Australian Red Cross Lifeblood

Facilities and logistics

Sue Wilkes, Australian Red Cross Lifeblood



Context

- Land mass: ~7.7 million km2
- Population: 25 million

- Collection Centres: 76
- Transport by:
  - Road
  - Rail
  - Air
- Processing Centres: 4
- Distribution Hubs: 6

- Distributor – all PDMP (imported and domestic)



Logistics considerations

- Freeze time (from collection):
  - Apheresis 24 hrs
  - Recovered (WB) 72 hrs
- Distance to Processing Centre
- Temperature extremes
  - 20% of the country is desert
  - Extreme rainfall in tropical areas
  - Extreme heat in the summer
  - Snowy mountains in the winter

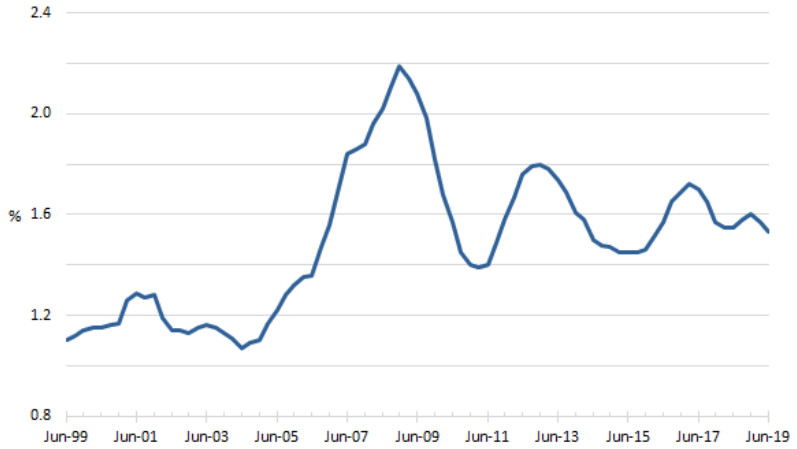
Australian Government
Department of Health
Therapeutic Goods Administration



Collection network – population considerations

PRELIMINARY DATA	Population at end Jun qtr 2019 '000
New South Wales	8 089.5
Victoria	6 594.8
Queensland	5 095.1
South Australia	1 751.7
Western Australia	2 621.7
Tasmania	534.3
Northern Territory	245.9
Australian Capital Territory	426.7
Australia(a)	**25 364.3**

Annual population growth rate (a)(b), Australia



(a) Annual growth rate calculated at the end of each quarter.
(b) All data to 30 June 2016 is final. Estimates thereafter are preliminary or revised.

- Majority in and around the major cities
- Collection centres:
  - CBD
  - Suburban
  - Regional

Considerations:

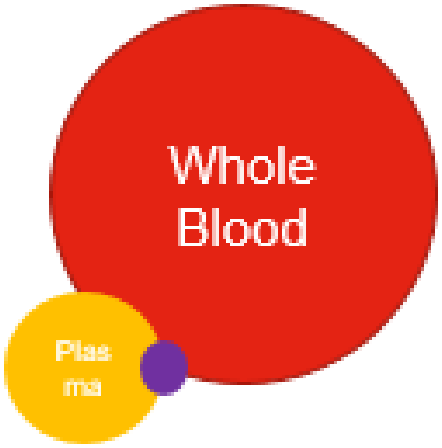
- Future growth areas
- Population penetration for each centre
- Cost effectiveness

