At the coalface and the cutting edge: A qualitative study of the pathways into and rewards of providing HIV medical care in general practice settings

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**Background**: HIV has become a chronic manageable infection in the developed world, and early and lifelong treatment has the potential to significantly reduce transmission rates in the community. A skilled and motivated HIV workforce will be required to achieve these health management and prevention outcomes, but concerns have been noted in a number of settings about the challenges of recruiting a new generation of clinicians to HIV medicine. This paper addresses an important gap in the literature by investigating the positive or motivating factors that facilitate and support the professional engagement of the general practice workforce with HIV medicine.

**Methods**: As part of a larger qualitative study of the HIV general practice workforce in Australia, in-depth interviews were conducted with 31 general practitioners (known as ‘family doctors’ or ‘primary care practitioners’ in other settings) accredited to prescribe HIV medications in community settings. A thematic analysis was conducted of the de-identified transcripts, and this paper describes and interprets the themes relating to the ‘pathways’ into and ‘rewards’ of providing HIV medicine.

**Results**: Pathways leading to an initial engagement with HIV medicine were *interest and inspiration*, *community calling* and *right place, right time*. The rewards which then supported and sustained engagement over time were *challenge and change*, *making a difference* and *enhanced professional identity*. The model of the primary care doctor with special expertise in HIV was promoted as an ideal interface between the ‘coalface’ and the ‘cutting edge’, offering a unique opportunity for medical practitioners to feel intimately connected to both community needs and scientific change.

**Conclusions**: Approaches to recruiting and retaining the HIV medical workforce should build upon the social rewards of this work, as well as the sense of belonging and connection which is imbued between both doctors and patients and across the global and national networks of HIV clinicians.

**Keywords**: HIV, general practice, workforce issues, rewards, Australia
Background

HIV, I find, is a fascinating infection. (GP_16)

The history of HIV medicine continues to feature remarkable turning points [1]. When the first cases were diagnosed in developed nations in the early 1980s, clinicians were called upon to contribute both specialist and generalist care in the acute management of HIV infection, particularly those relating to opportunistic infections, and all too often, palliative care [2]. The introduction of combination antiretroviral therapy (ART) in the mid to late 1990s marked a significant milestone, followed by a period of some clinical ‘uncertainty’ [3, 4]. HIV medicine today is most typically described – in developed nations at least – as chronic illness management, with a particular focus on ART delivery and monitoring alongside the management of a range of co-morbid and psychosocial impacts associated with living with HIV long term [5, 6]. Recent research further suggests that timely treatment of HIV may have the potential to decrease rates of new infections in the coming years, which could again transform the role that HIV plays in shaping both public health agendas and the lives of affected communities [7, 8].

In recent years, little attention has been paid to the experiences of the clinicians critically involved in shaping and providing HIV medicine. This is in contrast to the broad range of research published on HIV health workforce issues in the early years of the epidemic, when the impacts and stressors of providing acute and palliative HIV care were well recognised across the health and medical professions [9-11]. The impact on clinicians of the introduction of effective treatments in the 1990s also received attention, including speculation about what the transformation of HIV medicine might mean for the relationship between clinicians and people living with HIV (PLHIV) [4, 12, 13]. In more recent years, only a limited amount of research has addressed HIV health workforce issues in the developed world [14-18] despite a complex new set of social, economic and political dynamics becoming apparent that affect the engagement of the medical workforce with HIV medicine [19].
For example, there is evidence to suggest that clinicians who were involved in providing HIV care from the ‘early years’ are now heading towards retirement [1, 20-22] and that the recruitment and retention of trained clinicians is proving increasingly difficult [17, 23-25], particularly in light of the models of care being promoted in this new ‘chronic illness’ era of HIV medicine [1, 26, 27].

