Melanoma Care in Victoria

Towards optimal care

VICS Victorian Integrated Cancer Services TUMOUR SUMMITS VICTORIA State Government

Melanoma Summit 2022 Working Party

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In this presentation

- An overview of care according to the optimal care pathway stages

- Overview of data sources

- Characteristics of Victorian melanoma population

- Incidence, mortality and survival

- Treatment algorithms for stage I-III melanoma

- Care patterns and variation across Victoria by Integrated Cancer Service

- Volume

Optimal care pathway for people with melanoma

SECOND EDITION

Melanoma Optimal Care Pathway (OCP)

Prevention and early detection

Presentation, initial investigations and referral

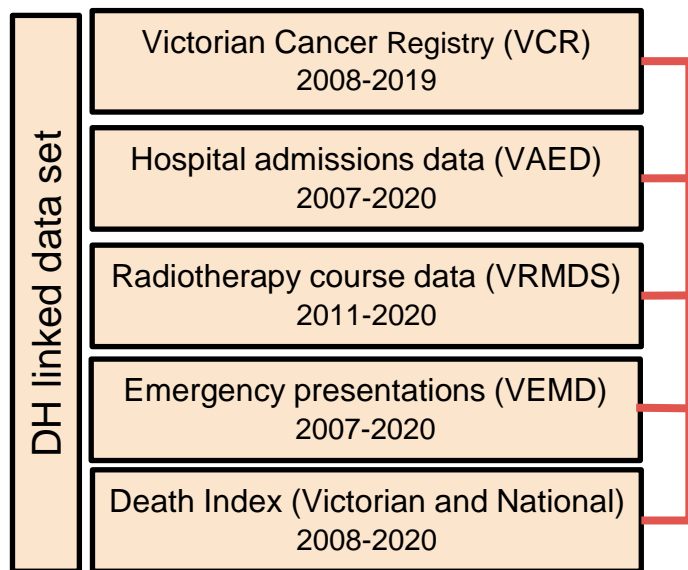**Diagnosis, staging and treatment planning**

Treatment

Care after initial treatment and recovery

Managing recurrent , residual and metastatic disease

End-of-life care

Department of Health Linked Data

Unlinked Data Sources

DH linked data set

- Victorian Cancer Registry (VCR) 2008-2019
- Hospital admissions data (VAED) 2007-2020
- Radiotherapy course data (VRMDS) 2011-2020
- Emergency presentations (VEMD) 2007-2020
- Death Index (Victorian and National) 2008-2020

Data linkage performed by the Centre for Victorian Data Linkage

Cancer Services Performance Indicator (CSPI) medical record audit 2020

POpulation Level Analysis and Reporting (POLAR) - Outcome Health. Participating GP data for Eastern Melbourne, South East Melbourne and Gippsland Primary Health Networks, sourced from MBS numbers and SNOMED codes (derived by diagnoses) - previously presented

Features of linked dataset

- State wide data - reliable linkage program

- Population level outcomes - offers general indicative patterns

- Limitations:

    - No data on community care or clinical trials

    - No MBS or PBS data (i.e. no oral anti-cancer therapy data)

    - Relies on hospital coding

    - Hume Regional Integrated Cancer Service (HRICS) – no admitted surgery, sentinel lymph node biopsy or IV anti-cancer therapy data for patients treated in Albury (NSW)

Registry derived stage at diagnosis in the linked dataset

- Registry-derived stage is available from 2018 onwards

  - Based on tumour, nodes and metastases (TNM) from pathology reports and is staged according to 8th ed AJCC
  - Derived based on thickness, ulceration, regional and distant metastases
  - No data on mitosis
  - Clarks level and subsite are also available

- Registry-derived stage is recorded for stage at diagnosis only, or within 120 days from date of diagnosis (diagnostic biopsy/resection)

- Metastatic disease determined from pathology and hospital notifications

- The presentation will be focused on *invasive skin melanoma* (ICD10-AM C43)

Integrated Cancer Services (ICS) and Cancer Centres
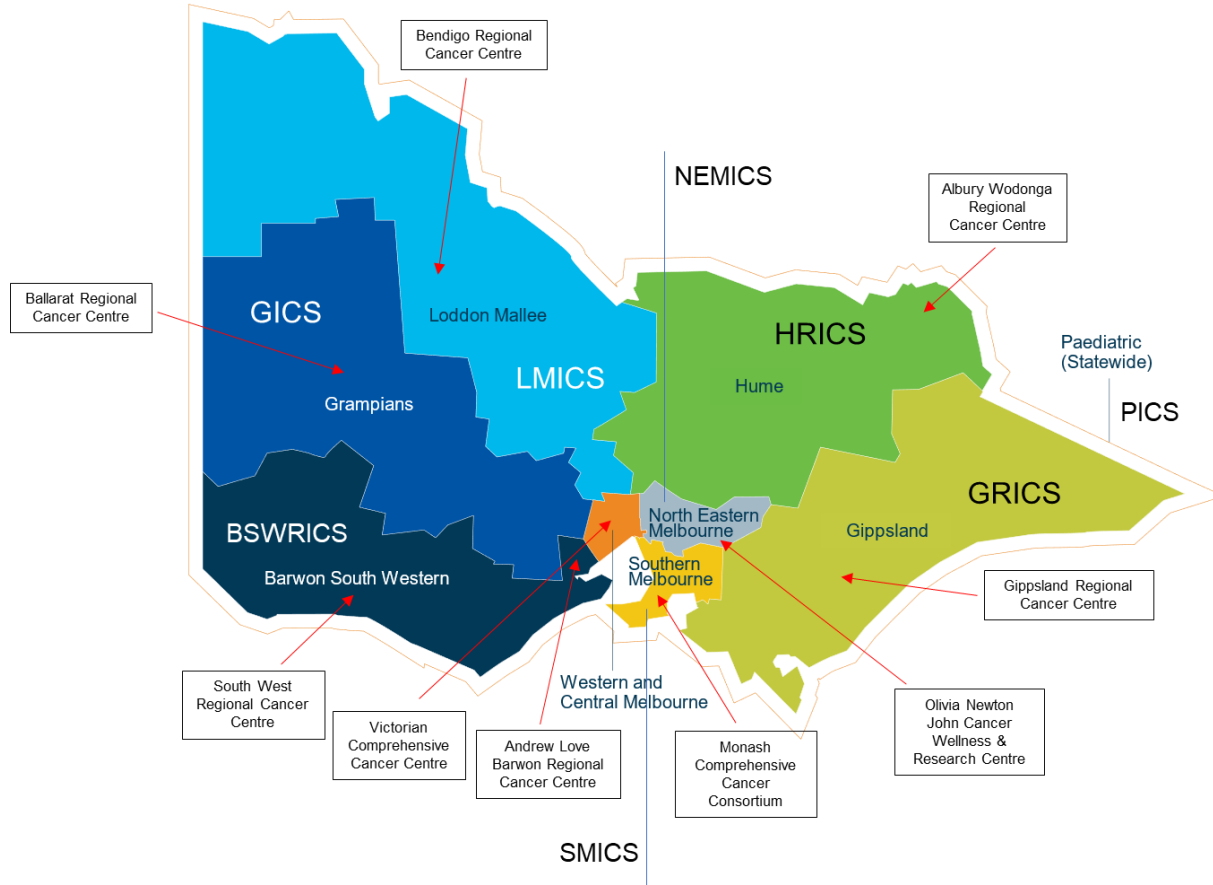
Demographics

Demographics of melanoma patients in linked dataset

Variable	Level	Diagnosed 2018-19 N = 5,910
Age	Median [IQR]	67 [55 - 76]
Aboriginal and/or Torres Strait Islander, N (%)	Yes	25 (<1%)
Comorbidity count, N (%) (VAED derived 1 year prior-1 month after dx; Quan 2011; excl. cancer)	0 1 2+	4860 (82%) 690 (12%) 360 (6%)
Sex, N (%)	Male	3390 (57%)
Socioeconomic quintile, N (%)	Most disadvantaged (Q1) Middle (Q2-Q4) Least disadvantaged (Q5)	963 (16%) 3476 (59%) 1433 (24%)

Source: Linked dataset – VCR, VAED 2018-19; IQR – interquartile range.

Tumour characteristics of melanoma patients in the linked dataset

Variable	Level	Diagnosed 2018-19 N = 5,910
Registry-derived Stage, N (%)	1	4,369 (74%)
	2	887 (15%)
	3	290 (5%)
	4	181 (3%)
	Unknown	183 (3%)
Melanoma thickness, N (%)	< 0.8mm	3,156 (53%)
	≥ 0.8mm and < 1mm	445 (8%)
	≥ 1mm and < 2mm	990 (17%)
	≥ 2mm and < 4mm	588 (10%)
	≥ 4mm	420 (7%)
	Unknown	311 (5%)

Source: Linked dataset - VCR 2018-19

Melanoma site for patients in the linked dataset

ICD10-AM Diagnosis code	Diagnosed 2018-19, N = 5,910 N (column %)		
	Female	**Male**	**Total**
C435: Trunk	590 (23%)	1364 (40%)	1956 (33%)
C436: Upper limb, including shoulder	797 (32%)	710 (21%)	1507 (25%)
C437: Lower limb, including hip	709 (28%)	440 (13%)	1149 (19%)
C434: Scalp and neck	125 (5%)	358 (11%)	483 (8%)
C433: Other and unspecified parts of face	189 (8%)	273 (8%)	462 (8%)
C439: Skin, unspecified	60 (2%)	113 (3%)	173 (3%)
C432: Ear and external auricular canal	36 (1%)	114 (3%)	150 (3%)
C431: Eyelid, including canthus	8 (0%)	7 (0%)	15 (0%)
C430: Lip	3 (0%)	8 (0%)	11 (0%)
C438: Overlapping skin	1 (0%)	3 (0%)	4 (0%)

Source: Linked dataset – VCR 2018-19

Ulceration for Melanoma in the linked dataset, 2018-19 (N = 5,562)

Variable	Level	Ulceration, N (row %)			P-value
		Absent	**Present**	**Unknown**	
Melanoma thickness	**< 1mm**	3321 (92%)	75 (2%)	204 (6%)	<0.001
	≥ 1mm	1290 (66%)	603 (31%)	69 (4%)	
Stage at diagnosis	**1**	4045 (93%)	83 (2%)	241 (6%)	<0.001
	2	408 (46%)	461 (52%)	18 (2%)	
	3	147 (54%)	116 (43%)	8 (3%)	
	4	11 (31%)	18 (51%)	6 (17%)	
ICS of residence	**NEMICS**	987 (84%)	138 (12%)	50 (4%)	0.154
	SMICS	1340 (84%)	179 (11%)	84 (5%)	
	WCMICS	605 (83%)	101 (14%)	24 (3%)	
	BSWRICS	443 (83%)	62 (12%)	29 (5%)	
	GRICS	314 (80%)	58 (15%)	22 (6%)	
	HRICS	368 (85%)	42 (10%)	25 (6%)	
	LMICS	307 (81%)	51 (13%)	22 (6%)	
	GICS	247 (79%)	47 (15%)	17 (5%)	
Total	**-**	4611 (83%)	678 (12%)	273 (5%)	

Source: Linked dataset – VCR 2018-19. Unknown melanoma thickness and unknown stage excluded (N = 348)

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OCP Step 1: Prevention and early detection

