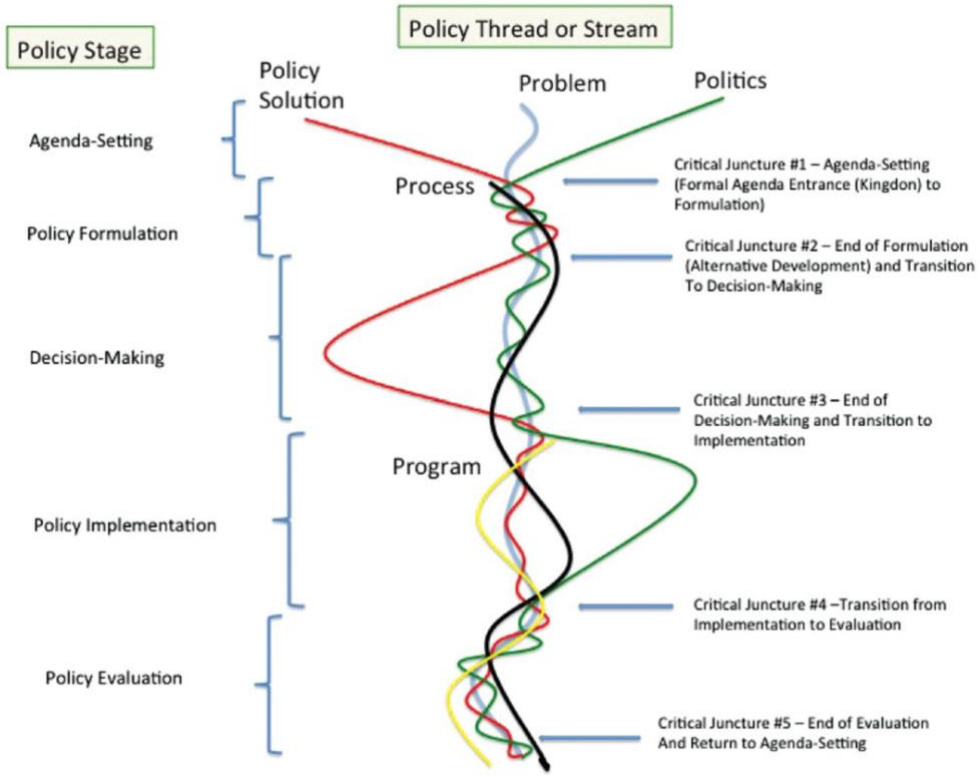

Figure 1. Five-stream Framework.

As the name suggests, the FSF comprises five distinct yet semi-dependent streams: problem, policy, politics, process and programme. The five streams are described in Table 5.

Table 5. The five streams of the Five-stream Framework.

Stream	**Description**
Problem	The problem stream pertains to the identification, framing, definition and translation of public issues into policy problems that potentially necessitate governmental interventions as well as the perceptions about the capability of the government to resolve the issues by the so-called 'epistemic communities' (Gough and Shackley, 2001; Haas, 1992). An epistemic community consists of various policy actors like the public, politicians and academics who are united by their expertise and knowledge about a policy issue (Biddle and Koontz, 2014).
Policy	The policy stream involves the development and formulation of policy instruments and alternatives, including the examination of their

	effectiveness and costs (McGann, Viden and Rafferty, 2014). This is conducted by 'instrument constituencies' who have (self-proclaimed) expertise to address the policy issue(s) at hand (Howlett, 2019). They could be heterogenous networks of actors from public policy and administration, consulting and academia who form conscious groupings to promote their ideal policy solution to the policymakers as policy implementation unfolds (Voß and Simons, 2014).
Politics	The advocacy coalitions are most active in the politics stream where policy actors actively compete for the adoption of their problem definitions and policy solutions of choice. Despite being politically active, policy actors have various levels of visibility, ranging from low, e.g. policy advisors, policy implementers and lobbyists (Weishaar Amos and Collin, 2015), to high, e.g. the media and political parties (Kingdon and Stano, 1984). Advocacy coalitions operate against the socio-political backdrop of the national moods (Stimson, 1991).
Process	The process stream is akin to the 'choice opportunities' stream proposed in the work of Cohen, March and Olsen (1972). The process stream encompasses "the basic set of tasks and events which lead to policy outputs" (Howlett, 2019, p. 418), such as consultation, deliberation, problem refinement and solution appraisal, which are conducted in "institutional forums with their own procedures and norms" (Howlett, McConnell and Perl, 2015, p. 424). This, to a moderate extent, negates the chaotic, unpredictable and ambiguous assumptions about policy processes as espoused by the 'garbage can model' (Cohen, March and Olsen, 1972), which informed Kingdon's multiple streams framework (Kingdon and Stano, 1984). Essentially, the process stream is "the main or central pathway upon which other streams subsequently converge, creating critical junctures which set up the future impetus for policy deliberations and establish the initial conditions which animate subsequent policy process advances (or retreats)" (Howlett, 2019, p. 421). In this stream,

	coalitions could advocate for the most appropriate procedures, processes and administrative practices to be enacted (Mukherjee and Howlett, 2015).
Programme	The programme stream involves the introduction, calibration and integration of new programme instruments. Programme actors, most typically bureaucrats like civil servants and administrative officials from agencies at different governmental levels, serve crucial functions to produce outputs in this stream. Thus, programmes are not only shaped and delivered by the bureaucrats' expertise, knowledge, ideas and beliefs, but also by the wider dynamics of conflicts within and between various agencies induced by competing interests, cultures and goals (Dye, 2001).

The streams dynamically travel through the policy lifecycle and when they intersect, policy junctures are created. Each juncture could be characterised by a policy pattern reconfiguration through the integration of new actors, resources, and tactics into the policy process and thus signifies a transition to the subsequent policy stage. This "helps to situate implementation activities firmly within the larger flow of policymaking and helps to understand its distinct modalities and problems" (Howlett, 2019, p. 421). Furthermore, the conceptual flexibility of the FSF does not preclude the incorporation of other concepts, e.g. path dependency, to strengthen its analytical power (Howlett, McConnell and Perl, 2017).

The policy process starts from the agenda-setting stage. When the intersection of problem, policy and political streams occurs, a 'policy window' for agenda-setting (critical juncture #1) much like what was described by Kingdon and Stano (1984), is created and signifies the beginning of the policy formulation stage, from which the process stream flows. At the policy formulation stage, the politics stream separates from the other three as coalitions composed of subsystem policy actors start to deliberate and generate policy solutions and alternatives to address the policy issue of concern.

The politics stream returns and all the streams intersect again when a configuration of policy solutions or alternative choices has been produced by the policy actors, marking the beginning of the decision-making stage (critical juncture #2). This is when the political stream connects with the process stream to closely examine the policy stream, which is now

separated from the main flows (Howlett, McConnell and Perl, 2017), in order to achieve a consensus.

If and when a decision is made, the policy stream returns and all the streams integrate to create the implementation stage (critical juncture #3). This is when the programme stream is introduced to translate the policy into practice whilst the policy stream separates from the rest, particularly if the implementation and the policy aims are highly contested. Next, the policy process moves towards the policy evaluation stage (critical juncture #4) when the policy stream returns to join the main flow. During this process, all the streams could be held up for scrutiny.

When an attempt to re-connect all the streams is made (critical juncture #5), various potential scenarios could happen, including policy continuation (e.g. policy is deemed working), policy termination (e.g. policy is not required anymore) or back to a new agenda-setting phase (e.g. when disagreements or practical issues arise).

2.3 Why and how I used the Framework

I deemed the FSF an appropriate framework for my research for a multitude of reasons. By situating policy implementation within the policy process, the FSF enables a dynamic and holistic understanding of various political, policy, instrumental and administrative factors shaping implementation without losing sight of the agency of actors. It also allows "room for better encompassing creativity, inventiveness, art, and craft within policy-making" (Howlett, McConnell and Perl, 2017, p, 75), which are hallmarks of strong policy analysis (Wildavsky 1979). Additionally, the framework would address the lack of emphasis on power in most health policy research (Gilson and Raphaely, 2008). Of note, Howlett, McConnell and Perl (2017) also specifically articulated that a (comparative) case study approach exploring the policy dynamics in specific stages and streams of a policy would be a fruitful endeavour.

In this case study exploring how a specific policy was implemented, I used the FSF with a focus on the policy implementation stage, i.e. the interplay between problem, policy, politics,

process and programme, to inform my overall analytic thinking. Notably I mainly used the Framework to support my documentary analysis.

For my documentary analysis, I operationalised the FSF as a coding frame to guide my directed qualitative content analysis, the insights from which informed the topic guide of my semi-structured elite interviews, the mainstay of this project. To enable flexibility in situating my researcher's positionalities within the research process, however, I analysed my interview data using reflexive thematic analysis rather than content or framework analysis. This is because those approaches, albeit pragmatic, perceive data analysis to be largely procedural. Underpinned by neo-positivism, qualitative values like researcher's reflexivity are also compromised (Braun and Clarke, 2022). Since I was to investigate a highly politicised topic, I believed that I must situate my analysis within the Big Q paradigm and align my analytic method of choice accordingly (see Chapter 3). Thus, I did not use the FSF as a rigid coding frame against which to code and analyse my interview data. If I did, my themes would have been pre-determined by the FSF, i.e. I would have some or all of the five streams as effectively my themes – see McAuliffe et al. (2022) as an example of using the FSF in a directed content analysis approach. Instead, I actively and reflexively interrogated my interview data to develop themes that are delineated, salient, multi-dimensional and built around central organising concepts. They were my analytic 'outputs' rather than pre-determined 'inputs' as in the case of content or framework analysis (Braun and Clarke, 2022).

However, my overall analytic process was influenced and strengthened by the FSF as it explicitly informed my semi-structured interview topic guide and implicitly underlined my data coding and interpretation. My overall methodology design is elaborated in the following chapter.

Chapter 3: Methodology

I will detail how I conceptualised my research, collected data, developed interpretation and approached some ethical issues. I wrote this chapter in an active voice to situate myself as an active agent within knowledge production (Trainor and Bundon, 2021) to avoid "techniqueism[,]…a preoccupation with methodological procedures or techniques, at the expense of theory, researcher subjectivity and reflexivity" (Braun and Clarke, 2022, p. 128).

3.1 Research design

To ensure conceptual coherence (Braun and Clarke, 2022) and methodological integrity (Levitt et al., 2017), I situated, aligned and cohered my research question, philosophical, theoretical and methodological assumptions and choices as well as my subjectivity and reflexivity together.

3.1.1 Research question

A research question determines the interpretative lens through which data is explored. (Sandelowski, 2011). As outlined before, my research question was: how was the process of implementing the role of CP in the National COVID-19 Vaccination Programme delayed?

3.1.2 Big Q paradigm

I situated my research firmly in the Big Q or 'fully qualitative' paradigm (Madill and Gough, 2008) where both qualitative tools and qualitative philosophy are espoused. Thus, I "reject[ed] notions of objectivity and context-independent or researcher-independent truths" (Braun and Clarke, 2022, p. 228) and recognised that knowledge is partial and situated. In this paradigm, I recognised that subjectivity is inescapable and should be critically interrogated and harnessed as an asset through reflexivity.

3.1.3 Critical realism

Within the Big Q paradigm, I approached my research using the philosophy of critical realism, which was popularised by the writing of Roy Bhaskar (1975, 1979). Critical realism, as articulated by Maxwell (2012), postulates the existence of a single independent reality (ontological realism) that can only be accessed through the inevitable interpretive lens of

language, discourse, culture and human experiences (epistemological relativism). Thus, I espouse the idea that, as a researcher, I am deeply embedded in the social world and I can only access subjective, located, contextualised perceptions of truth, which I inescapably also interpret through my subjectivity (Braun and Clarke, 2022).

3.1.4 Reflexivity

Researchers are embedded in, rather than distanced from, their research so they must 'own their perspectives' (Elliott, Fischer and Rennie, 1999) by turning "the researcher lens back onto oneself" (Berger, 2015, p. 220). Throughout my research, I kept a reflexive journal, which was written using the memo function on NVivo and my phone, to critically interrogate how my own positionings, values and assumptions - a "de-socialisation process" (Braun and Clarke, 2022, p. 19). See Appendix A for some lightly edited entries. As an active knowledge producer, I interrogated[16] how my identities and experiences as an ethnic minority migrant, queer person, pharmacist and early career researcher, my socio-political ideological beliefs, my interdisciplinary backgrounds in pharmacy, population health and sociology and my research topic intersected and varied along lines of insider/outsider, power and marginalisation throughout my research (Braun and Clarke, 2022). This aligns with the suggestion of Walt et al. (2008) that policy researchers should articulate how their own "power and positions influence the knowledge they generate" (Walt et al. 2008, p. 308).

3.1.5 Conceptualisation

I conceptualised this project as a retrospective analysis of policy (Gilson and Raphaely, 2008) using a multi-method case study design. Case study research is used to study naturally occurring, complex and multi-faceted social phenomena in depth (Yin, 2009). Notably, the case study design is widely used in policy research to elicit 'thick' contextual analysis using a multitude of empirical evidence to answer the 'how' and 'why' of policy processes (Sheikh et al., 2011; Yin, 2009). By using multiple methods (see Figure 2), I would be able to synthesise

[16] This is also evident in the Preface of this dissertation.

different types of qualitative evidence to develop a rich, nuanced and multi-dimensional analysis (Tracy, 2010).

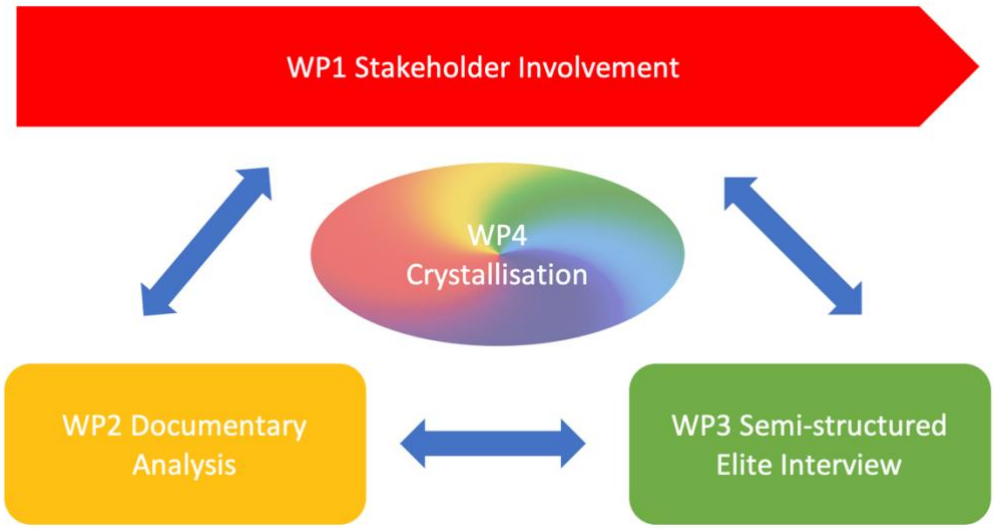

Figure 2. Conceptualisation of the research design. WP: Work package.

3.2 Work package 1: Stakeholder involvement

Engaged research involves "collaborative engagement with the community[,] aim[s] to improve, understand or investigate an issue of public interest or concern, including societal challenges" and is about research "with community partners rather than for or about them" (Campus Engage, 2018, p. 2). To ensure greater accountability, knowledge exchange and impact maximisation, I applied the principles of stakeholder involvement to co-produce knowledge with people with professional interests in or who are affected by my research topic. This approach has been taken in COVID-19 policy research in Ireland before; see Nolan et al. (2021).

3.2.1 Participation

Through my personal and professional networks, I assembled a stakeholder panel of eleven people of diverse backgrounds and seniority: academia, pharmacy regulation, policy, CP, GP and medicine.[17] Ten stakeholders are based in Ireland and one in the United Kingdom.

[17] Details of the stakeholder members are not provided here. Although some had already consented to be named as stakeholders who supported my work, I thought it would be more appropriate to seek consent again after they have had a chance to read my analysis.

Following the Engaged Research Framework (Campus Engage, 2018), I aimed to involve the panel using a three-phase approach: 1) guiding research and methodology design; 2) informing data interpretation; and 3) diversifying research dissemination. I had made it clear to each stakeholder that they were invited to contribute as much or as little as they could and that most communications would occur by email and phone calls.

Due to the time limit I had for this dissertation, I have, thus far, only conducted the first phase where six stakeholders were involved. Four stakeholders kindly provided feedback on my research proposal, methodology and topic guide design (Appendix B) and I also asked two more stakeholders to assist me with piloting the interview topic guide. As I aim to continue developing this project, I will invite the panel to contribute to the other two phases, after which I will report the stakeholder involvement impact using the Guidance for Reporting Involvement of Patients and the Public 2 (GRIPP2) checklist (Staniszewska et al., 2017).

3.3 Work package 2: Documentary analysis

Documents are social facts shared and produced to construct specific kinds of representations of, for example, organisational processes or professional practices (Silverman, 2011). Organisations produce substantial volumes of documents, official or otherwise, like reports, memos and policies which can be treated as primary documentary sources in research (Silverman, 2011). Notably, 'official' documents will give the 'official' narrative that can be rhetoric or untransparent. Thus, documentary analysis explores the content of documents in their contexts "to make some kind of connection between…the 'word' and the 'world', if we are to capture essential elements" (Silverman, 2011, p. 96). Since there is a considerable amount of relevant grey literature about the policy processes driving the NCVP, documentary analysis was adopted.

3.3.1 Data collection

From the websites of organisations involved in the roll-out of the NCVP, I purposively retrieved relevant documents from January 2020 to July 2021 using search terms like

'pharmac', [18] 'COVID' and 'vaccine' coupled with hand searching. The strategy was supplemented by 1) snowball sampling through reference link chaining and seeking suggestions from the stakeholder panel; and 2) Freedom of Information (FOI) requests to gain access to publicly unavailable documents. Following that, I screened the documents for relevance. Table 6 details the documents I obtained.

Table 6. Documents for documentary analysis.

Organisation	**Document**	**Number**
DoH	**FOI Emails on Campaigning for the Involvement of CP in the NCVP*	*15*
	Letters	3
	NCVP Implementation Plan	1
	NCVP Strategy	1
Government of Ireland	Statutory Instrument Amendments for Pharmacists to Administer COVID-19 Vaccines	6
HLTF	Meeting Minutes	23
Houses of the Oireachtas	Debates	50
HSE	Pharmacy Circulars	3
	Pfizer/BioNTech Vaccine Operational Guidance	1
	Vaccination Sequencing for Healthcare Workers	2
IPU[19]	Annual Review	1
	General Memorandum	6
	Media Release	9

[18] This was to capture relevant terms like pharmacy, pharmacies, pharmacist and pharmacists.

[19] Special thanks to IPU for providing me access to some of their data.