HIV medical care is accessed in a range of settings in Australia, including publically funded hospitals and sexual health centres, and a particular feature is the role of the skilled and accredited medical practitioner working in private general practice in the community [26, 28-30]. The benefits of managing HIV in primary care settings have been recognised for some time in Australia, with general practitioners (GPs) having the option to become accredited as a specialist prescriber of HIV medications (restricted in Australia under Section 100 of the Highly Specialised Drugs Program) [2, 31]. Although the models of care are often distinctly different, these benefits are also recognised in other developed nations, including the United States and United Kingdom [1, 32] and the potential for generalist clinicians to provide quality HIV care with appropriate training and expertise has been broadly documented [33, 34]. PLHIV have also articulated the value of having accessible and continuous care made available from trusted providers in primary care settings [35, 36]. However, a series of changes in the science and practice of HIV treatment – as well as the demographic and geographic distribution of the epidemic in Australia [37, 38] and the ageing and internationalisation of the Australian medical workforce [39] – means that the engagement of new clinicians in HIV medicine requires new approaches to recruitment, training and support, particularly in the less well ‘served’ regions of Australia [19, 31, 40]. For example, models that facilitate better options for sharing care between a non-prescribing GP and specialist GPs or other clinicians have been promoted by HIV advocacy organisations as a way to broaden and sustain clinical workforce engagement [41].
Despite the complexity and urgency of these health service issues, there is in general a limited amount of research available on the HIV health and medical workforce in developed nations, in particular regarding why clinicians might pursue or sustain an interest in HIV. This is an important gap, particularly considering the many social and cultural changes that have accompanied the development of HIV medicine as a scientific field, which suggests that medical practitioners’ views on caring for PLHIV are likely to be shaped by quite different kinds of ‘cultural responses’ [42] today than in the early years of the epidemic. A paper that we published from the first phase of data collection for the present project addressed some aspects of this, describing what a group of Australian policy key informants believed was ‘moving’ GPs to provide specialist HIV care in the community [19], with identified themes being organised around the clinical, professional and political dimensions of the role of the HIV general practice doctor. More specifically, the willingness of individual clinicians to become involved was seen to be shaped by the representation or ‘social construction’ of HIV medicine; the balance between the professional opportunities and obligations offered by HIV medicine; and the ‘fit’ between the politics of HIV medicine and clinicians’ personal beliefs. What has yet to be investigated is what clinicians themselves believe to be the positive or motivating factors that shape their engagement with HIV medicine. It is to this important question that our paper now turns.

Methods

The HIV General Practice Workforce Project was a three year study funded to explore what motivates or discourages Australian GPs from pursuing training and accreditation to prescribe HIV medications, and to build new knowledge on the broader role of GPs in maintaining and enhancing the health of PLHIV. Data for the study included interviews with key informants [19, 31] and with clinicians with experience in providing HIV care in different caseload and geographical general practice settings across Australia. Ethics approvals were received from the National Research and
This paper reports on the analysis of in-depth interviews conducted with 31 GPs who were (at the time) actively engaged in providing HIV medical care in private general practice clinics and who had received special accreditation to prescribe HIV medications in those settings. Interviews were conducted either in person (21) or by phone (10) between September 2010 and October 2011. Participants were informed that the semi-structured question guide was open-ended, aiming to explore the career trajectories, motivations and experiences of the HIV general practice workforce in Australia. Before the start of each interview, written consent was secured from the participants who were interviewed face-to-face, and verbal consent (following a structured protocol) from the participants interviewed by phone. All participants were offered AUD$150 reimbursement, in recognition of lost income for these GPs working in private practice settings.

Participants included 19 men and 12 women. Although not requested, more than half (n=18) offered a description of their sexual identity as gay (n=12) or heterosexual (n=6). More than half the participants were aged 50 and over with an age range of 32-62 years; most (n=24) self-identified as Caucasian and nine as Asian, European or Middle Eastern. All but one received their medical training in Australia, with the one exception also trained in an English-speaking developed country. As a group, these participants were able to describe experiences of providing HIV care across each of the Australian states and territories, but mainly in New South Wales, Victoria, Queensland and South Australia. Almost all (n=27) were based in urban metropolitan settings, with the remaining participants based in regional Australia. Just over half (n=18) reported a high caseload of HIV positive patients (i.e., representing a significant component of their clinical work), with the remaining (n=13) participants reporting a low or medium caseload. Participants first became involved in different decades of the thirty year history of HIV medicine: 1982-1989, following the start of the epidemic
(n=6); 1990-1999, the decade when effective combination HIV treatments were introduced (n=12); and 2000-2008, when HIV had transformed into a serious, chronic but manageable condition in many developed nations for many people (n=13).

The data analysis was informed by best practice guidelines for thematic analysis [43], identifying recurrent patterns in the data and testing these through constant comparison with variations within potential themes and across the whole set of data. An analytic framework was developed and discussed by the writing team, drawing on the areas of expertise of each researcher including HIV prevention, care and treatment, HIV patient advocacy and community histories, and experiences of living with HIV. Rigour was established through an iterative process of discussion and revision, both within the research team and in consultation with members of the study’s broader Expert Committee, which also includes representatives of Australia’s peak HIV and general practice organisations. All interview extracts have been reproduced here with a numbered code to protect participant confidentiality. The themes we identified have been organised into two main categories: pathways and rewards. Each will be described in detail here by exploring the range of more specific themes they encompass.