Prevention and early detection

Presentation, initial investigations and referral

Diagnosis, staging and treatment planning

Treatment

Care after initial treatment and recovery

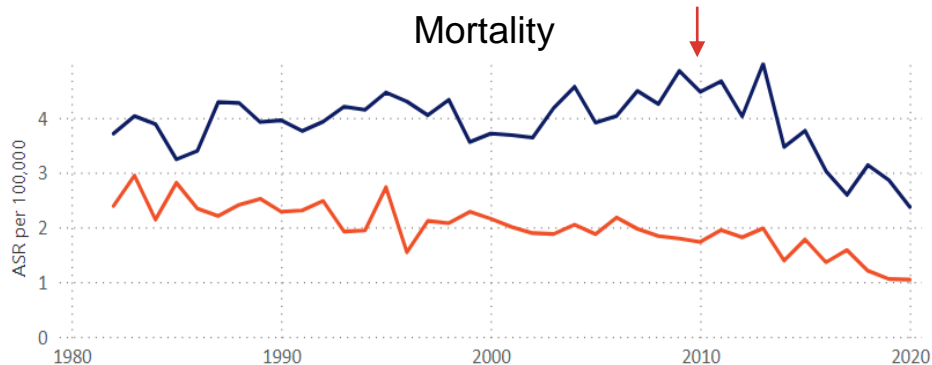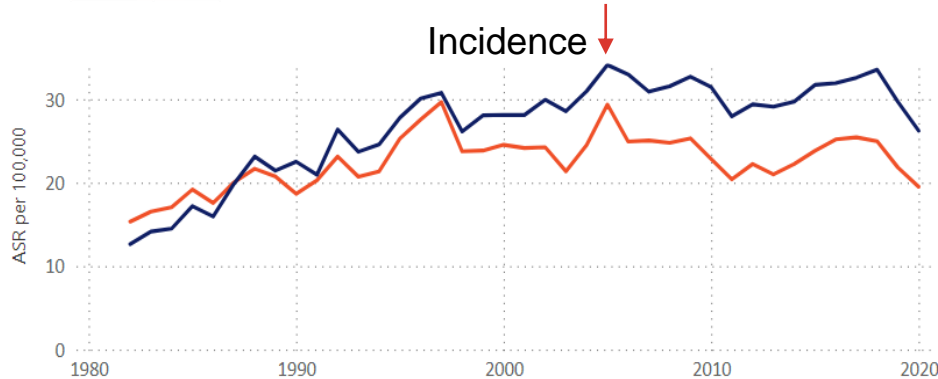**Managing recurrent , residual and metastatic disease**

End-of-life care

Incidence, mortality and survival

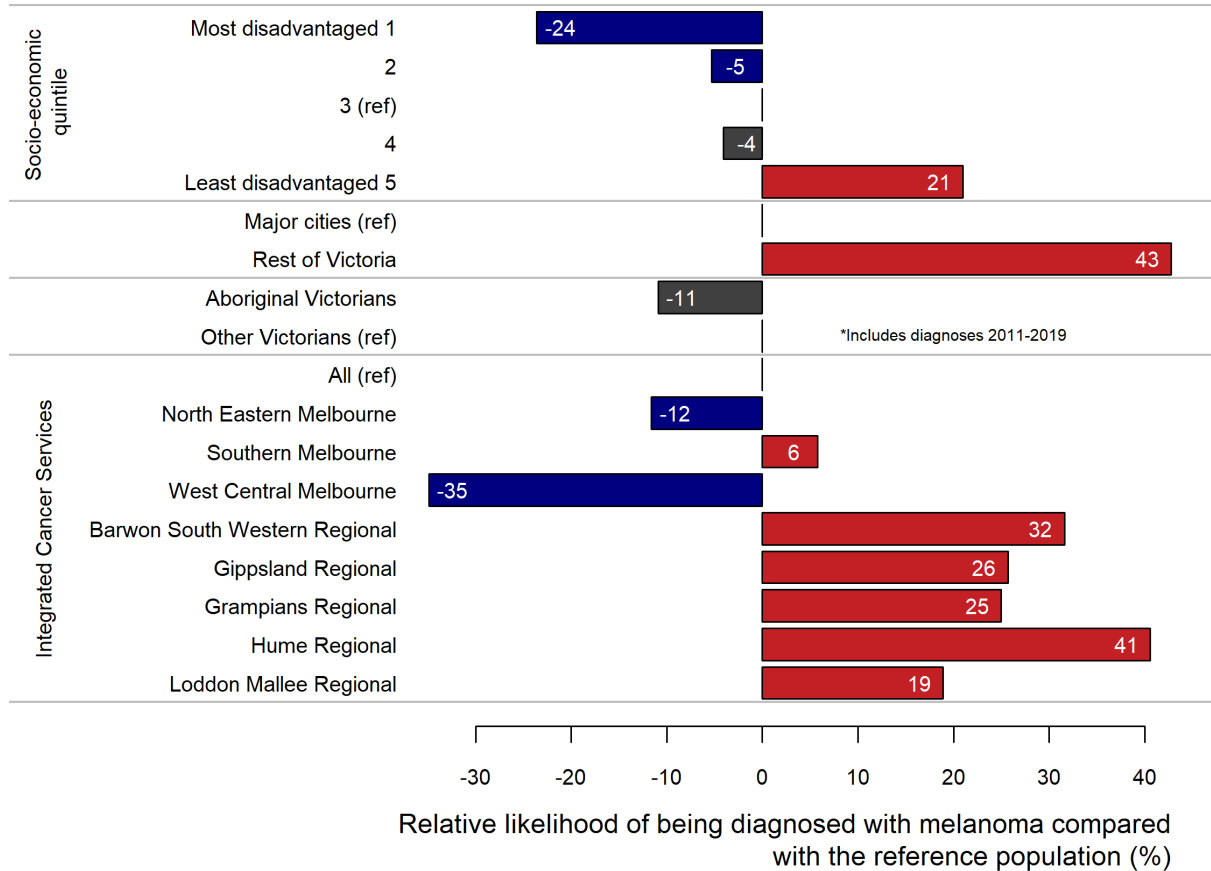# Trends in melanoma incidence & mortality in Victoria

Incidence

Mortality

Year	Incidence ASR per 100,000		Mortality ASR per 100,000	
	Female	Male	Female	Male
1985	19.2	17.2	2.8	3.2
1990	18.7	22.5	2.3	4.0
1995	25.3	27.8	2.7	4.5
2000	24.5	28.1	2.2	3.7
2005	29.4	34.1	1.9	3.9
2010	22.8	31.5	1.7	4.5
2015	23.8	31.7	1.8	3.8
2020	19.5	26.2	1.0	2.4

Females Males

Source: VCR Data explorer https://www.cancervic.org.au/research/vcr; Age-Standardised incidence Rate (ASR) per 100,000

Disparities in melanoma incidence, 2018-20

Relative likelihood of being diagnosed with melanoma compared with the reference population (%)

*Includes diagnoses 2011-2019

Legend:
- More likely to be diagnosed with melanoma (red)
- Not different (grey)
- Less likely to be diagnosed with melanoma (blue)

Socio-economic quintile
- Most disadvantaged 1: -24
- 2: -5
- 3 (ref)
- 4: -4
- Least disadvantaged 5: 21

- Major cities (ref)
- Rest of Victoria: 43

- Aboriginal Victorians: -11
- Other Victorians (ref)

Integrated Cancer Services
- All (ref)
- North Eastern Melbourne: -12
- Southern Melbourne: 6
- West Central Melbourne: -35
- Barwon South Western Regional: 32
- Gippsland Regional: 26
- Grampians Regional: 25
- Hume Regional: 41
- Loddon Mallee Regional: 19

Disparities in melanoma 5-year relative survival, 2015-19
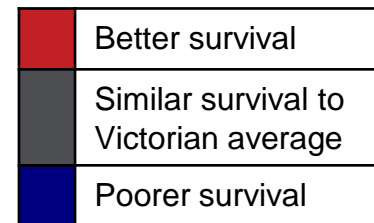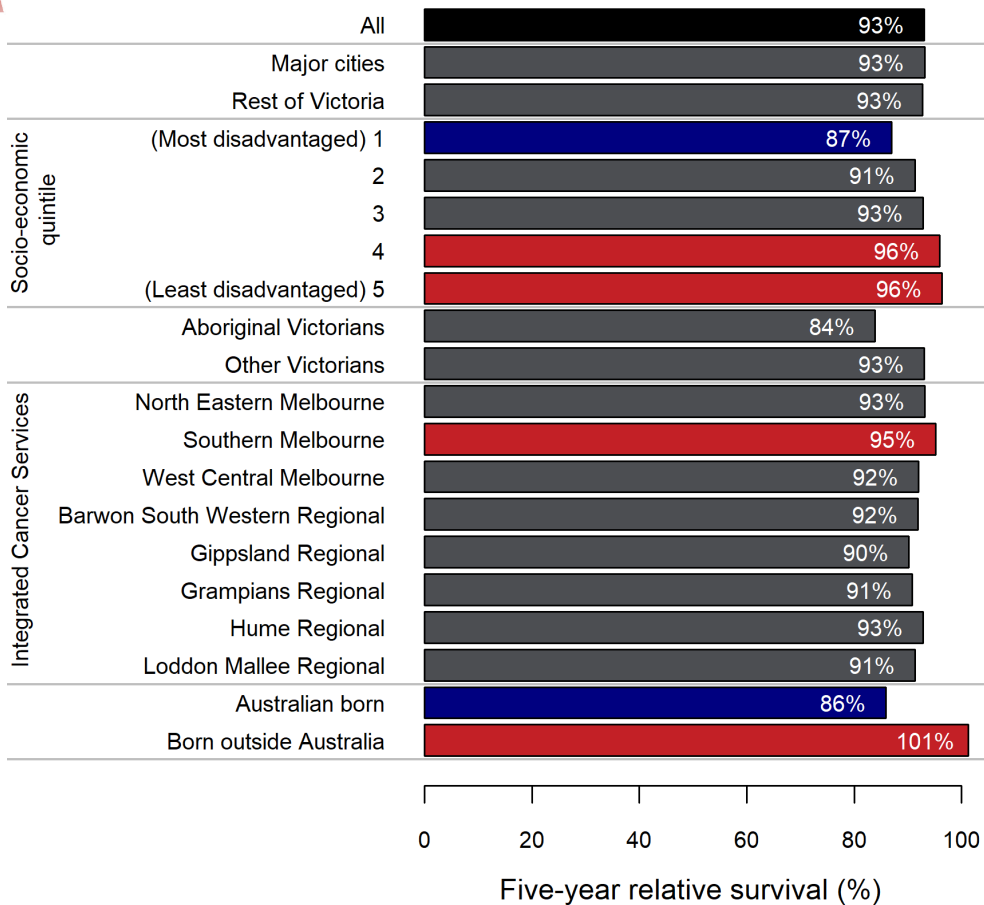
Data Source: VCR Data explorer,
https://www.cancervic.org.au/research/vcr