National Immunisation Advisory Committee (NIAC)[20]	Recommendations	17
National Public Health Emergency Team (NPHET)[21]	Governance	1
	Meeting Minutes	20
	Supporting Materials for Meetings	23
	Term of Reference	1
PSI	Annual Report 2020	1
	Corporate Strategy 2021-2023	1
	Council Minutes	7
	COVID-19 Vaccination Regulatory Framework	1
	Emails to Registrants	5
	**FOI Documents on Approval Process for HSE COVID-19 Vaccination Training*	*15*
	Registrar Reports	5
	Self-Assessment for Pharmacists Delivering COVID-19 Vaccination	1
	Service Plan 2021	1
Total		**220**

3.3.2 Data analysis

I had intended to analyse the documents using the reflexive thematic analysis approach. Nevertheless, the documents, albeit voluminous and informative, did not articulate how and why the implementation process was delayed. Thus, I analyse the documents using a more descriptive approach, i.e. directed qualitative content analysis, a commonly employed

[20] National Immunisation Advisory Committee (NIAC) provides independent expert advice on vaccines and immunisation guidelines to the DoH.

[21] National Public Health Emergency Team (NPHET) for COVID-19 was established to devise and implement strategies to control the pandemic in Ireland.

method to analyse documentary materials in policy research (Mayring, 2014; Sofaer, 1999). Firstly, I imported all but the FOI materials,[22] i.e. 190 documents, into NVivo. Using the FSF (discussed in Chapter 2), I coded the content of each data item against the five streams (see an audit trail example in Appendix C), during which I made reflexive notes on my thoughts around how and why the implementation process could have been delayed. I also compiled important dates noted in the documents in a separate Microsoft Word document to clarify the timeline of events and noted the names of policy people whom I should interview. The insights I gained were subsequently used to inform my interview topic guide (Appendix D) and, where appropriate, I referred to the documents during the interviews to elicit responses.

3.4 Work package 3: Semi-structured elite interview

Elite interviews focus on individuals who are "influential, prominent, and/or well-informed…in areas relevant to the research" and have specialist knowledge (Marshall and Rossman, 2011, p. 155). Using a semi-structured format not only supports interviews with a well-informed topic guide to elicit relevant information, but also allows flexibility where follow-up questions can be asked to probe information. By interviewing key policy elites using semi-structured interviews, I could gather rich information that is closely guarded and publicly inaccessible and explore invisible forces, e.g. political, ideological and economic contexts (Silverman, 2011), driving the implementation process to answer my research question.

Potential issues around elite interviews include access difficulty, interviewer-interviewee power imbalance, the effectiveness of (pseudo-)anonymity (see 3.6 Ethics) and deliberate misinformation (CUREC, 2020; Marshall and Rossman, 2011; Silverman, 2011). I pre-empted these issues by 1) familiarising myself with health policy case studies using elite interviews (e.g. Burke, 2013); 2) discussing these issues in my reflexivity diary and with my supervisor; and 3) consulting the 'Elite and Expert Interviewing' guidance by the University of Oxford (CUREC, 2020).

[22] The FOI materials were not included because they only arrived during the write-up process of this dissertation. However, I had read and gained insights from them which did inform my write-up, e.g. the timeline of events (see 4.1). I intend to formally include them in my analysis for future publications that arise from this work.

3.4.1 Elite interviewee recruitment

I wanted to interview key policy elites who were intimately involved in or had proximity to the policy implementation process; they could be deemed people with "privileged access" to knowledge (CUREC, 2020, p. 1). I approached interviewee recruitment using an iterative and mixed strategy of 1) purposive sampling: I identified key policy actors from my personal knowledge and documentary analysis. I also asked two stakeholders who were at the periphery of the implementation process for suggestions; and 2) snowballing sampling: At the end of each interview, should time allow, I would ask the interviewee to provide interviewee suggestions.

After identifying potential interviewees, I attempted to get in touch with them by email, which was not a straightforward task. Indeed, I had been aware that securing interviews with these people would be a challenging process (Burke, 2013; CUREC, 2020). Although the work email addresses of some elites were publicly available on the internet, in most cases, however, they were not. Therefore, I either contacted these elites on Twitter or LinkedIn to ask for their email addresses, or I made educated guesses about their email addresses based on the general email address formats used in their organisations.[23] I found these strategies to be extremely effective[24] - I secured most of my interviews through either of these routes. In one case, the email address of an elite was given to me by another interviewee.

I extended interview invitations to these elites by email, in which I included the Participation Information Leaflet (Appendix E) and Consent Form (Appendix F). If the elites did not reply, I sent at least one follow-up email. Although I largely received positive responses, numerous elites did not reply to my invitations and I received three invitation declines. I was informed by the office of one elite that they had a packed schedule and by the office of another elite that they were not intimately involved in the implementation process for CP, which I thought was peculiar due to their significant role in the NCVP. A stakeholder also commented that they would have had great involvement in the implementation process. Another elite told me that they could not express their personal opinions as they ought to remain neutral due to

[23] For instance, this is the typical email address format for staff in the DoH: FirstName_LastName@health.gov.ie.

[24] The process was also quite uncertain and, at times, anxiety-inducing.

their role, despite my assurance of confidentiality. In some cases where the elites had provisionally agreed to be interviewed but did not reply to my subsequent emails, I followed up with them several times. This was effective as I subsequently interviewed all but one of them. In this case, I had secured an interview with them through their office but it was cancelled on the day due to, as I was told by their office, an urgent meeting. I was asked to reschedule the meeting but, after two follow-up emails, I still have not heard from their office.

Table 7. Elite interviewee information.

Organisation	**Pseudonym**
Department of Health	DoH_1
Health Service Executive	HSE_1
Health Service Executive	HSE_2
High-Level Task Force for COVID-19 Vaccination	HLTF_1
Irish Institute of Pharmacy[25]	IIOP_1
Irish Medical Organisation[26]	IMO_1
Irish Pharmacy Union	IPU_1
Irish Pharmacy Union	IPU_2
Irish Pharmacy Union	IPU_3
Pharmaceutical Society of Ireland	PSI_1
Political Party	POL_1

My recruitment strategy, overall, was effective and successful. I interviewed eleven policy elites across most organisations involved in the policy implementation process; see Table 7.[27] Out of the elites, six were women (55%) and five were men (45%). Five elites were

[25] The Irish Institute of Pharmacy (IIOP) develops and implements a continual professional development system for pharmacists in Ireland.

[26] The Irish Medical Organisation (IMO) is a trade union for doctors in Ireland.

[27] Notably, there are at least three more policy elites who have expressed willingness to participate. Due to the time I had to complete this dissertation, however, I decided that I would pursue these after my dissertation submission. This would enrich the rigour of my analysis.

pharmacists (46%) and the other six were split equally between doctors (27%) and non-healthcare professionals (27%). All the elites were white.

3.4.2 Information power

Braun and Clarke (2022) espoused the concept 'information power'[28] developed by Malterud, Siersma and Guassora (2016) where the adequacy of a dataset to answer a research question should be justified along five research design dimensions: 1) Study aim: Focusing on a specific policy, this study has a narrow aim; 2) Sample specificity: The interviewees I spoke to were purposively selected due to their policy involvement; 3) Theory: This study is guided by the FSF (Howlett, 2019) and other concepts and theories as appropriate; 4) Data quality: I collected rich, dense and contextualised data from the interviews; and 5) Analysis strategy: This is a single in-depth case study. According to Malterud, Siersma and Guassora (2016), all five characteristics of my study suggested that a small number of interviews is sufficient. Thus, I believe my eleven interviews, coupled with stakeholder involvement and documentary analysis, have high information power to answer the research question.

3.4.3 Data collection

Informed by literature review and documentary analysis, I developed an interview topic guide (Appendix D) which I troubleshot using two pilot Zoom interviews with two stakeholders. The first elite interview that I conducted was also treated as a pilot interview.[29] The topic guide, which I iteratively improved during data collection, contained probing questions to prompt discussion. Where unexpected or interesting comments were made, I also probed the interviewees to elicit further information.

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[28] I did not use the highly contested concept 'data saturation' here (see Varpio et al., 2017) not least because it is incompatible with reflexive thematic analysis (the analysis approach I used - this will be elaborated later in this chapter), where knowledge is reflexively produced through interpretation in line with the researcher's positionings, i.e. the ways in which a dataset can be interpreted are infinite depending on temporal, socio-political and cultural factors (Braun and Clarke, 2022).

[29] This was mainly because the interviewee appeared to have been at the very periphery of the implementation process.

All interviews were conducted on Zoom and they ranged from 15 min to 2 h (1 h was the average). All but one interviewee consented for the interview to be recorded, transcribed and pseudonymised. In this case, I took notes during the interview and included them in data analysis. Furthermore, an interviewee with whom I communicated by phone and messages prior to the formal interview consented to me taking notes and including those data in my analysis. They also requested not to be extensively quoted. In another case where I was concerned about the effectiveness of pseudonymity due to their distinct position, I sent a copy of the interview transcript to the elite for editing as they saw fit.

Prior to the interviews, I had known that successful elite interviews, due to the (often) significant interviewer-interviewee power imbalance, are highly dependent on trust and rapport (CUREC, 2020; Marshall and Rossman, 2011). Thus, I conducted rigorous background research and preparation to 'prove my trustworthiness' to the interviewees. Furthermore, I approached the interviews with a flexible and open-ended line of questioning to allow the elites to talk more freely (Marshall and Rossman, 2011). Notably, I did not stop the elites when they started discussing other policy issues beyond the NCVP as the information could inform the wider policy dynamics at play. Indeed, researchers conducting elite interviews have to be "extremely flexible, allowing interviewees to lead the conversation, yet not losing sight of the information they are actually interested in" (Littig, 2009, p. 105).

Upon reflection, my approach was effective as most elites spoke very comfortably and casually about their perspectives, providing me with highly confidential information or contested opinions at times.[30] Furthermore, I think my 'insider' position as a pharmacist enabled me to easily secure interviews with some key pharmacy elites and bonding also occurred naturally, allowing me to tap further into their insights. Notably, numerous elites commended my project and interview skills and expressed their interest to be interviewed by me again or to collaborate on future projects.

[30] This also means that I have to be very cautious with how I report their data as the risk of harm to them would be higher if they are inadvertently identified by readers of my work despite pseudonymity.

> "That's [an] interesting [question], yeah, I mean, [sic] [you've] definitely [sic] done your research, obviously, Aaron. (Both laugh)." (HSE_2)

> "Aaron, [sic] if you ever want to talk to me again about any of this or whatever, I'd be very happy to, you know, talk again. (AK: Yeah. Thank you so much) Yeah, no, great to take the time now, that's been really interesting, as I said, for me so (laughs) thanks for the opportunity. (AK laughs)." (PSI_1)

Nevertheless, I encountered several challenges during the interview process. Powerful elite interviewees, especially when there is a significant interviewer-interviewee power imbalance, could attempt to control the interview (CUREC, 2020) insofar as they might skew their responses to preserve their reputation (Marshall and Rossman, 2011; Silverman, 2011). As far as I am aware, there was no attempt to (deliberately) provide misinformation but there were instances where the elites challenged or deflected my questions back to me or attempted to control the flow of the interview. I would have felt quite uncomfortable but I generally coped well by bringing my focus back to my mission as a researcher.

Moreover, since the policy implementation process occurred about a year and a half ago from the interviews, and at a time when decisions were made rapidly, there could have been issues with recall bias (Silverman, 2011). Some elites, at times, would qualify their comments with this concern. Interviewees could have also unintentionally reconstructed the policy implementation with hindsight (Silverman, 2011) or provided "repetition of familiar cultural tales" (Miller and Glassner, 2011, p. 132). This was outside of my control but I believe that this, to a large extent, was addressed by my successful access to a diverse pool of elites who provided me with rich, detailed, nuanced and contextualised insights. Furthermore, the time gap could have allowed interviewees to speak more honestly about their personal opinions (Burke, 2013). Where appropriate, I also used my documentary analysis to deepen and enrich my interpretation of the interviews.

Additionally, given the politicised nature of the case, many elites, in light of their ideological beliefs, had views that were highly polarised and contradictory to each other. To enrich rigour,

I asked the elites to provide thoughts on other contradictory comments made by other interviewees (without breaking confidentiality) as I saw fit.

3.4.4 Data analysis

I transcribed all interviews verbatim and I pseudonymised and imported the transcripts into NVivo for analysis. I explored the data using reflexive thematic analysis from a critical realist approach, which enabled me to systematically access and interpret patterns across a multitude of situated and contextualised realities. These patterns are represented by themes, which are each organised around a central organising concept, meaning or idea (Burke and Clarke, 2022).

Since the analytic power of reflexive thematic analysis is fuelled by theory and the researcher's qualitative sensibility,[31] I actively and reflexively engaged with how I performed data analysis.[32] Optimising the theoretical flexibility of reflexive thematic analysis (Burke and Clarke, 2022), my critical realist approach, as one would expect, fell somewhere in the middle of the theoretical spectra: 1) deductively through the FSF conceptual lens but also inductively where my interpretation, at times, was data-driven; 2) my analysis interrogated the experience of social reality (experiential orientation) by staying close to the sense-making of the interviewees and the constitution of social reality (critical orientation) by using concepts and theories where appropriate; and 3) I interpreted the data at both semantic (explicit) and latent (implicit) meaning levels. This is reflected in my write-up (Chapter 4) where I reported data extracts both illustratively (data as examples to support certain interpretations) and analytically (interpreting certain features of data) whilst situating them within the literature.

[31] Qualitative sensibility is the capability of a researcher to develop deep interpretation by connecting data with the wider literature, theory and societal contexts (Braun and Clarke, 2022).

[32] I recognised that it was important to exercise theoretical awareness and explicate my 'researcher's gaze' (Malterud, Siersma and Guassora, 2016) since all researchers are inescapably influenced by theories and beliefs, whether they are made explicit or not.

My analysis, which happened at the intersection of my locatedness, dataset quality and research question, followed the iterative six-phase reflexive thematic analysis approach developed by Braun and Clarke (2022). These phases often bleed into each other; see Table 8 for my analytic process and Appendix G for an audit trail example. I also used the 15-point checklist for good reflexive thematic analysis (Braun and Clarke, 2022, p. 269) as a guidance for rigour (Appendix H).

Table 8. How I approached the six-phase reflexive thematic analysis.

Phase	**How I approached each phase**
1. Familiarising yourself with the data	Braun and Clarke (2022) advocated for two seemingly contradictory practices that are supplemented by a complementary exercise in this phase; I will describe how I engaged with them below. Firstly, I fully immersed in and developed an intimate familiarity with the data by listening to and transcribing all interviews verbatim. I listened to each recording in full at least twice (sometimes more). This allowed me to gain 'closeness' with the data where I was able to see potential patterns across the dataset. In parallel, I actively distanced myself from the data, which allowed me to critically interpret how the elites made sense of their social realities and what values and assumptions did my interpretation rely on. I typically engaged in this practice when I disconnected (usually physically, that is when I was away from my desk) from my research and went about my daily life, e.g. when I was showering, having dinner or commuting. Throughout this process, I also made reflexive notes to record my analytic ideas, thoughts and reflections on the data. I sometimes wrote my notes in a messy and casual way on my phone or more 'formally' using the memo function on NVivo. As suggested by Braun

	and Clarke (2022), I also made familiarisation notes on each of the data items before I proceeded to write about the dataset as a whole. See Appendix I for an excerpt of my familiarisation notes for the interview dataset as a whole.
2. Coding	Coding is a systematic, rigorous, organic and evolving process where the researcher explores and demarcates meanings across the dataset by producing codes that capture certain analytic ideas associated with specific parts of the data (Braun and Clarke, 2022). In this phase, I systematically and rigorously coded each data item as a "consciously curious" researcher (Trainor and Bundon, 2020, p. 9). As discussed earlier, I approached analysis from a critical realist point of view so my analysis shifted between deductive and inductive, critical and experiential and semantic and latent approaches. As I gained more insights from the dataset and my analytical sensibility developed, I refined my codes by expanding, collapsing, renaming or even deleting some of them. At times, I also moved between data items to recode some of the segments of the data as my interpretation evolved. There were times when I felt uncertain about the 'correctness' of my coding but this was overcome by reassurance from Braun and Clarke (2022) that my coding is essentially interpretation powered by my analytical sensibility, rather than a process of truth discovery. I moved on to the next phase when I was confident that an adequate analytical depth had been achieved in my coding to answer the research question.
3. Generating initial themes	This phase involved compiling and clustering codes across all data items that might share core meanings or concepts to generate candidate themes that could be useful to answer the research question (Braun and Clarke, 2022). This process could be guided by

	the development of thematic maps as well as the judicious use of sub-themes to emphasise certain salient ideas within themes. Engaging in a highly recursive process, I construed, developed and at times deconstructed relationships between codes to generate initial themes that could be useful to address my research question. In this phase, I also iteratively built several thematic maps whilst writing up my analysis, both illustratively and analytically as I outlined earlier, to guide my analytic process. My writing was supported by vivid and compelling extracts from the data.
4. Developing and reviewing themes	This is the phase where candidate themes, and the codes therein, are assessed against the entire dataset to ensure rigour, quality and viability. Each theme must also have delineated boundaries and should not contain internal contradictions, although themes can contradict each other (Braun and Clarke, 2022). I continued to develop my themes by reviewing the codes I generated. At times, I went back to analyse segments of certain data items when I had new insights or new levels of interpretation. In this process, I found writing extremely beneficial in developing the rigour and richness of my analysis. In particular, my analytical sensibility was significantly enhanced when I started contextualising my themes in the wider literature. When I shifted between the empirical data and the wider literature, I also added, edited or removed codes from the themes as I saw fit to further improve my overall analysis. In this phase, I also reviewed and finalised the structure of my thematic map.
5. Refining, defining and naming themes	Themes are further refined and demarcated in this phase and they should be creatively and concisely named, e.g. drawing on brief data quotations, to catch the attention of the readers (Braun and Clarke, 2022).

	As I further fine-tuned my analysis by re-reading and editing my writing, I selected short data quotations that I deemed appropriate to name my themes, which are accompanied by explanatory sub-headings.
6. Writing up	Writing is integral to and interwoven with the whole process of analysis in reflexive thematic analysis (Braun and Clarke, 2022). Notably, reflexive thematic analysis is also never final since it relies primarily on situated interpretations by the researcher, i.e. the ways by which the data could be analysed are infinite. In this phase, the purpose is, therefore, to generate a coherent piece of writing to serve a particular academic or pragmatic purpose. During this process, the analytic output of the research continues to be refined. Indeed, I had done various forms of formal (e.g. writing up my analysis) and informal (e.g. making reflexive notes) writing throughout my analysis. I followed the writing guidance set out by Braun and Clarke (2022) for each section of the report, including introduction, methodology, analysis and conclusions. Notably, this was why I fully integrated my empirical data with the wider literature in Chapter 4 since analysis only becomes salient and compelling when it is located within the wider literature (Braun and Clarke, 2022). I also had a higher analytic text-to-data extract ratio as my writing is situated within the literature.

3.5 Work package 4: Crystallisation

Instead of the concept triangulation,[33] I approached the integration of multiple situated realities,[34] i.e. analyses from work package one to three as well as the literature, using the

[33] The concept 'triangulation' where multiple information sources are used to answer a research question is often infused with a strong (post-)positivist undertone where the ultimate goal is to converge data so as to elicit a singular truth (Varpio et al., 2017). This is incompatible with most qualitative research approaches.