**Results**

*Reflecting on the pathways into HIV medicine*

**Interest and inspiration**

Scientific curiosity was a consistent theme in descriptions of the pathways into the field of HIV medicine:

> It’s a very interesting and challenging field. It’s constantly changing and often on the frontier of medicine. So from [that] perspective, it’s really interesting. (GP_10, started in the 1980s)

> I became very good at death, palliative medicine ... So that was pretty horrible. But that was, again, solved by the, [by] how interesting it just all was. You know, these most obscure
infections that the infectious disease people wouldn’t see in their lifetime we’d be seeing day in and day out. (GP_02, started in the 1980s)

I was attracted to it because I love the science, primarily, of infectious disease and I love the science of virology and HIV. (GP_07, started in the 2000s)

I kind of thought, “No, this is interesting. This is cutting edge. This is, you know, good medicine. (GP_23, started in the 2000s)

It’s nice to be at the coalsface of something and at the cutting edge as well. So you’re not only aware of the latest breaking drugs but you’re able to prescribe them to people. (GP_28)

HIV medicine is invested here with a sense of excitement and dynamism. This is ‘cutting edge’ and ‘frontier’ science, with a constantly changing knowledge base. HIV is represented as a challenging field, but also one which promotes an inspiring model of ‘good medicine’, particularly for GPs with the opportunity of putting scientific knowledge into practice at the ‘coalsface’. Even the horror and stress of the early years, when little was available in the way of treatment, is seen to be countered by ‘how interesting it just all was’.

Feeling inspired by others was also described as central to how this group of GPs became involved, particularly for those starting out in practices alongside more experienced clinicians:

When I started out as a GP registrar ... my very first supervisor was an HIV prescriber. So that was sort of, it was like, “Oh wow, HIV!” So... very exciting, a bit daunting. (GP_08, started in the 2000s)

Having an enthusiastic and passionate mentor, as well as the other doctors, was important, to have that lead in time with people who knew a lot and were very supportive. (GP_12, started in the 2000s)

I think probably it was the enthusiasm of the other doctors ... they just seemed like a really passionate group of people, about what they did. And that’s kind of inspiring. (GP_23, started in the 2000s)
The key words here are enthusiasm, passion and excitement. Clearly, having access to the support of clinicians who had found a way to maintain their interest and inspiration in HIV medicine over time was of critical importance in translating that initial flare of interest into a sustained series of decisions to pursue the field.

**Community calling**

A second theme relating to pathways was feeling ‘called’ to pursue HIV medicine by the communities most affected by HIV, which in Australia were (and are) mainly gay men. Among the 31 active-prescriber GPs we interviewed, 12 offered an unprompted description of themselves as gay (all of them men), and described a deep identification with the gay community:

- My peers were dying, I guess, was the major influence there. And identifying with the community that was affected seems something that, you know, there wasn’t really much choice in not doing it. (GP_01, started in the 1990s)
- I suppose also with my sexual orientation, there was always some risk that [but] for the grace of God, that could be me, the person there with HIV. So ... that was another driver as well, that I could identify with these guys ... outside of medicine ... [I]f I wasn’t doing it, I would feel that I was letting the team down. (GP_16, started in the 1990s)

There is a consistent message being conveyed here, regarding how personal connection and loyalty to the gay community had inspired a sense of responsibility or even obligation to acquire clinical skills in HIV care and treatment, particularly in the early years of the epidemic.

Another aspect of this notion of feeling ‘called’ was described by other GPs who felt a sense of obligation to provide HIV care for people affected by social marginalisation and ostracism:

- [People living with HIV have] had more than enough to deal with through whatever they’ve been through and they needed a safe place. They needed an understanding environment. They needed somewhere that they could feel comfortable. (GP_03, started in the 1980s)
I guess I felt quite strongly that there, you know, that gay people were marginalised enough as it was and here was a disease that sort of marginalised them further. (GP_24, started in the 1990s)

I’m not rightwing, [but] I do believe the Bible and I believe in the dignity of people and that people should be treated with respect. And I thought, “Well look, if I am a Christian who believes that people have a right to be treated with respect, then the least I can do is offer a GP service for people who may find it difficult to get a GP.” (GP_26, started in the 2000s)

These quotes suggest that it was not only gay doctors who felt moved by a sense of personal duty in responding to the ‘call’ for clinicians to help. While the notion of community obligation may have a different resonance for GPs caring for lovers, partners and friends, these extracts point to a broader range of motivations among clinicians who pursued specialist training in HIV medicine than only personal identification.

