

Industry data request – Current ART Switch Trends Among AHOD Participants 2016 to 2017 Period

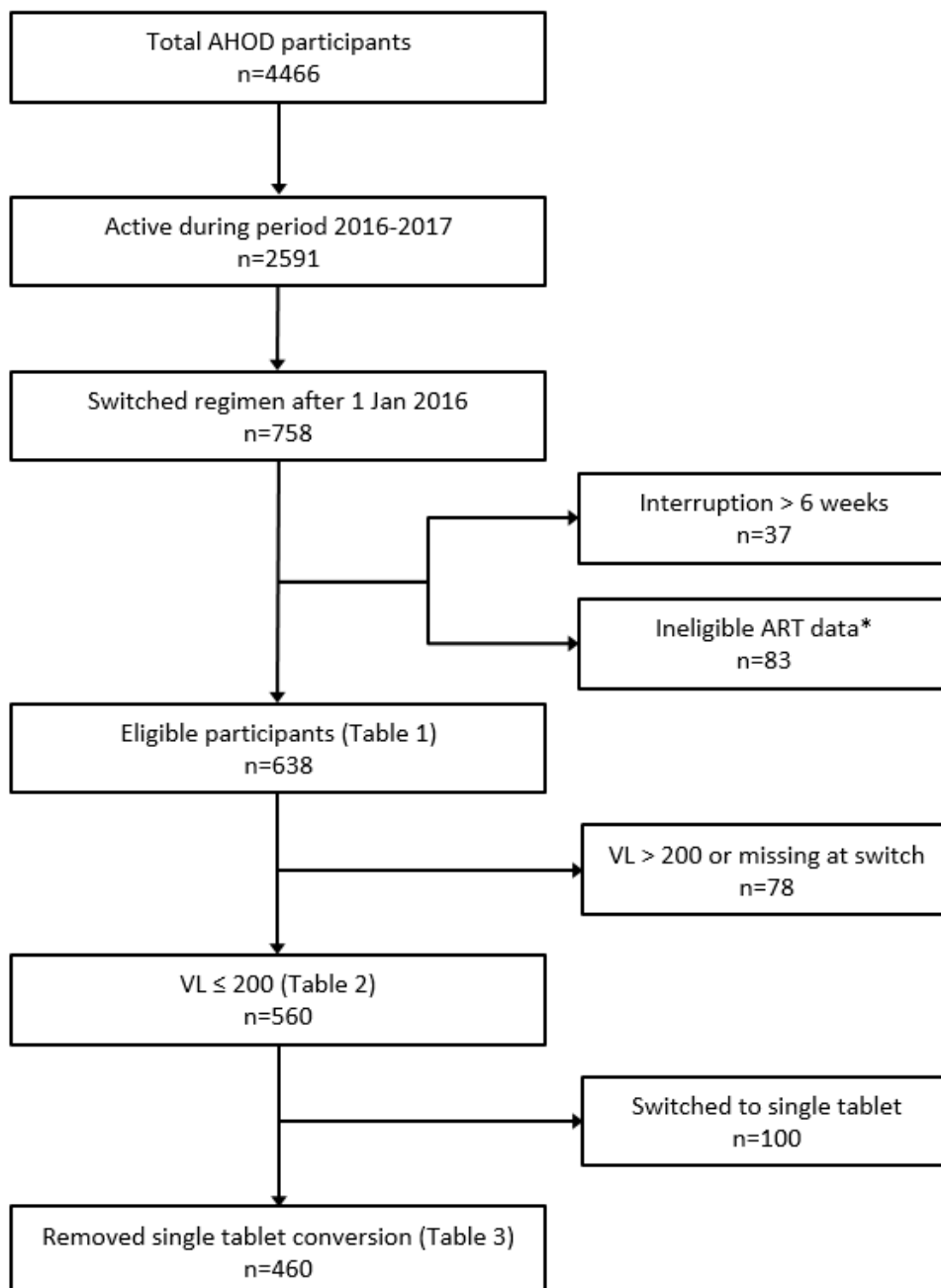
Objective

To understand the current HIV treatment landscape in Australia with respect to treatment switching.

Method

From within the AHOD participants, gather the demographics and clinical data summary of those that switched their ART regimen during the period 1 Jan 2016 to 31 Mar 2017.

Selection Criteria



* Clinical trial related switches and other data errors (e.g. a combination with > 6 drugs) were removed

Table 1a: Demographics and Clinical Summary (N=638)
(AHOD patients that switched their ART regimen at least once after 1 Jan 2016)