Ref: Australian Bureau of Statistics

Donor panel
we have the population

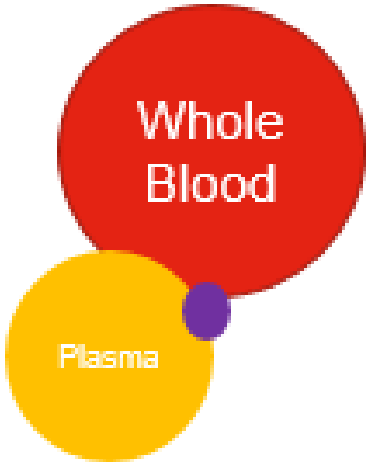


2010/11 Panel



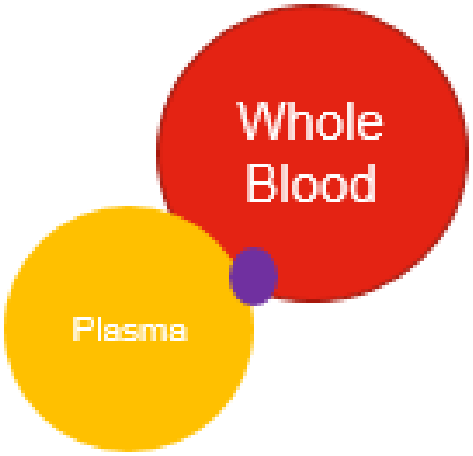
Total Donors: 558,000
Whole Blood Donors: 516,000
Apheresis Donors: 72,000

2016/17 Panel



Total Donors: 461,000
Whole Blood Donors: 390,000
Apheresis Donors: 138,000

2018/19 Panel



Total Donors: 485,000
Whole Blood Donors: 381,000
Apheresis Donors: 175,000

Plasma strategy: Plasma donor centre pilot

Pilot centres to ‘test and learn’ ways to:

- rapidly increase plasma collections
- deliver cost efficiencies
- increase donor experience

Two models being tested:

- Repurposing an existing centre
- Building a new centre to work alongside a successful mixed centre

	Townsville, QLD	Civic, Canberra, ACT
Opened	Sept 2017	Apr 2018
Site	Existing site	New site
Staff	Existing team	New team
Couches	12	16
Donor panel	Existing	New



Before





After






Water



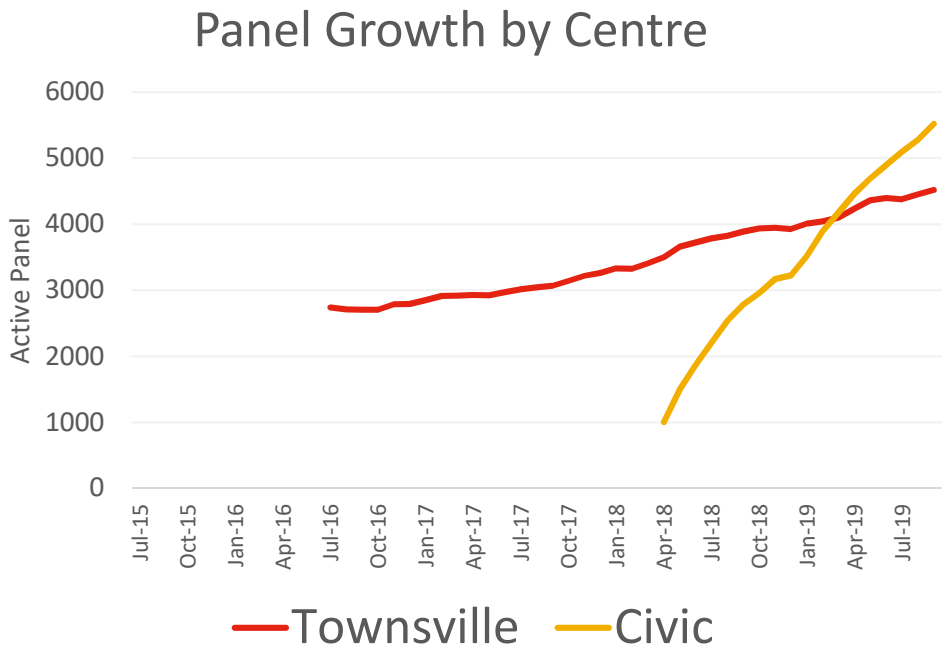







PCS2 Machine – 000041045

Plasma Donor Centre donor advocacy



- 47% growth in the Townsville panel (Sept 17 – Sept 19), even though it is in an existing catchment
- Growth curve for Civic has never been matched in our history of new donor centres
- Civic now the 4th largest plasma panel in the country