Several of the clinicians did note, however, that the politics of engagement in which doctors who are gay once felt obliged to get involved no longer apply, opening up new questions about the dynamics between sexual identity and choice of specialisation in general practice medicine. As one GP put it:

I’m not a gay male so I don’t have the, you know, the burning passion … But then I know a lot of gay men that don’t, so yeah … who’s going to look after HIV? (GP_29)

Right place, right time

Several GPs described their experience of becoming involved in HIV medicine as an unplanned confluence of events:

When HIV first came around, first of all some of my patients were affected. And also in the early stages, the hospitals didn’t want to have anything to do with HIV because there was a lot of stigma about HIV and AIDS. And so there were, well number one is there were too
many patients for them to manage anyway. They couldn’t cope. And so we got to manage more and more of their patients’ care. (GP_10, started in the 1980s)

It was back in the mid eighties. I was just working in a country town and there was nobody else who did it and a friend of mine had HIV, and just one thing led to another, to another, to another, to another and there you go. (GP_27, started in the 1990s)

These GPs see the role of the doctor as being responsive to the needs of the patient in their community. Whether in urban or regional Australia, the GP is viewed as holding a professional obligation to recognise that a new health issue is at their doorstep, and that there is a gap in the available primary care medical services to address that new need.

Even though all of these GPs at some point made deliberate choices to become and stay involved in this field, particularly in pursuing training and accreditation to prescribe HIV medications, several drew upon the metaphor of an ‘historical accident’ to explain the initiation of this sequence of events:

I didn’t stop to think about it. It was like this, you know, tidal wave of stuff happened and we were there, and so we just did it ... It’s all just been an accident. Because people often say to me, you know, “You’ve planned your career so well and blah, blah, blah,” and it hasn’t been planned. Nothing has been planned. (GP_11, started in the 1980s)

I mean HIV and AIDS were significant issues at that time but I certainly didn’t, with any understanding of what I was doing, get into HIV specifically because of that. I, it was obviously by default, by accident. And that’s how most of us got into it, I guess. (GP_29, started in the 1990s)

Really by sheer accident ... I got in touch with a drug rep who ... was just wondering if I was interested in doing any of the HIV medicine, because I think they were looking for doctors around this area ... So I thought, “Okay. You know, I might look at it.” (GP_08, started in the 2000s)
It was completely by accident, of course ... I’ve been in hepatitis C for many, many years and that was a natural progression when I realised I had some co-infected patients. And then this became very important when I started up with the current practice I’m working in, which has quite a few HIV patients. And the opportunity came my way to do the training. (GP_13, started in the 2000s)

This metaphor of ‘accident’ was expressed by clinicians who became involved in HIV medicine in the early years, with the introduction of effective treatments, as well as in the past decade. This suggests that for many clinicians, their experience of pursuing HIV medicine initially featured a considerable element of chance and serendipity, even if this field had latterly come to represent a significant and meaningful dimension of their working lives.

Articulating the rewards of HIV medicine

Challenge and change

The most common way of articulating the rewards of providing HIV care in general practice was to describe this as an ‘intellectually stimulating’ field of practice, and one which was consistently challenging:

The medicine’s quite demanding and requires a high degree of understanding. And I think that’s a very rewarding thing in itself to actually be able to master the difficult signs associated with the disease, per se, and the responses to the disease ... I like having that intellectual challenge, you know, with HIV ... Looking for the answer and working it out, and getting someone better. It’s good. (GP_06, started in the 2000s)

Look, medically it’s very rewarding. It is so interesting. It’s cutting edge ... HIV news makes front page news and it’s a really interesting field to work in ... So medically I find it very stimulating ... because it does branch into every aspect of life ... it’s a bit of sexual health, it’s a bit of public health, it’s a bit of medicine, it’s a bit of, you know, social work ... [and] there’s a bit of fun involved. (GP_23, started in the 2000s)
These GPs valued the experience of feeling tested, of being required to think through the many and varied aspects of this condition in order to come up with ‘the answer’ for each of their individual patients. The medicine is constructed as fascinating, interesting, diverse and stimulating, and these characteristics are linked to the belief that it is ‘good’ and ‘rewarding’ and ‘fun’ to feel pushed to the limits of knowledge, to know that the intellectual demands of the work are a challenge.