	Number	(%)		Number	(%)
Sex			CD4 (cells/μl) at enrol		
Male	575	(90.1)	<200	56	(8.8)
Female	62	(9.7)	200-500	235	(36.8)
Transgender	1	(0.2)	>500	333	(52.2)
			Missing	14	(2.2)
Age (years)¹			Median [IQR]	512.5	[350-706]
<30	25	(3.9)	Viral Load at enrol		
30-39	79	(12.4)	<200	358	(56.1)
40-49	157	(24.6)	\geq 200	260	(40.8)
50-59	208	(32.6)	Missing	20	(3.1)
\geq 60	169	(26.5)	Median [IQR]	50	[40-1200]
Median [IQR]	52.9	[45-61]	Hepatitis C ever		
Aboriginal/Torres Strait islander			Yes	54	(8.5)
Yes	14	(2.2)	No	515	(80.7)
No	476	(74.6)	No test	69	(10.8)
Missing	148	(23.2)	Hepatitis B ever		
Exposure category			Yes	21	(3.3)
Male homosexual contact	464	(72.7)	No	519	(81.4)
Male homosexual contact and IDU	15	(2.4)	No test	98	(15.4)
Injecting drug user (IDU)	7	(1.1)	Number of switches²		
Heterosexual contact	119	(18.7)	1	571	(89.5)
Receipt of blood/blood products	5	(0.8)	2	57	(8.9)
Other	14	(2.2)	3+	10	(1.6)
Missing	14	(2.2)	Previous regimen duration³		
Estimated year of HIV infection			<1 Year	78	(12.2)
<2000	312	(48.9)	1-2 years	140	(21.9)
2000-2009	169	(26.5)	3-4 years	137	(21.5)
2010+	115	(18)	5-6 years	94	(14.7)
Missing	42	(6.6)	\geq 7 years	189	(29.6)
Patient care setting			Median [IQR]	3.5	[1.6-7]
General Practitioner	249	(39)	CD4 (cells/μl) at switch⁴		
Hospital Tertiary Centre	126	(19.8)	<200	18	(2.8)
Sexual Health Clinic	263	(41.2)	200-500	142	(22.3)
Region of birth			>500	444	(69.6)
Australia and New Zealand	404	(63.3)	Missing	34	(5.3)
Asia	46	(7.2)	Median [IQR]	660	[491-889]
Other	93	(14.6)	Viral Load at switch⁴		
Missing	95	(14.9)	<200	560	(87.8)
Prior AIDS defining illness⁵			\geq 200	30	(4.7)
Yes	100	(15.7)	Missing	48	(7.5)
No	24	(3.8)	Median [IQR]	20	[19-40]
Missing	514	(80.6)			

¹ Age is calculated based on the date of first regimen switch made after 1 Jan 2016.

² Number of times a patient switched regimen after 1 Jan 2016

³ The average time on treatment of the previous regimen prior to switch

⁴ The closest CD4 and Viral Load measurement at first regimen switch after 1 Jan 2016 (range selected between <6 month prior to switch and up to 2 weeks after switch)

⁵ Proportion of patients with AIDS defining illness prior to enrolment

Table 1b: ART Switch (number of switches=716)
(AHOD patients that switched their ART regimen at least once after 1 Jan 2016)

	Number	(%)		Number	(%)
Switched From¹			Switched To¹		
FTC/TDF/EVG/c	79	(11)	FTC/TAF/EVG/c	150	(21)
FTC/TDF/EFV	63	(8.8)	3TC/ABC/DTG	68	(9.5)
FTC/TDF+NVP	45	(6.3)	FTC/TAF+DTG	42	(5.9)
FTC/TDF+ATV/r	44	(6.2)	FTC/TDF+DTG	40	(5.6)
FTC/TDF+RAL	44	(6.2)	FTC/TAF+NVP	27	(3.8)
FTC/TDF+DTG	44	(6.2)	FTC+TAF+DTG	13	(1.8)
3TC/ABC/DTG	18	(2.5)	FTC/TAF/EVG/c+DRV	13	(1.8)
3TC/ABC+NVP	14	(2)	FTC+TDF+EVG/c	11	(1.5)
3TC/ABC+EFV	11	(1.5)	FTC+TAF+NVP	11	(1.5)
FTC+TDF+DTG	10	(1.4)	FTC/TAF+RAL	11	(1.5)
Previous drug class²			Current drug class²		
NRTI	1352	(60.6)	NRTI	1361	(61.2)
NNRTI	266	(11.9)	NNRTI	139	(6.2)
PI	254	(11.4)	PI	163	(7.3)
InSTI	345	(15.5)	InSTI	553	(24.9)
EI	13	(0.6)	EI	9	(0.4)
Boosted Regimen (before switch)³			Boosted Regimen (after switch)³		
Yes	310	(43.3)	Yes	327	(45.7)
No	406	(56.7)	No	389	(54.3)
Number of drugs ever⁴			Number of drug classes ever		
≤3	9	(1.4)	1	1	(0.2)
4-6	216	(33.9)	2	129	(20.2)
7-9	187	(29.3)	3	267	(41.9)
10+	226	(35.4)	4	213	(33.4)
			5	28	(4.4)

¹ Combinations such as Truvada or Descovy are listed by its composition and grouped together by "/" while separate drug entities are shown with "+". Proportions are calculated based on the total number of switches

² Proportions are calculated based on the total number of drugs. Abbreviations: PI, protease inhibitor; NRTI, nucleoside analogue reverse transcriptase inhibitors; NNRTI, non-nucleoside analogue reverse transcriptase inhibitors; InSTI, integrase inhibitor; EI, entry inhibitor;

³ The proportions are calculated based on the total number of switches. A boosted regimen contains either /r or /c.

⁴ Number of drug types ever taken e.g. if a patient switched from FTC+TDF to Truvada, it would not be added to the total drug number count, it would still be considered as the patient having only taken 2 drugs ever.