OCP Step 2: Presentation, initial investigations and referral

Prevention and early detection

Presentation, initial investigations and referral

Diagnosis, staging and treatment planning

Treatment
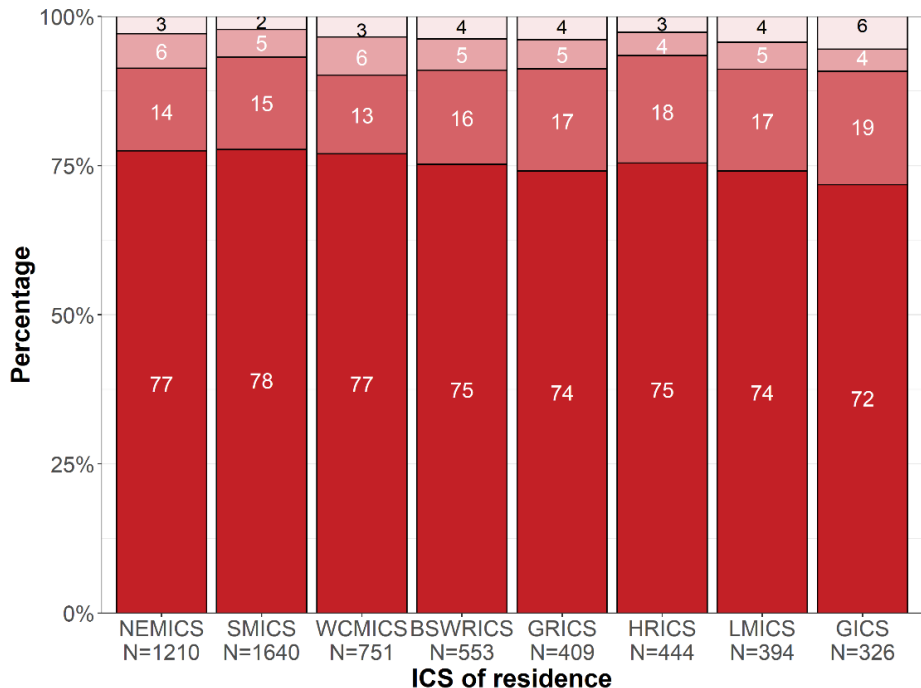
Care after initial treatment and recovery

Managing recurrent, residual and metastatic disease

End-of-life care

GP screening and referral data

- Presented by Outcome Health – POLAR data

- Less skin checks/biopsies conducted during 2020

- Less skin checks performed in Gippsland compared to EMPHN and SEMPHN

OCP Step 3: Diagnosis, staging and treatment planning

Prevention and early detection

Presentation, initial investigations and referral

Diagnosis, staging and treatment planning

Treatment

Care after initial treatment and recovery

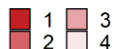Managing recurrent , residual and metastatic disease

End-of-life care

Stage at diagnosis by ICS of residence, 2018-19 (N = 5,727)

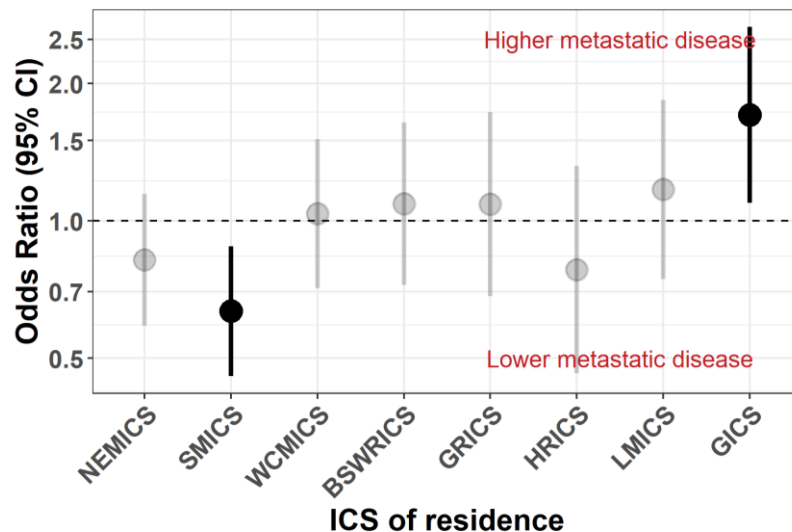## Crude proportions of stage at diagnosis

Difference between ICS:P-value 0.034

Stage at diagnosis
1 3
2 4

Logistic regression model – Metastatic disease (stage IV) Adjusted for age and sex

Victorian average = 1.0
Significantly lower odds of metastatic disease - SMICS
Significantly higher odds of metastatic disease - GICS

Source: Linked dataset - VCR, VAED 2018-19. Stage unknown excluded (n=183, 3%); HRICS data limitation

Melanoma thickness by regionality, 2018-19 (N = 5,910)

Melanoma thickness	Remoteness (ABS)			Total	P-value
	Major cities	**Inner regional**	**Outer regional & remote**		
< 1mm	2389 (62%)	992 (61%)	208 (56%)	3601 (61%)	
≥ 1mm	1286 (33%)	556 (34%)	142 (38%)	1998 (34%)	0.238
Unknown	199 (5%)	87 (5%)	24 (6%)	311 (5%)	

Melanoma thickness	ICS of residence								P-value
	NEMICS	**SMICS**	**WCMICS**	**BSWRICS**	**GRICS**	**HRICS**	**LMICS**	**GICS**	
< 1mm	760 (61%)	1073 (63%)	482 (62%)	337 (59%)	252 (60%)	279 (61%)	230 (57%)	188 (57%)	
≥ 1mm	424 (34%)	543 (32%)	251 (32%)	204 (35%)	144 (34%)	156 (34%)	152 (37%)	124 (37%)	0.577
Unknown	67 (5%)	78 (5%)	42 (5%)	34 (6%)	23 (5%)	24 (5%)	24 (6%)	19 (6%)	

Source: VCR, VAED 2018-20; ABS – Australian Bureau of Statistics; ICS – Integrated Cancer Service; HRICS data limitation
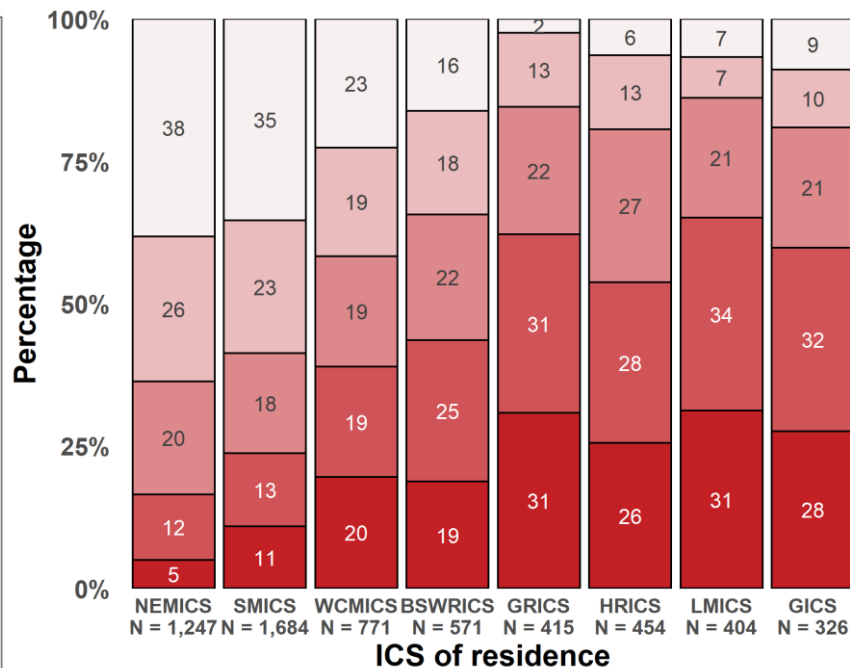
Socio-economic status in Victoria

Victorian population disadvantage by Local Government Area (for reference)

Source: ABS, Index of Relative Socioeconomic Disadvantage (IRSD), SEIFA 2016
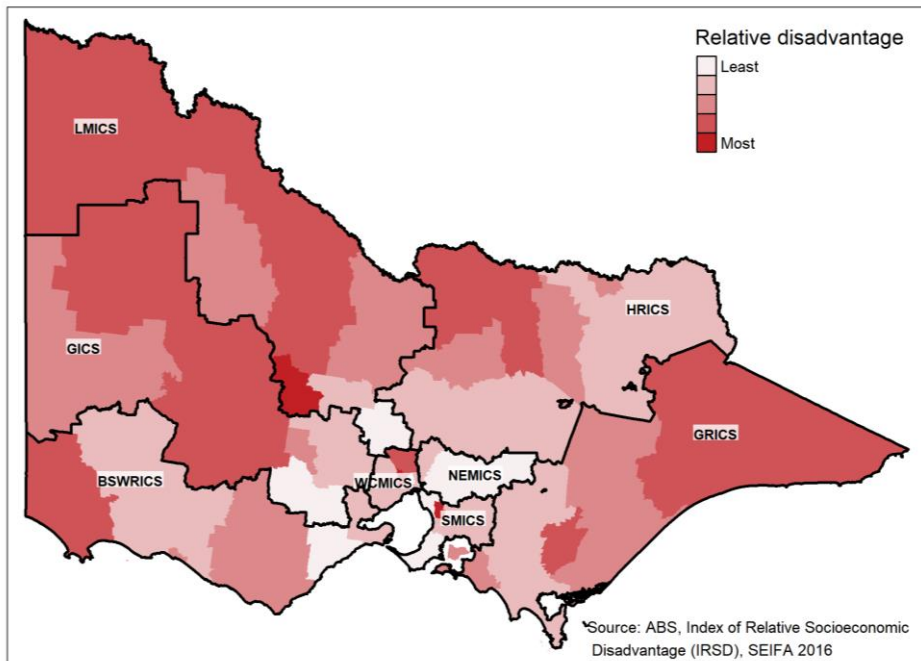
Relative disadvantage of melanoma patients by ICS of residence, 2018-19 (N = 5872)

Source: VCR, VAED 2018-20; Patients with unknown socio-economic quintile excluded (n=38); HRICS data limitation

Difference between ICS:P-value <0.001

Melanoma thickness and stage at diagnosis by socio-economic status, 2018-19 (N = 5,872)

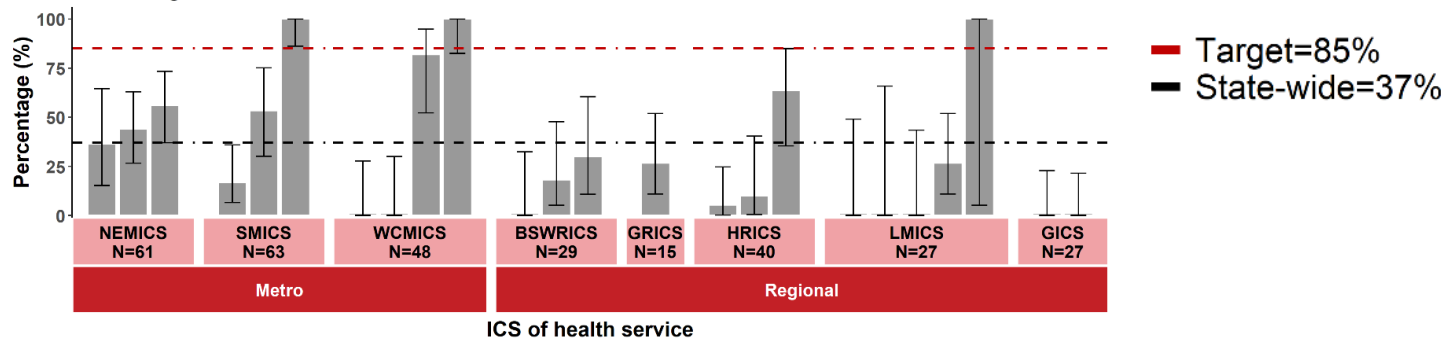| Variable	Level	Socio-economic quintile					P-value
		1 Most disadv	2	3	4	5 Least disadv	
Melanoma thickness	**< 1mm**	504 (52%)	706 (61%)	711 (60%)	736 (65%)	927 (65%)	<0.001
	≥ 1mm	403 (42%)	390 (34%)	408 (34%)	345 (30%)	432 (30%)	
	Unknown	56 (6%)	56 (5%)	69 (6%)	55 (5%)	74 (5%)	
Stage at diagnosis	**1**	632 (66%)	848 (74%)	868 (73%)	888 (78%)	1110 (77%)	<0.001
	2	206 (21%)	176 (15%)	179 (15%)	142 (12%)	172 (12%)	
	3	53 (6%)	61 (5%)	57 (5%)	48 (4%)	69 (5%)	
	4	42 (4%)	35 (3%)	42 (4%)	31 (3%)	30 (2%)	
	Unknown	30 (3%)	32 (3%)	42 (4%)	27 (2%)	52 (4%)	

Source: VCR, VAED 2018-20; Patients with unknown socio-economic quintile excluded (n=38)

Documented multidisciplinary team meetings below 85% target

Documentation of MDM recommendations in the health record ensures such information is accessible to all team members


CSPI 2018 diagnoses, N=310

CSPI 2020 diagnoses, N=313

Target=85%
State-wide=37%

Target=85%
State-wide=40%

De-identified health service

Documented MDM (2020)
All tumour streams – 70%
Lung cancer – 74%
Breast cancer – 85%
Colorectal cancer – 76%

Patients are audited at the health service where they received their **first treatment**.