The second aspect of this theme drew upon a metaphor of ‘constant change’ in relation to the field of HIV medicine. For GPs involved from the early years of the Australian HIV epidemic, this was described as the experience of literally living through the making of medical history:

I’ve been [involved] since the very beginning. And like no other major health advance which has resulted in peoples’ lives being saved, you help the generation that were sick. It isn’t like, you know, curing polio or curing other infectious diseases in the past where you stopped the next lot of patients getting it; you actually turn the lives around of the people who have the infection. (GP_02, started in the 1980s)

It’s changing all the time. You feel like you’re cutting edge ... how often do you get to be around from the beginning of something like AIDS through to it becoming a manageable disease? (GP_11, started in the 1980s)

I can’t think of one other disease that it’s been so rewarding to be involved with, in a way, because I mean we’ve had a turnaround that you would never have envisaged. And I mean that’s been, that’s been the exciting thing about it. (GP_30, started in the 1980s)

All of these clinicians have had the opportunity to work at the ‘coalface’ of the response to HIV, but describe this as having far more significance than only managing individual patients. These narratives place the community HIV prescriber at the forefront of history, contributing to a major new turn in scientific knowledge, and having firsthand experience of giving new life to a generation of patients.
GPs who became involved since the introduction of effective treatments in the mid to late nineties were more likely to describe feeling drawn to the rapid pace of scientific change in this field:

It’s such an interesting area to work in and such a rapid turnover ... things are always changing ... You know, they’ll often say by the time an HIV textbook comes out, it’s already a little bit out of date. (GP_08, started in the 2000s)

It is challenging because it’s such a fast moving area. You know, there’s plenty of challenge there. And that I think is an attraction if you want challenge. (GP_26, started in the 2000s)

HIV medicine’s intellectually stimulating. It’s a new field. There’s always new stuff coming through. It keeps you a bit on your toes. (GP_24, started in the 1990s)

This group of GPs, some of whom have been engaged with HIV medicine for up to thirty years, described the breadth of knowledge and pace of change in this field as providing a rewarding experience for the GPs who practice it. This was often based upon feeling intellectually stretched – being ‘kept on your toes’ – but there is also a persistent sense here that these community-based GPs feel intimately connected with the unfolding of new knowledge over time, of being part of history.

Making a difference

Another reward of providing HIV care in general practice was described as making a genuinely significant contribution to making and keeping patients well. This was sometimes contrasted with the days before effective treatments were available:

I was very fortunate to be around a lot of people we diagnosed way back in the early eighties who are still with us and it’s been my privilege, if I can say that, to be there for them but equally still looking after them now ... how lucky can you be? (GP_03, started in the 1980s)

The medication [generated] a lot of hope and a lot of potential to say to someone, “Hey, I can change your life.” And that is a really fantastic feeling. And reflecting with patients when
they were in [intensive care] and now they’re back at work and stable is, doesn’t happen that often in other areas of medicine. (GP_20, started in the 1990s)

A key dimension of contributing to successful patient outcomes was identified here as the continuity of care that is made possible by being based in a community-based health service settings:

It’s lovely because you sort of grow and age with them and get to know them quite well. Seeing the medications get better and seeing people live much longer than you thought were going to is very rewarding. (GP_01, started in the 1990s)

And because there’s that continuity of care, you have the luxury of seeing people on a regular basis, an ongoing basis ... [and] you can sort of explore a bit more of their past history, you know, family history ... work history, social history ... that specialists might not actually get into ... You really get to know them. (GP_08, started in the 2000s)

Travelling the road with patients... it’s been rewarding in seeing people change and evolve, and accept their HIV, and partnerships. And in women have children and become pregnant, and have uninfected children and relationships. (GP_31, started in the 1990s)

These quotes suggest that there is a mutual benefit to be gained through building close and longstanding relationships between doctor and patient in this setting. The GPs get to know and ‘travel with’ their patients in a more sustained way than is perhaps typical, witnessing change and evolution in people’s lives over time, while patients have the opportunity to receive care from someone who can appreciate the fuller and more complex picture of their concerns and priorities.

