Enhanced Multidisciplinary Follow up

A valuable template for understanding key cohort changes and retention in care among people attending Western Sydney Sexual Health Service (WSSHC) for HIV care

Nicholas B Comninos[1,2], Suzanne Rix[1], Melissa Power[1], Anna Chinni[1], Louise Tomlins[1], Siju Varghese[1], Peter Yu[1], David A Lewis[1,2], Rohan I Bopage[1,2]

[1]Western Sydney Sexual Health Centre, Parramatta, New South Wales, Australia.[2] Westmead Clinical School and Sydney Institute for Infectious Diseases, University of Sydney, Sydney, New South Wales, Australia.

No conflcits of interest to declare

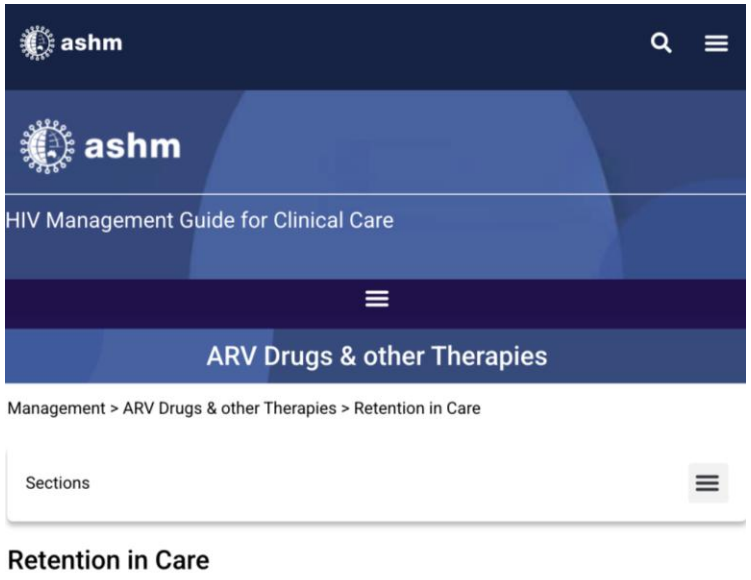
Acknowledgment

*I would like to acknowledge that we are meeting on the traditional Country of the **Kaurna people** of the Adelaide Plains and pays respect to Elders past and present. We recognise and respect their cultural heritage, beliefs and relationship with the land and we also extend that respect to other Aboriginal Language Groups and other First Nations*

*I would also like to acknowledge **People Living with HIV (PLWHIV)** and their ongoing and enduring commitment to health and wellbeing through involvement in clinical care, research, education and health promotion.*

Retention in care among PLWHIV

'Retention in care has been consistently shown to be an important factor influencing outcomes for HIV-infected individuals, including survival, suppression of HIV RNA, improved health outcomes and lower risk of transmission'



Sustaining retention in care among people living with HIV (PLHIV) has important individual-level, public health and quality/safety benefits and implications for services.

What role do clinics and services play?

How do we know how we're tracking?

What simple steps can we enact now?

ASHM HIV Guidelines (2025): Retention in Care. Accessed 30-8-25 via https://hiv.guidelines.org.au/management/long-term-management-of-antiretroviral-therapy/retention-in-care/

What we know: Retention in care

- **Definitions matter: broad variations in definitions of retention across (and even within) services, health systems and jurisdictions**
- **Highly dependent on context, society and health system - eg as low as 50-58% in US, stable over 10 years (>/= 2 CD4 &/ VL >3 months apart in a 12 month period)**

Sprach, D: Retention in Care, in National HIV curriculum (University of Washington). Accessed 31–8-25 via https://www.hiv.uw.edu/go/basic-primary-care/retention-care/core-concept/all

- **Groundbreaking Victorian research from>5000 PLWHIV: establishment collaborative network (cross referenced data) between services and clinics**
- **Victorian experience- such collaboration significantly reduces LTFU after excluding established transfers out of care and care re-entry (1.3-5.5% --> 0.1-2.4%)**

Bhatt, S., Bryant, M., Lau, H et al (2022). Successful expanded clinic network collaboration and patient tracing for retention in HIV care. *AIDS Research and Therapy*, *19*(1).

McMahon, J. H., Moore, R., Eu, B., Tee, B. K., Chen, M., El-Hayek, C., Street, A., Woolley, I., Buggie, A., Collins, D., Medland, N., Hoy, J., & Victorian Initiative for Patient Engagement and Retention VIPER Study Group (2015). Clinic Network Collaboration and Patient Tracing to Maximize Retention in HIV Care. *PloS one*, *10*(5), e0127726.

- **Barriers to retention: Broad agreement between Australian PLWHIV and their clinicians in recent interviews**

- **Disempowerment, stigma, psychosocial barriers, food insecurity and alcohol/substance use, mental illness, ethnic minority, younger age**

ASHM HIV Guidelines (2025): Retention in Care. Accessed 30-8-25 via https://hiv.guidelines.org.au/management/long-term-management-of-antiretroviral-therapy/retention-in-care/

Bulsara, S. M., Wainberg, M. L., Audet, C. M., & Newton-John, T. R. O. (2019). Retention in HIV Care in Australia: The Perspectives of Clinicians and Clients, and the Impact of Medical and Psychosocial Comorbidity. *AIDS patient care and STDs*, *33*(10), 415–424.