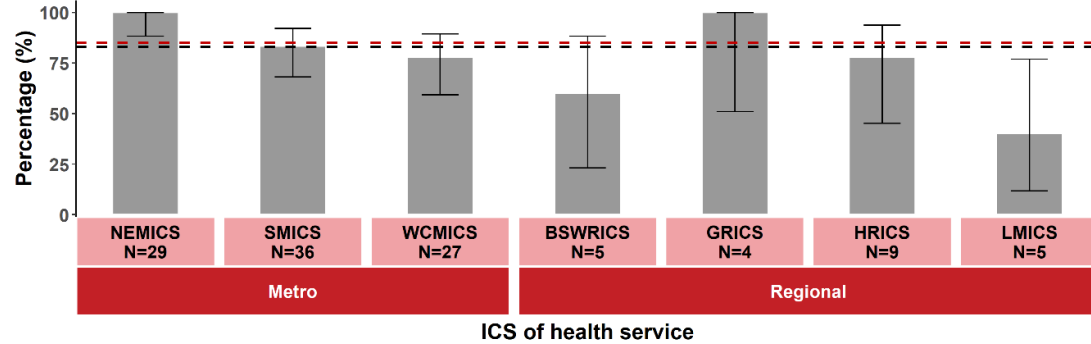Some regional patients will be audited at a metro ICS health service.
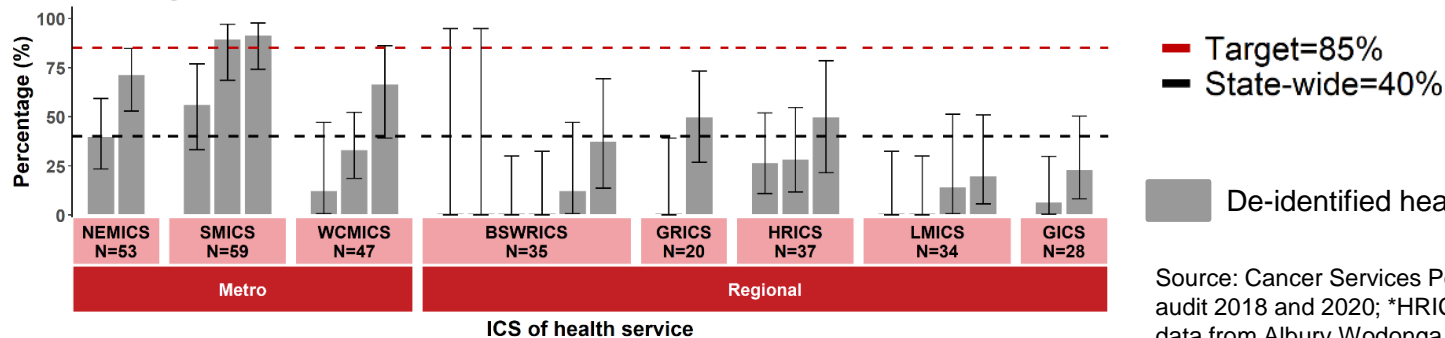
Source: Cancer Services Performance Indicator (CSPI) audit 2018 and 2020; *HRICS data limitation – missing data from Albury Wodonga Health – Albury campus;

Decrease in recording of stage in multidisciplinary team meeting recommendations

This indicator measures whether stage was recorded in the MDM documentation in the patient's health record

CSPI 2018 MDM, N=115

- Target=85%
- State-wide=83%

CSPI 2020 MDM, N=126

- Target=85%
- State-wide=56%

Multiple ICS health services

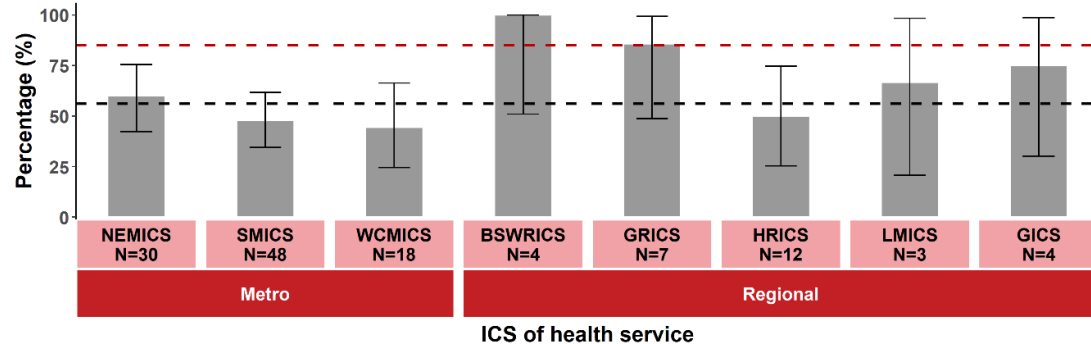Health services grouped by ICS due to low numbers

Stage recorded (2020)
All tumour streams – 72%
Lung cancer – 73%
Breast cancer – 78%
Colorectal cancer – 80%

Patients are audited at the health service where they received their **first treatment**.

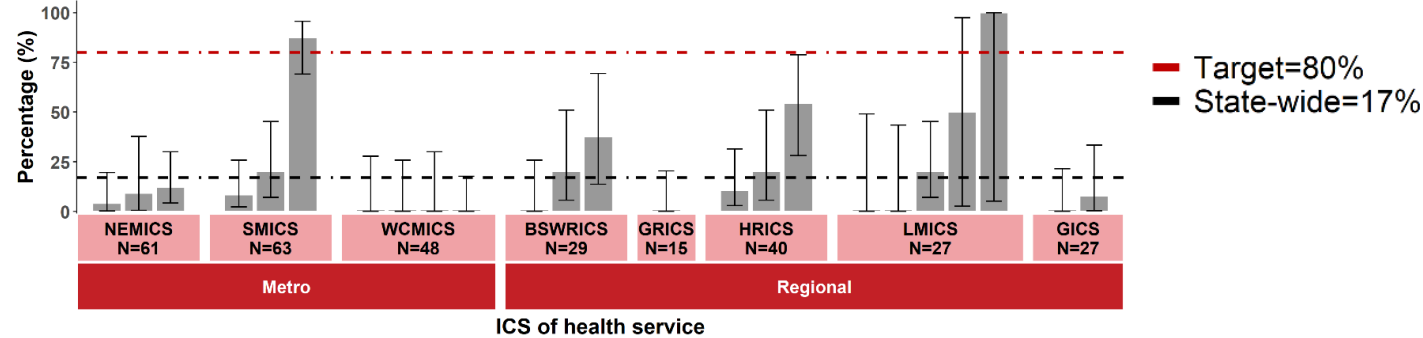Some regional patients will be audited at a metro ICS health service.

Source: Cancer Services Performance Indicator (CSPI) health record audit 2018 and 2020; *HRICS data limitation – missing data from Albury Wodonga Health – Albury campus;

Documented supportive care screening below 80% target

A validated supportive care screening tool must be used, such as the NCCN Distress Thermometer and problem checklist


CSPI 2018 diagnoses, N=310

CSPI 2020 diagnoses, N=313

Target=80%
State-wide=17%

Target=80%
State-wide=12%

De-identified health service

Supportive care screening (2020)
All tumour streams – 32%
Lung cancer – 50%
Breast cancer – 47%
Colorectal cancer – 25%

Patients are audited at the health service where they received their **first treatment**.

Some regional patients will be audited at a metro ICS health service.
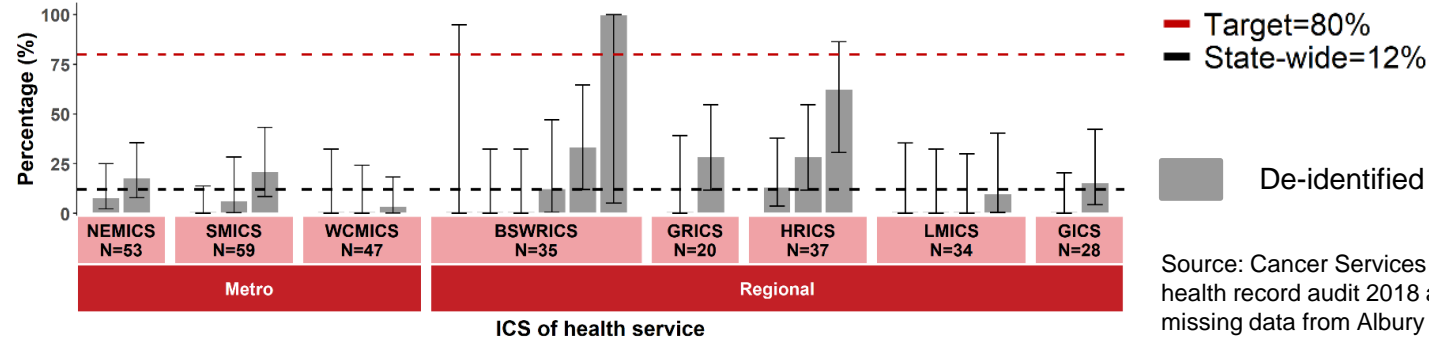
Source: Cancer Services Performance Indicator (CSPI) health record audit 2018 and 2020; *HRICS data limitation – missing data from Albury Wodonga Health – Albury campus;

OCP Step 4: Treatment

Prevention and early detection

Presentation, initial investigations and referral

Diagnosis, staging and treatment planning

Treatment

Care after initial treatment and recovery

Managing recurrent , residual and metastatic disease

End-of-life care

Admitted surgery within 1 year of diagnosis for melanoma <1mm by ICS of residence, 2018-2019 (N = 3,456)

ICS of residence	Total patients, N	Surgery in hospital, n (row %)	Sentinel lymph node biopsy, n (row %)	*No treatment identified in linked data,* n (row %)
NEMICS	759	378 (50%)	34 (4%)	374 (49%)
SMICS	1072	498 (46%)	47 (4%)	569 (53%)
WCMICS	482	247 (51%)	26 (5%)	233 (48%)
BSWRICS	337	134 (40%)	19 (6%)	198 (59%)
GRICS	252	101 (40%)	13 (5%)	148 (59%)
HRICS (West)*	136	51 (38%)	5 (4%)	85 (62%)
LMICS	230	113 (49%)	6 (3%)	115 (50%)
GICS	188	109 (58%)	9 (5%)	78 (41%)
Victoria	3456	1631 (47%)	159 (5%)	1800 (52%)