Table 2a: Demographics and Clinical Summary (N=560)
(Removed patients with missing or viral load > 200 copies/ml)

	Number	(%)		Number	(%)
Sex			CD4 (cells/μl) at enrol		
Male	507	(90.5)	<200	49	(8.8)
Female	52	(9.3)	200-500	204	(36.4)
Transgender	1	(0.2)	>500	298	(53.2)
			Missing	9	(1.6)
Age (years)¹			Median [IQR]	520	[350-692]
<30	24	(4.3)			
30-39	67	(12)	Viral Load at enrol		
40-49	136	(24.3)	<200	324	(57.9)
50-59	179	(32)	\geq 200	226	(40.4)
\geq 60	154	(27.5)	Missing	10	(1.8)
Median [IQR]	53	[45-61]	Median [IQR]	50	[40-1000]
Aboriginal/Torres Strait islander			Hepatitis C ever		
Yes	10	(1.8)	Yes	47	(8.4)
No	418	(74.6)	No	450	(80.4)
Missing	132	(23.6)	No test	63	(11.3)
Exposure category			Hepatitis B ever		
Male homosexual contact	409	(73)	Yes	14	(2.5)
Male homosexual contact and IDU	14	(2.5)	No	461	(82.3)
Injecting drug user (IDU)	5	(0.9)	No test	85	(15.2)
Heterosexual contact	103	(18.4)			
Receipt of blood/blood products	5	(0.9)	Number of switches²		
Other	14	(2.5)	1	504	(89.8)
Missing	10	(1.8)	2	50	(8.9)
			3+	7	(1.3)
Estimated year of HIV infection			Previous regimen duration³		
<2000	268	(47.9)	<1 Year	62	(11.1)
2000-2009	152	(27.1)	1-2 years	125	(22.3)
2010-2015	103	(18.4)	3-4 years	126	(22.5)
Missing	37	(6.6)	5-6 years	84	(15)
			\geq 7 years	163	(29.1)
Patient care setting			Median [IQR]	3.5	[1.6-6.5]
General Practitioner	228	(40.7)	CD4 (cells/μl) at switch⁴		
Hospital Tertiary Centre	99	(17.7)	<200	14	(2.5)
Sexual Health Clinic	233	(41.6)	200-500	124	(22.1)
			>500	414	(73.9)
Region of birth			Missing	8	(1.4)
Australia and New Zealand	351	(62.7)	Median [IQR]	666	[499-894]
Asia	42	(7.5)			
Other	84	(15)	Viral Load at switch⁴		
Missing	83	(14.8)	<200	560	(100)
Prior AIDS defining illness⁵			\geq 200	-	-
Yes	82	(14.6)	Missing	-	-
No	21	(3.8)	Median [IQR]	20	[19-40]
Missing	457	(81.6)			

¹ Age is calculated based on the date of first regimen switch made after 1 Jan 2016.

² Number of times a patient switched regimen after 1 Jan 2016

³ The average time on treatment of the previous regimen prior to switch

⁴ The closest CD4 and Viral Load measurement at first regimen switch after 1 Jan 2016 (range selected between <6 month prior to switch and up to 2 weeks after switch)

⁵ Proportion of patients with AIDS defining illness prior to enrolment

Table 2b: ART Switch (number of switches=626)
(Removed patients with missing or viral load > 200)

	Number	(%)		Number	(%)
Switched From¹			Switched To¹		
FTC/TDF/EVG/c	75	(12)	FTC/TAF/EVG/c	140	(22.4)
FTC/TDF/EFV	57	(9.1)	3TC/ABC/DTG	60	(9.6)
FTC/TDF+DTG	41	(6.6)	FTC/TAF+DTG	41	(6.6)
FTC/TDF+NVP	40	(6.4)	FTC/TDF+DTG	36	(5.8)
FTC/TDF+ATV/r	40	(6.4)	FTC/TAF+NVP	24	(3.8)
FTC/TDF+RAL	40	(6.4)	FTC+TAF+DTG	12	(1.9)
3TC/ABC/DTG	18	(2.9)	FTC+TAF+NVP	11	(1.8)
3TC/ABC+NVP	11	(1.8)	FTC/TAF/EVG/c+DRV	11	(1.8)
3TC/ABC+EFV	11	(1.8)	FTC+TDF+EVG/c	10	(1.6)
FTC+TDF+NVP	9	(1.4)	FTC/TAF+RAL	10	(1.6)
Previous drug class²			Current drug class²		
NRTI	1196	(61.2)	NRTI	1195	(61.6)
NNRTI	233	(11.9)	NNRTI	118	(6.1)
PI	211	(10.8)	PI	128	(6.6)
InSTI	305	(15.6)	InSTI	492	(25.4)
EI	9	(0.5)	EI	6	(0.3)
Boosted Regimen (before switch)³			Boosted Regimen (after switch)³		
Yes	266	(42.5)	Yes	280	(44.7)
No	360	(57.5)	No	346	(55.3)
Number of drugs ever⁴			Number of drug classes ever		
≤3	7	(1.3)	1	1	(0.2)
4-6	188	(33.6)	2	116	(20.7)
7-9	174	(31.1)	3	235	(42)
10+	191	(34.1)	4	185	(33)
			5	23	(4.1)

¹ Combinations such as Truvada or Descovy are listed by its composition and grouped together by "/" while separate drug entities are shown with "+". Proportions are calculated based on the total number of switches

² Proportions are calculated based on the total number of drugs. Abbreviations: PI, protease inhibitor; NRTI, nucleoside analogue reverse transcriptase inhibitors; NNRTI, non-nucleoside analogue reverse transcriptase inhibitors; InSTI, integrase inhibitor; EI, entry inhibitor;

³ The proportions are calculated based on the total number of switches. A boosted regimen contains either /r or /c.

⁴ Number of drug types ever taken e.g. if a patient switched from FTC+TDF to Truvada, it would not be added to his total drug number count, it would still be considered as the patient having only taken 2 drugs ever.