[34] As I outlined earlier in this chapter, I approached my research through a critical realist lens.

metaphor crystallisation described by Tracy (2010) where the goal is to develop a more rigorous, complex, multi-dimensional "but still thoroughly partial" interpretation (Braun and Clarke, 2022, p. 278). My analysis will be presented in the next chapter.

3.6 Ethics

I had secured ethics clearance from the TCD Department of Sociology. For the interviews, I obtained informed consent from the interviewees. All interview recordings have been permanently deleted and the pseudonymised interview transcripts are stored in a TCD SharePoint folder (shared with my supervisor) protected by two-factor identification.

I also attended to the issues of representational ethics to ensure that my research would not harm my participants. Firstly, I took great care to ensure any contextual information that I revealed in my reporting would not inadvertently make the interviewees identifiable (CUREC, 2020). I acknowledged that data "interpretation is inevitably a political act" (Braun and Clarke, 2022, p. 124) because it "involves a process of transformation" (Willig, 2017, p. 282). Although I could feel the, at times palpable, interviewer-interviewee power differences during the interview process, the dynamic shifted when I started data analysis - I became the one holding a higher epistemic power, the one who would interpret the data from his social positionings within the power structures in the wider society and with his knowledge and capability (Braun and Clarke, 2022). Thus, I cautiously approached the data to ensure all interviewees would be appropriately represented. However, I recognised that, inevitably, not all interviewees would be satisfied with my analysis since my goal was to generate patterned meanings across the dataset, beyond a particular point of view, and to critically interpret and situate the data within the literature.

Chapter 4: Analysis

I will outline the timeline of events and then detail and situate my analysis within the wider literature.[35]

4.1 Timeline of events

In Table 9, I illustrated the timeline of events, across approximately seven months, that I constructed using my documentary sources. I used it to substantiate my thematic outputs that I will present next.

Table 9. A brief timeline of events.

Date	Source	Details
2020-11-19	HLTF	Establishment of High-Level Taskforce on COVID-19 Vaccination
2020-12-08	Government	Provisional vaccine allocation plan approved (iteratively amended over the next few months)
2020-12-15	DoH	Publication of the NCVP Strategy and Implementation Plan
2020-12-21	NIAC	Recommendations for COVID-19 vaccination roll-out including safety concerns about Pfizer/BioNTech vaccines
2020-12-24	Government	Regulatory amendment to allow pharmacists to administer Pfizer/BioNTech vaccines
2020-12-26	News	Arrival of the first batch of Pfizer/BioNTech vaccines
2021-01-04	Houses of the Oireachtas	Tánaiste Leo Varadkar said that CPs and GPs to vaccinate people over 70 years old
2021-01-13	Government	Regulatory amendment to allow pharmacists to administer Moderna vaccines

[35] As outlined before, my critical realist approach treats knowledge as always situated and contextualised. Thus, data only makes strong analytic sense when its connection to the wider literature is made, interpreted and explicated.

2021-01-20	Houses of the Oireachtas	Taoiseach Micheál Martin said that CPs and GPs were ready to distribute AstraZeneca and other vaccines
2021-01-21	PSI	Council delegated the task to approve COVID-19 vaccination training to Registrar, who would be assisted by an expert panel
2021-01-21	HSE	Vaccination fees for CPs were determined
2021-01-29	PSI	Training for Pfizer/BioNTech and Moderna vaccines approved only for experienced vaccinators in MVCs
2021-02	IPU	IPU was liaising with other stakeholders via a working group chaired by HSE and attended by other relevant stakeholders[36]
2021-02-01	NIAC	Recommendations for the use of AstraZeneca vaccines
2021-02-04	Government	Regulatory amendment to allow pharmacists to administer AstraZeneca vaccines
2021-02-04	Houses of the Oireachtas	Tánaiste Leo Varadkar said that CPs to start vaccinating, most likely using AstraZeneca vaccines, in February
2021-02-08	News	GPs started vaccinating people over 85 years old using Pfizer/BioNTech or Moderna vaccines
2021-02-11	Houses of the Oireachtas	Minister for Health Stephen Donnelly said that vaccine supply was the main factor constraining the pace of the NCVP and that if the GP network cannot cope with the volume, then other outlets like CPs would be considered
2021-03-03	PSI	Training for AstraZeneca vaccines approved for all settings
2021-03-03	PSI	Training for Pfizer/BioNTech and Moderna vaccines extended to vaccinators in MVCs

[36] The COVID-19 vaccination implementation group for CPs evolved from the HSE pharmacy contingency forum chaired by HSE which, as per NPHET's minutes on the 5th May 2020, was established around that time. I am not sure when the group started discussing matters in relation to the NCVP. I have a pending FOI request for their meeting minutes which, if granted, shall clarify this.

2021-03-11	Houses of the Oireachtas	Minister for Health Stephen Donnelly said that pharmacists were being vaccinated as front-line staff and CPs would vaccinate people beyond cohort four, e.g. 60 to 69 years old, due to lower complexity and lower risks
2021-03-14	NIAC	Recommendations for the temporary suspension of AstraZeneca vaccines due to safety concerns
2021-03-18	NIAC	Recommendations for the resumption of vaccination using AstraZeneca vaccines (criteria were iteratively amended thereafter)
2021-03-24	HSE	Operational arrangement and information technology (IT) connectivity with CPs was being developed
2021-03-30	HSE	Expression of interest forms for CPs interested in participating in the NCVP, likely using AstraZeneca vaccines
2021-03-31	Government	Regulatory amendment to allow pharmacists to administer Janssen vaccines
2021-04	IPU	Approximately 1,200 pharmacies submitted the expression of interest forms
2021-04-20	Houses of the Oireachtas	Damien McCallion, Director of COVID-19 Vaccination Programme, said that there had to be an agreement, operational framework and IT solution for CPs to join the NCVP and that considerations around vaccine supply and characteristics were important.
2021-04-26	NPHET	The PharmaVax IT solution to be piloted with 15 CPs in late April or early May
2021-04-29	NIAC	Recommendations for the use of Janssen vaccines
2021-05-06	Houses of the Oireachtas	Minister for Health Stephen Donnelly said that CPs were not yet required for the NCVP to meet the volumes of vaccination, and Janssen vaccines would be suitable for CPs due to lower complexity
2021-05-11	HSE	CP operation model for AstraZeneca and Janssen vaccines was completed with feedback from the PSI and IPU. The

		PharmaVax system had been built and tested and was being refined. The degree of involvement of CP would be based on NIAC recommendations on Janssen vaccines.
2021-05-25	PSI	Training for Janssen vaccines approved for all settings
2021-05-31	Houses of the Oireachtas	Minister for Health Stephen Donnelly announced the commencement of CP-based COVID-19 vaccination
2021-06-04	PSI	Training for Pfizer/BioNTech and Moderna vaccines extended to all settings
2021-06-14	News	CPs started vaccinating people over 50 years old using Janssen vaccines

4.2 A tripartite analytic output

My data analysis has generated three salient themes, two of which are each supported by two sub-themes to address the research question. Each theme is centred around a central organising concept. Figure 3 illustrates a thematic map depicting the relationships between all the themes and sub-themes.

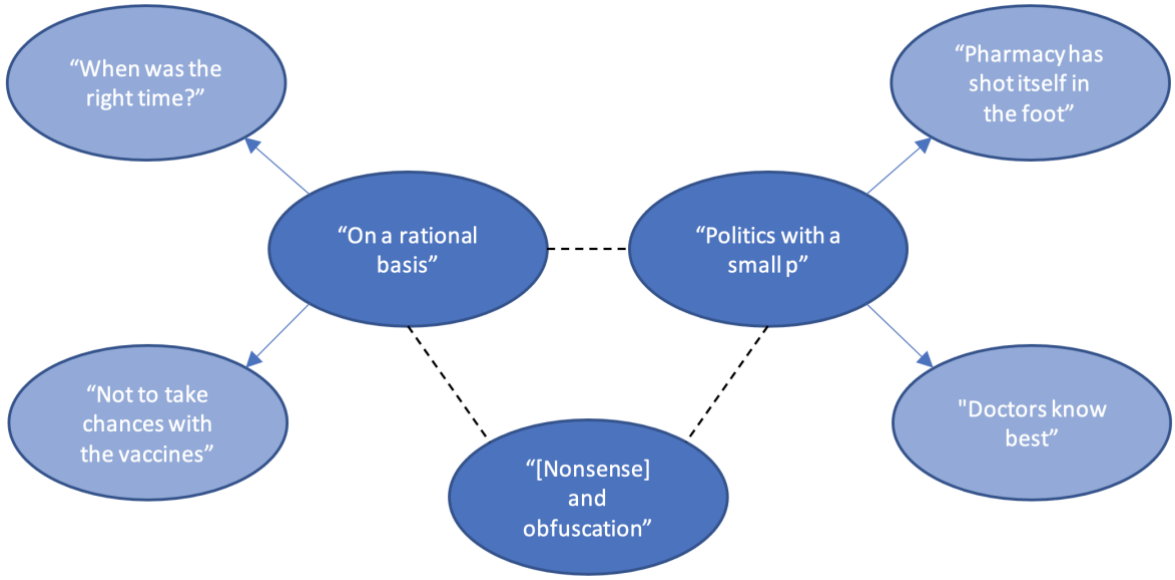

Figure 3. Thematic map.

4.2.1 "On a rational basis": Operational complexity hindered the role of CP

Delivering a vaccination programme is highly complex (Maidment et al., 2021), let alone an urgent vaccination programme of an enormous scale. There was an overall understanding that the NCVP had to be urgently rolled out to save lives when the health service was under significant resource and staffing pressure. Even though the NCVP "had to be stood up pretty quickly" (HSE_1), several elites highlighted that the potential value of CP to the NCVP was understood to be clearly acknowledged by the health system from the beginning: "[Their] role, expertise, relationships, knowledge and facilities…we involve[d] them because they could play a key role" (HSE_2). According to the NCVP Strategy (DoH, 2021a) and Implementation Plan (DoH, 2021b), the annual contribution of CPs to annual flu vaccination rendered the sector an important outlet to help the state to achieve the extremely large scale of vaccination required at speed. This aligns with the proposal in health policymaking that a clear definition of a policy problem would lead to a strong consensus on a policy solution (John, 2013), which, if supported by strong scientific evidence, could be adopted easier (Grindle and Thomas, 1991; Kingdon and Stano, 1984; Shiffman, Stanton and Salazar, 2007).

Without stratification, CPs, GPs and MVCs were all mentioned in the Implementation Plan as outlets to be used for COVID-19 vaccination in the Mass Ramp-up Phase of the NCVP (DoH, 2021b). However, a flexible and adaptable approach should be taken given the huge uncertainty and complexity involved in rolling out a national vaccination programme. There was a consensus amongst most elites that the NCVP imposed a multitude of operational barriers, particularly around efficiency and risk management, on CPs that rendered a huge amount of collaborative work by various stakeholders necessary to overcome them before it was feasible to include CPs in the NCVP. Table 9 shows that Minister for Health Stephen Donnelly (11th February 2021; 11th March 2021; 6th May 2021) and Damien McCallion (20th April 2021), Director of COVID-19 Vaccination Programme, mentioned that factors around operational workflow, IT, vaccine supply and complexity delayed the roll-out to CPs. Indeed, a policy implementation case study on primary health care in Ireland found that successful implementation could be hindered by resources and capability (Kelly, Garvey and Palcic, 2016).

> "I think the various channels were brought on board in sequence on a rational basis…there was no bias in any direction against one channel or another, it's just brought in on a rational basis, taking account of all the factors that need[ed] to be considered." (HLTF_1)

Although this might have led to a perceived neglect of or bias against CPs, some elites stated strongly that all practical decisions pertaining to the role of CP in the NCVP were made logically. Interestingly, Grindle and Thomas (1991) found that policy elites could be well-intended and are not necessarily captured by vested interests: "[T]hose formally charged with making authoritative decisions in government…have considerable scope to identify problems, articulate goals, define solutions and think strategically about their implementation" (p. 19). In particular, policy elites are usually given more autonomy to make decisions in times of crisis (Grindle and Thomas, 1991) and proposals by permanent civil servants can be more influential over political proposals (Kingdon and Stano, 1984).

Even though the incorporation of CPs into the NCVP happened later than desired, the programme "unfolded in the way [it] kind of needed to" (PSI_1) given the complex operational issues at play, which were tackled logically and rationally. In Feb 2021, the HSE stated that "a working group with senior clinical representatives from the HSE, the IPU and the PSI are engaged" in the development of guidance for CP-based COVID-19 vaccination (Bowers, 2021a). Several elites noted that the working group (also attended by DoH representatives) was an effective communication channel where all stakeholders met weekly to discuss and resolve operational barriers preventing the integration of CPs into the NCVP.[37] An elite highlighted that there was transparent communication with all CP representatives regarding the delay and "they knew exactly what was going on…they accepted that, because they knew [sic] we were trying our best." They also emphasised that the value that CPs could add to the NCVP was understood and the HSE wanted their involvement:

[37] I have submitted an FOI request for the meeting minutes of the working group and I am awaiting receipt of those documents.

> "It's fair to say that community pharmacy was only involved because they could play a role in the vaccination programme and we needed them, and if we didn't need them, we wouldn't have involved them because it was another whole [significant] trench of work…we didn't involve community pharmacy as a public relations exercise if you know what I mean, we involve them because they could play a key role and we knew they could." (HSE_2)

Overall, the delay could be interpreted as an outcome of the employment of an incremental strategy (Lindblom, 1959) by policy elites. Incremental strategies, where gradual changes are favoured, are commonly motivated by an intention to reduce complexity, uncertainty and conflict especially when there are limited resources (Grindle and Thomas, 1991; Lindblom, 1959). This is particularly true in the context of COVID-19 public health strategies where decisions are often made within bounded rationality due to limited information and resources (Altman, 2020; Bendor, 2010). This could explain why policy elites brought MCVs and GPs on stream earlier than CPs, which were perceived to have more operational uncertainty and complexity. This theme is supported by two sub-themes each exploring a different yet interconnected facet of operational complexity, i.e. efficiency and risk.

4.2.1.1 "When was the right time?": Efficient use of scarce resources

The supply of COVID-19 vaccines was scarce and uncertain in the early phase of the NCVP, rendering prudent management of the vaccine stock paramount: "[I]t was like gold dust, every drop was important" (HSE_1). See Table 3 for the number of vaccines available in Ireland up to 12th May 2021. This was a global phenomenon where similar issues were reported in the United States, United Kingdom, Switzerland and Taiwan where extensive operational planning was carried out to prevent vaccine wastage as much as possible (Andrade et al., 2021; Ezeude et al., 2021; Li et al., 2021; Lin, Lin and Lin, 2021; Paudyal et al., 2021b). Similarly, several elites highlighted that the supply scarcity imposed significant complexity in managing how the vaccines could be rapidly rolled out in the most efficient way to the prioritised cohorts.

As outlined in the NCVP Implementation Plan (DoH, 2021b), setting up MVCs around the country would be pivotal for a successful campaign. It was concurred by the elites that, indeed,

MVCs, which were recognised as hugely efficient outlets due to their potential vaccination capacities, received an immediate focus on resource and planning priority around infrastructure, logistics, cold chain management and staffing.

> "The health service was looking to, I suppose, maximise its breadth of access but they had to manage that with what was available in terms of stocks coming, in terms of management of locations, who were pulling off that stock and then also having to consider how they would man the HSE vaccination clinics as well…so I think there was an element of frustration amongst the…pharmacy representatives but I think it was reasonable to plan ahead and to do it in a structured way." (HSE_1)

This is similar to the case of vaccination centres in the United States, such as those in hospitals and community clinics, where significant multidisciplinary leadership and systems coordination around workforce, workflow, administrative procedures, safety, IT systems, infrastructure, training and storage were required (Andrade et al., 2021; Ezeude et al., 2021; Li et al., 2021). An elite further highlighted that it was also more cost-effective to run the MVCs at the highest possible capacity because "the overhead [was] fixed so from the state's perspective, it made sense to use the vaccine centres particularly when there's an initial lack of supply of stocks…rather than driving additional costs" (IPU_1) by using other outlets. Thus, from the perspective of capacity, efficiency and costs, it was more feasible to focus on MVCs. This aligns with the proposal of Kelly, Garvey and Palcic (2016) that policy implementation is inevitably constrained by resource scarcity.

> "I think that we just kind of took the opinion of 'okay, well, that's, you know, fair enough.'" (IPU_2)

Aside from resource considerations, the delayed involvement of CPs could also be attributed to a multitude of capability concerns (Kelly, Garvey and Palcic, 2016) where CPs, unlike GPs, were perceived to lack the appropriate structures and tools required to efficiently deliver the NCVP. When more vaccine supplies were made available, the COVID-19 vaccination service was rolled out in GPs in February 2021 but not in CPs. The NCVP operated on a targeted approach using cohort priority sequencing developed based on criteria like age and disease

status to ensure vaccination priority for people who were at significantly higher risks of virus exposure and/or severe symptoms or death upon exposure (DoH, 2021d). Since CPs did not routinely collect or had access to patient information like age and diagnoses through their IT systems, it was recognised that they were not able to efficiently identify eligible patients for vaccination, unlike GPs. Several elites mentioned that this was why GPs were given priority for community vaccination:

> "The reason that general practices got involved earlier, if I remember rightly, was they could identify and call in patients of certain categories where[as] community pharmacy [was] more [of] a kind of opportunistic setting for vaccination." (HSE_2)

> "Most clinicians don't have…a comprehensive health care file on patient[s] and therefore you can't really identify [them for vaccination]…[Clinicians] who can identify [them] are their GP[s]…[t]hat's usually the primary care service that knows most about most people, I would say…especially if they're in a vulnerable group. So that's [why] the GPs, are very, very involved in the roll-out of the [vaccination programme] for vulnerable group[s]." (IMO_1)

Similarly, the technical complexity required to leverage IT management systems in CPs, which were underdeveloped and "had no integration with the health system…other than for reimbursement records" (HSE_1), to connect with the COVAX system [38] to enable a comprehensive recording of and access to a person's COVID-19 vaccination history was considered a significant IT operational barrier. This was understood to be important for the accurate reimbursement of COVID-19 vaccination fees as well. On the other hand,

> "[t]he GP practice management systems were more developed in a way that allowed the leveraging of the…system[s] which already communicated with…the health system, and a different repository in the context of patient records and that could be

[38] COVAX is the COVID-19 vaccination information system used in Ireland.

> leveraged and locked onto COVAX…For the pharmacy system…there appeared to be no other option than build[ing] [an IT solution] from scratch." (HSE_1)

At the time, there were various urgent IT priorities and competing resources within the health system to manage COVID-19-induced e-health challenges. The IPU took on the lead in developing an IT solution called PharmaVax jointly with the HSE and the DoH to overcome the IT capability issues: "I think we proved ourselves to be dynamic" (IPU_1). The development and piloting of PharmaVax took a few months and was at a refinement stage on 11th May 2021 (Table 9). The COVID-19 has highlighted the importance of interconnected and interoperable IT systems that allows seamless information access, retrieval and upload in delivering healthcare services, particularly in the context of COVID-19 vaccination where reliable information tracking and recording is paramount (Maidment et al., 2021). The absence of such a system in the CP sector is evident in many European countries (Paudyal et al., 2021b; Turcu-Stiolica et al., 2021), including Ireland (Henman, 2020), and it is a recognised barrier hindering the role of CP in providing vaccination services (MacDougall et al., 2016). This IT operational barrier pertained to CPs (and, to a relatively smaller extent, also GPs in this case) also highlighted the lack of an overall integrated and dynamic e-health infrastructure in Ireland (DoH, 2013), which manifested in the context of the NCVP: "Ireland is torturously bad at IT integration" (IMO_1).