Panel composition building the next generation

- Significant shift in the panel composition for both centres.
- The centres are attracting all donors with a greater than rest of network bias to a younger cohort

Civic:

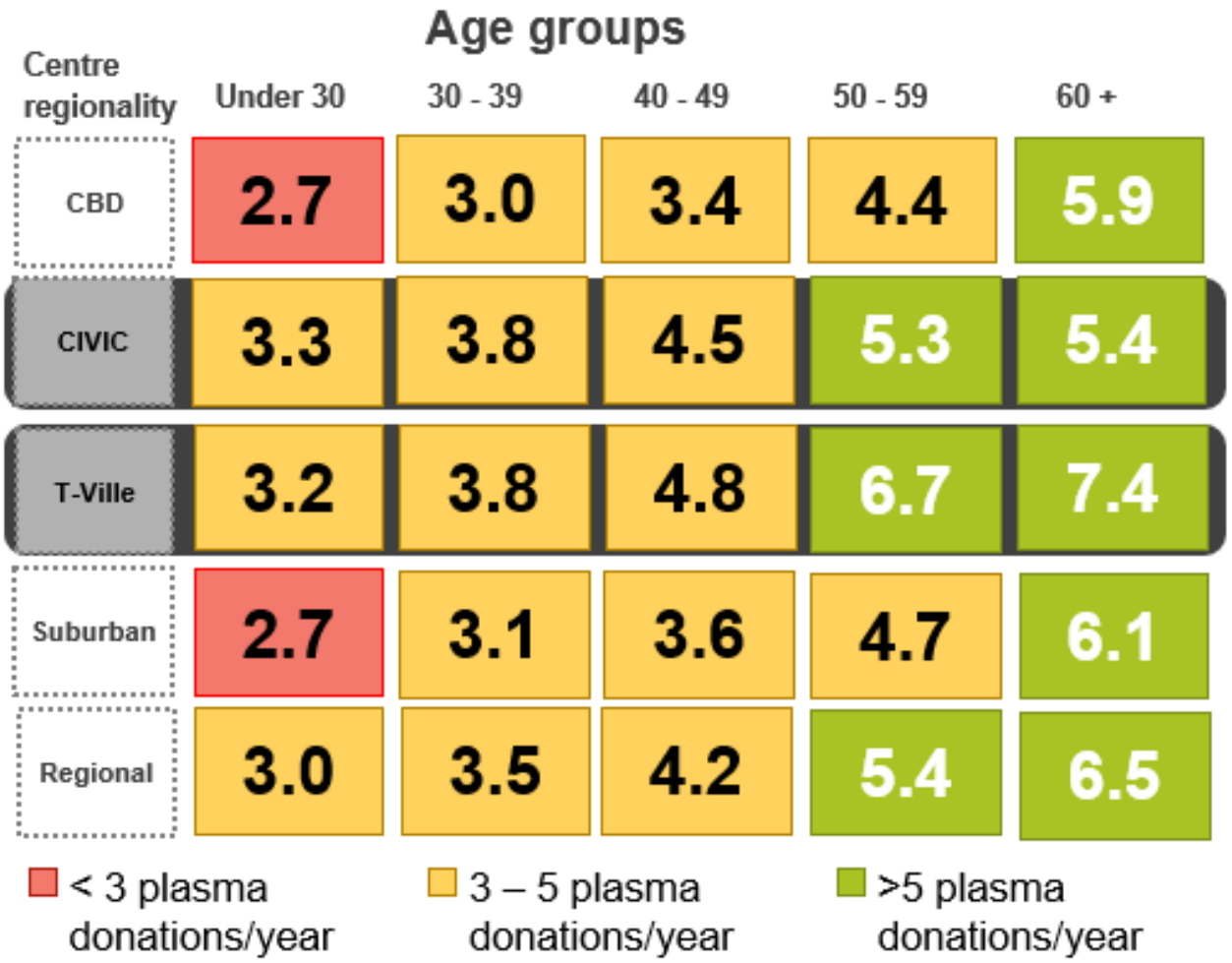
- 42% of donors <30 yrs compared to 28% nationally (apheresis)
- average panel age is 37 versus 46 nationally