Table 3a: Demographics and Clinical Summary (N=460)
(Removed patients that converted to a single tablet version of the same regimen)

	Number	(%)		Number	(%)
Sex			CD4 (cells/μl) at enrol		
Male	410	(89.1)	<200	41	(8.9)
Female	49	(10.7)	200-500	166	(36.1)
Transgender	1	(0.2)	>500	245	(53.3)
			Missing	8	(1.7)
Age (years)¹			Median [IQR]	520	[350-699]
<30	14	(3)	Viral Load at enrol		
30-39	51	(11.1)	<200	272	(59.1)
40-49	105	(22.8)	\geq 200	179	(38.9)
50-59	152	(33)	Missing	9	(2)
\geq 60	138	(30)	Median [IQR]	50	[40-496]
Median [IQR]	54	[46-62]	Hepatitis C ever		
Aboriginal/Torres Strait islander			Yes	42	(9.1)
Yes	8	(1.7)	No	366	(79.6)
No	351	(76.3)	No test	52	(11.3)
Missing	101	(22)	Hepatitis B ever		
Exposure category			Yes	14	(3)
Male homosexual contact	333	(72.4)	No	377	(82)
Male homosexual contact and IDU	14	(3)	No test	69	(15)
Injecting drug user (IDU)	4	(0.9)	Number of switches²		
Heterosexual contact	86	(18.7)	1	416	(89.3)
Receipt of blood/blood products	5	(1.1)	2	47	(10.1)
Other	12	(2.6)	3	3	(0.6)
Missing	6	(1.3)	Previous regimen duration³		
Estimated year of HIV infection			<1 Year	36	(7.8)
<2000	241	(52.4)	1-2 years	76	(16.5)
2000-2009	115	(25)	3-4 years	113	(24.6)
2010-2015	75	(16.3)	5-6 years	78	(17)
Missing	29	(6.3)	\geq 7 years	157	(34.1)
Patient care setting			Median [IQR]	4.3	[2.1-7.2]
General Practitioner	190	(41.3)	CD4 (cells/μl) at switch⁴		
Hospital Tertiary Centre	77	(16.7)	<200	11	(2.4)
Sexual Health Clinic	193	(42)	200-500	103	(22.4)
Region of birth			>500	340	(73.9)
Australia and New Zealand	292	(63.5)	Missing	6	(1.3)
Asia	33	(7.2)	Median [IQR]	658.5	[498-900]
Other	70	(15.2)	Viral Load at switch⁴		
Missing	65	(14.1)	<200	460	(100)
Prior AIDS defining illness⁵			\geq 200	-	-
Yes	69	(15)	Missing	-	-
No	19	(4.1)	Median [IQR]	20	[19-39]
Missing	372	(80.9)			

¹ Age is calculated based on the date of first regimen switch made after 1 Jan 2016.

² Number of times a patient switched regimen after 1 Jan 2016

³ The average time on treatment of the previous regimen prior to switch

⁴ The closest CD4 and Viral Load measurement at first regimen switch after 1 Jan 2016 (range selected between <6 month prior to switch and up to 2 weeks after switch)

⁵ Proportion of patients with AIDS defining illness prior to enrolment

Table 3b: ART Switch (number of switches=519)
(Removed patients that converted to a single tablet version of the same regimen*)

	Number	(%)		Number	(%)
Switched From¹			Switched To¹		
FTC/TDF/EFV	56	(10.8)	FTC/TAF/EVG/c	66	(12.7)
FTC/TDF+NVP	42	(8.1)	3TC/ABC/DTG	56	(10.8)
FTC/TDF+ATV/r	42	(8.1)	FTC/TAF+DTG	41	(7.9)
FTC/TDF+RAL	41	(7.9)	FTC/TDF+DTG	35	(6.7)
FTC/TDF+DTG	31	(6)	FTC/TAF+NVP	24	(4.6)
3TC/ABC+NVP	12	(2.3)	FTC+TAF+DTG	12	(2.3)
3TC/ABC/DTG	11	(2.1)	FTC+TAF+NVP	11	(2.1)
3TC/ABC+EFV	10	(1.9)	FTC/TAF/EVG/c+DRV	11	(2.1)
3TC+ABC+NVP	9	(1.7)	FTC+TDF+EVG/c	10	(1.9)
FTC+TDF+NVP	9	(1.7)	FTC/TAF+RAL	9	(1.7)
Previous drug class²			Current drug class²		
NRTI	992	(60.9)	NRTI	991	(61.4)
NNRTI	219	(13.4)	NNRTI	104	(6.4)
PI	202	(12.4)	PI	119	(7.4)
InSTI	208	(12.8)	InSTI	395	(24.5)
EI	8	(0.5)	EI	5	(0.3)
Boosted Regimen (before switch)³			Boosted Regimen (after switch)³		
Yes	182	(35.1)	Yes	196	(37.8)
No	337	(64.9)	No	323	(62.2)
Number of drugs ever⁴			Number of drug classes ever		
≤3	2	(0.4)	1	1	(0.2)
4-6	147	(32)	2	80	(17.4)
7-9	142	(30.9)	3	198	(43)
10+	169	(36.7)	4	161	(35)
			5	20	(4.4)

* Excluded conversion related switches such as 3TC/ABC + DTG to 3TC/ABC/DTG (Triumeq) or vice versa, and also excluded switches of same regimen but from TDF to TAF

¹ Combinations such as Truvada or Descovy are listed by its composition and grouped together by "/" while separate drug entities are shown with "+". Proportions are calculated based on the total number of switches

² Proportions are calculated based on the total number of drugs. Abbreviations: PI, protease inhibitor; NRTI, nucleoside analogue reverse transcriptase inhibitors; NNRTI, non-nucleoside analogue reverse transcriptase inhibitors; InSTI, integrase inhibitor; EI, entry inhibitor;

³ The proportions are calculated based on the total number of switches. A boosted regimen contains either /r or /c.

⁴ Number of drug types ever taken e.g. if a patient switched from FTC+TDF to Truvada, it would not be added to his total drug number count, it would still be considered as the patient having only taken 2 drugs ever.