- **But not limited to these: competing life priorities/busyness, perception of wellness without care/ART and belief systems (eg HIV science skepticism)**
- **These underscore the vital role of clinician-patient/service-client relationships, peer support, health promotion/education, trust and safety**
- **An 'open door' approach to ongoing care is vital, even among those with adherence/attendance challenges and among choosing to cease therapy**

NAPWHA Linkage to Care Project Report (2018). Accessed 29-8-25 via https://napwha.org.au/wp-content/uploads/2019/02/NAPWHA-Linkage-to-Care-Report-May-2018.pdf

Berg, R. C., Page, S., & Øgård-Repål, A. (2021). The effectiveness of peer-support for people living with HIV: A systematic review and meta-analysis. *PloS one*, *16*(6), e0252623. https://doi.org/10.1371/journal.pone.0252623

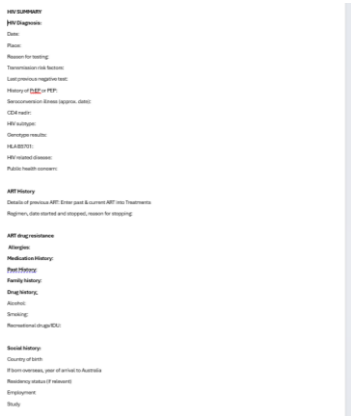
- **In higher prevalence and lower income settings, holistic care centered on PLWHIV is just as vital**

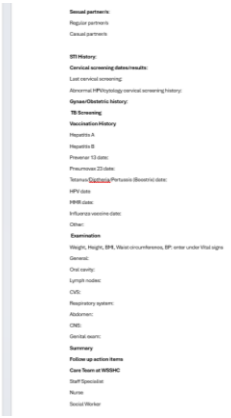
Chinyandura, C., Jiyane, A., Tsalong, X., Struthers, H. E., McIntyre, J. A., & Rees, K. (2022). Supporting retention in HIV care through a holistic, patient-centred approach: a qualitative evaluation. *BMC psychology*, *10*(1), 17.

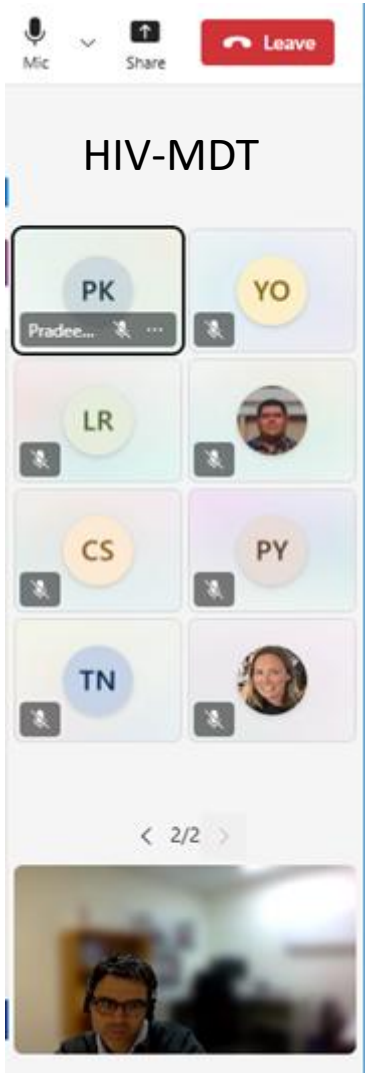
WSSHC: Enhanced Follow Up (EFU)

Established in 2020 amid pandemic-related restrictions
(after migration to eMR from paper-based records)

Building on established WSSHC frameworks
(eg annual HIV summaries, nominated Staff Specialist responsible)







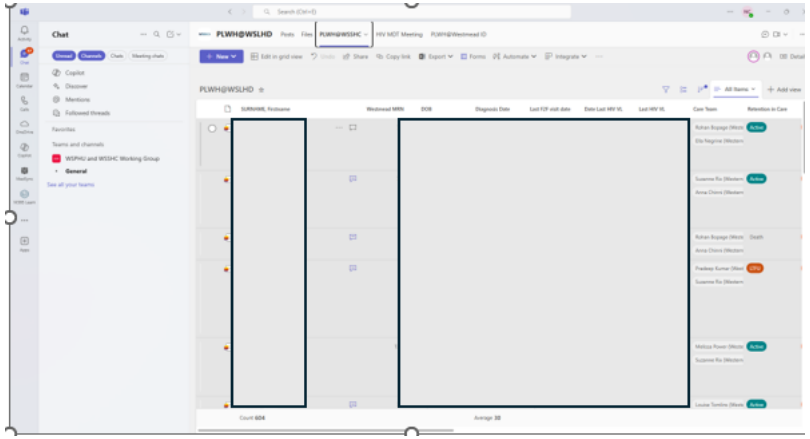
EFU comprised:

1) **'Active list'** (PLWHIV)- Microsoft Teams workspaces integrating clinical, pharmacy/dispensing and social work (psychosocial barriers, support opportunities) data. Updated at least weekly throughout 2020-2025
2) **Monthly EFU meetings** and LTFU management/planning at monthly HIV-multidisciplinary meetings.
3) **Categorisation**:complexity rating scales and MDT discussion categories

WSSHC active list and PLWHIV summaries

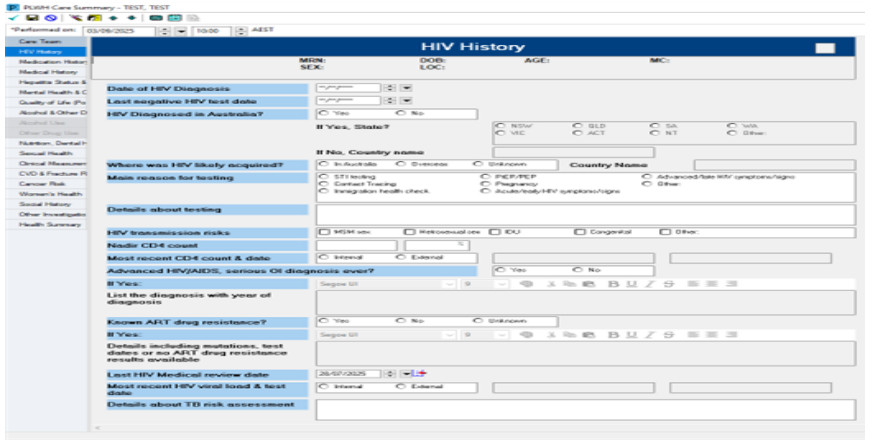
Active list for WSSHC clinicians

- MS Teams-Sharepoint- allowing users to filter, sort, group, assign, extract
- Key demographic, management-related, clinical and psychosocial factors
- Medication supply
- Complexity level according to established rating scales
- A key foundation: meetings, care planning, service provision



PLWHIV summaries

- Paper forms → structured annual progress notes→ EMR powerforms
- Benefits: holistic care, confidentiality, health needs / goals / metrics transfer/refer, advocacy, workforce training,, safety and oversight, audit/QA
- Considerations: time, resources, duplication, carry-over, system migration



EFU and WSSHC framework and procedures

Meetings where EFU occurred

- Daily huddles
- Monthly: **HIV MDT, PLWHIV retention**, MMR, Units (nurses, doctors), Executive, Research Coordinating Committee
- Quarterly: WSSHC audit committee
- Annually: Strategic/planning days

Clinical and service-related oversight:

- Each client assigned a Staff Specialist, Senior Nurse and member of the Social Work / Counselling unit
- Staff Specialist annual review / care planning
- Balancing client preferences/needs, clinician workload
- Pharmacist-clinician coordination, follow-up
- Contingency planning (eg closures, leave, emergent events)
- Compassionate access ART requests

Shared care

Infectious Diseases

Antenatal (Obstetrics and Gynaecology)

General Practitioner

Hepatology / Liver

Mental Health and Drug Health

Public health roles

Notifications

Contact tracing

Enhanced surveillance forms

Workforce training / capacity building

Staff Specialist + Social Worker and:

Transitional Nurse Practitioner or

Registrar / Advanced Trainee

Psychosocial life area	LOW COMPLEXITY Green: stable	MEDIUM COMPLEXITY Yellow: stable- unstable	HGH COMPLEXITY Red: unstable- at risk- complex
Basic needs	Client is able to meet own basic needs. Client is able to access community assistance on their own as needed.	Occasional help to access assistance.	Difficulty accessing assistance. Often w/o basics. Has limited access to food etc. Without most basic needs.
Housing	Living in stable housing. Does not need assistance.	Stable housing. Occasionally needs assistance with housing <3 times per year. Violation or eviction imminent. Frequently accesses assistance 3-6 times per year or pays rent late. Not safe housing.	
Self Sufficiency	Independent. Follows up on referrals and accesses services on own.	Sometimes requires assistance in following up and completing forms. Ongoing difficulty with follow-up; completing forms; accessing services.	Never follows-up. Unable to complete forms, attend services on own; requires ongoing advocacy support.
Mental Health	No history or presentation of mental health concerns.	History and/or reports of current difficulties/stress. Is functioning okay. Engaged in mental health care.	Experiencing severe difficulty in day-to-day functioning. Requires significant support. Needs referral to mental health care. Danger to self and/or others, needs immediate intervention. Needs but is not accessing counselling. Cannot verbalise future plans, enjoyment etc.
Family / social connections	Connected to local community, has supportive family. Has stable friendships and social networks.	Current difficulties with social networks or family. Unstable/ unsupportive friendships and/or family.	No social networks. Isolated from local community and family. Barriers to/ difficulty forming and maintaining relationships. Unsupportive friendships and family.
Legal issues	Has no current legal concerns.	Is able to follow up with legal issues. Occasionally requires assistance with forms, accessing support <3 per year.	Difficulty accessing assistance. Unable to complete forms on own. Imminent legal concerns; VISA refused etc.
Employment/ Education	Currently employed/ in education. Has stable income.	Occasionally requires assistance with employment or education concerns. Is able to follow up with Centrelink issues, etc.	Difficulty accessing assistance. Unemployed with no stable income. Not engaged in education (<16 years of age).
Alcohol and Other Drugs	No difficulties with addictions. No need for referral.	Past problems and/or less than 1 year recovery. Not impacting access to medical care or ability to pay bills.	Current addiction – willing to seek help. Addiction impacts ability to access medical care or ability to pay bills. Current addiction – not willing to seek help. Unable to seek medical care or pay bills because of addiction.
Personal Development	Engages well with health and S/W contact and counselling sessions. Actively engages in social, political, educational etc. activities/ hobbies.	Demonstrates interest in accessing and participating in social, political, educational etc. activities/ hobbies. recently stopped engaging in hobbies/activities previously enjoyed. Risk of isolation.	No engagement or interest in social, political, educational etc. activities/ hobbies. Isolated. Demonstrates negative self-worth self-respect. Cannot verbalise any interests or make future plans.
HIV Health	Verbalises clear understanding of HIV. Adherent to medications+appointments without assistance.	Little understanding of HIV needs counselling/ ongoing support. Adherent to medications and appointments the majority of time.	Lacks understanding of HIV disease progression, needs extensive assistance. Misses medications and/or appointments. Doesn't understand medications. Unable to adhere to medication regimen. Sporadic medical care.
Comorbidities	No significant co-morbidities	Multiple co-morbidities currently being managed adequately.	Multiple co-morbidities not being addressed adequately. Hospital admission within last 3 months

Background: audit cycle

2020-2022 audit cycles:

EFU coincided with:

- high retention rates
- loss to follow-up reductions

Enhanced multidisciplinary follow-up (‘EFU’) has continued since 2020

Sustained retention in care among PLWH attending WSSHC: the impact of an enhanced follow-up initiative during COVID-19 pandemic.

Health
Western Sydney
Local Health District

WSSHC
WESTERN SYDNEY SEXUAL HEALTH CENTRE

AUTHORS
Cominos NB 1,2, Rix S 1, Power M 1, Goulding L 1, Varghese S 1, Yu P 1,Mason E 1, Lewis DA 1,2, Ropage R1 1

AFFILIATIONS
1 Western Sydney Sexual Health Centre, Parramatta, New South Wales, Australia; 2 Westmead Clinical School and Sydney Institute for Infectious Diseases, University of Sydney, Sydney, New South Wales, Australia.

INTRODUCTION

Retention in care of people living with HIV (PLWH) facilitates improved outcomes in a cohort with increasing health-related complexity. It also reduces the prevalence of untreated HIV in the community. ‘Enhanced Follow-Up’ (EFU) was introduced at Western Sydney Sexual Health Centre (WSSHC) in June 2020 to monitor and reduce loss to follow-up (LTFU) during the Covid-19 pandemic. We evaluated retention rates among of PLWH 18 months after this intervention.

METHODS

Medical records were audited retrospectively for PLHIV attending WSSHC. Three audits were conducted, each spanning a 12-month period: A1 (from 30-6-2019 to 30-6-2020 ‘baseline/pre-EFU’), A2 (from 30-9-2019 to 30- 9-2020) and A3 (from 31-12-2020 to 31-12-2021). The EFU initiative comprised: 1) a Microsoft Teams workspace integrating data from clinicians, pharmacy (adherence) and social workers (psychosocial retention barriers), 2) dedicated monthly retention meetings and 3) LTFU planning at monthly HIV-multidisciplinary meetings.

‘Active care’ described at least 6-monthly face-to-face or telehealth medical consultations for antiretroviral therapy and/or monitoring/viral load measurement. ‘LTFU’ described no attendance for >6 months AND three documented unsuccessful recall attempts by phone call, SMS or registered letter. ‘Care-entry’ described HIV diagnosis at WSSHC/transfer-in referral/self-referral AND subsequent attendance. ‘Care-transfer’ described transfer-out referral/documented attendance elsewhere for ongoing care. Target LTFU rate (percentage of total cohort) was ≤1%.

RESULTS

Medical records of 386 PLWH were analysed (median age 44 years, 17.3% female, 37.8% born in Australia, 2.6% Aboriginal/Torres Strait Islander, median 8.7 years since diagnosis).

The proportion receiving active care increased over time (96.5%, A3: 94.2%, A2: 84.4%, A1).
LTFU occurred in 0.7% (A3), compared with 2.0% (A2) and 7.0% (A1). Care-entry and care-transfer occurred in 1.0% and 1.8% (A3) compared with 2.7% and 1.1% (A2) and 3.4% and 5.2% (A1), respectively.