Providing the main point of connection and coordination was a key dimension of the rewards these GP described, with an understanding that this again required an appreciation of complexity:

Being involved [with] patients with a chronic condition, managing them holistically ... has been a really rewarding sort of experience ... that model of chronic care, being the care coordinator of the patients ... I think is rewarding. (GP_10, started in the 1980s)
I’m often the person that will be delivering a diagnosis. And for me it’s a privilege to be able to give that diagnosis and then say, “But ... I can help you to look after this and we don’t have to send you off to someone else” ... So it can all just be ... like a one stop shop for me, for my patients. (GP_28, started in the 2000s)

Many of our participants valued this experience of being a ‘one-stop shop’ or ‘drawing the dots together’, and viewed this as essential to making a difference in patients’ lives in the context of what could sometimes be a quite complex set of health and social issues. Again, feeling you are providing an important service in maintaining that sense of continuity for patients was represented as a vital dimension of experiencing this as a reward of HIV medicine.

**Enhanced professional identity**

The final reward articulated by these GPs related to professional identity, with a particular focus on the potential for increasing job satisfaction through pursuing a special interest in HIV medicine:

Being stuck in general practice with, it’s either coughs and colds or a lot of chronic illness.

And if you feel a bit specialised ... particularly if other people perceive it as difficult, I think there’s some kudos in that. (GP_11, started in the 1980s)

I think you sort of feel a little bit like a sort of a ‘mini-specialist’ if you like. You feel like you, it’s a sub specialty and it sets you apart a little bit from the other GPs. And being able to be an s100 prescriber gives you more sort of power and rights, and so on. You feel like, “Okay, I’m a little bit different.” (GP_08, started in the 2000s)

I’m so glad I’ve got this as a focus ... I think I’d be really tiring of general practice now if it wasn’t for this focus. So I’m really grateful to have found it. (GP_04, started in the 2000s)

For these GPs, HIV medicine offers a way to ‘moderate’ the more quotidian dimensions of general practice by developing a set of particular skills and areas of clinical expertise which begins to shape the GP role into one that looks more like a specialist. This is seen to generate ‘kudos’, to set the HIV GP apart from others, to feel ‘a little bit different’. Importantly, these processes are also seen to be
strengthening their capacity to remain engaged with general practice over the course of their medical careers.

Also strengthening the professional identity of the GP was the satisfaction they gained from feeling they were providing a service to a group of patients who may be marginalised and underserved:

I get a level of satisfaction from providing a service that people can’t access any other way …

So I suppose right back to my radical student days I’m looking after the people that fall off the edges of the other services. (GP_21, started in the 1980s)

Yep, well for me it’s about offering a clinical service to people who often are disadvantaged and don’t fit into other parts of society so well. (GP_20, started in the 1990s)

I look at my peers and it’ll come back to money, [but] generally doctors working in this area, my experience is we’re on a lower salary and much is done through genuine care for our patients. (GP_20, started in the 1990s)

This field I think really brings in really disadvantaged patients … And I don’t know if other fields of medicine can do what this field of medicine does in terms of helping people.

(GP_05, started in the 2000s)

These extracts construct the role of the GP as one which is perfectly placed to facilitate both medical and social change. It is interesting to note that GPs who became involved in this area of practice at different points of the epidemic shared this investment in the social justice dimensions of the role.

Finally, there was a consistent theme expressed throughout these interviews on the collegiality and support which could be accessed through the professional networks within the HIV sector:

It’s really nice to have this little niche where everyone knows everyone. And the truth of the matter is that everyone in this area seems to be such nice people to talk to and to relate to.

(GP_22, started in the 2000s)
[T]he collegiality of the area is far and away what’s kept me in it ... I think it’s all a bit of a club and we’re all on the same side. And we share knowledge and we debrief. (GP_31, started in the 1990s)

I wouldn’t know a handful of general practitioners from my area but I know about fifty HIV GPs because we all see each other a lot. And ... that’s a very nice part I think. There’s a bit of a club feel. (GP_30, started in the 1980s)

It’s also rewarding to be involved with other health professionals that are highly motivated to engage in an area of challenge and significant difficulty... I think there’s quite a degree of collegiality or camaraderie amongst fellow prescribers. (GP_06, started in the 2000s)

I find that the collegiality between HIV prescribers is quite unique. Like it’s not like going to a GP meeting on diabetes where everyone’s a bit ho-hum. Everyone’s really quite motivated and interested, and you find you do have a lot in common. So it’s a good group to belong to. (GP_28, started in the 2000s)

There is clearly a deep and enduring sense of professional connection that has developed over time in this field, at least among the GPs we interviewed who felt they formed a part of the ‘sub-speciality’ of HIV prescribing in general practice. Some of the features of this ‘club’ include collegiality, motivation and interest, a willingness to share information and support each other, and an ease in developing trust and camaraderie. This was described as atypical in general practice, and as something to particularly cherish and appreciate.