Furthermore, there were other operational considerations by the HSE around the capability and organisational structures of CPs to efficiently deliver the vaccines that required significant management, resolution and/or quality assurance on top of discharging their core function of medication dispensing; it was understood from the beginning that COVID-19 vaccination "wasn't for every pharmacy" (HSE_1). An elite (DOH_1) highlighted that CPs were not equipped with sufficient capacity and experience as GPs to provide vaccination services, and thus did not receive as much immediate attention as the latter. Issues around staffing, space and capacity to deliver COVID-19 vaccination were raised, taking into consideration the need to adhere to COVID-19 public health guidelines like social distancing in CPs. Indeed, a systematic review by Burson et al. (2016) found that organisational factors such as staffing, space and workflow management often prevent the participation of CPs in vaccination programmes. Similar logistical issues were found in the context of COVID-19 vaccination

where staffing, supply chain and storage were uncovered as challenges for CPs (Turcu-Stiolica et al. 2021) especially since CPs experienced a significant increase in workload and stress in maintaining their capacity to deliver essential services (Maidment, 2021). In some cases, the provision of COVID-19 vaccination could also impose financial risks on some CPs (Maidment et al., 2021; Turcu-Stiolica et al. 2021).

These issues were particularly important considerations in the roll-out of Pfizer/BioNTech vaccines (the first vaccine brand made available in Ireland) that were logistically complex to manage and administer: 1) they were multi-dose vials which had a short shelf-life upon thawing from ultra-cold storage and distributed for administration (initially 120 hours but was extended to approximately a month when the guidelines changed), rendering efficient scheduling of vaccinations pivotal to prevent wastage; and 2) they required post-vaccination observation periods in the vaccination facilities and thus sufficient space. Notably, even at the level of vaccination centres like hospitals, Pfizer/BioNTech vaccines caused significant logistical difficulties (Andrade et al., 2021; Ezeude et al., 2021; Li et al., 2021).

Thus, the operational risks associated with CPs were mitigated by a self-evaluation process where CPs interested in providing COVID-19 vaccination were to complete an 'expression of interest' form issued by the HSE on 30th March 2021, based on the likelihood that AstraZeneca vaccines would be used (HSE, 2021a). CPs were required to evaluate their space, capacity, cold storage, separation of duties and understanding of public health guidelines, and those that were deemed satisfactory by the HSE would be included in the NCVP. They had to return the form by 12th April 2021.

Overall, "step-wise" management took place in the NCVP where outlets that were considered more efficient, such as the MVCs and GPs, were given prioritised planning and resources to rapidly increase vaccination coverage and, due to the multitude of complex logistical efficiency and capability issues that required laborious management, "it just happened in that order" that CPs came on stream later than others (HSE_2).

> "The plan clearly said that pharmacy would play a part. It was, well, within all the competing priorities to keep moving forward, when was the right time?" (HSE_1)

4.2.1.2 "Not to take chances with the vaccines": Managing and minimising risks

Achieving a high COVID-19 vaccination coverage using novel vaccines with emerging population-level safety profiles at a time of public health urgency was understood as highly dependent on public trust by numerous elites. Public trust, especially in governmental authorities, is a determinant factor of COVID-19 vaccination uptake at a time when there were concerns raised globally about the safety of the vaccines and when there was widespread mis-/dis-information about the vaccines (Eyal, 2022; OECD, 2021c). Notwithstanding that the knowledge about COVID-19 has rapidly advanced over the past two years, research at an early stage indicated that a vaccination uptake of at least 67% could be required to achieve herd immunity (Randolph and Barreiro, 2020). Thus, although safety considerations could at times constrain the pace of the vaccine roll-out, a vigilant approach was understood by some elites as necessary to minimise the risk of (preventable) adverse incidents that could damage the credibility of the NCVP.

> "The HSE was very, very careful…if there were to be a bunch of adverse reaction[s], the damage that could do to the programme and the public confidence, so that all had to be handled very, very carefully and I can tell you, making those decisions, that's not for the faint hearted...Sometimes I'd be listening to some pharmacy people, Aaron, going on about 'Oh, you know, this is all delay[ed]' and you know, 'Why don't they decide?'. (Laughs) God, it's very easy to say that when you don't actually have to make the decision…it's difficult decision-making territory at the time and the government, and you know NPHET…all have to be satisfied about it…really, [sic] the whole thing was not to take chances with the vaccines even though we're looking at a global pandemic. It's difficult territory for risk evaluation…it always will be, with vaccines, you know what I mean? That has to be, doesn't it?" (PSI_1)

The accounts of several elites illuminated a precautionary approach to rolling out COVID-19 vaccines in CPs based on the intertwining considerations of 1) the emerging safety profiles of the novel vaccines; and 2) the (perceived) capability of CPs to mitigate and/or manage the associated risks. Therefore, the evaluation was rigorous "insofar as maybe would have contributed to a perceived delay" (PSI_1).

> "I suppose our knowledge of the vaccines kept changing and our knowledge of the disease kept changing so [the] guidance kept changing…and that did affect how you could distribute vaccines to whom and which vaccines should go where." (HSE_2)

This could be illustrated by considerations given to the Pfizer/BioNTech COVID-19 vaccines where, considering reports of anaphylactic reactions in other countries, it was recommended by NIAC on 21st Dec 2020 that the roll-out should initially happen in facilities with immediate access to medical support and that the vaccines were not suitable to be delivered in isolated facilities (RCPI, 2020). There were also concerns about whether some CPs had the capacity and space to effectively accommodate the observation periods post-vaccination (to monitor for anaphylactic reactions) whilst preventing congregations of people. The literature also indicated that, even in large vaccination centres with immediate emergency medical support, significant precautionary efforts were taken to ensure safety incidents, should they arise, would be managed efficiently (Ezeude et al., 2021). The AstraZeneca vaccines, which were initially deemed helpful for the expansion of community vaccination due to the less stringent cold storage requirements and ease of product preparation, also faced a temporary suspension of use and significant scrutiny following safety reports of thromboembolism[39] and thrombocytopenia[40] (see Table 9).

Thus, a sufficient demonstration of appropriate professional and operational capability (Kelly, Garvey and Palcic, 2016) to safely deliver COVID-19 vaccines was recognised as a pivotal justification for the CP sector to be leveraged as an outlet, particularly in the early phase of the NCVP. Some elites did not consider vaccination as a core competency of pharmacists (not all pharmacists are trained to provide vaccination by default[41] and not all CPs provide vaccination services) so appropriate quality assurance mechanisms were deemed crucial for CPs to deliver what was considered a new service and to ensure service quality, safety and

[39] Thromboembolism refers to the blockage of a blood vessel by a blood clot.

[40] Thrombocytopenia refers to a deficiency of platelets in the blood, resulting in slow blood clotting.

[41] Whether or not the current pharmacist training regime should start incorporating vaccination as a core competency training is a tangentially relevant topic. A few elites expressed that this should be considered since many CPs are now routinely providing vaccination services.

uniformity. This could be endorsed by the fact that pharmacists interested in providing vaccination services are required to complete various legal training requirements set out by the PSI in the Medicinal Products (Prescription and Control of Supply) Regulations and managed by the IIOP, including cardiopulmonary resuscitation (CPR) for Adults and Children, Responding to an Emergency Situation and Management of Anaphylaxis (RESMA), Medicines Administration (Parenteral) (PAMT), Delivery of a Vaccination Service training and specific modules for the authorised vaccines (influenza, herpes zoster, pneumococcal polysaccharide and COVID-19 vaccines), before they are legally authorised to do so (PSI, 2021b).

> "If you are looking to expand your scope of delivery of services, on behalf of the state, you have to be in a position to show and demonstrate the quality assurance around that…
>
> …I suppose the pharmacy representative groups would say we can deliver just well as a GP in primary care and they had shown [that] they could do that with flu [vaccination]. But I suppose, [sic] as part of their core competencies, GPs administer vaccines, not all pharmacists were trained or wished to provide [sic] vaccination services." (HSE_1)

Under the Pharmacy Act 2007, CPs in Ireland are regulated by the PSI, who inspects premises, issues guidance, assesses fitness-to-practice and ensures adherence to continuing professional development practices and the code of conduct (Henman, 2020; Lynch and Kodate, 2020). For the public interest, "the regulation of healthcare professionals is characterised as formal social control introduced for the common good" (Lynch and Kodate, 2020, p. 208). Interestingly, the scope of CP-based vaccination worldwide is either limited or hindered by legislative and regulatory frameworks even during the COVID-19 pandemic, leading to advocacy for speedy reform in several countries (Burson et al., 2016; Paudyal et al., 2021b). Although CP in Ireland has been authorised to administer a variety of vaccines since the commencement of CP-based flu vaccination in 2011 (Henman, 2020), under the current regulatory regime, individual statutory instruments to amend the Medicinal Products (Prescription and Control of Supply) were required to enable pharmacists to lawfully provide each of the COVID-19 vaccines on the basis that they have fulfilled the relevant training

requirements. Notably, each of the HSE training programmes designed by the HSE National Immunisation Office for healthcare professionals wishing to provide the vaccines had to be individually reviewed and approved by the PSI for appropriateness for CPs. This was extensively illustrated in documents detailing the approval process that I acquired from the PSI through an FOI request.

As discussed above, the vaccines were associated with significant safety considerations particularly at the beginning of the NCVP. Aside from the fact that there was perceivably no other way to circumvent the current regulatory mechanisms, a few elites deemed that it was appropriate for all of them to be properly enacted, albeit they might be perceived by pharmacists as time-consuming, cumbersome or that pharmacists were being overly scrutinised. Notably, citing some under-dosing errors that happened when CPs started delivering the flu vaccination service in 2011 due to incorrect instructions given during training (PSI, 2012), an elite (HSE_1) articulated the potential impact of that "memory" in the health system on the role of CP in the NCVP. Indeed, the incident review report indicated that robust regulatory, governance and training mechanisms must be in place for "any such expansion in the scope of practice of a healthcare professional" (PSI, 2012, p. 4). Therefore, this could also be interpreted as a potential manifestation of path dependency where structures and processes persist as they have adapted to particular arrangements in the past (Pierson, 1996; Wilsford, 1994).

Although the pharmacy regulatory regime in Ireland was perceived by some elites to have room for improvement to enable more flexibility, which aligns with previous research (Lynch and Kodate, 2020), it was understood to have been enacted by the PSI as efficiently as possible to remove any regulatory barriers preventing the participation of CP in the NCVP (see Table 10). Several amendments to the Medicinal Products (Prescription and Control of Supply) Regulations were swiftly made and approved by the Minister for Health to authorise pharmacists to administer the vaccines when they became available in Ireland. According to the PSI Council meeting minutes on 21st Jan 2021 (PSI, 2021c), recognising the need to expedite the approval process for training, the Council "approved the delegation to the Registrar of authority to approve training in the administration of COVID-19 vaccines, and administration of Epinephrine (adrenaline), under Regulation 4F, Medicinal Products

(Prescription and Control of Supply) Amendment (No.7) Regulations, 2020 (SI 698 of 2020)" (p. 5). An expert panel was also convened to assess the training and advise the Registrar on the approval. The Council also "approved the [HSE], as a training body authorised to issue Certificates of Completion for approved training courses, under Regulation 4B, Medicinal Products (Prescription and Control of Supply) Amendment (No. 2) Regulations 2015 (SI No. 449)" so that pharmacists could be qualified to administer COVID-19 vaccines by completing the approved HSE training courses (on top of other required training requirements) (PSI, 2021c, p. 5).

Table 10. Removing regulatory barriers to allow pharmacists to administer COVID-19 vaccines.

COVID-19 Vaccine Type	**First vaccine appearance in NIAC Recommendations**	**Statutory Instrument Amendments**	**HSE Training Approval by PSI**
Pfizer/BioNTech	17th December 2020	24th December 2020	29th January 2021 (only for experienced vaccinators in MVCs, which was widened out to other vaccinators on 3rd March 2021, and to CPs on 4th June 2021)
Moderna	1st February 2021	13th January 2021	29th January 2021 (only for experienced vaccinators in MVCs, which was widened out to other vaccinators on 3rd March 2021, and to CPs on 4th June 2021)
AstraZeneca	1st February 2021	4th February 2021	3rd March 2021[42]
Janssen	29th April 2021	31st March 2021	25th May 2021

[42] This is an approximate date based on documentary analysis.

According to Lynch and O'Leary (2021), the PSI demonstrated two key principles of 'better regulation', i.e. necessity and agility, during the COVID-19 pandemic by swiftly introducing numerous emergency changes to the regulation of pharmacy services to expand the professional capacity of pharmacies to discharge their duties (see Table 2). The PSI could be understood to have demonstrated the same in the context of the NCVP. However, in light of various regulatory constraints and risk management, the process of incorporating CPs into the NCVP could be understood as a form of institutional layering (Thelen, 2004) where change is gradual and evolutionary even though crises (e.g. the COVID-19 pandemic) could at times induce radical and transformational institutional shifts (Gerschewski, 2021).

> "The scheme we have is, you could say [sic] over-engineered, [sic] at the same time [sic] the scheme we have is a very, very safe scheme and it keeps pharmacists safe as well. So yeah, there's quite a debate about is there too much regulation there, is it too clunky and kind of slow-moving, [it's about] getting the balance between that and safety." (PSI_1)

4.2.2 "[Nonsense] and obfuscation": The delay was simply unjustifiable

Despite the clear potential of CP to be used as an effective and efficient outlet to maximise the vaccination rate, in early 2021, the IPU stated that pharmacists felt that they have been strung along with platitudes and that the IPU had "no information other than what is in the media and that needs to change" (IPU, 2021b). Although the working group chaired by the HSE was perceived to be a useful communication channel, when clarification about the reasons for the delay was sought from the Minister for Health, DoH and HSE, several elites were met with a perceived lack of transparency and the reasons, where given, were seen as unclear, disingenuous or even "[nonsense][43] and obfuscation" (IPU_3), leading to significant frustration.

[43] The original term used by the interviewee was "bullshit".

> "Sometimes [meeting with other stakeholders] was just dispiriting [sic], knowing we're just going to be [told nonsense][44] at for an hour here…it was almost a constant state of frustration." (IPU_3)

> "I've raised this a number of times with the Minister and the HSE…my question to the Minister was referred to the HSE and again, it was kind of vague." (POL_1)

There was a strong consensus that the ease of accessibility of and public trust in CPs rendered them useful and convenient to increase vaccination coverage. Thus, the decision not to enrol CPs into the NCVP earlier was perceived by several elites as "hard to understand" because "it seemed to be an obvious thing that you would use all possible outlets" from the beginning of the programme (POL_1). The NCVP highlighted that GPs and CPs should be engaged in delivering COVID-19 vaccination due to their flu vaccination track records (DoH, 2021a). This is similar to the UK where the structure of the COVID-19 vaccination was heavily based on previous influenza vaccination programmes (Maidment et al., 2021). Data shows that over 50% of the population in Ireland can access a pharmacy within one km and 85% within 5 km (IPU, 2022a). Research shows that 702,500 doses of flu vaccines were delivered by pharmacists in 2011/12, and that increased to 978,760 in 2017/2018 (Finnegan, 2018). Furthermore, 23% of those vaccinated in a pharmacy received the vaccine for the first time, with 83% of those in an at-risk category and all patients were satisfied or very satisfied with the service and would use it again (PSI, 2015). Furthermore, community pharmacists are currently the most trusted profession in Ireland (Ipsos, 2021) and 90% of the public would like them to provide more services (PSI, 2016a).

Internationally, there is also a wealth of evidence to support the fact that using community pharmacists could significantly improve vaccination coverage because its high accessibility, e.g. convenient location and 'off-clinic' opening hours, could help the public to overcome structural barriers in accessing vaccination, especially in rural areas and for underserved populations like ethnic minority people (Costa et al., 2021; Isenor et al., 2016; MacDougall et

[44] The original term used by the interviewee was "bullshitting".

al., 2016; Maidment et al., 2021; Pantasri, 2021; Piraux et al., 2022; Rose et al., 2022). Furthermore, since the public highly trust pharmacists and feel safe receiving care in CPs, pharmacists can help to encounter misinformation and vaccine hesitancy, especially in the context of COVID-19 (Maidment, et al., 2021; Wubishet et al., 2021). Additionally, a discrete event simulation model conducted by Schwerzmann et al. (2017) also forecasted that the time required to achieve an 80% pandemic influenza vaccination rate in the United States could be reduced by 7 weeks if CPs were involved in delivering the programme.

Although proposals that have received a consensus or are endorsed by evidence are more likely to be adopted and implemented (Grindle and Thomas, 1991; Kingdon and Stano, 1984; Shiffman, Stanton and Salazar, 2007), policy actors with strong power have more leverage to influence the policy process (Grindle and Thomas, 1991). Indeed, Kelly, Garvey and Palcic (2016) found that "successful implementation require[s] political support and empowerment for those charged with realising the policy objectives" (p. 917). Notably, the Minister for Health Stephen Donnelly (11th March 2021; 6th May 2021), Tánaiste Leo Varadkar (4th January 2021; 4th February 2021) and Taoiseach Micheál Martin (20th January 2021) repeatedly made promises that CPs would be leveraged as vaccination outlets as soon as possible (see Table 9). Nevertheless, the executive discretion lies on the HSE (Bowers, 2021b; DoH, 2021a) and a perceived policy and implementation gap between the DoH and HSE was suggested by an elite (IPU_3). It was understood that the inadaptability of the health system to recognise and appropriately leverage the potential of CP was met with distrust and feelings of disrespect by the IPU. Indeed, the under-recognition of CP despite mounting evidence to support the role of CP in vaccination is a persistent issue which could jeopardise the role advancement of the profession (Maidment, et al., 2021).

Furthermore, the "choice and access" (IPU_2) of the public to a life-saving healthcare intervention was also effectively denied by the health system without sufficient justification. Several elites pointed out that this was particularly evident later in the NCVP where there were many (older) people who lived in rural areas or far from MVCs or GPs, people who were vaccine-hesitant and people who preferred to be vaccinated by their pharmacists specifically chose to wait to access COVID-19 vaccination from their CPs despite having the opportunity

to be vaccinated at MVCs or by their GPs. The accessibility of CPs and the trust people have in pharmacists were highlighted as contributory factors to this phenomenon.

> "When pharmacies were vaccinating, it was surprising how many older people were turning up in the statistics [of vaccination] in pharmacies when the expectation would have been that they would have all been done earlier in the programme." (PSI_1)

This concurs with several evaluation studies in Switzerland, Germany, France, Poland and Taiwan which found that CP-based COVID-19 vaccination services are perceived positively by the public, including vulnerable populations, due to their high accessibility and that the public has high trust and confidence in the skills of community pharmacists to provide COVID-19 vaccination (Kowalczuk et al., 2022; Lin, Lin and Lin, 2021; Piraux et al., 2022; Rose et al., 2022; Stämpfli et al. 2021).