CONCLUSION

Retention rates were improved 18 months after the implementation of EFU. LTFU quality-assurance is useful and feasible for services seeking to optimize retention in care during infectious disease pandemics

We evaluated the long-term sustainability of these gains in a repeat 2024-2025 audit

The goal remains to minimise loss to follow up (LTFU)-unstructured/unplanned and unaccounted for exit from care

Methodology of this audit

- Simple retrospective audit by clinicians
- PLHIV attending WSSHC for HIV care (HIV viral load 'VL' measurement)
- 3 audit-periods corresponding to 2022, 2023, 2024 calendar years
- Descriptive measures: demographic and clinical variables
- 'Complexity rating': per 2021 rating scale developed internally (consensus group)
- Chi-square tests compared care categories: demographic/clinical variables

❖Target LTFU:
≤1% overall and in each period

'Ongoing-care': at least 12-monthly attendance for face-to-face/telehealth consultation

'Care-entry': HIV diagnosis at WSSHC/transfer-in referral/self-referral AND attendance.

'Care-transfer': transfer-out referral/documented care elsewhere after 'Ongoing-care'/'Care-entry'.

'LTFU': no attendance>12 months after 'Ongoing-care'/Care-entry', no 'Care-transfer'
AND ≥3 documented different unsuccessful recall attempts (phone/sms/letter).

WSSHC: profile of our cohort

461/575 (81%) records with snapshot data (2024)

Demographic

Median age=43 years

Cisgender-male= 78.1%

Cis-female=20.6%

Trans-female=1.3%

Medicare-ineligible= 19.3%

Aboriginal/Torres Strait Islander=2.8%

Past-year injecting drug use ('PWID')=4.7%

Clinical

Mean years since diagnosis=12.8

median latest CD4 count=748uL

latest VL <20 c/ml =80.5%

20-200 c/ml=18.7%

>200 c/ml=0.8%

antiretroviral treatment=100%

Care entry: beginning care at WSSHC

Care-entry

63/515 (12.2%) in 2022

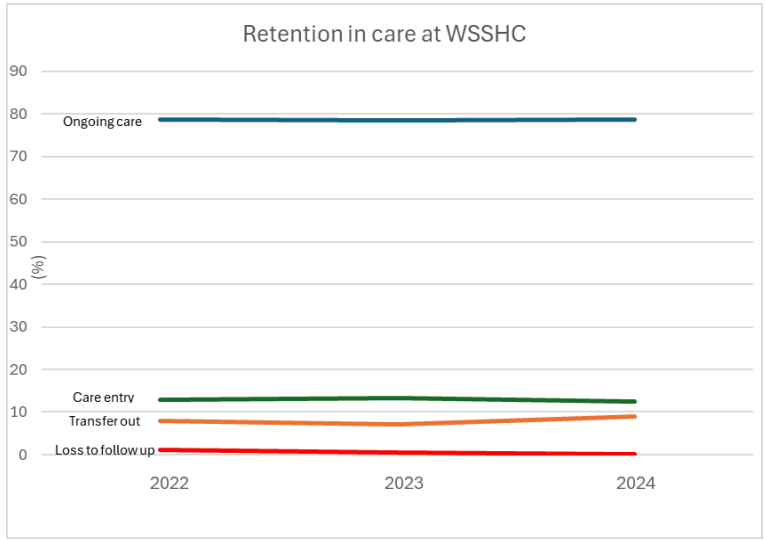
18/63 (28.6%) new Dx v 45/63 (71.4%) transfer in

77/545 (14.1%) in 2023

28/77 (36.4%) new diagnosis v 47/77 (63.6%) transfer in

73/575 (12.7%) in 2024

29/73 (39.7%) new diagnosis v 44/73 (60.3%) transfer in



Apparent increase in proportion of PLWIV entering care with new diagnosis (29% to 40%)
However, this was not statistically significant p-trend=0.3681

Compared with 'Ongoing-care', 'Care-entry' PLHIV were more often:

Younger / aged<40y (54.0% v 29.8%;p<0.001)
PWID (7.4% v 3.4%;p=0.004)
Immunocompromised CD4<200uL (4.0% v 0.7%;p<0.001)
Medicare-ineligible (33.7% v 12.3%;p<0.001).

Newly diagnosed

- Diagnosis at WSSHC
- Diagnoses elsewhere (GP/ED/WMH/BMDH) referred to WSSHC at diagnosis