Industry data request – Current ART Switch Trends Among AHOD Participants 2015 Period

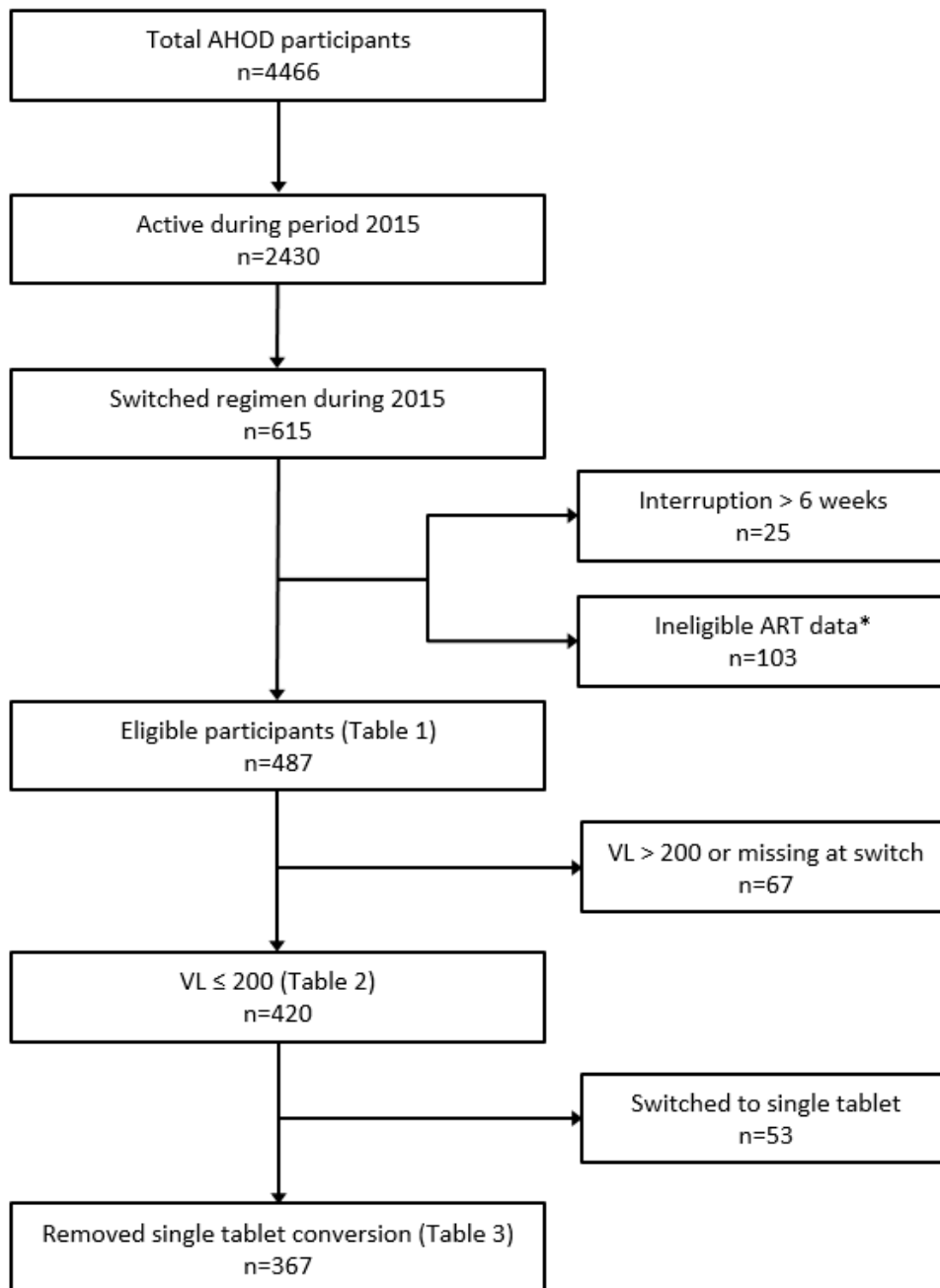
Objective

To understand the current HIV treatment landscape in Australia with respect to treatment switching.

Method

From within the AHOD participants, gather the demographics and clinical data summary of those that switched their ART regimen during the period 1 Jan 2015 to 31 Dec 2015.

Selection Criteria



* Clinical trial related switches and other data errors (e.g. a combination with > 6 drugs) were removed

Table 2a: Demographics and Clinical Summary (N=487)
(AHOD patients that switched their ART regimen at least once during 2015)