The IPU elites recognised that there were operational barriers that required resolution before CPs could be integrated into the NCVP and this aligns with the literature that organisational barriers often prevent the participation of pharmacists in vaccination (Pantasri, 2021; Paudyal, 2021b). Nevertheless, some barriers identified by the HSE were faced with scepticism and distrust and, at times, construed as invalid by the IPU elites because an inequitable tiering system based not on evidence was perceived to have been operated by the HSE. Questions were raised as to why concerns, such as those around capacity and cold storage management, posed to CPs in the early phase of the NCVP did not also apply to the GPs which started providing Pfizer/BioNTech vaccines on 8th February 2021 (Murray and Dywer, 2021). As noted by several elites, CPs in Ireland have a decade-long track record in effectively and safely delivering vaccination services, adaptability to cope with a higher workload imposed by COVID-19 whilst adhering to appropriate operational guidelines and capability to deal with temperature-sensitive medicinal products. Indeed, the adaptability and capability of CP to orientate their services to meet the demands imposed by COVID-19 is well-recognised internationally (Costa et al., 2021; Maidment et al., 2021; Pantasri, 2021; Paudyal, 2021b), and a call for a paradigm shift to expand the professional scope of CP, including providing COVID-19 vaccines, has been widely made.

Thus, the ad-hoc 'expression of interest' mechanism (HSE, 2021a) enacted by the HSE to assess the capability of CPs to deliver the COVID-19 vaccines was seen by the IPU elites as unfair and based on a perceived deficit in the capability of CP. Notably, 1,200 CPs[45] expressed their interest to participate in the NCVP (see Table 9). An IPU representative emphasised that "no [assessment] was done to find out if the equivalent was true for the other providers of that service" (IPU_2). Similarly, an initially proposed HSE operational model - which was unfavoured by the IPU representatives and was ultimately not implemented - to select a certain number of CPs based on criteria such as distances from MVCs to deliver Pfizer/BioNTech vaccines was also seen as an unfair tiering system that was not imposed on GPs.

> "So, proof of the matter is that, without any evidence, it was taken and a given that the service could be delivered by one set of healthcare professional[s], and it couldn't be delivered by the other." (IPU_2)

Although several elites recognised the IT barriers (see section 4.2.1.1) as problematic, which is generally true for CPs internationally (MacDougall et al., 2016; Maidment et al., 2021; Paudyal et al., 2021b), and that it is true that not all CPs routinely collect or have access to patient information like age or diagnoses that were used as stratifying criteria for vaccination priority sequencing, the perceived inability of CP to identify prioritised patient cohorts was seen as a "specious argument at best" (IPU_3) as there were alternatives. Firstly, questions were raised as to why the public was not allowed to a provide proof of eligibility, e.g. age, to access vaccination from CPs instead of CPs having to specifically identify eligible patients. Of note, information about age could be easily accessed via the HSE system for patients with community drug schemes (such as the General Medical Scheme, Drug Payment Scheme and Long-term Illness scheme) and schemes like Long-term Illness and High-tech Drug scheme could also indicate diagnoses and immunocompromised statuses. Furthermore, a proposed approach based on using the patient's medication history as a proxy for diagnoses was said to have been rejected by the HSE.

[45] There are approximately two thousand registered CPs in Ireland.

Additionally, the regulatory mechanisms governing the vaccination scope of pharmacists were perceived to have been unreasonably bureaucratic and "farcical" in practice (IPU_3), leading to the delay. For instance, the training programmes conceived by experts in the HSE National Immunisation Office had to be separately approved by the PSI, which was not necessarily the case for other professions like doctors and nurses. See Table 10 for the timeline of regulatory approval for pharmacists to vaccinate. This aligns with the analysis of Lynch and Kodate (2020) that community pharmacists often perceive the PSI as "demanding higher standards of service delivery and infrastructure than what is considered necessary or proportionate by CPs to safely and effectively deliver services to the patient" (p. 214).

Interestingly, the strategy enacted by the IPU to enable the involvement of CP in the NCVP could be interpreted as a dual strategy of cooperation and resistance. Although the IPU elites perceived that they were being "strung along" (IPU_1) by the authorities using reasons that were unreasonable at times, a cooperative strategy was adopted by the IPU to address all the operational issues, such as in the case of the IT issues:

> "An IT solution had to be built…[and] the IPU were really impressive in their, what I would call, commitment to enabling that pharmacy system to be built…members of their team put a lot of work into input, influencing, testing and, and therefore, it went live." (HSE_1)

Nonetheless, engagement with the authorities was still experienced, at times, as a difficult and disappointing process due to a persistent lack of urgency and clarity given to the role of CP in the NCVP; this can be illustrated in the case of the approval of operational guidance for CP:

> "We in the IPU drafted [an] operational guidance for [sic] community pharmacists to administer this programme and it was based very, very closely on the guidance that had been issued to GPs. We were told that we couldn't start vaccinating until that operational guidance had been approved by the HSE. I remember, we had drafted it in conjunction with the HSE National Immunisation Office and with their implementation people, and yet there was delay after delay after delay in formal

> approval of the operational guidance which didn't differ in any material aspect from the guidance [that has] already been implemented by GPs." (IPU_3)

Thus, media and political campaigning was resorted to by the IPU to apply external pressure on the health authorities to allow the public to access COVID-19 vaccination via CPs. In collaboration with MKC Communications, a three-phase campaign with the goal of "ensuring pharmacies commenced vaccinating as early as practicable, to vaccinate as many people as possible and securing participation in the [b]ooster vaccine campaign" reached 39 million people and resulted in "750,000 COVID vaccines being administered in Irish pharmacies" (MKC, 2022). During the months of delay, the IPU secured numerous interviews on both national and regional media outlets and the media also regularly pressed the health authorities to clarify when CPs will be allowed to commence vaccination (MKC, 2022). This overall attempt to leverage their political power through mobilising the media, politicians and policy stakeholders was seen as a key determining factor for the eventual involvement of CP in the NCVP by the IPU representatives.

> "Throughout that period, we took every opportunity to speak to the media, whether it was on the radio on [television] or in newspapers, as well as to speak to politicians about the importance and the value of getting pharmacists vaccinating, and the value to the public of making that happen, and I know that campaigning made the HSE quite uncomfortable because it led to politicians asking them questions constantly about why pharmacists aren't vaccinating and when [sic] pharmacists [will] be vaccinating. And I believe that, without all of that campaigning, the HSE [would] just have ignored us until it was all over and said: 'Well, in the end, we didn't need pharmacy and it was always the plan to leave pharmacy out unless we needed them.'" (IPU_3)

4.2.3 "Politics with a small p": Pharmacy without power to influence health policy

The issue of CPs not being effectively leveraged in the early phase of the NCVP could be interpreted as symptomatic of the chronic inability of the pharmacy profession to meaningfully influence health policy and politics (in comparison with other healthcare professions) with political, historical and economic dimensions. Decision-making around healthcare policy and service delivery is done insofar as based on comprehensive and

"objective" (DoH_1) assessments of evidence as to how best to optimise patient-centred healthcare. Nevertheless, policy actors and processes are inevitably impacted by influences from a multitude of stakeholders, lobbying and invested interests: "Medical politics, it's often said, put partisan politics in the shade" (POL_1). Similarly, Grindle and Thomas (1991) expressed that how policies are made could reflect the power of societal groups, not just the autonomy of decision-makers.

This is particularly evident in the Irish model of primary care where private contractors, including CPs and GPs, play a strong role. As highlighted by several interviewees, the viability of CP and GP services in primary care is strongly underpinned by sufficient service remuneration from the state. It is common for primary healthcare systems to be structured as two-tier systems supported by both public and private providers (Mossialos et al., 2016) and there is a global trend towards more privatisation due to neoliberal forces (Klein, 1995; Mercille, 2019; Tuohy, 1999). Indeed, "Irish health policy [development] in the early 2000s reflect policy developments that were taking place in other high[-]income countries in the 1990s where health polic[ies] introduced markets and competition into healthcare" (Burke, 2013, p. 243). As the only country in Europe that does not have a universal primary healthcare system (Connolly and Wren, 2016), Ireland relies strongly on private providers, such as CPs and GPs, who hold contracts with the state to supply services (Henman, 2020; Mercille, 2019). Notably, significantly more public expenditure has been traditionally invested in hospital healthcare instead of primary care (Houses of the Oireachtas, 2017) and the "need for large investments in the primary care infrastructure…is one of the most urgent needs in the entire Irish health care system" (Tussing and Wren, p. 156).

Thus, privatisation coupled with a lack of adequate funding support from the state has generated a model of primary service delivery that necessitates competitive contract negotiation for patient care and perversely facilitates (and appropriates) professional rivalries amongst CPs and GPs to protect the commercial viability of their establishments. This is, at times, also fuelled by financial interests to generate more profits (Bradley, 2009). Indeed, healthcare marketisation has generated "concepts of an internal market and separation between providers and purchasers and a controversial emphasis on the virtues of competition" (Walt and Gilson, 1994, pp. 357). This is evident in the case of primary healthcare in Ireland

where contract negotiations are “difficult and protracted as each side tries to gain advantages and…protects its members[’] interests against the activities of other professionals which they view as encroaching upon their domain” (Henman, 2020, p. 2). This is further deepened by a lack of integration (Darker, 2014) and mechanisms to facilitate interprofessional collaboration in Irish primary healthcare (Bradley, 2009; Henman, 2020).

> “It's a messy kind of world of politics with a small p between them all…it's a funny world, all right.” (PSI_1)

> “I think when decisions are being made, you need to have your voice heard, you need some [people] around the table stick up for [you]…professionals still have to fight for their space in decision-making, all professionals, (pauses) I would say.” (HSE_2)

The power of policy actors, which is influenced by authority, position, structures and access to money, resources and information, are core to any policy process (Buse, Mays and Walt, 2007). Several elites mentioned the lack of influencing power of CPs in comparison with GPs has contributed to a continued lack of policy and political attention around optimising the role of CPs. A lack of recognition of and vision for CPs at a central healthcare policy and strategy level was articulated by most elites and there is a strong consensus that the expertise, training and potential of pharmacists for the state has been severely under-appreciated across the health policy and service landscape. This phenomenon is echoed by both Irish (Bradley, 2009; Henman, 2020) and international (Maidment et al., 2021) literature where CP faces significant political and policy hurdles in advancing their professional role.

This concurs with a number of elites who mentioned that policies and strategies relevant to the expansion of the role of pharmacy, e.g. the Future Pharmacy Practice report by the PSI (PSI, 2016b), have failed to gain traction in the DoH and HSE. This also includes the lack of integration of CPs into the universal healthcare reform programme Sláintecare (Henman, 2020). For instance, funding cuts on dispensing fees over €50 million that would cost CPs approximately €12,000/year were proposed by the DoH in 2019. This was against Sláintecare’s goal to strengthen primary care but it was subsequently suspended upon campaigning by the IPU (Cullen, 2019; McConnell, 2019). This proposal came a few months

after Simon Harris, the Minister for Health at the time, promised increased pharmacy investment and said pharmacies can be the "shopfront of Sláintecare" (Quann, 2019). This is despite evidence suggesting that CPs could be leveraged to help tackle the GP workforce shortage crisis, which was exacerbated by COVID-19 (IMO, 2021), where over 2,000 new GPs are required over the next decade to cope with primary healthcare in Ireland (ICGP, 2022). Interestingly, it is worth noting that, recently, CPs are also facing a significant workforce shortage issue where more (community) pharmacists are leaving the profession or changing their practice to non-patient-facing roles due to concerns around the stagnation of pharmacy practice, over-bureaucratic pharmacy regulation and poor working conditions (IPU, 2019b, 2022e).

> "The state has to consider how [sic] it [can] efficiently, competently [deliver healthcare services] and look at the patient journey [sic] from how the patient wants services, and I think…the state could fruitfully spend more time standing back [sic] and really looking and trying to understand how they can maximise and leverage the training that pharmacy has…for the benefit of patients in a structured way for the benefit of the state." (HSE_1)

Thus, the issue of NCVP could be interpreted as an(other) manifestation of the chronic neglect of CPs in Irish primary healthcare, indicating the mechanics of path dependency where policy decisions are tied to previous policies and the established institutional structures (Walt and Gilson, 1994; Wilsford, 1994). Of note, the roll-out of COVID-19 vaccination in CPs is also often impeded by a lack of political support (Maidment et al., 2021; Paudyal et al., 2021b).

This theme is supported by two sub-themes each exploring a different facet of the complex power dynamics that shape the role of CP in the NCVP and primary healthcare more generally.

4.2.3.1 "Pharmacy has shot itself in the foot": The lack of strategic pharmacy leadership

> "Promises were made to us that weren't kept and we had no leverage to extract what had been promised to us." (IPU_3)

The quote, which pertains to the experience of the IPU representatives negotiating the role of CP in the NCVP (and the wider health policy contexts), sheds a light on the deficit in the power of the CP profession in healthcare policy and politics. Indeed, many promises were made by politicians, including the Minister for Health Stephen Donnelly (11th March 2021; 6th May 2021), Tánaiste Leo Varadkar (4th January 2021; 4th February 2021) and Taoiseach Micheál Martin (20th January 2021), that CPs would be swiftly used as vaccination outlets (see Table 9). Thus, this brings forth the need for a critical interrogation of how the (community) pharmacy profession has recursively shaped its role and positioning in the healthcare political landscape within the larger socioeconomic and political contexts: "Pharmacy has shot itself in the foot on a number of occasions" (IIOP_1).

Unlike other professions, there is currently no pharmacy representation at the senior management level in the DoH and HSE - there is no Chief Pharmacy Officer (and a supporting office) to lead pharmacy service development at either policy (DoH) or implementation (HSE) level. The DoH currently has a Chief Medical Officer, Chief Nursing Officer, Chief Dentistry Officer and Chief Veterinary Officer (IPU, 2022d) but the role of Chief Pharmacy Officer has been laid vacant since 2013 (Lynch, 2014). Without senior leadership, it stands to reason that there is an overall lack of understanding around the expertise of the CP profession of which the public could potentially avail and "there will never be the vision to properly integrate pharmacy services into the healthcare system" (IPU_3). Indeed, it was found that the advancement of the role of CP in the UK was largely facilitated by national strategic directions through national head offices, organisations and guidelines (Thomley, 2006). Similarly, the previous lack of dental leadership and lobbying in the DoH and HSE in Ireland was found to have resulted in "political disinterest" in oral health policies (McAuliffe, 2022, p. 8).

> "I think there's [an issue of] not realising…what they could offer, and not really knowing what they do, not knowing how to include them and [it's just] nobody's job, so it's in the too-hard box…It's all much higher [level]…well actually, there just needs to be a strategy." (IIOP_1)

Several elites perceived that this manifested strongly in the NCVP where the lack of such senior figures had led to CPs not being understood as valuable vaccination outlets despite the

evidenced accessibility of CPs and the high trust the public has in the profession. An elite mentioned that "[tasks relevant to pharmacy were] sitting on the shoulders of a very small number of people in the HSE" (PSI_1). Whereas there was a strong representation of the medical and nursing professions on the HLTF planning the roll-out of COVID-19 vaccination, there was no pharmacy stakeholder on the committee despite the significant role that CP would supposedly play in the NCVP (DoH, 2020d). Notably, Dr Nuala O'Connor, an Irish College of General Practitioners (ICGP)[46] representative, joined the HLTF on 4th January 2021 whereas the absence of pharmacy representation remained unresolved (DoH, 2021e). It was believed by several elites that the potential operational issues hindering the integration of CPs into the NCVP as identified by the HSE could have been resolved more efficiently, received more priority or circumvented with other viable proposals should there have been a more central and direct advocacy voice. This phenomenon is (implicitly) substantiated by: 1) the conscious efforts on the part of the HSE, through maintaining continued interactions with CP representatives during the implementation process, to ensure the CPs were not "in any way being bypassed or [felt like they were] second-class citizens" (HSE_2); and 2) the fact that the IPU had to resort to leveraging political and media attention to exert external pressure on the health authorities to recognise the benefits the public could gain from CPs as vaccination outlets.

Of note, an elite (IIOP_1) also articulated that an opportunity for pharmacy to be subsumed as part of the umbrella representation of Health and Social Care Professionals[47] in the HSE was said to have been met with opposition, particularly from hospital pharmacists, as the profession thought that there ought to be specific chief for pharmacy. Nonetheless, the profession has not been able to successfully self-organise to campaign for a chief position as desired, creating a persisting situation in the health service where there is a continued absence of pharmacy representation at the most senior level.

[46] The Irish College of General Practitioners (ICGP) is the professional body for general practice in Ireland.

[47] This would include, for instance, allied health professionals like physiotherapists, occupational therapists and speech and language therapists.

On the other hand, numerous non-pharmacist elites also expressed uncertainty and doubts about the value of having a senior management role for pharmacy in the health service and, indeed, the value of CP for the state in achieving the wider public health agenda: "[W]hat would the role of a Chief Pharmacy Officer in Ireland be?...it's not about divvying up the cake" (IMO_1). Similarly, in a parliamentary question put forward by Deputy Alan Dillon (Fine Gael Teachta Dála) to the Minister for Health Stephen Donnelly in July 2022 to clarify if there was any progress in the DoH to appoint a Chief Pharmacy Officer, the Minister replied that his "Department has professionally qualified pharmacists among its staff and does not have plans to appoint a Chief Pharmacist at the present time. The matter will be kept under review in the context of wider workforce planning considerations" (Houses of the Oireachtas, 2022a).

Bradley (2009) identified that a lack of strategic direction and central leadership for pharmacy in Ireland was in part caused by the lack of capability of the pharmacy profession to effectively communicate with policy stakeholders and other healthcare professions the benefits of pharmacy practice to the patients. Furthermore, Bradley (2009) and Traulsen and Almarsdóttir (2005) found that policymakers perceived that the increased competition and commercialism of CP has eroded its professionalism. Policymakers in Ireland also tend to characterise the relationship between CP and the health service as one of industrial nature due to its focus on commercial and contract issues (Bradley, 2009). This issue could be contextualised within the rise of neoliberalism that has driven the health sector to become more marketised. As discussed before (see 4.2.3), Irish primary healthcare is strongly dependent on private providers coupled with a persistent lack of financial investment in primary care by the state. Notably, the CP market in Ireland is highly liberal due to the revocation of the Health (Community Pharmacy Contract Agreement) Regulations originally introduced in 1996 (Purcell, 2004).[48] The CP sector in Ireland is one of the most deregulated

[48] The Regulations were enacted to restrict granting of new pharmacy contracts to applicants who could demonstrate definite public health needs. Although the purpose was to increase the accessibility and quality standards of CP services by preventing unduly over-competition between CPs, there were criticisms that over-competition and market failure were not evident in the CP sector (Fingleton, 1997; Gorecki, 2011) and the regulation was characterised by the Competition Authority (Purcell, 2004) and OECD (2001) as anti-competitive. Subsequently, a Pharmacy Review Group was established by Micheál Martin, Minister for Health and Children

and pro-competitive markets in Europe where there are no distance or population criteria applied to openings of new pharmacies (DoHC, 2003).