Transfer into WSSHC

- Formal referral from other HIV service
- Self-referral

Ongoing care: remaining at WSSHC

Ongoing-care

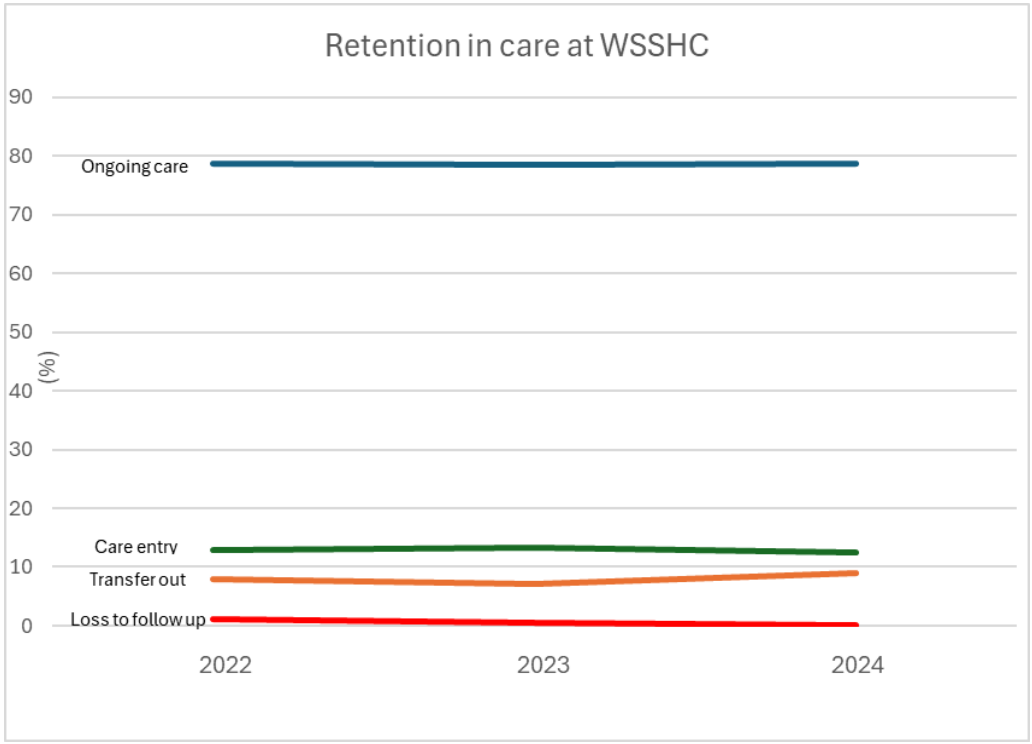
405/515 (78.7%) in 2022

425/545 (78.0%) in 2023

450/575 (78.3%) in 2024

Mean number HIV monitoring visits:

3.0	2.5	2.7
2022	2023	2024



Care-Transfer: structured exit from WSSHC

Care-transfer

41/515; (8.0%) in 2022

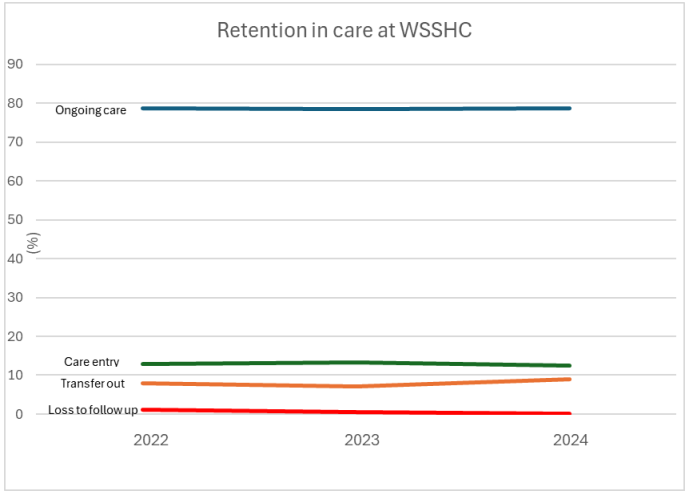
43/545 (7.3%) in 2023

51/575 (8.9%) in 2024

Year	Other NSW PFSHC	Interstate SHC	Overseas	GP S100	Justice
2022	38%	52%	3%	7%	0%
2023	48%	22%	22%	4%	4%
2024	42%	23%	29%	3%	3%

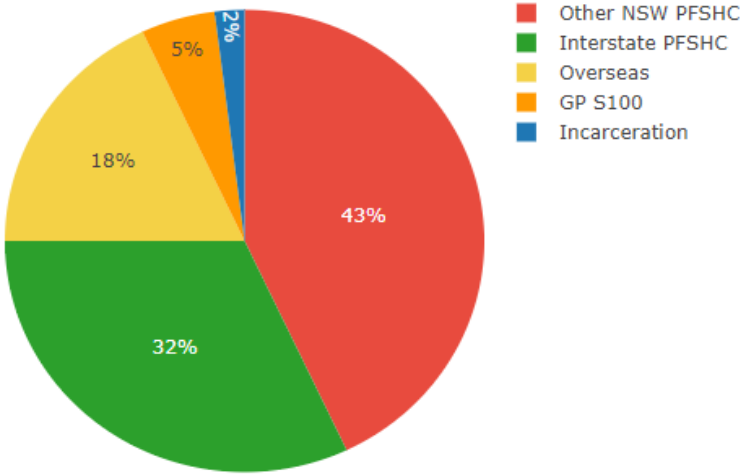
P-trend <0.001

P-trend <0.001



Transfer overseas more common over time
Transfer interstate less common

Overall care-transfer destination: 2022-2024



Formal Care-Transfer Referral
- Clinician initiated
- Client requested

New care location ROI receipt and response
- Specifying HIV care
- Included other SHCs, justice health, GPs