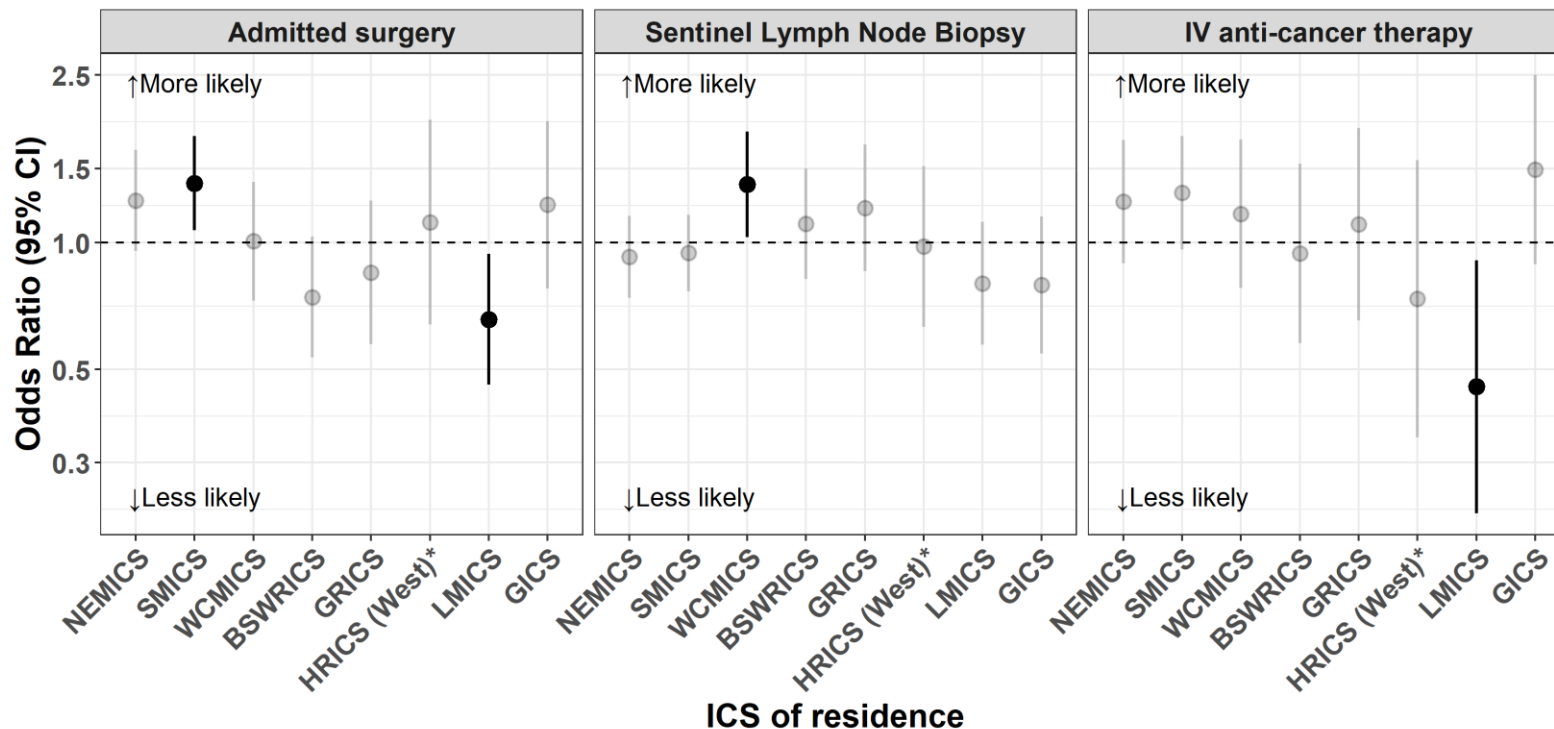|	
	Above Victorian average - P < 0.05
	Below Victorian average - P < 0.05

Source: VCR 2018-19, VAED 2018-20; Stage I, II and III patients only; * HRICS data limitation - Patients who live in HRICS Border East excluded due to missing treatment data (n = 143)

Odds of treatment within 1 year of ≥1mm melanoma diagnosis, 2018-2019 (N = 1,854)
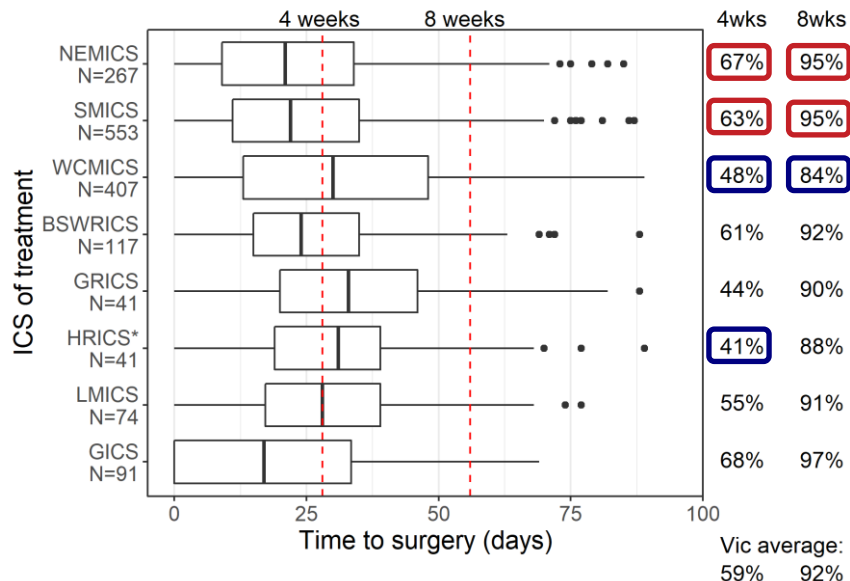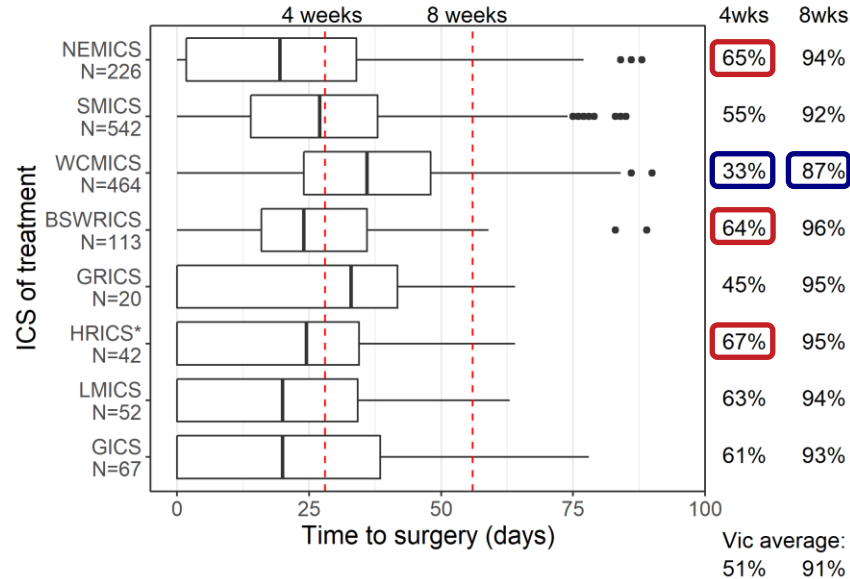

Adjusted for age, sex, comorbidities

Time from diagnosis to admitted surgery by melanoma thickness and ICS of treatment, 2018-2019

Melanoma thickness < 1mm
N = 1,591

	4wks	8wks
NEMICS N=267	67%	95%
SMICS N=553	63%	95%
WCMICS N=407	48%	84%
BSWRICS N=117	61%	92%
GRICS N=41	44%	90%
HRICS* N=41	41%	88%
LMICS N=74	55%	91%
GICS N=91	68%	97%

Vic average:
59% 92%

Melanoma thickness ≥1mm
N = 1,526

	4wks	8wks
NEMICS N=226	65%	94%
SMICS N=542	55%	92%
WCMICS N=464	33%	87%
BSWRICS N=113	64%	96%
GRICS N=20	45%	95%
HRICS* N=42	67%	95%
LMICS N=52	63%	94%
GICS N=67	61%	93%

Vic average:
51% 91%

Above Victorian average P <0.05

Below Victorian average P <0.05

Source: VCR, VAED 2018-20. Restricted to those treated with surgery within 90 days of diagnosis; Restricted to stage I-III melanomas.
*HRICS data limitation – missing data from Albury Wodonga Health – Albury campus

# Time from diagnosis to admitted surgery by SLNB and ICS of treatment, 2018-2019 (N = 3,123)
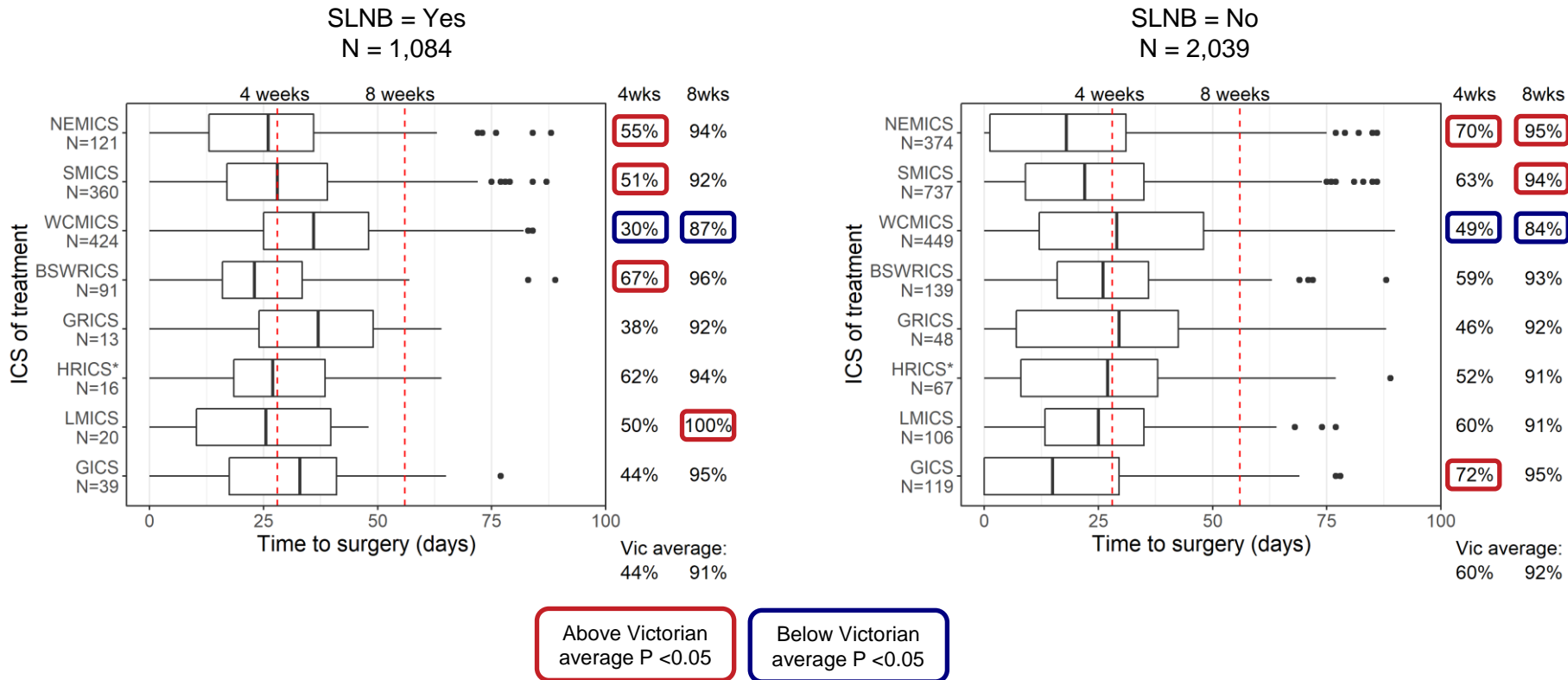
Source: VCR, VAED 2018-20. Restricted to those treated with surgery within 90 days of diagnosis; Restricted to stage I-III melanomas.
*HRICS data limitation – missing data from Albury Wodonga Health – Albury campus; SLNB – Sentinel lymph node biopsy