Discussion

This qualitative analysis described a series of positive or motivating factors which can be seen to shape the capacity and willingness of general practice doctors to provide care to people living with HIV today, in an era of chronic disease management. The themes which were identified in these interviews offer a description of the pathways into HIV medicine as an area of special interest, and the rewards of sustaining an engagement in that work over time. While we have focused on the
experiences of clinicians in a particular place – a developed nation, which provides both public and private health services, with HIV medications relatively accessible to anyone with citizenship or residence status, and where it is possible for community-based medical practitioners to become HIV medication prescribers – there are nonetheless many important insights to be gained here regarding the broader motivations and rewards of providing HIV medical care.

Our analysis identified the most important pathways into HIV medicine for these GPs as ‘interest and inspiration’, ‘community calling’ and ‘right place, right time’. The first theme characterised HIV medicine as intrinsically interesting, dynamic and ‘cutting edge’, suggesting clinicians could be motivated by scientific curiosity, and supported in pursuing HIV medicine as an area of special interest by the passion and support of mentors and colleagues. The second focused on identification or empathy with the populations most affected by HIV; feeling ‘called’ to pursue HIV medicine. While this was often about a personal connection to the gay community, and might be seen to demonstrate the successful outcomes of aligning political and public health movements, it was not exclusive to the gay-identified doctors in our study. The final pathway involved making the most of serendipitous opportunities, with GPs recognising and responding to a need in their community. Although typically described as an ‘accident’, these clinicians had to subsequently make active and deliberate choices to become HIV prescribers, suggesting that even if unplanned, being open to changing direction and focus in clinical practice according to the evolving needs in a community can result in a highly satisfactory career trajectory.

These findings partly reflect what Gerbert et al have described as ‘the dual faces of passion: challenge and calling’ among physicians with HIV expertise in the United States [14]. In their paper, HIV clinicians are described as being motivated by a passion for both the science of HIV and for serving the populations most affected, and this does indeed seem to complement what our participants were suggesting. The idea that clinicians might be motivated to pursue particular areas
of professional interest because they are interested in the science or connected to the populations affected is not new. For example, research conducted before the introduction of combination ART reported that clinicians who had a personal connection to patients or friends who were gay and/or HIV-positive reported an increased willingness to care for PLHIV [44-46]. However, what is new in our analysis is the additional or alternative explanation that sometimes professional passion can be inspired through the serendipitous happening upon a new and unexpected area of medical need. This possibility suggests that focusing attention only on those clinicians who have a burning desire to pursue this work, for either intellectual (e.g., ‘I love the science of virology and HIV’: GP_07) or socio-political (e.g., ‘I’m looking after the people that fall off the edges’: GP_21) reasons, may limit the range of opportunities for new and continuing health workforce engagement in this area, particularly among those clinicians who are less clear about where their passions might lie.

The rewards that sustain engagement with HIV medicine over time were described by our participants as ‘challenge and change’, ‘making a difference’ and ‘enhanced professional identity’. The first and most commonly reported theme focused on HIV medicine as an intellectually stimulating and constantly developing field of practice, with ‘challenge’ being framed as absolutely essential for achieving job satisfaction in clinical contexts. The second focused on the difference that a GP can make in achieving satisfactory health and social outcomes for their HIV positive patients, particularly through the continuous and ‘whole-person’ care which is made possible by models of community-based primary health care delivery. The third viewed the development of a special interest in HIV medicine as enhancing professional identity, which was believed to increase job satisfaction, generate ‘kudos’ within the medical community, and inspire a sense of ‘sub-speciality’ collegiality and camaraderie which could provide a professional focus within the broader general practice field.
What becomes clear in this analysis of rewards, among most of these clinicians, is that little significance was explicitly placed on financial or other economic incentives for providing HIV care. While beyond the scope of this paper, a range of challenges were identified by these participants as barriers to caring for PLHIV in general practice settings. In particular, reduced remuneration for longer consultations was described as something that most of these GPs had come to believe was an unavoidable outcome of choosing to be an HIV prescriber. It is interesting to note, therefore, that an alternative, more social, rendering of the concept of rewards was articulated here, whereby the choice to pursue HIV medicine was viewed as providing the clinician with a deeper sense of professional purpose and meaning than financial reward alone could provide. We can assume that this would have been shaped at least in part by the desire to present a positive self-image in the research interview, particularly in the participants’ deliberate contrasting of their own philosophies of doctoring with what they perceive as a ‘dollar-driven’ approach. It is also possible that reporting a ‘social orientation’ to medical work is more common among these participants as clinicians who have pursued a field of primary care, as has been noted in the literature [47]. Nonetheless, it is useful to recognise that in the case of HIV medicine, the recruitment and retention of clinicians may be strengthened by promoting a broader understanding of the value of this work.