Documented care elsewhere
- Eg left Australia and plan for ongoing care

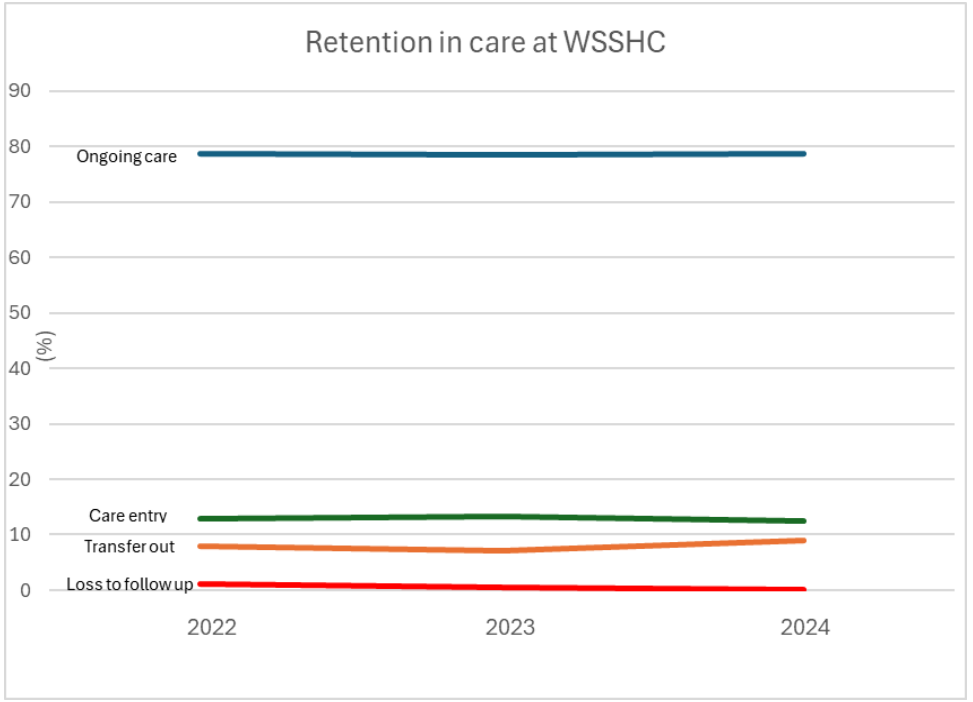
Included initially marked LTFU but since accounted for

Loss to follow up (LTFU) from WSSHC

LTFU=10/1659 (0.6%) overall

6/515 (1.2%) in 2022
3/545 (0.6%) in 2023
1/575 (0.2%) in 2024

Overall 83% temporal decrease; p-trend=0.036



LTFU(n=6) were predominately:

- cis-male
- aged<40y
- medicare-eligible
- non-PWID
- medium/high complexity
- VL<20c/ml

WSSHC: Complexity and cohort changes

Psychosocial life area	LOW COMPLEXITY Green: stable	MEDIUM COMPLEXITY Yellow: stable- unstable	HGH COMPLEXITY Red: unstable- at risk- complex

Category	Low Complexity	Medium Complexity	High Complexity	
Care-Entry	-	-	-	Complexity data not available
Ongoing care	730 (57%)	422 (33%)	128 (10%)	
Care-Transfer	85 (63%) p=0.386	36 (27%) p=0.355	14 (10%)	
Loss to follow up (LTFU)	4 (40%)	1 (10%)	5 (50%)	Numbers small

Reflections on this audit

Strengths

- Simplicity
- Reproducibility
- Practical utility

Considerations

- Observational and retrospective, reflecting correlation only
- Small numbers for LTFU-this group couldn’t be meaningfully described
- EFU robustness- highly dependent on users-the team
- 'Retention' defined less stringently (at least attendance with VL per year)
- Misclassification of some data was possible
- Oversimplification: adherence, engagement, follow-up, care quality are all nuanced
- Limited data- unable to sub-stratify/analyse different forms of care entry and structured care exit in detail
- 19% missing data, partially missing data for some variables

Conclusions and takeaways

- Amid ongoing EFU, LTFU decreased to well below target and remained within target overall
  - Small numbers preclude a better understanding of the LTFU group compared with other groups
  - Correlation only; other factors (eg Covid-19, unmeasured demographic factors, peer support, staff/service changes) may have contributed

- Care entry, ongoing care and care-transfer remained stable over time
  - Care entry: younger cohort with more medical and psychosocial complexity but less coverage by medicare
  - Care transfer: usually to other NSW clinics but shift to transfer overseas rather than interstate is apparent
  - Ongoing care v transfer out: no apparent differences in complexity

EFU is likely to have contributed to care-retention at a busy, growing metropolitan service caring for PLHIV with increasingly complex health and psychosocial needs

Next steps:

- sub-stratify care-entry, transfer-out and perhaps ongoing care (infrequent v frequent visits): associations with key demographic and clinical variables
- capture and analyse complexity-rating data
- real-time measurement / data dashboard?