Thus, it could be argued that increased market competition and the proliferation of CPs (Vogler, Habimana and Arts, 2014), particularly due to the rise of (multi-national) pharmacy chains (KPMG, 2020), coupled with the various severe funding cuts to the CP sector (see 1.3 for details) created a significant financial pressure on CPs to maintain commercial viability. This echoes with what Henman (2020) articulated: "[T]he income of community pharmacy derives mainly from the medicines schemes and each government reduces that income, pharmacists have had to gain volume and increase turnover to ensure the commercial viability of their practices" (p. 6). Understandably, there has been strong advocacy and lobbying by the IPU, who represents the CP sector, to establish a new contract with the health service and reverse the FEMPI cut (Wall, 2018). This resonated with comments made by several elites that the focus of the campaigning by the CP profession has been largely around sustaining and increasing profitability. Nevertheless, this has been largely unsuccessful; campaigning to address the underfunding and under-utilisation of the CP sector continues to date (IPU, 2022c, 2022d). Additionally, Larkin et al. (2022) uncovered that there are large prescription drug price variations in CPs in Ireland and that the prices are generally higher than in many other countries.

Importantly, several elites perceived a lack of clear demarcation between the commercial and professional interests of CPs (and the IPU) as problematic and a barrier to the profession's advocacy. This aligns with the literature that CP can be neglected by policymakers, sometimes intentionally, due to its perceived strong commercial nature (Bradley, 2009; Traulsen and

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at the time, in November 2001 to examine the issue (DoHC, 2003). Nevertheless, the legal basis of the regulation was challenged by two legal cases brought forward by the McSweeney Group and Dame Street Pharmacy, resulting in the revocation of the Regulations by the Minister for Health and Children upon legal advice from the Attorney General's Office in February 2002, approximately two months after the formation of the Group (Purcell, 2004). Although the Pharmacy Review Group (DoHC, 2003) recommended specific controls of pharmacy ownership to be re-introduced and there were attempts by the Minister to re-enact the regulations with some compromises in 2002, neither was successful (Purcell, 2004).

Almarsdóttir, 2005). This was agreed upon by a political elite (POL_1). Importantly, healthcare professions commonly have a professional body that advocates on the behalf of patients and "holds the tension" (IIOP_1) between regulations set by their regulator and service remunerations advocated by their unions. Nevertheless, there is no organisation that advocates the role of pharmacy for the public good on a purely professional basis (Henman, 2008). The key representative body for CPs is the IPU, a trade association that advocates for both the advancement of pharmacy services in the patients' interests as well as for the commercial interests of CPs, e.g. contract negotiation (Bradley, 2009; Henman, 2020). Such a dual mode of representation was understood to have been confusing and weakened the leverage of the organisation by a few elites, which aligns with the literature (Traulsen and Almarsdóttir, 2005). The tensions within the IPU membership could also detract from its effectiveness since cohesion within a policy community is crucial in influencing policies (Shiffman, Stanton and Salazar, 2004; Shiffman and Smith, 2007); see this quote:

> "[I'm] not sure if [the IPU] know what they are really. The IPU seem to think that you can kind of be a trade union, and a professional body, and a supplier of training and someone who provides kind of commercial supports into pharmacies and (laughs) [that] you can do all of that and somehow you won't get confused…now, I've a lot of respect for people working for the IPU and I've seen them do good work…[but] they're riven with rivalries…[and] infighting and…it's awful…I am always amazed [at] the IPU that…it hasn't broken up into three or four different rivalled bodies, I think they recognised they are too small to do that so they have to stay together…because there's a big bad world out there. So, I think the IPU is very much kind of a marriage of convenience between different kinds of stakeholders in pharmacy." (PSI_1)

Thus, the straddling between professional and business imperatives by the IPU and the tensions within its membership was seen to have weakened the lobbying power of the IPU, structurally complicated and, in some instances, diminished the role of CP in primary care. For instance, the strong opposition of the IPU to be part of the primary care team structure as set out in the 2001 'Primary Care: A New Direction' strategy (DoH, 2001) was seen as "a bad mistake" (HSE_1) where the business imperatives of pharmacy were "completely and utterly complicating the clinical appropriateness of having pharmacists involved in primary

care teams" (IIOP_1). The opposition by the IPU was driven by the anti-competitive nature of primary care teams where some CPs would financially benefit from co-location with other healthcare premises (Bradley, 2009) and that GPs are likely to be the de facto leaders of the teams, resulting in a loss of professional autonomy (Henman, 2020). Subsequently, dentists, who also opposed the primary care team structure, and CPs were included in looser primary care networks but these were not implemented in practice (Henman, 2020). Thus, CP has not benefited from significant financial investments implemented by the government to support the development of primary care teams, including a €2.1 billion capital investment programme (Government of Ireland, 2007) and an elite articulated that the development of CP in primary care has also been subsequently hindered:

> "I'm not saying [that it] wasn't a logic judge, but it was a decision that parted the ways in terms of primary care. Would it have made a huge difference as we look back? It's hard to know, but all I would say to you is that they clearly took themselves away from…that triangle of patient care [between doctors, nurses and pharmacists]…then [sic] they [have] been challenged to get themselves back into the Department [sic] to be a structural piece of how [sic] the Department thinks about delivering healthcare. It still is a challenge." (HSE_1)

The challenges of balancing public health and commercial interests also appeared to have manifested in the context of the NCVP: "IPU executive [members] would have come under huge pressure from some of the members to get more money, move the thing along faster, get more vaccines into pharmacies." (PSI_1). The vaccination fees, upon consultation involving the DoH, HSE, IPU and Minister for Health, were set on 21st January 2021 (HSE, 2021b). The IPU elites strongly emphasised their lobbying in the early phase of the NCVP was in the interest of enabling the public to avail of life-saving vaccines from a highly accessible and trusted profession that had demonstrated a successful track record of vaccination services, yet was effectively hindered by the state to do so. There is evidence to suggest that pharmacy care, although happens in commercial environments, is generally not motivated by commercial interests (Kennedy and Moody, 2000). An IPU elite highlighted that the IPU "walked very carefully" and was satisfied that the actions of the IPU were "genuinely aligned

with the public interest" despite challenges with managing diverse interests within the membership:

> "Undoubtedly, there were some pharmacies that saw it as a revenue opportunity… it provides professional satisfaction for our staff and it also provides some badly needed revenue at a time when business is difficult. I can't deny that that's the case, no more than that is the case [for] GP[s]…
>
> …When you run a membership organisation…the wants and needs of all pharmacies are not the same at all times and…sometimes competing interests have to be balanced throughout the COVID pandemic, what we just took as our single guiding light is 'what's the right thing to do here?'" (IPU_3)

Overall, as the CP profession looks outwards and demands the health service to recognise and leverage its potential, there also needs to be a parallel interrogation of itself as an institution of entrenched historical, political and economic issues that lacks professional cohesion due to various competing interests, and the impact of that as a structural hindrance in terms of the profession's capability for effective self-organising and advocacy.

> "So I think pharmacy needs to step back and actually understand its role in creating the system that we now have because it's really difficult to work within a system when you've said, we don't want to be part of the Health and Social Care Professions, we don't want to be part of the primary care team, we don't necessarily want to, you know, be part of all that, but we do want to be involved, we want you to think of us, we want you to realise that we're important…so we've counted ourselves out of every single representation to the health system, and yet we complain." (IIOP_1)

4.2.3.2 "Doctors know best": The prominence and dominance of the medical profession

Evident in the accounts of several elites, the Irish healthcare system was perceived to have been institutionally orientated to advantage GPs in the delivery of primary care services. Interestingly, singling out the medical profession, Tuohy (1999) articulated that "few areas are as strongly marked by the influence of professional actors and collegial instruments as in

healthcare" (p. 267). Several elites described the strong representation of the medical profession at senior clinical and management levels in the DoH and HSE, which was understood to be necessary and/or reasonable due to their extensive clinical expertise on which the health system and the public rely for healthcare delivery; "doctors know best" (POL_1). Thus, this could be interpreted as a relational reward of social authority, trust and deference on the basis of a social contract, for which the medical profession has demonstrated to be meritorious (Cruess, 2006).

> "It's about what's the need…why are medical people involved in these role[s]? Because it takes 20 years to train to do these jobs…so they would be…looking at the needs of public, trying to provide those services to fit [them]." (IMO_1)

> "[GPs have] put in the work and the effort and built up their offering, they've recognised the value of their professional [value] and getting that up on its own two feet and [sic] everything that flows from that." (PSI_1)

Nonetheless, this was perceived to have generated an institutional bias that prioritises the medical profession in health service delivery. In the context of primary care, several elites articulated the current orientation for health policy actors and the healthcare system to recognise and prioritise the professional capability of GPs, sometimes to the neglect of other professionals that are equipped with the training and competency that could be equally utilised or leveraged: "[T]he health service tends to go first to GPs…not necessarily just about vaccination." (HSE_1). An elite expressed that the inclusion of CP early in the NCVP would have been:

> "patently the obvious thing to do, but very often, we don't do the obvious things and that can be a kind of institutional mindset [sic] [such as] within the HSE [sic] [who was] leading out on [the Programme] and [sic] involving the doctors [from the beginning]…a lot of the influence would have been from doctors [sic] [such as those from] NIAC…that was determining the shape of the Programme and it's, (pauses) it's a mindset and that's kind of [a] traditional view [sic] that's taken and they don't see

other [sic] players or service providers as being relevant, there's an element of [sic] groupthink, I suppose." (POL_1)

Furthermore, the GP profession, in light of their strong representative bodies and medical representation at senior leadership levels in the health system, was also perceived to have proximity to senior decision-makers in the health system and thus a strong political leverage to advocate and lobby for both professional and profit motives. A political elite expressed that the IPU "certainly don't have the kind of access, influence or voice doctors' unions have" (POL_1). Although Tuohy (1999) emphasised the impact of the medical profession on health policy processes, Immergut (1990) found that the medical profession has not been as influential as generally perceived and where it has an impact, "this has been caused by opportunities presented by particular political systems" (p. 413). Interestingly, Grindle and Thomas (1991) and Walt et al. (2008) uncovered that, in small and often post-colonial countries, vested interests such as doctors and health professionals usually have easier access to senior policy decision-makers, leading to a covert nature of policy processes. Thus, this could perhaps, in part, explain the access of the medical and GP profession to policy elites and their influence on health service delivery in Ireland.

As articulated by several elites, this manifested in the context of the roll-out of flu vaccination in CPs in 2011 during which both explicit opposition by the GP profession and internal resistance by senior figures within the health system was evident. The Minister for Health at the time was Dr James Reilly from Fine Gael (Houses of the Oireachtas, 2022b), a previous president of the IMO and GP, and this was understood to have helped to consolidate the influence of GP's interests within the health system at that time. Of note, the two main centre-right political parties in Ireland, i.e. Fine Gael and Fianna Fáil, have been closely aligned with vested interests in the health sector (Burke, 2009; Devitt, 2021; Wren, 2003).

"When pharmacists started vaccinating against flu in 2011, the reaction from the GP organisations at that time was vitriolic, their fury was a sight to behold. There were [GP] delegations from [sic] the IMO arrived out to the PSI offices…and [said that] people would die in pharmacies because pharmacists aren't capable of vaccinating,

> and GPs will not be assisting and will not be taking responsibility for anything that happens as a result of this reckless behaviour." (IPU_3)

> "[It was] quite a battle [for flu vaccination in community pharmacy to get support] both from senior people within the Department and from the Minister for Health [Dr James Reilly] himself…There would have been very much of [a] view…that you couldn't take this business away from GPs." (POL_1)

GPs could resist the role expansion of CPs as they might see it as an encroachment upon their territory that would also take profits away from them (Bradley, 2009; Henman, 2020). In an article published in 2015, the IMO opposed pharmacy-led vaccination programmes, or indeed expanded clinical roles that "are more properly undertaken by doctors" (IMO, 2015). Dr Ray Walley, the President of the IMO at the time, stated strongly that CPs are commercial enterprises, and that the Government should "resource GP services properly[,] not substitute them with inappropriate alternatives like pharmacists" for economic reasons" (IMO, 2015). Wally also criticised the move to allow pharmacists to administer flu vaccines in 2011. Similar tone could also be found in the view of the IMO that the focus of Sláintecare "should be on expanding capacity in general practice instead of allocating GP tasks to allied healthcare professionals" (Houses of the Oireachtas, 2017, p. 159). Additionally, the vested interests of the medical profession could be illustrated by their vocal opposition to free GP care (Devitt, 2022) and the alignment of doctors with the Catholic Church to obstruct attempts to provide universal healthcare (Immergut, 1992; Immergut et al., 2021).

Interestingly, two elites (IMO_1 and POL_1) directly pointed at the privatised model of primary care as the potential source of professional territorialism to protect income streams.

> "I think this whole business of where GPs are expected to…take the risk to provide a public service…as pharmacy does too…they have to put all their money into it and then they get cutback for many, many years. So another thing is also the way they're treated…I think that to be general practice in Ireland [pauses], it's awful and there are many doctors in Ireland who wouldn't do [GP] in Ireland…they lost huge amounts of resources, since 2010 or whatever…it's also like what are GPs, who are they, what are

> the pressures in their lives and taking that into account…I think a lot of general practitioners would have been struggling to keep their services open. And, yet it's a public service, so the whole model is all a bit dodgy too [sic]. So like, maybe I'd say the same about pharmacy but I think the only future is collaborative working, not competitive working. Competition is stealing money out of the system, you know what I mean, that's not the right way to go." (IMO_1)

Speculations as to whether this applied to the case of NCVP were made by some elites and, notably, some anecdotal evidence regarding deliberate obstructions by senior figures in the health system to delay and minimise the involvement of CP was provided by an elite (IPU_3). This was understood to have been a result of covert lobbying by some GPs with strong political connections and leverage to ensure that GPs would be able to deliver as many vaccines as possible. This was perceived to have aligned with what subsequently transpired: when CP was allowed to start vaccinating the public in June 2021, the scope was limited to the single-dose Janssen vaccines for people over 50 years old, almost all of whom had already been given the opportunity to be vaccinated at MVCs or by their GPs. Whilst emphasising their strong support for the involvement of CP in the NCVP, some IPU elites perceived this assigned role to be inadequate, inappropriate, illogical and disappointing given the significant preparatory work, time and resources that had been asked of and met by the IPU and CPs. The elite who provided this account also perceived that the eventual involvement of CP was because of the political pressure applied by the IPU through their campaigning.

Of note, it was said that the lobbying took place mainly by phone calls and thus was not traceable by FOI. Although this conjecture remains to be substantiated, it is interesting to note that the introduction of the FOI Act in 1997 was supposed to increase information accessibility and accountability but, in her research on health policymaking in Ireland, Burke (2013) found that "a practice of not writing things down" is now a commonly employed in the public sector to avoid traceability (p. 39). Kingdon and Stano (1984) also noted that actors who are invisible could be very influential in controlling the policy process, which aligns with the view of Lukes (2005) that "power is at its most effective when least observable" (p. 1).

Chapter 5: Conclusions

I will outline my key research contributions, implications, strengths and limitations. I will then provide some suggestions regarding the future directions of my work.

5.1 Key contributions and implications

As I outlined at the beginning of my dissertation, I aimed to answer this research question:

How was the process of implementing the role of CP in the National COVID-19 Vaccination Programme delayed?

To achieve this, I developed a piece of novel, interdisciplinary and rigorous scholarly work that draws on stakeholder involvement, documentary analysis and semi-structured interviews. My analysis of the implementation process from 15th Dec 2020 and 14th June 2021, which is theoretically informed and situated in the health policy and pharmacy literature, generated three multi-faceted and reciprocal themes that are contradictory yet complementary, each shedding light on various situated realities that, when taken together, could elucidate a complex and vivid picture.

Overall, the implementation process of the role of CP in the NCVP was shaped by complex and interwoven interactions between a multitude of socio-political, historical, economic, technical and operational factors and influenced by policy actors with various power and capacities. Through the first theme “On a rational basis”, which is supported by two sub-themes “When was the right time?” and “Not to take chances with the vaccine”, I articulated that the technical complexity in rolling out scarce COVID-19 vaccines at a national scale in an urgent, efficient and safe manner imposed a variety of operational, organisational and regulatory barriers that required significant remedy and management before CP could be brought on stream so the delay, albeit undesirable, was inevitable. This line of narrative is directly counteracted by my second theme “[Nonsense] and obfuscation” where the delay was interpreted as illogical and unjustifiable because a perceived deficit had been structurally imposed on the profession despite the evidenced operational capability and accessibility of

CP, ultimately preventing the public from receiving life-saving vaccines through highly accessible community-based outlets.

These competing perspectives could be interpreted as happening against a socio-political and historical backdrop, i.e. the third theme “Politics with a small p”, in which I illustrated the chronic lack of power of CP to enable health policies to recognise their professional potential in a highly marketised and underfunded primary healthcare landscape, shaped by contract negotiations, professional territorialism and business imperatives. Using two sub-themes, i.e. “Pharmacy has shot itself in the foot” and “Doctor knows best”, I articulated this as an outcome of a lack of strategic leadership and cohesion within the CP profession, their perceived unclear commercial and professional boundaries as well as the strong dominance of the medical profession in the health system and their accessibility to political leverage to influence health policy.

Notably, my critical realist approach does not purport to be able to elicit a single ‘truth’ - my themes elucidated different situated perspectives regarding the delay that are equally salient. However, drawing the themes together, I could argue that the themes, no matter how contradictory, are, in fact, driven by a common phenomenon - a health system with a chronic lack of clear and strategic direction for pharmacy. The operational issues that supposedly delayed the role of CP in the NCVP shed light on the structural unpreparedness and deficit of the system to leverage the pharmacy profession to optimise healthcare. Simultaneously, the delay could be interpreted as a systemic failure of the health system to optimise the professional capability of the profession and, thus, it failed to provide accessible healthcare to the public. Why the health system is the way it is can only be answered by untangling the complex and recursive relations between various policy actors, institutions and socio-political contexts. My interpretation is that the health system, continuedly shaped by a lack of cohesive and strategic leadership within the pharmacy profession, (perceived) vested interests and the political dominance of the medical profession, has been driven by path dependency to perpetuate a lack of appreciation of the pharmacy profession. The case of the NCVP is but another manifestation of this phenomenon.

My research has strong implications for (global) public health, pandemic preparedness and pharmacy policies in Ireland. Notably, at the time of writing, there are epidemic outbreaks of monkeypox around the world and scarce vaccines have been slowly rolled out to high-risk communities (Holloway, 2022; León-Figueroa et al., 2022). Future viral epidemics and pandemics are inevitable (Morse et al., 2012; Telenti et al., 2021) so responses to COVID-19 must be retrospectively interrogated to enhance pandemic preparedness (Haldane et al., 2021; Peeri et al., 2020). Thus, my analysis can support the health system and the CP profession, in both Ireland and other countries where similar issues are evident (Paudyal et al., 2021b), to "partner, coordinate, develop, and strengthen" public health responses and vaccination programmes to "save lives and livelihoods" (Haldane et al., 2021; p. 1).