Admitted surgery within 8 weeks of stage I-III melanoma diagnosis by hospital, 2018-2019 (N = 3,123)

Surgery within 8 weeks by hospital
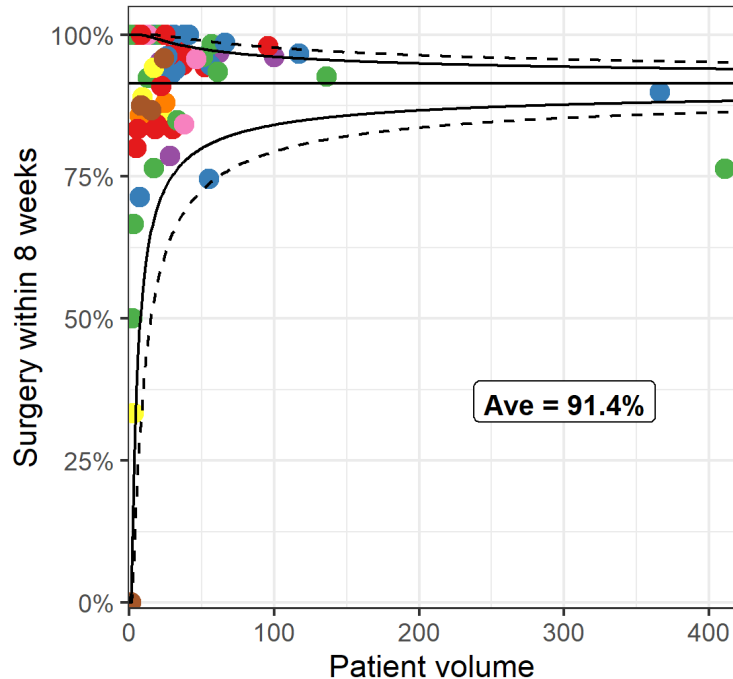
Hospital outliers

- 1 below average (p < 0.05)
- 2 below average (p < 0.001)
- 2 above average (p < 0.05)
- 63 above average (p < 0.001)

Surgical hospital ICS

- NEMICS
- SMICS
- WCMICS
- BSWRICS
- GRICS
- HRICS
- LMICS
- GICS

Surgery within 8 weeks by hospital type

Hospital type	Admitted surgery within: n (% row)	
	4 wks	8 wks
Public, N = 1,488	476 (32%)	1,274 (86%)
Private, N = 1,635	1,236 (76%)	1,581 (97%)
Victoria	1,712 (55%)	2,855 (91%)

	Above Victorian average - **P < 0.05**
	Below Victorian average - **P < 0.05**

Patient flow for stage I-III melanoma admitted surgery, 2018-2019 (N = 3,081)

ICS of treatment	ICS of residence N (column %)							
	NEMICS	SMICS	WCMICS	BSWRICS	GRICS	HRICS*	LMICS	GICS
NEMICS	377 (54%)	24 (3%)	49 (12%)		19 (9%)	15 (8%)		
SMICS	129 (18%)	741 (81%)	75 (18%)	26 (10%)	57 (28%)	31 (16%)	25 (12%)	13 (6%)
WCMICS	191 (27%)	152 (17%)	292 (70%)	19 (7%)	73 (35%)	64 (33%)	54 (25%)	28 (14%)
BSWRICS				221 (82%)				
GRICS					58 (28%)			
HRICS*						79 (41%)		
LMICS							119 (56%)	
GICS								150 (74%)
Victoria	697	917	416	266	207	189	198	191

65% of patients had admitted surgery locally

Source: VCR, VAED 2018-20; *HRICS data limitation – missing data from Albury Wodonga Health – Albury campus; Cells with <10 removed (n=42)

Significantly <u>more</u> patients having admitted surgery locally:

BSWRICS, SMICS and GICS

Significantly <u>less</u> patients having admitted surgery locally:

NEMICS, LMICS, HRICS* and GRICS

Source: VCR, VAED 2018-20; *HRICS data limitation – missing data from Albury Wodonga Health – Albury campus
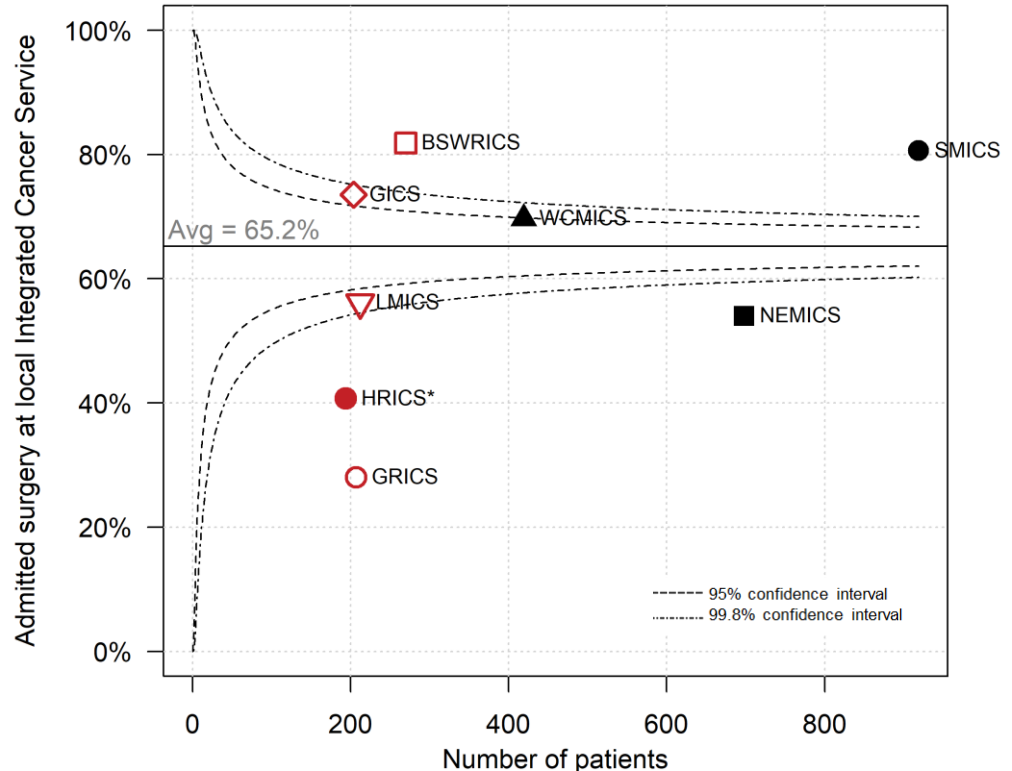
Patient flow for stage I-III melanoma sentinel lymph node biopsy, 2018-2019 (N = 1,144)

ICS of treatment	ICS of residence N (column %)							
	NEMICS	SMICS	WCMICS	BSWRICS	GRICS	HRICS*	LMICS	GICS
NEMICS	86 (35%)		12 (7%)			8 (11%)		
SMICS	44 (18%)	220 (69%)	37 (22%)	15 (12%)	25 (27%)	10 (14%)	10 (13%)	9 (13%)
WCMICS	114 (47%)	90 (28%)	123 (72%)	17 (13%)	50 (53%)	42 (57%)	37 (49%)	21 (31%)
BSWRICS				93 (73%)				
GRICS					14 (15%)			
HRICS*						12 (16%)		
LMICS							21 (28%)	
GICS								34 (50%)
Victoria	244	310	172	125	89	72	68	64

51% of patients had a sentinel lymph node biopsy locally

Source: VCR, VAED 2018-20; *HRICS data limitation – missing data from Albury Wodonga Health – Albury campus; Cells with <10 removed (n=29)

Patient flow for stage I-III __breast cancer__ sentinel lymph node biopsy, 2018-2019 (N = 6,268)

ICS of treatment	ICS of residence N (column %)							
	NEMICS	SMICS	WCMICS	BSWRICS	GRICS	HRICS*	LMICS	GICS
NEMICS	1081 (68%)	57 (3%)	87 (8%)			54 (17%)		
SMICS	141 (9%)	1482 (83%)	28 (2%)		88 (24%)		10 (3%)	
WCMICS	360 (23%)	242 (14%)	1036 (90%)	16 (3%)	59 (16%)	123 (40%)	95 (27%)	45 (15%)
BSWRICS				443 (96%)				12 (4%)
GRICS					207 (57%)			
HRICS*						126 (41%)		
LMICS							220 (62%)	
GICS							18 (5%)	239 (78%)
Victoria	1582	1781	1151	459	354	303	342	296

76% of patients had a sentinel lymph node biopsy locally

Source: VCR, VAED 2018-20; *HRICS data limitation – missing data from Albury Wodonga Health – Albury campus; Cells with <10 removed (n=51)

Variation in proportion of stage I-III melanoma patients having a sentinel lymph node biopsy locally, 2018-2019 (N = 1,173)
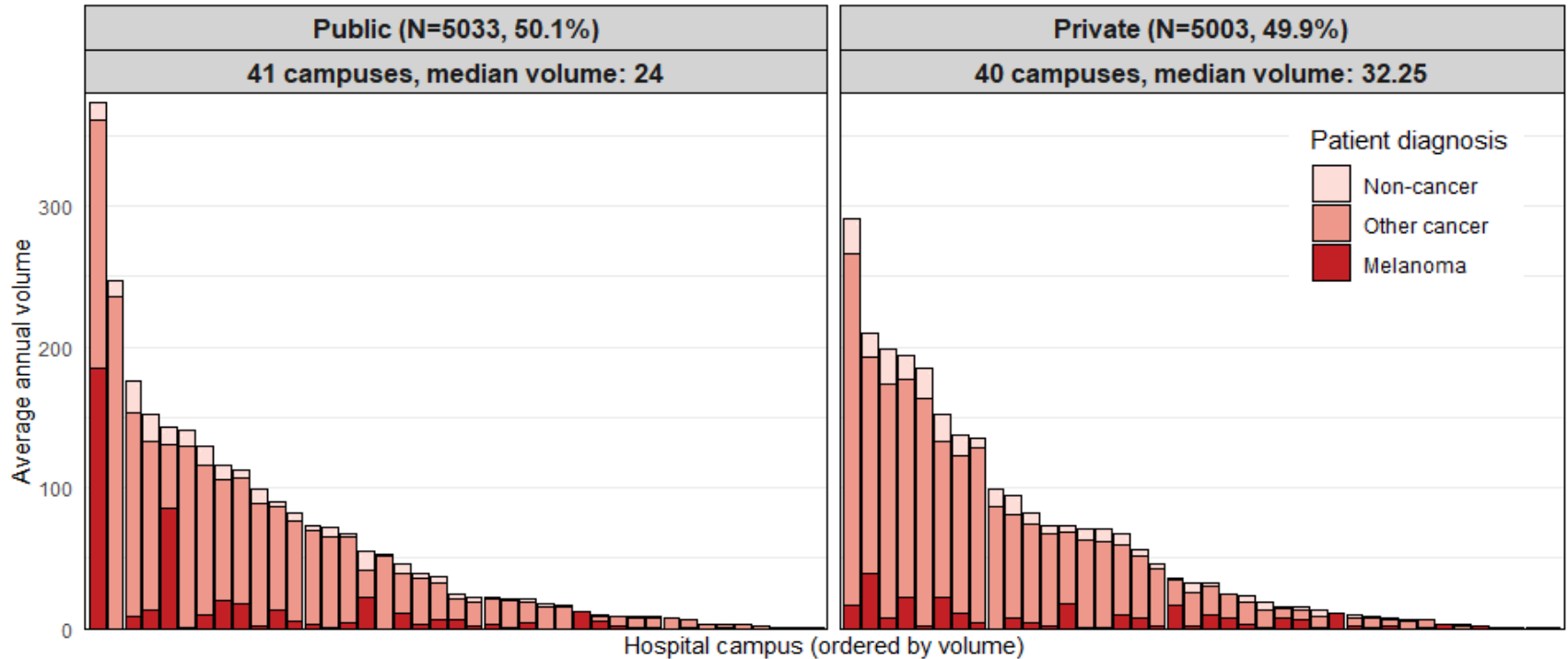
Significantly <u>more</u> patients having a SLNB locally:

BSWRICS, WCMICS and SMICS

Significantly <u>less</u> patients having a SLNB locally:

NEMICS, LMICS, HRICS* and GRICS
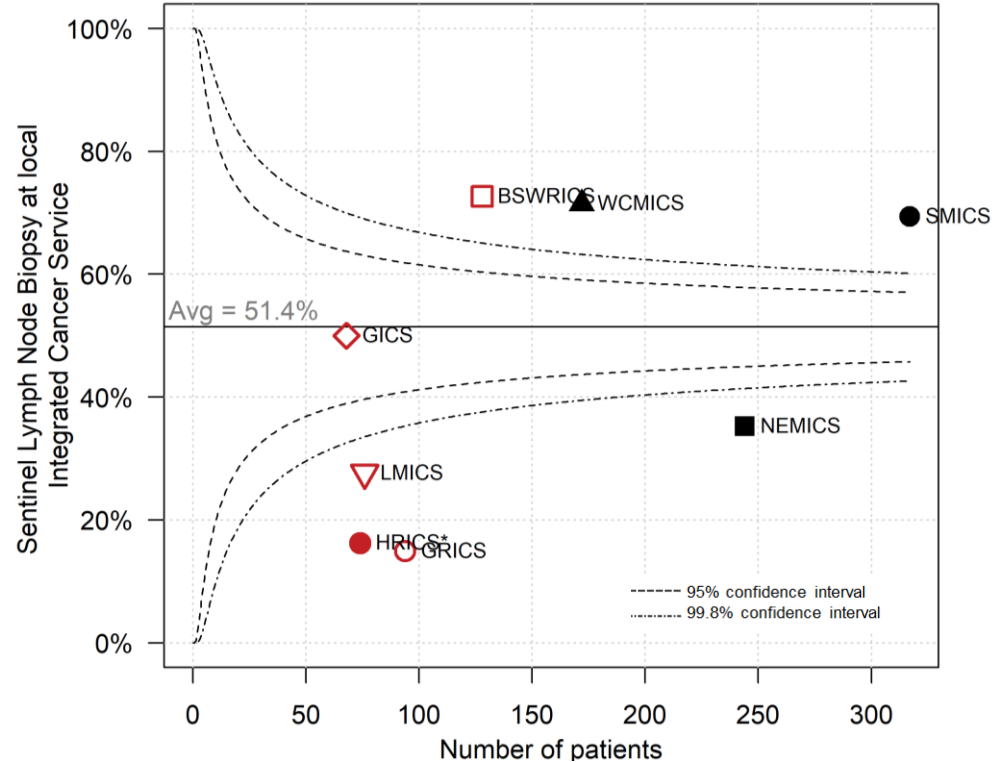
Sentinel lymph node biopsy hospital volume in Victoria, 2020 and 2021

Public (N=5033, 50.1%)	Private (N=5003, 49.9%)
41 campuses, median volume: 24	40 campuses, median volume: 32.25

Patient diagnosis
- Non-cancer
- Other cancer
- Melanoma

Average annual volume

Hospital campus (ordered by volume)

Number of hospitals – NEMICS - 17 , SMICS - 18, WCMICS - 16, BSWRICS - 7, GRICS - 7, HRICS* - 5, LMICS - 6, GICS - 4

Source: unlinked VAED 2020 and 2021; *HRICS data limitation – missing data from Albury Wodonga Health – Albury campus

OCP Step 5: Care after initial treatment and recovery

Prevention and early detection

Presentation, initial investigations and referral

Diagnosis, staging and treatment planning

Treatment

Care after initial treatment and recovery

Managing recurrent , residual and metastatic disease

End-of-life care

5 year survival by melanoma stage and ICS of residence
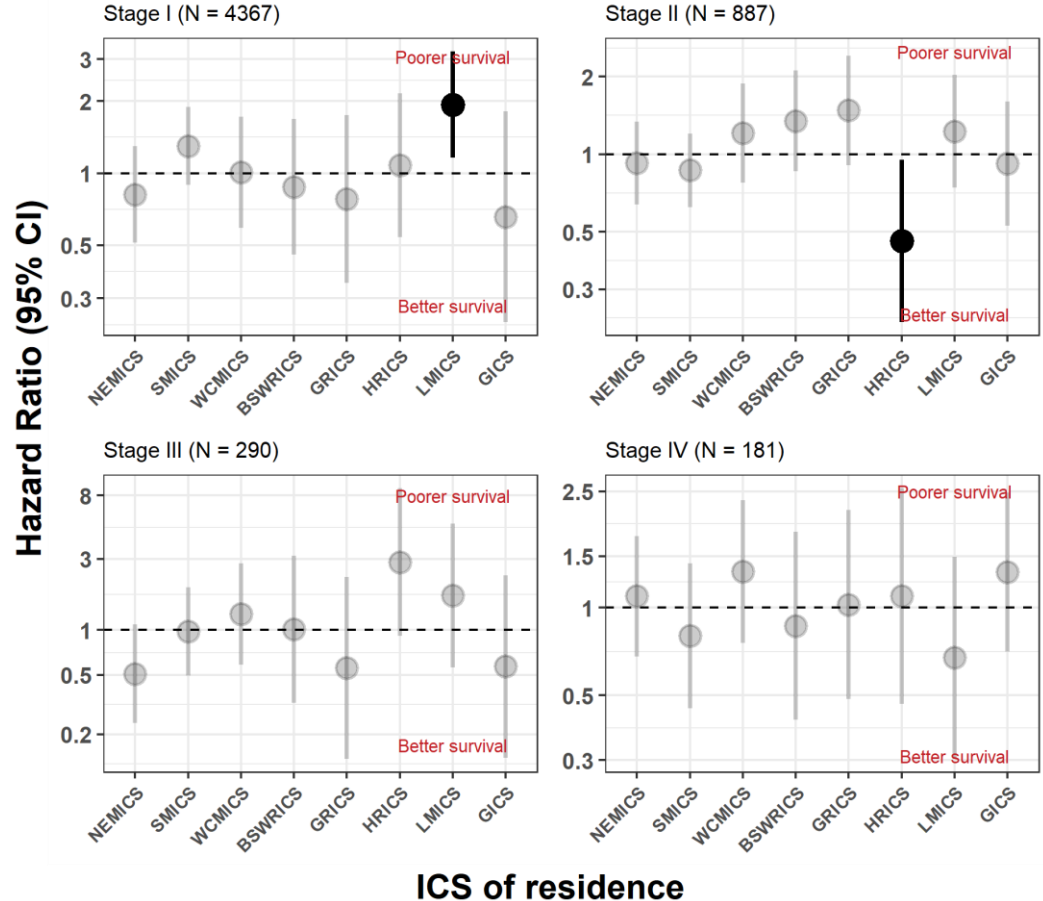
Models adjusted for age, sex and comorbidities

Stage I
Significantly poorer survival in LMICS

Stage II
Significantly better survival in HRICS

Stage III and Stage IV
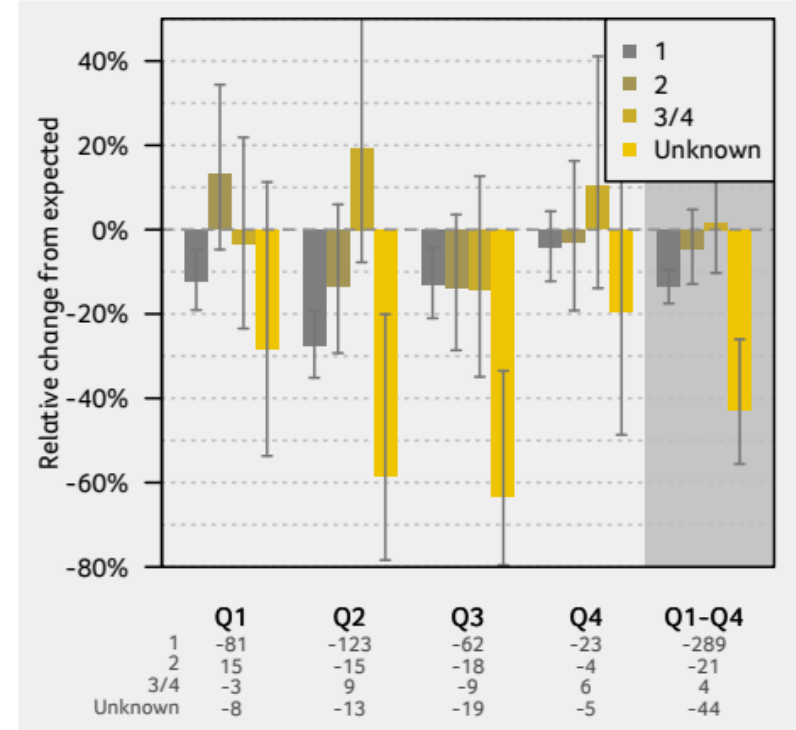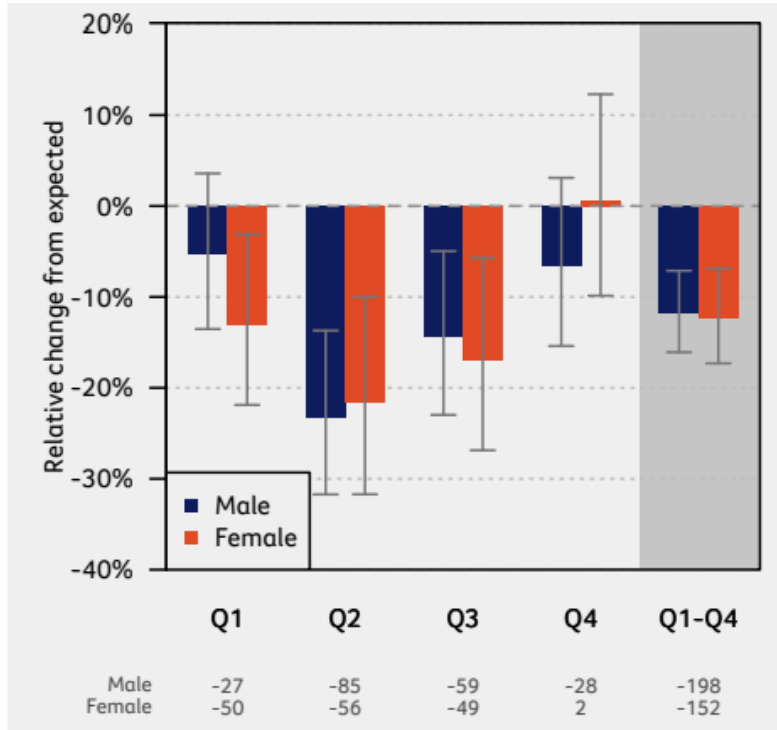No significant difference between ICS