Pending Single Digital Patient Records (SDPR), broader networking and greater interservice collaboration, EFU and its components could easily be employed by similar services

Examples: value of EFU to PFSHCs

Statins to address cardiovascular risk among PLWHIV aged 40+

Antiretroviral therapy and weight gain: emerging evidence, BMI

Cancer screening: eg breast, colon, lung (smokers), cervical, liver (HBV-HIV), anal cancer (new guidance)

Vaccinations and health promotion: Mpox, Covid

Quality of life, psychosocial wellbeing, stigma, mental health

Busiest hours, days, months: rostering, service planning / hours/ closures, attendances, pharmacy access

Bacterial STIs: Changes to the frequency of recommended screening

HIV in pregnancy: MDTs and/or collaborative care for complex cases:

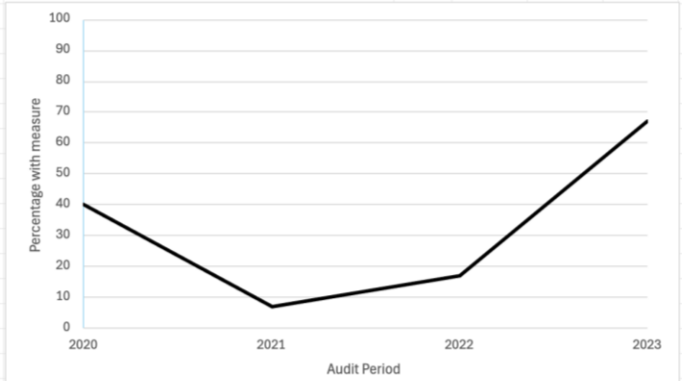
Long acting ART: follow-up planning and recall systems

Contraception, gender affirmation, menopause management

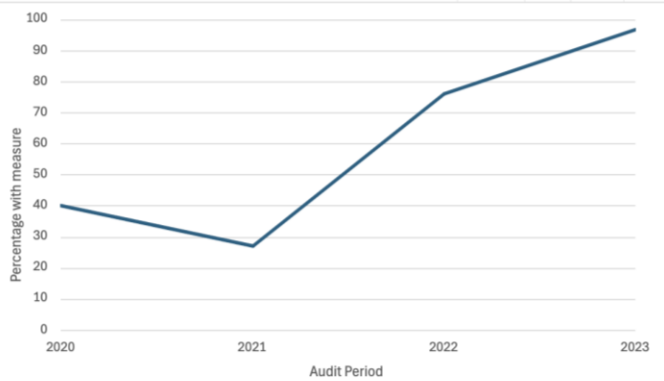
Examples of current WSSHC audits drawing on EFU

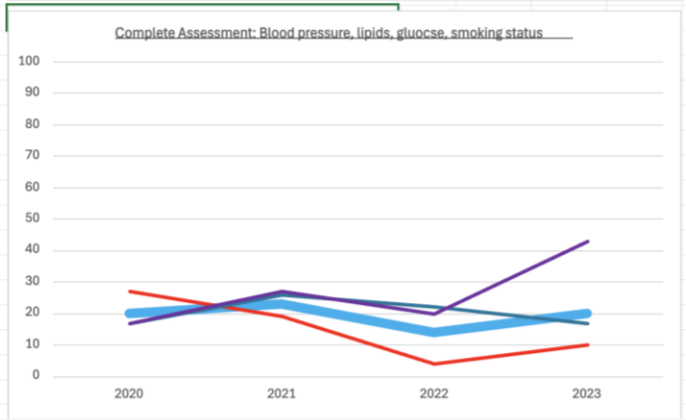
- vaccinations among PLWHIV (2024-current)
- cervical screening audit (2025-current)
- cardiovascular risk factor monitoring (2021-current)

	Audit Period	2020	2021	2022	2023
Select drop down->	Males 55y+ Body Mass Index measurement	40	7	17	67



	Audit Period	2020	2021	2022	2023
Compare ->	Males 55y+ Weight measurement	40	27	76	97





EFU for PLWHIV at WSSHC: where to from here?

Examples of current WSSHC audits drawing on EFU

- vaccinations among PLWHIV (2024-current)
- cervical screening audit (2025-current)
- cardiovascular risk factor monitoring (2021-current)

Future plans:

Broadening scope to potentially include:

- Attendance challenges ('incomplete' LTFU)- defining and auditing more dimensions and nuances (care quality, completeness, satisfaction)

Clinical care audits (current and new): eg monitoring, vaccinations, cancer screening, cardiovascular risk, comorbidity and care planning, quality of life

Integration of peer support into routine clinic care: collaboration with Positive Life and other organisations

Hopefully collaboration with other services / networks to share key metrics and data, following Victoria

Thank you and acknowledgements

WSSHC

All current clinicians, administrative staff and IT / data analysis staff

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Social workers & counsellors: Ella Negrine, Christos Floratos

Social workers & counsellors: (former): Lara Goulding, Julia Sharpe, Martin Silveria

WSLHD Infectious Diseases and Microbiology

Drs Matthew O'Sullivan, Dr Susan Maddocks, Dr Helena Baxter, Dr Ian Wong

CNC Allison Sutor