A continuous thread across the pathways and rewards described here were the relationships that GPs had been able to build with both patients and peers as a result of their involvement in HIV medicine. Just as these clinicians valued the continuity of care for HIV positive patients in general practice settings, so too did they appreciate the continuous and meaningful connections they felt with members of the community of Australian HIV medical practitioners. This could be interpreted as providing a sense of belonging for these clinicians, one which was able to traverse geographical and demographic differences. Creating a sense of belonging among any group of medical practitioners is not a straightforward process, however, and is likely to be affected by generational and other forms of social change. Indeed, considerable changes have been noted in the gender and
cultural profile of both PLHIV and the medical workforce in Australia [39, 48], which could potentially place even greater weight on the development of training and support programs for HIV prescriber GPs which actively foster mentoring and networking schemes. These programs should include opportunities for intergenerational learning and connection between clinicians who have become involved in HIV medicine in the distinctly different eras of HIV care and treatment, with the aim of building and enhancing this sense of professional belonging to the broader national and international field of HIV.

Our analysis provides a useful set of insights, for several reasons. The first is that the transformation of HIV from an acute to a chronic illness in most developed nations, and the associated policy shift to favour a greater proportion of HIV care being provided in community rather than specialist or hospital settings, will require clinicians to be willing and able to take on the work of providing that care. Our analysis provides guidance for ways to promote this work and engage a new generation of clinicians in HIV medicine. The second is that HIV treatment is becoming increasingly central to not only the long-term health of HIV-positive people, but also as a (proposed) component of preventing the ongoing transmission of HIV infection. The emerging evidence, in combination with recent guidelines in the United States, is currently propelling a move towards ‘treatment-as-prevention’, based on the notion that antiretroviral treatment (ART) substantially reduces the risk of HIV transmission and, particularly when introduced early, may significantly affect the course of the HIV epidemic in a community [7, 8]. Much debate is ongoing internationally regarding the potential and challenges of treatment for HIV prevention [49, 50], and it is yet to be seen what this might imply for the methods and sites of HIV care delivery in the future. Increasing attention will have to be paid in coming years to the ways in which HIV treatment is made available to those who need it, and this includes the capacity and willingness of skilled primary health care professionals to facilitate and support the evolving role of ART, particularly in general practice settings. This paper contributes to these debates by proposing that a focus on the pathways and rewards of HIV medicine work can
strengthen the capacity of primary care systems to deliver HIV care and treatment, and to enhance more broadly the professional cultures and communities of HIV medicine.

**Conclusions**

The interviews we conducted with GPs suggest that an engagement with HIV medicine enables clinicians to develop strong and long-term relationships with and expertise about the care needs of people living with HIV ‘at the coalface’, while also feeling connected with a broader network of medical practitioners and other professionals concerned with and contributing to the ever-changing world of science: ‘the cutting edge’. The general practice HIV prescriber is being modelled here as the interface between these two worlds, offering a rewarding opportunity for primary care clinicians to feel intimately connected to both community needs and scientific change.

**Conflicts of interest**

None to declare.

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**Authors’ contributions**

CN led the conception and design of the study, conducted or coordinated all forms of data collection and analysis, and led the drafting and revision of the manuscript. AP contributed to the analysis of the project data, and provided critical input into the drafting and revision of the manuscript. JdW participated in the design of the study, advised on all stages of data collection and analysis, and contributed to the drafting and revision of the manuscript. RR advised on the design of the study, the collection and analysis of data, and contributed to the drafting and revision of the manuscript. PC advised on the design of the study from the particular perspective of a consumer advocate for people living with HIV/AIDS, advised on the collection and analysis of data, and contributed to the drafting and revision of the manuscript. SK advised on the design of the study, the collection and analysis of the data, and contributed to the drafting and revision of the manuscript. MK participated in the design of the study, advised on all stages of data collection and analysis, and contributed to the drafting and revision of the manuscript. All authors read and approved the final manuscript.

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