	Number	(%)		Number	(%)
Sex			CD4 (cells/μl) at enrol		
Male	442	(90.8)	<200	38	(7.8)
Female	44	(9)	200-500	194	(39.8)
Transgender	1	(0.2)	>500	246	(50.5)
			Missing	9	(1.9)
Age (years)¹			Median [IQR]	504	[335-682]
<30	17	(3.5)	Viral Load at enrol		
30-39	66	(13.6)	<200	265	(54.4)
40-49	136	(27.9)	\geq 200	210	(43.1)
50-59	153	(31.4)	Missing	12	(2.5)
\geq 60	115	(23.6)	Median [IQR]	60	[40-2500]
Median [IQR]	51.6	[44-60]			
Aboriginal/Torres Strait islander			Hepatitis C ever		
Yes	10	(2.1)	Yes	53	(10.9)
No	356	(73.1)	No	378	(77.6)
Missing	121	(24.9)	No test	56	(11.5)
Exposure category			Hepatitis B ever		
Male homosexual contact	342	(70.2)	Yes	15	(3.1)
Male homosexual contact and IDU	10	(2.1)	No	377	(77.4)
Injecting drug user (IDU)	16	(3.3)	No test	95	(19.5)
Heterosexual contact	91	(18.7)	Number of switches²		
Receipt of blood/blood products	6	(1.2)	1	422	(86.7)
Other	6	(1.2)	2	55	(11.3)
Missing	16	(3.3)	3	10	(2.1)
Estimated year of HIV infection			Previous regimen duration³		
<2000	234	(48.1)	<1 Year	87	(17.9)
2000-2009	144	(29.6)	1-2 years	77	(15.8)
2010+	73	(15)	3-4 years	111	(22.8)
Missing	36	(7.4)	5-6 years	88	(18.1)
Patient care setting			\geq 7 years	124	(25.5)
General Practitioner	167	(34.3)	Median [IQR]	3.4	[1.3-6.2]
Hospital Tertiary Centre	118	(24.2)	CD4 (cells/μl) at switch⁴		
Sexual Health Clinic	202	(41.5)	<200	16	(3.3)
Region of birth			200-500	116	(23.8)
Australia and New Zealand	294	(60.4)	>500	323	(66.3)
Asia	51	(10.5)	Missing	32	(6.6)
Other	70	(14.4)	Median [IQR]	670	[450-901]
Missing	72	(14.8)	Viral Load at switch⁴		
Prior AIDS defining illness⁵			<200	420	(86.2)
Yes	75	(15.4)	\geq 200	29	(6)
No	20	(4.1)	Missing	38	(7.8)
Missing	392	(80.5)	Median [IQR]	20	[19-40]

¹ Age is calculated based on the date of first regimen switch made after 1 Jan 2015.

² Number of times a patient switched regimen during 1 Jan 2015

³ The average time on treatment of the previous regimen prior to switch

⁴ The closest CD4 and Viral Load measurement at first regimen switch after 1 Jan 2015 (range selected between <6 month prior to switch and up to 2 weeks after switch)

⁵ Proportion of patients with AIDS defining illness prior to enrolment

Table 1b: ART Switch (number of switches=551)
(AHOD patients that switched their ART regimen at least once during 2015)

	Number	(%)		Number	(%)
Switched From¹			Switched To¹		
3TC/ABC+DTG	60	(10.9)	3TC/ABC/DTG	150	(27.2)
FTC/TDF/EFV	57	(10.3)	FTC/TDF+DTG	52	(9.4)
FTC/TDF+ATV/r	39	(7.1)	FTC/TDF/EVG/c	30	(5.4)
FTC/TDF+RAL	25	(4.5)	3TC/ABC+DTG	21	(3.8)
3TC/ABC+NVP	24	(4.4)	3TC/ABC/DTG+ABC	15	(2.7)
FTC/TDF+DTG	16	(2.9)	FTC/TDF+RAL	14	(2.5)
3TC/ABC+EFV	16	(2.9)	FTC/TDF/RPV	14	(2.5)
3TC/ABC+RAL	12	(2.2)	FTC/TDF/EFV	10	(1.8)
FTC/TDF+NVP	11	(2)	3TC+ABC	8	(1.5)
FTC/TDF+EFV	9	(1.6)	3TC+ABC+DTG	8	(1.5)
Previous drug class²			Current drug class²		
NRTI	1043	(61.3)	NRTI	1071	(62.4)
NNRTI	203	(11.9)	NNRTI	93	(5.4)
PI	241	(14.2)	PI	118	(6.9)
InSTI	208	(12.2)	InSTI	429	(25)
EI	6	(0.4)	EI	6	(0.3)
Boosted Regimen (before switch)³			Boosted Regimen (after switch)³		
Yes	196	(35.6)	Yes	136	(24.7)
No	355	(64.4)	No	415	(75.3)
Number of drugs ever⁴			Number of drug classes ever		
≤3	20	(4.1)	1	-	-
4-6	171	(35.1)	2	78	(16)
7-9	147	(30.2)	3	230	(47.2)
10+	149	(30.6)	4	167	(34.3)
			5	12	(2.5)

¹ Combinations such as Truvada or Descovy are listed by its composition and grouped together by "/" while separate drug entities are shown with "+". Proportions are calculated based on the total number of switches

² Proportions are calculated based on the total number of drugs. Abbreviations: PI, protease inhibitor; NRTI, nucleoside analogue reverse transcriptase inhibitors; NNRTI, non-nucleoside analogue reverse transcriptase inhibitors; InSTI, integrase inhibitor; EI, entry inhibitor;

³ The proportions are calculated based on the total number of switches. A boosted regimen contains either /r or /c.

⁴ Number of drug types ever taken e.g. if a patient switched from FTC+TDF to Truvada, it would not be added to the total drug number count, it would still be considered as the patient having only taken 2 drugs ever.