Source: VCR, VAED 2018-20; ICS – Integrated Cancer Service; HRICS data limitation

COVID impacts

# Relative difference (95% CI) between observed and expected melanoma diagnoses in 2020 by sex and stage

	Q1	Q2	Q3	Q4	Q1–Q4
Male	-27	-85	-59	-28	-198
Female	-50	-56	-49	2	-152

	Q1	Q2	Q3	Q4	Q1–Q4
1	-81	-123	-62	-23	-289
2	15	-15	-18	-4	-21
3/4	-3	9	-9	6	4
Unknown	-8	-13	-19	-5	-44

350 fewer melanoma diagnoses in 2020 than expected

Source: Victorian Cancer Registry, Statistics and Trends 2020
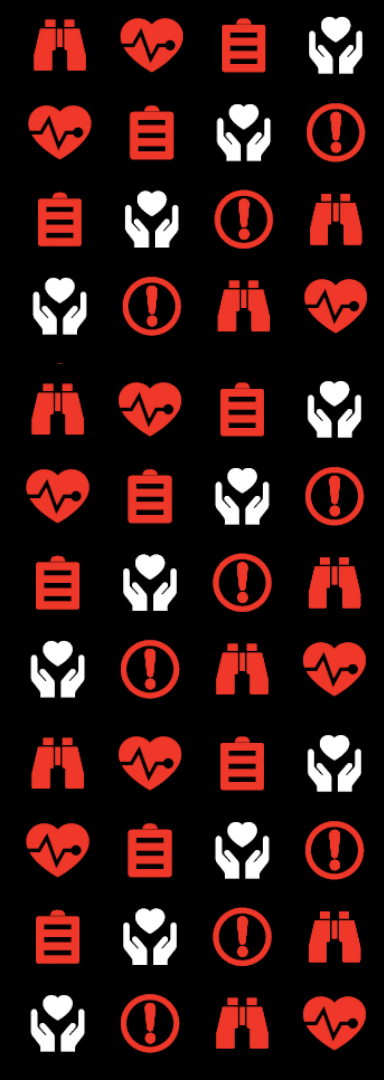
Melanoma surgery trends in cancer patients admitted to hospital
Grey line is forecast based on 2014-2019 data, accounting for seasonality

COVID impact: -12.3%; 95% CI: -18.1% to -6.4%
Actual: 4,841; expected: 5,488

Source: VAED 2014-2021
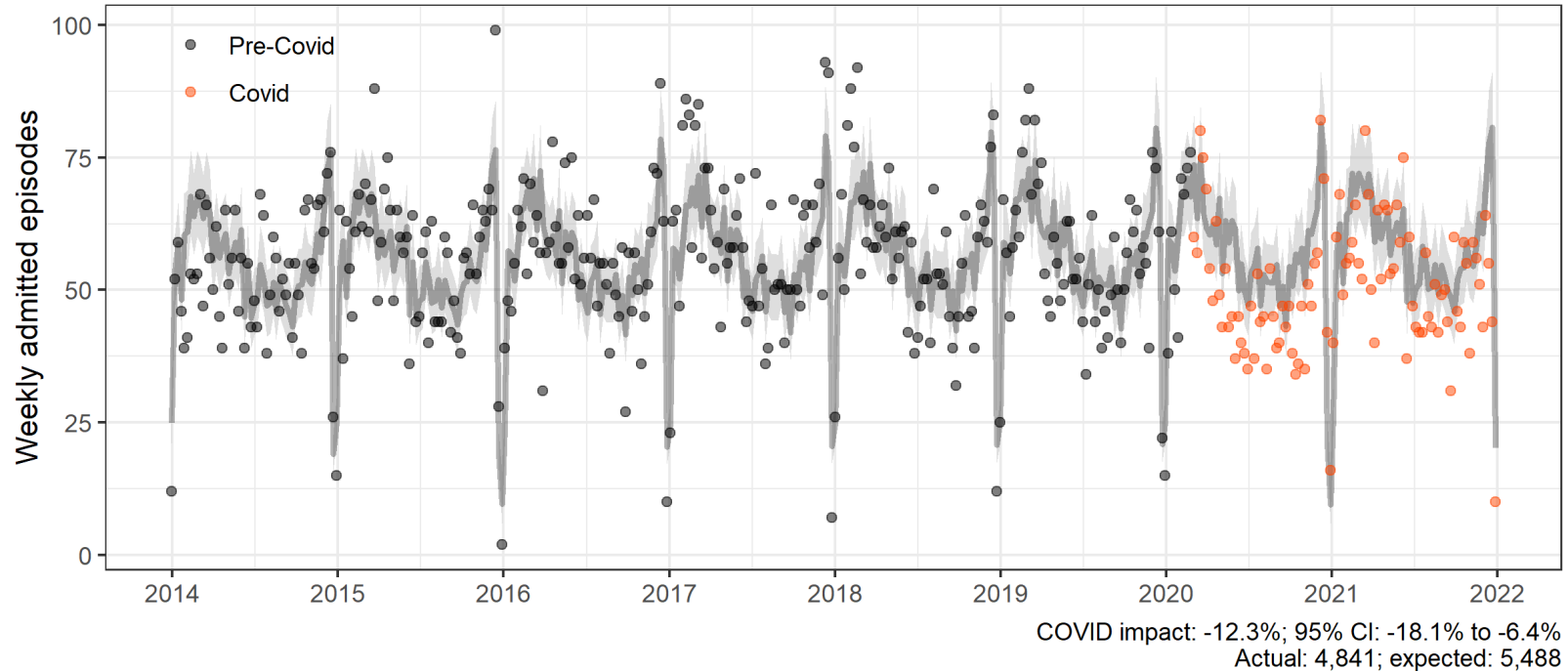
Consumer identified areas for improvement

Consumer identified areas of improvement

- The need for improved knowledge and management of symptoms and side effects

- The need for written, rather than verbal, treatment and discharge plans

- The need for well-coordinated care and information transfer to GPs

- The need for more specialist melanoma nurses

Summary and variations

Summary and potential unwarranted variations

OCP step 1: Prevention and early screening

- Mortality rates have dropped for both male & female over last 5 years

- Incidence was increasing but has reduced in last 5 years
  - Least disadvantaged more likely to be diagnosed with melanoma compared to Victorian average
  - WCMICS & NEMICS residents are less likely to be diagnosed with melanoma and SMICS and regional ICS more likely

- Five-year survival
  - Least disadvantaged have better survival and most disadvantaged have poorer survival
  - SMICS demonstrates significantly better survival rates for men
  - Australian born have poorer survival rates

Summary and potential unwarranted variations

OCP step 2: Presentation, initial investigations and referral

- Less skin checks and biopsies completed in primary care during 2020 (EMPHN, SEMPHN, Gippsland PHN)

Summary and potential unwarranted variations

OCP step 3: Diagnosis, staging and treatment planning

- SMICS demonstrates significantly lower odds of metastatic disease

- GICS demonstrate significantly higher odds of metastatic disease

- Melanoma thickness

  - higher rate of thickness >1mm for outer regional and remote

  - higher rate of thickness >1mm for most disadvantaged

  - higher stage at diagnosis for most disadvantaged

Summary and potential unwarranted variations

OCP step 3: Diagnosis, staging and treatment planning (cont)

- Documented MDM rate below 85% target

  - State average – 40% (slight increase from 37% in 2018 audit)

  - Lower rate than other tumour streams – only 1 campus achieved target (SMICS)

  - Decrease in documentation of stage at MDM (56% in 2020, 83% in 2018)

- Documented supportive care screening is below 80% target

  - Statewide average 12% - signficantly lower than other tumour streams

  - Only 1 campus achieved target (BSWRICS)

Summary and potential unwarranted variations

OCP step 4: Treatment

Treatment within 1 year of diagnosis <1mm

Surgery in hospital by ICS of residence

- GICS – above Victorian average
- BSWRICS, GRICS & HRICS West* – below Vic Average

Treatment within 1 year of diagnosis >=1mm

- SMICS above average for surgery in hospital
- WCMICS above average for SLNB
- LMICS below average for surgery in hospital and IV anti-cancer therapy

*HRICS data limitation

Summary and potential unwarranted variations

OCP step 4: Treatment (cont)

Time from diagnosis to admitted surgery Stage I-III

- Surgery within 4 weeks – most ICS are above average - data indicates WCMICS is below average

- Surgery within 8 weeks – most ICS are average or above - data indicates WCMICS is below average

- Surgery within 8-weeks funnel plot shows-

  - 3 campuses below average outliers (WCMICS, SMICS)

  - 65 campuses above average outliers (Multiple ICS)

- Variation in sentinel lymph node biopsy hospital volume –ranged from 1 to over 350 SLNBs per year

*HRICS data limitation

Summary and potential unwarranted variations

OCP step 4: Treatment (cont)

- Patient flow – admitted surgery

    - NEMICS, LMICS, HRICS* and GRICS had significantly less patients having surgery locally (WCMICS average)

    - BSWRICS, GICS and SMICS had significantly more patients having surgery locally

- Patient flow - SLNB

    - NEMICS, LMICS, HRICS* and GRICS had significantly less patients having a SLNB locally (GICS average)

    - BSWRICS, WCMICS and SMICS had significantly more patients having a SLNB locally

*HRICS data limitation

Summary and potential unwarranted variations

OCP step 5: Care after initial treatment and recovery

Survivial by stage:

- LMICS has significantly poorer survivial for stage I

- HRICS* had significantly better survival for stage II

- No statistical significant difference in survival for stage III and IV across all ICS

*HRICS data limitation

Summary and potential unwarranted variations

COVID Impacts

- 350 fewer melanoma diagnoses in 2020 than expected

- 12% reduction in melanoma surgeries in 2020 & 2021

Prioritised potential unwarranted variations

1. Incidence and survival – regional areas have a higher incidence and lower survival rate for <1mm thickness reaching statistical significance in LMICS

2. MDM documentation rates of 40% are significantly less than 85% target and other tumour streams with variation across ICS

3. Supportive care screening documentation rates of 12% are well below the 80% target with variation across ICS *(consumer identified)*

Prioritised potential unwarranted variations continued

4. There is variation in treatment delivered *(consumer identified),* timeliness and local access across the state

   - There is significant variation in proportion of stage 1-3 melanoma patients having a sentinel lymph node biopsy locally. LMICS, NEMICS, HRICS* and GRICS less likely to receive this locally (including when compared to SLNB for breast cancer)

   - There is variation in patient flow across the State with GRICS, LMICS, NEMICS, HRICS* residents less likely to receive surgery locally

*HRICS data limitation

Prioritised potential unwarranted variations continued

5. Consumer identified potential variations

   - The need for improved knowledge and management of symptoms and side effects

   - The need for written, rather than verbal, treatment and discharge plans

   - The need for well-coordinated care information transfer to GPs

   - The need for more specialist Melanoma nurses

*HRICS data limitation

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