My recommendations include that: 1) the contributions of CP to the COVID-19 pandemic be systematically evidenced; 2) an evidence-based pandemic preparedness plan outlining the societal and health benefits pharmacy can contribute be reported; 3) the legislative regulatory framework governing the scope of (vaccination) practice of pharmacists be reviewed to enhance agility, especially at times of public health emergencies; 4) the IT connectivity between CPs and the health system be further integrated; 5) a pharmacy professional leadership structure and strategy review be conducted; 6) communications between the pharmacy profession and the DoH and HSE be strengthened;[49] and 7) the policy landscape of pharmacy be further studied (see 5.3).

5.2 Strengths and limitations

With great care and reflexivity, I designed my empirical enquiry to be theoretically and methodologically coherent and reflexive (Braun and Clarke, 2022; Levitt et al., 2017). Responding to the call for policy researchers to interrogate how their power and social positions shape their policy analysis (Walt et al., 2008), I espoused that data interpretation is inherently political (Braun and Clarke, 2022) and reflexively interrogated my locatedness within the knowledge production process. Grounded in the Big Q paradigm and critical realism,

[49] As far as I understand, the HSE contingency planning forum for CPs, which later became the HSE COVID-19 vaccination implementation group for CP, has been dissolved. An elite commented that this communication mechanism could be optimised to discuss wider issues around the policy and practice of pharmacy.

I acknowledged that my data, rather than giving me direct access to reality, were essentially situated, mediated and contextualised perspectives which could only be analysed through my own interpretative lens. My active and engaged reflexivity is demonstrated throughout this dissertation.[50]

Furthermore, I addressed my research question in a systematic and integrative fashion by using a multi-method case study design. Following state-of-the-art research guidance, I believe my rigorous use of a theoretically informed and coherent methodology using stakeholder involvement, documentary analysis (directed qualitative content analysis) and semi-structured elite interviews (reflexive thematic analysis) has generated a complex, nuanced and contextualised analysis - a multi-dimensional crystallite (Tracy, 2010) - that captured the messy, technical and politicised nature of the policy implementation process driving the role of CP in the NCVP, the contour of which was shaped by a multitude of policy actors with various agenda and vested interests.

My work is effectively a single case study on a specific policy implementation process whilst cross-case studies (which would not have been feasible given the time limit I had for this dissertation) have been called for in health policy research to enable the development of cross-case insights and interpretation. However, I will not evoke the apologies commonly made by qualitative researchers that their work is not 'generalisable'. [51] Instead, demonstrating a high sensitivity to context (Yardley, 2015), I extensively located my analysis not only within the frame of my theoretical and methodological design, but also within the literature, to enable transferability, i.e. allowing "the reader to make a judgement about whether, and to what extent, they can safely transfer the analysis to their own context of

[50] This is especially evident in Prelude and Chapter 3.

[51] The dominant presumption that research must be (statistically) generalisable to the wider context is deeply embedded in the (post)-positivist paradigm, which is incompatible with the Big Q paradigm in which I situated my research - the knowledge I produced is highly nuanced and contextually located. Aptly put by Braun and Clarke (2022), can you imagine "a report of a quantitative questionnaire that bemoaned its inability to capture the multi-faceted and contextually located texture of people's everyday lives, or the nuance of language use around the topic if interest? The strangeness of these inversions hopefully demonstrates why qualitative research apologising for lack of statistical generalisability is problematic" (p. 143).

setting" (Braun and Clarke, 2022, p. 143). For instance, I believe my analytical outputs provide a solid foundation upon which other research exploring how policy processes shape the role of CP (in Ireland) can be built. I will elaborate on this in the next section.

5.3 Future directions

I intend to further progress this work: 1) I will further stakeholder involvement by inviting the panel to participate in data interpretation and research dissemination. The impact of stakeholder involvement will be captured using the GRIPP2 checklist (Staniszewska et al., 2017); 2) I have pending FOI requests for internal documents which I hope to include in my documentary analysis; and 3) A few more policy elites have expressed their interest to be interviewed, which I will pursue to further enrich my analysis. Upon completion, I will strategically diversify my research impact by pursuing academic publications as well as disseminating a policy brief to relevant stakeholders in health and pharmaceutical policy.

There are opportunities to extend my analysis. A bottom-up policy research approach to explore the perceptions of the 'street-level bureaucrats' (Lipsky, 1980), i.e. CP staff, on the delay, could generate another layer of insights.[52] Evaluating the perceptions of the public on the delay and the quality of CP-based COVID-19 vaccination services could also provide evidence to inform future (pandemic) vaccination programmes. [53] To gain a more comprehensive understanding, it would be fruitful to understand how CP was situated in the 'front-end' of the policy process regarding the NCVP, e.g. agenda-setting and policy formulation, as outlined in the FSF (Howlett, 2019). It would be useful to extend the policy implementation process to examine why CPs were asked to provide Janssen vaccines for people aged 18 to 34 years old in early July with a three-day notice (DoH, 2021f).[54] Notably, despite the significant contributions of CP to the NCVP upon deployment, rising COVID-19 infection rates and the impending flu season, CPs were initially excluded from COVID-19

[52] For instance, see Lynch and Kodate (2020) and O'Brien et al. (2020).

[53] For instance, see Kowalczuk et al. (2022), Piraux et al. (2022), Rose et al. (2022) and Stämpfli et al. (2021).

[54] An interviewee suggested that it was a political act enacted by the Minister for Health for good publicity.

booster campaign (IPU, 2021c) and were only enlisted by the HSE upon lobbying in late 2021 (Cullen, 2021). Thus, how and why history repeats itself should be explored.[55]

Notwithstanding that research is inherently comparative vis-à-vis the existing literature, a comparative case study design "can de-[centre] what is taken for granted in a particular time or place and…learn that something was not always so, or that it is different elsewhere, or for other people" (Bloemraad, 2013, p. 29). Indeed, more cross-country and cross-case analysis have been called for in health policy research to generate richer insights with wider applicability (Reich, 1995; Sheikh et al., 2011). Comparative case study design involves careful case selection, i.e. similar, different or theoretically interesting cases, and analytic comparison across macro-, meso- and micro-structural levels. Thus, it would be fruitful to compare my case with countries where CP also faced similar delays (Paudyal et al., 2021b) or was engaged swiftly to explore how "structures, cultures, processes, norms and institutions affect outcomes" (Bloemraad, 2013, p. 28). For instance, the United Kingdom would be an interesting case for comparison since the pharmacy profession has a clearer demarcation between professional and trade organisations (Bradley, 2009), engages in more expanded clinical practice (PSI, 2016b) and was engaged swiftly in COVID-19 vaccination since January 2021 (Wickware, 2021).

Lastly, there are many outstanding questions concerning health and pharmaceutical policy dynamics shaping the role of pharmacy and, by extension, population health in Ireland. Why was there no clear articulation of the role of pharmacy in Sláintecare 2017 report?[56] Why did the Future in Pharmacy Practice 2016 report fail to gain significant policy traction? How have neoliberalism and funding cuts transformed the landscape of CP and GP in Ireland? How could the tensions between professional and commercial interests be resolved? What is the impact of the absence of Chief Pharmacy Officers in the DoH and HSE on health and pharmaceutical

[55] I had envisioned that I would analyse this issue in this dissertation. However, given the time limit, I had to narrow the focus of my case.

[56] Since there was some cross-over between policy actors involved in this case study and policy actors involved in Sláintecare, I collected some useful data for this question as well.

policies? How should the profession demonstrate to the state its clinical value for population health?

Although discourses abound, these issues remain to be scholarly explored. I hope my case study will be a guiding light for these endeavours.

Postface

To end this dissertation, before my work is subjected to 'the death of the author'[57] and thus scrutiny and critique, I will articulate, as I did in my Preface, that my vision has always been about doing what is good for society and what is good for people.

My dissertation will be a success if it will, in some way, serve this purpose.

[57] See 'The Death of the Author' by Roland Barthes published in 1967.

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Appendix A: Examples of Reflexive Diary Entries

Here are some of my lightly edited reflexive diary entries.

2022-07-13

It was clear from the stakeholder involvement process that, as suggested by two stakeholders, that perhaps I was already imposing a judgement that there was a delay and perhaps a more 'detached' approach (which does not fit with my research paradigm and values) should have been taken, i.e. investigating the role of community pharmacy in the COVID-19 vaccination programme. This is an interesting point which made me reflect on my own subjectivity - why did I think there was a delay? Was I sure of that? From my research to date, it does seem like power and leadership (or the lack thereof) was an important issue but it was way more complex than that. It seems like, from looking at the documents, that there were a lot of processes and things that had to be put in place for CP to vaccinate - perhaps it was a 'justifiable delay'?

I should reflect on how power dynamics affect my data collection process. It was particularly obvious in this case that I was in some ways intimidated by the interviewee and their 'aura'. I feel like I could have been a bit more assertive and 'owned my place' by asking more questions and probing them a bit more. At the sometime, I didn't want to put pressure on someone who seemed to have an extremely hectic schedule but had kindly agreed to be interviewed.

2022-07-27

This is the interview that really revealed crucial information (excellent!) and changed my thinking regarding the analysis and pointed towards the need for more interviews (yikes!)

2022-07-29

On the tube, taking some time off research, new insights - professional rivalries between GPs and community pharmacy, and their connections with the funding model of Irish primary care based on privatisation (?) and funding streams via services, insufficient governmental support...connections to neoliberalism and the roll-back of welfare state, and the shift

towards 'free market' economy? Need to understand the historical context of primary care funding model

2022-08-05

Phew..I have finally completed the initial round of coding. That took so long, and much more mentally draining than I had imagined. Coding imposes a very heavy mental burden and requires a lot of focus and attention! I think I am currently under a HUGE amount of pressure to get my dissertation done so I probably didn't enjoy the process as much I could have...anyway, it's done now.

Appendix B: Questions on Research Design for Stakeholder Involvement Panel

Here are some questions I posed to members of the stakeholder panel:

1. What are your thoughts about the research aim and objectives? Is there anything else that you think we should address?
2. What are your thoughts about the conceptual framework and methodology? How can we improve them?
3. The interview topic guide will be iteratively enhanced throughout our research. For now, how should we improve it? What other questions should we ask?
4. In relation to data collection, do you have any suggestions regarding 1) what documents we should analyse; and 2) who mwe should interview?
5. Do you have any resources, such as academic papers, policy documents and articles, that you think are relevant to this project? Please feel free to suggest any materials that might be relevant.
6. Do you have any other comments or feedback?

Appendix C: Documentary Analysis Audit Trail

Here is an audit trail illustrating how I analysed the documents using directed qualitative content analysis.

Data Extract	**Code**	**Themes**
IPU Secretary General Darragh O'Loughlin said that after many months of heavy restrictions our Government, "owes it to everyone to roll out the vaccine as quickly and seamlessly as possible. A safe and effective vaccine could arrive within weeks, but it will still take time and meticulous planning to ensure a comprehensive vaccination programme is rolled out. (IPU_Media_2020-12-06)	Urgency to exit the pandemic	Problem
Speaking expertly to the vaccine helps prepare the nation for a credible, substantiated, trusted solution. In the absence of this, there may be widespread reticence to a solution which may seem 'rushed through' (NPHET_Minutes_2020-11-05)	Ensuring public trust in the vaccination programme	
Community Pharmacists, who have already made a very significant positive contribution to efforts to manage this public health crisis since the outbreak of Covid-19 in the spring of 2020, will play a key role in the delivery of the Vaccination Programme in accordance with the agreed National Vaccination schedule. (HSE_PharmacyCircular_2021-01-21)	Contributions of pharmacy to the COVID-19 pandemic	Policy

Fees have already been agreed and it is important that we give GPs and pharmacists, as private practitioners, the resources that they need to deliver vaccinations under the programme as rapidly as possible. This will include running dedicated vaccination clinics outside normal hours to ensure that normal medical services can also be maintained. The fees agreed with them reflect all these factors. While the Government believes that these rates reflect the level of resources necessary for GPs and pharmacists to administer the vaccine to a large number of patients in a safe manner, they also reflect a significant financial commitment on the part of the State. They will therefore be reviewed within six months to ensure that the vaccination programme is being delivered as efficiently and economically as possible, in keeping with the requirements of public health considerations. (Debates_2021-01-29)	Vaccination fees remuneration	
Just before Christmas, the Government launched its National COVID-19 Vaccination Strategy and Implementation Plan. We had lobbied the Minister and Department of Health consistently in the preceding period, pressing to have pharmacists included in the plan, and were pleased to have achieved parity with GPs in the published programme. (IPU_GM_2021-02)	Campaigning by community pharmacy	Politics

I spoke to the HSE this week about when it the pharmacists are going to be in place. I have expressed my desire to see them playing a more prominent role than they have been. (Debates_2021-05-06)	Advocacy by public servants to include community pharmacy	
The HSE also has an implementation working group with 9 different work streams identified including logistics, distribution, storage, communications and engagement with the relevant agencies. (PSI_RegistrarReport_2020-12-10)	HSE working group on rolling out COVID-19 vaccination in community pharmacy	Process
When I submitted a parliamentary question asking whether pharmacist assistants will be vaccinated alongside pharmacists in the rollout, all I got was a stock response with no reference to pharmacists at all. Instead, I was told to look at the vaccine allocation strategy on the gov.ie website. (Debates_2021-02-10)	Lack of clarity on the progress of involvement	
If you wish to deliver the service for this campaign, please complete the form attached and return for the attention of your local HSE Pharmacist by Monday 12th April 2021. A list of the respective names and contact details is included. Collated details of Expression of Interest will then be forwarded to PCRS, who will in turn advise you if your pharmacy can be included in the initial Community Pharmacy vaccine rollout. Please do not return the EOI form until after you have reviewed the HSE Operational Guidance for	Expression of interest to assess operational capacity of community pharmacy to deliver the vaccines	Programme

Vaccination in Community Pharmacy which will be published shortly. (HSE_PharmacyCircular_2021-03-30)		
Amendments to the Medicinal Products (Prescription and Control of Supply) Regulations were introduced by the Minister for Health on 24 December 2020. These amendments allow a registered pharmacist to supply and administer a COVID-19 vaccine where he/she "has received training in the administration of the product, as approved by the regulatory body for the profession concerned". (PSI_Email_2021-01-29)	Regulatory amendments to allow pharmacists to administer COVID-19 vaccines	

Appendix D: Semi-structured Elite Interview Topic Guide

Background of the Interviewees

- Can you tell me about your current role?
- Can you tell me about your role during the roll-out of COVID-19 vaccines via CP?
- Can you tell me about your involvement in the NCVP?

General Assessment

- What are your general thoughts about the NCVP?
- What do you think about the involvement of CP in the NCVP?
- Do you think if there was a delay in involving CP in the NCVP? Why?

Problem

- What are your thoughts about the government's understanding of the urgent need to roll out the NCVP?
- Do you think if there was a clear understanding about the role of CP in the NCVP? Why?

Policy

- Why was CP involved in the NCVP?
    - Flu vaccination track record, trust, accessibility
- What factors might have prevented the involvement of CP?
    - Logistics, capacity, storage, vaccine supply, cyber attack, training, regulation, IT, funding, risk, NIAC guidance, vaccinating CP staff
- Do you think the policy implementation process reflects the broader goals of the healthcare system, e.g. Sláintecare?

Politics

- Who advocated for the role of CP in the NCVP? Why?
    - Professional motives, financial motives, IPU media campaign
- Who hindered the role of CP in the NCVP? Why?

    - Professional rivalry between GPs and CPs
- What do you think about the representation pharmacy has at a senior level in the DoH and HSE?
    - Vacant Chief Pharmacy Officer

Process

- What do you think of the mechanisms used to discuss the implementation plan for CP?
    - HSE working group, PSI internal expert review group

Programme

- What was needed to make the involvement of CP happen?
    - Expression of interest, regulatory amendment, IT solution
- After the eventual involvement,
    - why was CP asked to provide Janssen vaccines to younger people with extremely short notice?[58]
    - why was CP initially excluded from the booster campaign?[59]

Suggestions

- What materials about this topic should I analyse?
- Who else do you think I should interview for this topic?
- Any other thoughts you would like to share?

[58] I shortened my time frame of interest during my research process (my end point was the commencement of CP-based COVID-19 vaccination on 14th June 2021) so this was dropped from my topic guide halfway through the interviews. However, I drew insights from responses from those whom I asked the question.

[59] As per my previous footnote.

Appendix E: Semi-structured Elite Interview Participation Information Leaflet

Name of Study: The Role of Community Pharmacy in the National COVID-19 Vaccination Programme in Ireland: A Multi-method Case Study with Patient and Public Involvement[60]

Principal Researcher	**Aaron CC Koay, MSc Student in Comparative Social Change** • Department of Sociology, School of Social Sciences and Philosophy, Trinity College Dublin • School of Sociology, University College Dublin
Supervisor	**Dr. Camilla Devitt, Assistant Professor** • Department of Sociology, School of Social Sciences and Philosophy, Trinity College Dublin
Data Controller	**Trinity College Dublin**
Data Protection Officer	**Data Protection Officer** **Secretary's Office** **Trinity College Dublin** **Dublin 2**

You are being invited to take part in a research study that is being conducted by Aaron Koay at Trinity College Dublin.

Before you decide whether or not you wish to take part, please take time to read this information leaflet carefully. You should understand why the research is being conducted and the risks and benefits of taking part in this study before you decide whether or not you wish to take part. You may wish to discuss it with others.

[60] I subsequently changed the wording to stakeholder involvement as it reflects the structure of the panel (mostly professionals) better.

Please contact Aaron Koay or Dr. Camilla Devitt if you have any queries. Contact details can be found at the end of the information leaflet.

This leaflet has five main parts:

- Part 1 – The Study
- Part 2 – Data Protection
- Part 3 – Costs, Funding and Approval
- Part 4 – Future Research
- Part 5 – Further Information

Part 1 – The Study

Why is this study being done?

We are conducting a research project to investigate how community pharmacy has been involved in the National COVID-19 Vaccination Programme in Ireland. The objectives include exploring: 1) The roll-out of COVID-19 vaccination to community pharmacy staff; 2) The role of community pharmacy in the Mass Ramp-up phase of the National COVID-19 Vaccination Programme; and 3) How community pharmacy was engaged in the subsequent booster campaign.[61] We will also explore this topic in the context of broader political, societal and healthcare goals.

In this study, we are conducting **semi-structured elite interviews** with relevant elite policy actors to explore this topic. They may include politicians, policy advocates, policy implementers, representatives of professional bodies and media experts. Furthermore, we are also analysing relevant documents and engaging with a stakeholder panel comprising people of diverse backgrounds, including pharmacy, general practice, academia, policy and lay backgrounds, who will inform the directions of the research.

[61] During the research process, I iteratively reviewed the feasibility of my aim and objectives and subsequently narrowed it down to just studying the policy implementation process regarding the role of CP in the NCVP up until the commencement of CP-based COVID-19 vaccination in June 2021.

This project is being carried out as a Master's level thesis for the pursuit of an MSc in Comparative Social Change by the Principal Researcher at Trinity College Dublin and University College Dublin.

Why have I been invited to take part?

You have been invited to take part because we have identified you as an elite policy actor that has involvement in or proximity to this topic.