Table 2a: Demographics and Clinical Summary (N=420)
(Removed patients with missing or viral load > 200 copies/ml)

	Number	(%)		Number	(%)
Sex			CD4 (cells/μl) at enrol		
Male	383	(91.2)	<200	30	(7.1)
Female	36	(8.6)	200-500	170	(40.5)
Transgender	1	(0.2)	>500	214	(51)
			Missing	6	(1.4)
Age (years)¹			Median [IQR]	504	[340-690]
<30	15	(3.6)			
30-39	55	(13.1)	Viral Load at enrol		
40-49	112	(26.7)	<200	234	(55.7)
50-59	133	(31.7)	\geq 200	177	(42.1)
\geq 60	105	(25)	Missing	9	(2.1)
Median [IQR]	52	[44-60]	Median [IQR]	50	[40-2100]
Aboriginal/Torres Strait islander			Hepatitis C ever		
Yes	10	(2.4)	Yes	44	(10.5)
No	302	(71.9)	No	327	(77.9)
Missing	108	(25.7)	No test	49	(11.7)
Exposure category			Hepatitis B ever		
Male homosexual contact	296	(70.5)	Yes	11	(2.6)
Male homosexual contact and IDU	9	(2.1)	No	326	(77.6)
Injecting drug user (IDU)	15	(3.6)	No test	83	(19.8)
Heterosexual contact	78	(18.6)			
Receipt of blood/blood products	5	(1.2)	Number of switches²		
Other	6	(1.4)	1	367	(87.4)
Missing	11	(2.6)	2	46	(11)
			3	7	(1.7)
Estimated year of HIV infection			Previous regimen duration³		
<2000	198	(47.1)	<1 Year	68	(16.2)
2000-2009	123	(29.3)	1-2 years	66	(15.7)
2010-2015	67	(16)	3-4 years	101	(24.1)
Missing	32	(7.6)	5-6 years	77	(18.3)
			\geq 7 years	108	(25.7)
Patient care setting			Median [IQR]	3.5	[1.4-6.2]
General Practitioner	148	(35.2)	CD4 (cells/μl) at switch⁴		
Hospital Tertiary Centre	91	(21.7)	<200	5	(1.2)
Sexual Health Clinic	181	(43.1)	200-500	102	(24.3)
			>500	307	(73.1)
Region of birth			Missing	6	(1.4)
Australia and New Zealand	254	(60.5)	Median [IQR]	690	[490-920]
Asia	45	(10.7)			
Other	56	(13.3)	Viral Load at switch⁴		
Missing	65	(15.5)	<200	420	(100)
Prior AIDS defining illness⁵			\geq 200	-	-
Yes	59	(14.1)	Missing	-	-
No	15	(3.6)	Median [IQR]	20	[19-40]
Missing	346	(82.4)			

¹ Age is calculated based on the date of first regimen switch made after 1 Jan 2015.

² Number of times a patient switched regimen during 1 Jan 2015

³ The average time on treatment of the previous regimen prior to switch

⁴ The closest CD4 and Viral Load measurement at first regimen switch after 1 Jan 2015 (range selected between <6 month prior to switch and up to 2 weeks after switch)

⁵ Proportion of patients with AIDS defining illness prior to enrolment

Table 2b: ART Switch (number of switches=475)
(Removed patients with missing or viral load > 200)

	Number	(%)		Number	(%)
Switched From¹			Switched To¹		
FTC/TDF/EFV	53	(11.2)	3TC/ABC/DTG	132	(27.8)
3TC/ABC+DTG	51	(10.7)	FTC/TDF+DTG	46	(9.7)
FTC/TDF+ATV/r	31	(6.5)	FTC/TDF/EVG/c	26	(5.5)
FTC/TDF+RAL	23	(4.8)	3TC/ABC+DTG	18	(3.8)
3TC/ABC+NVP	20	(4.2)	3TC/ABC/DTG+ABC	15	(3.2)
3TC/ABC+EFV	15	(3.2)	FTC/TDF+RAL	14	(3)
FTC/TDF+DTG	14	(3)	FTC/TDF/RPV	12	(2.5)
3TC/ABC+RAL	12	(2.5)	FTC/TDF/EFV	9	(1.9)
FTC/TDF+EFV	9	(1.9)	3TC+ABC	7	(1.5)
FTC/TDF+NVP	8	(1.7)	3TC+ABC+DTG	7	(1.5)
Previous drug class²			Current drug class²		
NRTI	906	(61.8)	NRTI	934	(63)
NNRTI	181	(12.3)	NNRTI	82	(5.5)
PI	199	(13.6)	PI	89	(6)
InSTI	179	(12.2)	InSTI	375	(25.3)
EI	2	(0.1)	EI	3	(0.2)
Boosted Regimen (before switch)³			Boosted Regimen (after switch)³		
Yes	161	(33.9)	Yes	102	(21.5)
No	314	(66.1)	No	373	(78.5)
Number of drugs ever⁴			Number of drug classes ever		
≤3	17	(4.1)	1	-	-
4-6	153	(36.4)	2	68	(16.2)
7-9	132	(31.4)	3	206	(49.1)
10+	118	(28.1)	4	140	(33.3)
			5	6	(1.4)

¹ Combinations such as Truvada or Descovy are listed by its composition and grouped together by "/" while separate drug entities are shown with "+". Proportions are calculated based on the total number of switches

² Proportions are calculated based on the total number of drugs. Abbreviations: PI, protease inhibitor; NRTI, nucleoside analogue reverse transcriptase inhibitors; NNRTI, non-nucleoside analogue reverse transcriptase inhibitors; InSTI, integrase inhibitor; EI, entry inhibitor;

³ The proportions are calculated based on the total number of switches. A boosted regimen contains either /r or /c.

⁴ Number of drug types ever taken e.g. if a patient switched from FTC+TDF to Truvada, it would not be added to his total drug number count, it would still be considered as the patient having only taken 2 drugs ever.

Table 3a: Demographics and Clinical Summary (N=412)
(Removed patients that converted to a single tablet version of the same regimen)

	Number	(%)		Number	(%)
Sex			CD4 (cells/μl) at enrol		
Male	334	(91)	<200	28	(7.6)
Female	33	(9)	200-500	147	(40.1)
Transgender	-	-	>500	187	(51)
			Missing	5	(1.4)
Age (years)¹			Median [IQR]	505	[334-690]
<30	12	(3.3)	Viral Load at enrol		
30-39	43	(11.7)	<200	207	(56.4)
40-49	97	(26.4)	\geq 200	152	(41.4)
50-59	119	(32.4)	Missing	8	(2.2)
\geq 60	96	(26.2)	Median [IQR]	50	[40-1060]
Median [IQR]	53	[45-61]	Hepatitis C ever		
Aboriginal/Torres Strait islander			Yes	37	(10.1)
Yes	10	(2.7)	No	291	(79.3)
No	271	(73.8)	No test	39	(10.6)
Missing	86	(23.4)	Hepatitis B ever		
Exposure category			Yes	9	(2.5)
Male homosexual contact	259	(70.6)	No	292	(79.6)
Male homosexual contact and IDU	8	(2.2)	No test	66	(18)
Injecting drug user (IDU)	15	(4.1)	Number of switches²		
Heterosexual contact	64	(17.4)	1	318	(86.7)
Receipt of blood/blood products	5	(1.4)	2	42	(11.4)
Other	5	(1.4)	3	7	(1.9)
Missing	11	(3)	Previous regimen duration³		
Estimated year of HIV infection			<1 Year	41	(11.2)
<2000	180	(49.1)	1-2 years	53	(14.4)
2000-2009	108	(29.4)	3-4 years	92	(25.1)
2010-2015	51	(13.9)	5-6 years	77	(21)
Missing	28	(7.6)	\geq 7 years	104	(28.3)
Patient care setting			Median [IQR]	4	[2-6.5]
General Practitioner	118	(32.2)	CD4 (cells/μl) at switch⁴		
Hospital Tertiary Centre	82	(22.3)	<200	5	(1.4)
Sexual Health Clinic	167	(45.5)	200-500	92	(25.1)
Region of birth			>500	265	(72.2)
Australia and New Zealand	226	(61.6)	Missing	5	(1.4)
Asia	38	(10.4)	Median [IQR]	690	[477-918]
Other	51	(13.9)	Viral Load at switch⁴		
Missing	52	(14.2)	<200	367	(100)
Prior AIDS defining illness⁵			\geq 200	-	-
Yes	55	(15)	Missing	-	-
No	13	(3.5)	Median [IQR]	20	[19-40]
Missing	299	(81.5)			

¹ Age is calculated based on the date of first regimen switch made after 1 Jan 2015.

² Number of times a patient switched regimen during 1 Jan 2015

³ The average time on treatment of the previous regimen prior to switch

⁴ The closest CD4 and Viral Load measurement at first regimen switch after 1 Jan 2015 (range selected between <6 month prior to switch and up to 2 weeks after switch)

⁵ Proportion of patients with AIDS defining illness prior to enrolment

Table 3b: ART Switch (number of switches=519)
(Removed patients that converted to a single tablet version of the same regimen*)

	Number	(%)		Number	(%)
Switched From¹			Switched To¹		
FTC/TDF/EFV	51	(12.4)	3TC/ABC/DTG	88	(21.4)
FTC/TDF+ATV/r	29	(7)	FTC/TDF+DTG	46	(11.2)
FTC/TDF+RAL	22	(5.3)	FTC/TDF/EVG/c	26	(6.3)
3TC/ABC+NVP	19	(4.6)	3TC/ABC+DTG	17	(4.1)
3TC/ABC+EFV	15	(3.6)	3TC/ABC/DTG+ABC	14	(3.4)
FTC/TDF+DTG	14	(3.4)	FTC/TDF+RAL	13	(3.2)
3TC/ABC+RAL	12	(2.9)	FTC/TDF/RPV	12	(2.9)
FTC/TDF+NVP	8	(1.9)	3TC+ABC	7	(1.7)
3TC/ABC+ATV/r	8	(1.9)	3TC+ABC+DTG	7	(1.7)
FTC/TDF/RPV	7	(1.7)	3TC+DRV/r	5	(1.2)
Previous drug class²			Current drug class²		
NRTI	780	(61.3)	NRTI	807	(62.6)
NNRTI	172	(13.5)	NNRTI	75	(5.8)
PI	187	(14.7)	PI	81	(6.3)
InSTI	131	(10.3)	InSTI	323	(25.1)
EI	2	(0.2)	EI	3	(0.2)
Boosted Regimen (before switch)³			Boosted Regimen (after switch)³		
Yes	151	(36.7)	Yes	95	(23.1)
No	261	(63.4)	No	317	(76.9)
Number of drugs ever⁴			Number of drug classes ever		
≤3	5	(1.4)	1	-	-
4-6	137	(37.3)	2	50	(13.6)
7-9	117	(31.9)	3	183	(49.9)
10+	108	(29.4)	4	128	(34.9)
			5	6	(1.6)

* Excluded conversion related switches such as 3TC/ABC + DTG to 3TC/ABC/DTG (Trumeq) or vice versa, and also excluded switches of same regimen but from TDF to TAF

¹ Combinations such as Truvada or Descovy are listed by its composition and grouped together by "/" while separate drug entities are shown with "+". Proportions are calculated based on the total number of switches

² Proportions are calculated based on the total number of drugs. Abbreviations: PI, protease inhibitor; NRTI, nucleoside analogue reverse transcriptase inhibitors; NNRTI, non-nucleoside analogue reverse transcriptase inhibitors; InSTI, integrase inhibitor; EI, entry inhibitor;

³ The proportions are calculated based on the total number of switches. A boosted regimen contains either /r or /c.

⁴ Number of drug types ever taken e.g. if a patient switched from FTC+TDF to Truvada, it would not be added to his total drug number count, it would still be considered as the patient having only taken 2 drugs ever.