Based on our initial research, we aim to interview approximately ten elite policy actors but this estimate will be iteratively reviewed throughout our research.

Do I have to take part? Can I withdraw?

Participation in this research project is voluntary. It is up to you to decide whether or not to take part and you can withdraw your participation at any time, including before, during or after the interview. You don't have to give a reason for not taking part or withdrawing participation. There are no adverse consequences if you decide not to participate or withdraw your participation.

If you wish, you can ask for your data to be deleted. If you request this, we will delete all data that are still in our possession. We will no longer use or share your data for research from this point onwards. However, it will not be possible to delete data that has already been used in research or published prior to this time.

If you wish to withdraw your participation, please contact the Principal Researcher Aaron Koay at cheechek@tcd.ie who will be able to organise this for you.

What happens if I change my mind?

You can change your mind regarding your participation at any time, including before, during or after the interview. You don't have to give a reason as to why you change your mind. If you choose not to continue to take part, this will not have any adverse consequences in any way.

If you wish, you can ask for your data to be deleted. If you request this, we will delete all data that are still in our possession. We will no longer use or share your data for research from this point onwards. However, it will not be possible to delete data that has already been used in research or published prior to this time.

If you wish to change your mind about your participation, please contact the Principal Researcher Aaron Koay at cheechek@tcd.ie who will be able to organise this for you.

What will happen to me if I decide to take part? How will the study be carried out?
You will be asked to participate in an interview on Zoom (or via telephone call) with the Principal Researcher. Prior to the interview, you must complete and revert the Consent Form. We will conduct the interview at a date and time that suits you best. We anticipate the interview to last approximately an hour but this can vary between individuals. If it suits you better, we can conduct the interview in multiple sessions. During the interview, you will be invited to discuss your roles in and thoughts about the participation of community pharmacy in the National Covid-19 Vaccination Programme in Ireland, clarify research findings that we gathered from other sources and suggest relevant documents and policy stakeholders for our research.

The interview will be recorded and transcribed by the Principal Researcher. The transcript will be pseudonymised, meaning that your name will be replaced with a unique identification code. The extent of information about your relevant professional role(s) and affiliation(s) to be reported will be agreed upon with the Principal Researcher during the interview. The interview recording will be deleted after transcription and pseudonymisation. Only the Principal Researcher and Supervisor will know the identities of the interviewees. Your data will be analysed together with other interview data, relevant documentary sources and literature. We will also consult our stakeholder panel members, who will not be given any identifiable information about you, in data interpretation.

However, it is recognised that certain circumstances might render pseudonymisation ineffective. For instance, you might have previously expressed your views and perspectives about the topic in the public or held a distinct public role. In these scenarios, the Principal

Researcher will discuss with you 1) how we can ensure pseudonymity in research data as much as possible or 2) the possibility of disclosing your identity in the data. Option 2 will only be pursued with your explicit consent.

Your data will be kept strictly confidential and stored in a secure folder in the Trinity College Dublin computer network that is protected by two-factor authentication. Your data will be stored until Dec 2027 before deletion.

Are there any benefits to taking part in this research?

Taking part in this study will not directly benefit you. However, research performed with your data and information may help us to better understand how community pharmacy was involved in the National COVID-19 Vaccination Programme in Ireland. This may result in a greater understanding of the facilitators and barriers faced by community pharmacy in realising its full professional potential, with a focus on the context of COVID-19 vaccination. This is a long-term research project, so the benefits of the research may not be seen for several years. By participating, you are helping to advance community pharmacy care and vaccination coverage for future generations.

Are there any risks to me or others if I take part? What will happen if something goes wrong?

There is a risk that a connection to your identity could be made. However, great care will be taken to ensure the confidentiality of all data and the risk to participants of a breach of confidentiality is considered very low.

This study is covered by standard institutional indemnity insurance. Nothing in this document restricts or curtails your rights.

Will I be told the outcome of this study?

The results of the study may be reported, published and disseminated. You will not be identifiable unless you have given your explicit consent for your identity to be disclosed.

Part 2 – Data Protection

What information about me (personal data) will be used as part of this study? What will happen to my personal data?

The interview will be recorded and transcribed by the Principal Researcher. The transcripts will be pseudonymised, meaning that your name will be replaced with a unique identification code. The extent of information about your relevant professional role(s) and affiliation(s) to be reported will be agreed upon with the Principal Researcher during the interview. The interview recording will be deleted after transcription and pseudonymisation. Thus, your data will not be identifiable unless you have provided explicit consent for your identity to be disclosed.

Your data will be kept strictly confidential and stored in a secure folder in the Trinity College Dublin computer network that is protected by two-factor authentication. Your data will be stored until Dec 2027 before deletion.

Who will access and use my personal data as part of this study?

For this study, all data we collect about you will only be accessible to members of the research team: Aaron Koay (Principal Researcher) and Assist. Prof. Camilla Devitt (Supervisor).

Will my personal data be kept confidential? How will my data be kept safe?

Your privacy is important to us. We take many steps to make sure that we protect your confidentiality and keep your data safe.

- The interview will be recorded and transcribed by the Principal Researcher. The transcripts will be pseudonymised, meaning that all your name will be replaced with a unique identification code. The extent of information about your relevant professional role(s) and affiliation(s) to be reported will be agreed upon with the Principal Researcher during the interview. The interview recording will be deleted after transcription and pseudonymisation. Thus, your data will not be identifiable unless you have provided explicit consent for your identity to be disclosed.

- Your data will be kept strictly confidential and stored in a secure folder in the Trinity College Dublin computer network that is protected by two-factor authentication. Your data will be stored until Dec 2027 before deletion.
- For this study, all data we collect about you will only be accessible to members of the research team: Aaron Koay (Principal Researcher) and Dr. Camilla Devitt (Supervisor).

What is the lawful basis to use my personal data?

According to GDPR, we are required to inform you of the legal basis for using your personal data. We are using your personal information for scientific research (Article 9(2)(j)) and in the public interest (Article 6(1)(e)). We will also ask for your explicit consent to use your data as a requirement of the Irish Health Research Regulations.

What are my rights?

You are entitled to:

- The right to access your data and receive a copy of it
- The right to restrict or object to the processing of your data
- The right to object to any further processing of the information we hold about you (unless the data has already been used in research or published)
- The right to have inaccurate information about you corrected or deleted
- The right to receive your data in a portable format and to have it transferred to another data controller
- The right to request deletion of your data

By law, you can exercise these rights in relation to your personal data, unless the request would make it impossible or very difficult to conduct the research. You can exercise these rights by contacting the Principal Researcher Aaron Koay at cheechek@tcd.ie or the Trinity College Data Protection Officer, Secretary's Office, Trinity College Dublin, Dublin 2, Ireland. Email: dataprotection@tcd.ie. Website: www.tcd.ie/privacy.

Part 3 – Costs, Funding and Approval

Has this study been approved by a research ethics committee?

Yes, this study has been approved by the Research Ethics Committee of the School of Social Sciences and Philosophy on 15th March 2022.

Who is organising and funding this study?

The researchers are conducting this research project independently without funding.

Is there any payment for taking part? Will it cost me anything if I agree to take part?

No, we are not paying participants to take part in the study.

Part 4 – Future Research

Will my personal data be used in future studies?

Due to the nature of this research, it is likely that we or other researchers may find the data to be useful in answering future research questions in areas that might be relevant to this current study, e.g. health(care) policy, politics, system, leadership, management, governance, organisation, workforce and regulation, vaccination, and pharmacy practice. Future research will only take place if it has research ethics approval.

Part 5 – Further Information

Who should I contact for information or complaints?

If you have any concerns or questions, you can contact:

- Principal Researcher: Aaron CC Koay (cheechek@tcd.ie)
- Principal Investigator: Assist. Prof. Camilla Devitt (devittca@tcd.ie)
- Data Protection Officer, Trinity College Dublin: Data Protection Officer, Secretary's Office, Trinity College Dublin, Dublin 2, Ireland. Email: dataprotection@tcd.ie. Website: www.tcd.ie/privacy.

Under GDPR, if you are not satisfied with how your data is being processed, you have the right to lodge a complaint with the Office of the Data Protection Commission, 21 Fitzwilliam Square South, Dublin 2, Ireland. Website: www.dataprotection.ie.

Will I be contacted again?

If you would like to take part in this study, you will be asked to sign the Consent Form. You will be given a copy of the signed Consent Form to keep.

If you consent, we will contact you to arrange a time to conduct an interview. The interview might be conducted in multiple sessions depending on your availability. If the study team learns of important new information that might affect your desire to remain in the study, you will be informed at once.

Appendix F: Semi-structured Elite Interview Participation Consent Form

Name of Study: The Role of Community Pharmacy in the National COVID-19 Vaccination Programme in Ireland: A Multi-method Case Study with Patient and Public Involvement

There are several sections in this consent form. Please read each of the statements below and tick the box if you agree with the statement. You can complete the form physically or electronically. The last section is for the Principal Researcher to complete.

If you have any queries with any of the statements below, please feel free to ask questions by contacting the Principal Researcher Aaron Koay at cheechek@tcd.ie.

1. General	**Tick box**
I confirm I have read and understood the information leaflet for the above study. The information has been fully explained to me and I have been able to ask questions, all of which have been answered to my satisfaction.	
I understand that this study is entirely voluntary, and if I decide that I do not want to take part, I can stop taking part in this study at any time without giving a reason.	
I understand that there are no direct benefits to me from participating in this study and I will not be paid for my participation.	
I know how to contact the research team if I need to.	
I agree to take part in this research study having been fully informed of the risks, benefits and alternatives which are set out in full in the information leaflet which I have been provided with.	
I agree to be contacted by researchers by email or phone as part of this research study.	
I understand that the results of the study may be reported, published and disseminated. I understand that I will not be identifiable in any publications unless I have given explicit consent for my identity to be disclosed.	

2. Data processing	**Tick box**
I agree for the interview to be recorded, transcribed and pseudonymised before deletion. I understand that my transcript will be pseudonymised unless I have given explicit consent for my name to be disclosed.	
I agree that the Principal Researcher and Supervisor can access my data for this study.	
I understand that all information will be kept private and confidential and that my name will not be disclosed unless with my explicit consent.	
I understand that my personal information will be stored safely in a secure folder in the Trinity College Dublin computer network that is protected by two-factor authentication. I understand that my data will be deleted in Dec 2027.	
I understand that personal information about me will be protected in accordance with the General Data Protection Regulation.	
3. Future Use of Information	**Tick Box**
I give permission for my data to be stored for possible future research in areas that might be relevant to the current study by this current research team or other researchers. I understand that further consent will not be required from me but the research has to be approved by a Research Ethics Committee.	
I understand I will not be paid for any future use of my data or any products derived from it.	

Participant Name (Block Capitals)

_____

Participant Signature

_____

Date

_____

To be completed by the Principal Researcher

I, the undersigned, have taken the time to fully explain to the above participant the nature and purpose of this study in a way that they could understand. I have explained the risks and possible benefits involved. I have invited them to ask questions on any aspect of the study that concerned them. I have given a copy of the information leaflet and consent form to the participant with contacts of the study team.

Researcher name: Aaron CC Koay
Title and qualifications: Pharmacist (MPSI), MSc Student in Comparative Social Change

Signature

_____

Date

_____

Appendix G: Semi-structured Elite Interview Data Analysis Audit Trail

Here is an audit trail illustrating how I coded some interview data and developed them into themes or sub-themes using reflexive thematic analysis.

Data extract	**Code**	**Theme/Sub-theme**
It's fair to say that community pharmacy was only involved because they could play a role in the vaccination programme and we needed them, and if we didn't need them, we wouldn't have involved them. (HSE_2)	Value of community pharmacy to increase vaccination were understood	"On a rational basis"
I think it had to be done the way it was done, you know. (PSI_1)	Community pharmacy got involved the way it needed to be	
we always wanted them to be involved and when it became logical, I mean enough vaccine, they became involved and they fulfilled the role that we knew they would, which was really, really valuable. (HSE_2)	Scarce vaccine supply hindered the vaccination role of community pharmacy	"When was the right time?"
remember I mentioned about the balance of what product was coming in, (AK: Hmm mm) and I mean the amount of, how would I put it, overview, that was trying to manage how much product, how you know, in terms of what's expiry date of that, how do we get that out, how do we reduce the potential wastage, how, how do we manage to	Efficient management to prevent wastage	

ensure that there's enough product, right product in the right place, with the people ready to come forward. (HSE_1)		
The other point in it was this business of the need to train pharmacists to administer the vaccines and the way that the you know, the regulations are set out to govern all of that, and I suppose we in the PSI were very keen you know to try and maintain the integrity and the quality and the safety of all I suppose the reputation of pharmacists with vaccinations, which goes back to you know when flu vaccines came in in 2011 and there's quite a kind of rigorous regime put in place at that time and there were some safety issues back there (AK: Hmm mm) that had to be addressed. (PSI_1)	Regulatory regime to ensure vaccination safety	"Not to take chances with the vaccine"
And I suppose the pharmacy representative groups would say we can deliver just well as a GP in primary care and they had shown they could do that with flu. But I suppose, in terms of as part of their core competencies, GPs administer vaccines, not all pharmacists were trained or wished to provide a vaccination services. (HSE_1)	Vaccination is not a core competency of pharmacists	
And what was evidenced was all of that navel gazing and head scratching and shuffling of shoes of people you know what I mean looking down at their [inaudible], well I don't you know think maybe	The delay was not based on evidence	"[Nonsense] and obfuscation"

we can resolve truth to be what it was, it was all bonkers, that wasn't based on facts. (IPU_2)		
I think there was a certain element of the same kind of thinking applying in relation to this, and it was very hard to get answers from the Minister in relation to why he wasn't involving all potential people who could deliver the programme. (POL_1)	Hard to get clarity about the delay	
That raises all kinds of questions about the funding model (AK: Hmm) of primary care, so it shouldn't be a competition to you know, to [inaudible] I have problems with the kind of business model that we pursue in relation to GPs and you know that's wider issue but there's no doubt like that there is competition for that income stream. (POL_1)	Privatised primary care model drives competition	"Politics with a small p"
The state could fruitfully spend more time standing back and, and really looking and trying to understand how they can maximise and leverage the training that pharmacy has available to for the benefit of (AK: Hmm) patients in a structured way for the benefit of the state, (AK: Hmm). (HSE_1)	The potential of pharmacy to improve population health is not recognised by the state	
I don't think it's appropriate for pharmacy profession to point to lack of the HSE and DoH without pointing to their own lack of not having a professional representation voice. (IIOP_1)	Lack of a professional body for pharmacy	"Pharmacy has shot itself in the foot"

Promises were made to us that weren't kept and we had no leverage to extract what had been promised to us. (IPU_3)	Lack of power of community pharmacy to influence decisions	
Strong medical representation in the Department of Health. (DoH_1)	Prominence of doctors in health policy	"Doctor knows best"
The health service tends to go first to GPs…not necessarily just about vaccination. (HSE_1)	Health system is medically orientated	

Appendix H: 15-point Checklist for Good Reflexive Thematic Analysis

I used the 15-point checklist for good reflexive thematic analysis (Braun and Clarke, 2022) to assure the quality and rigour of my interview data analysis. I am confident that all the following criteria have been achieved.

No.	Process	Criteria
1	Transcription	The data have been transcribed to an appropriate level of detail; all transcripts have been checked against the original recordings for 'accuracy'.
2	Coding and theme development	Each data item has been given thorough and repeated attention in the coding process
3		The coding process has been thorough, inclusive and comprehensive; themes have not been developed from a few vivid examples (an anecdotal approach)
4		All relevant extracts for each theme have been collated
5		Candidate themes have been checked against coded data and back to the original dataset
6		Themes are internally coherent, consistent, and distinctive; each theme contains a well-defined central organising concept; any subthemes share the central organising concept of the theme.
7	Analysis and interpretation - in the written report	Data have been *analysed* - interpreted, made sense of - rather than just summarised, described or paraphrased.
8		Analysis and data match each other - the extracts evidence the analytic claims.
9		Analysis tells a convincing and well-organised story about the data and topic; analysis addresses the research question.
10		An appropriate balance between analytic narrative and data extracts is provided.

11	Overall	Enough time has been allocated to complete all phases of the analysis adequately, without rushing a phase, or giving it a once-over-lightly (including returning to earlier phases or redoing the analysis if need be).
12	Written report	The specific approach to thematic analysis, and the particulars of the approach, including theoretical positions and assumptions, are clearly explicated.
13		There is a good fit between what was claimed, and what was done, i.e. the described method and reported analysis are consistent.
14		The language and concepts used in the report are consistent with the ontological and epistemological positions of the analysis.
15		The researcher is positioned as *active* in the research process, themes do not just 'emerge'.

Appendix I: Familiarisation Notes for the Interview Dataset

Here is a lightly edited excerpt from my overall familiarisation notes for the interview dataset.

2022-07-29

Some of the important things that appeared frequently throughout the data set include the following:

1) managing complexity of the vaccination programme - different moving parts, vaccine supplies, changing NIAC guidance, IT, legislations and training for pharmacy… why not issues for GP?

2) important to minimise risks to maintain public trust in the vaccine - novel vaccines, potential side effects, quality assurance, regulations and training for pharmacy...a protectionist, risk-adverse approach...or links to the need to counter potential vaccine hesitancy...or lack of confidence in pharmacy's clinical competencies?? another potential reason for this is over-bureaucracy...and potential over-regulation of pharmacy...? Distrust?

3) negative perceptions of pharmacy (not directly related to this particular case, but in the background for sure) - commercial interests...but GPs not subjected to same...? Retail nature of pharmacy is definitely worth exploring, and its perception (but high public trust...)

4) health system orientated to centre around practitioners, not patients - accessibility of CP not considered...there is an element of path dependency and historical context here, as well as power that allows GPs to maintain the status quo. This is really interesting, and would relate to how the health system has been historically structured by policies, actors, vested interests...

5) pharmacy lack of integration with the health system - connected to negative perceptions...? but IT issue is a concern here, also connected to wider failure of e-infrastructure in healthcare in Ireland and the policies associated with that...again, an element of historical contexts here

6) 3 to 5 might also be related to the current pharmacy leadership (or lack of) in Ireland - appears to be a strong perceptions that pharmacy doesn't have senior enough representation in both DoH (policy) and HSE (implementation), and that has impact on pharmacy policy, power and politics in Ireland...lack of pharmacy direction, integration and model of care...

7) policy domination - influence of medics and GP on senior leaders and managers in healthcare system...also that one account of deliberate obstructions. power appears to very important here which is associated with the traditional status of the medical profession in society, and the 'deference' and authority conferred, related to trust and 'social contract'.

8) how primary care is delivered in Ireland, which relies on private contractors and commercial enterprises...and could neoliberalism and the roll-back of welfare state be relevant here? But how does it explain the commercial nature of pharmacy here...it seems like (to my knowledge) the retail nature of pharmacy is a historical thing, but I guess the expansion of pharmacy chains is more of a recent phemonemon (ties in with negative perceptions).

9) delayed involvement - natural or deliberate obstructions...?? Only one account of deliberate obstructions...also remember you are not here to 'find one single truth'! You are only getting situated realities but that line of enquiry is very much worth pursuing.