Townsville

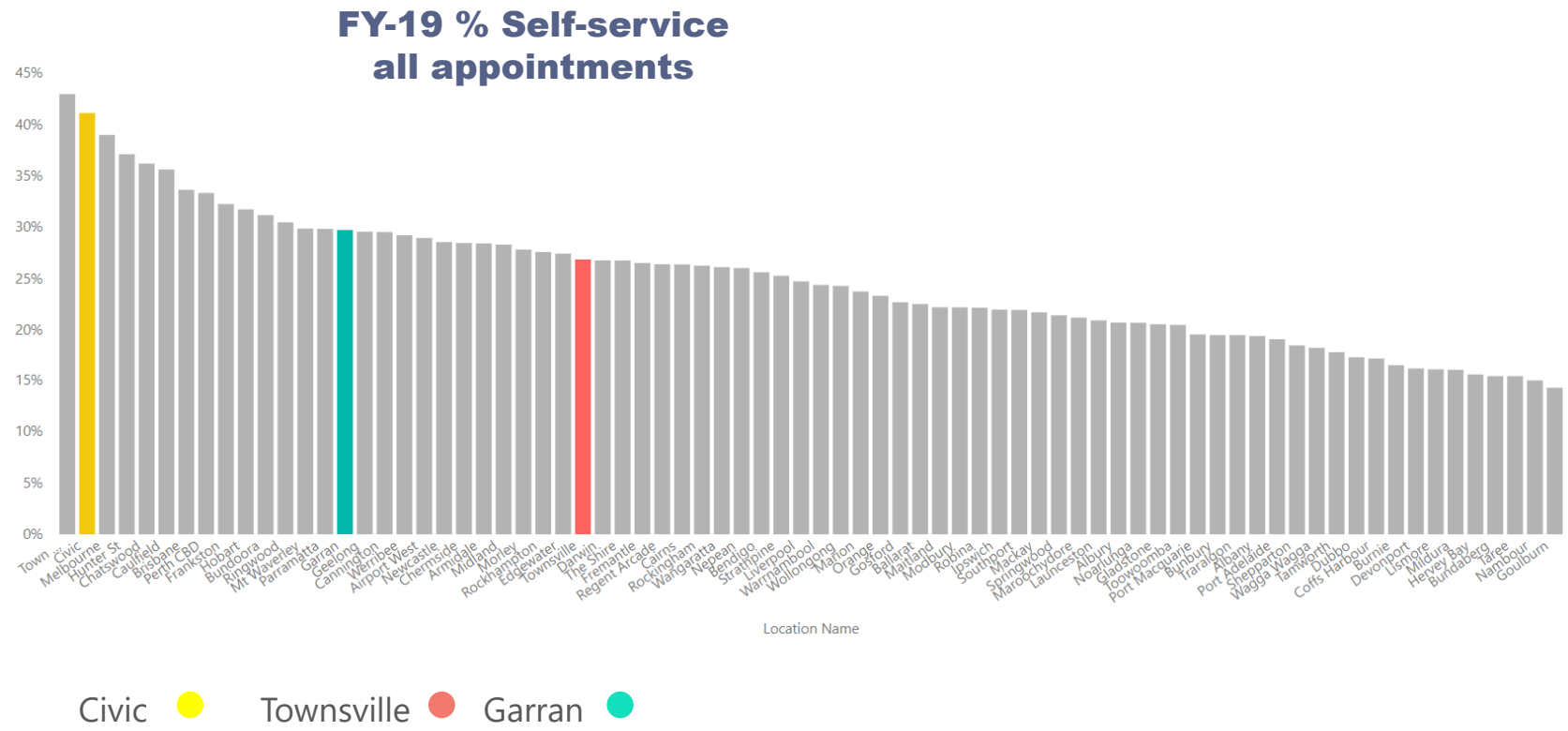
- 41% of donors <30 years of age (compared with 28% nationally)
- average panel age of 43



Age, frequency, location

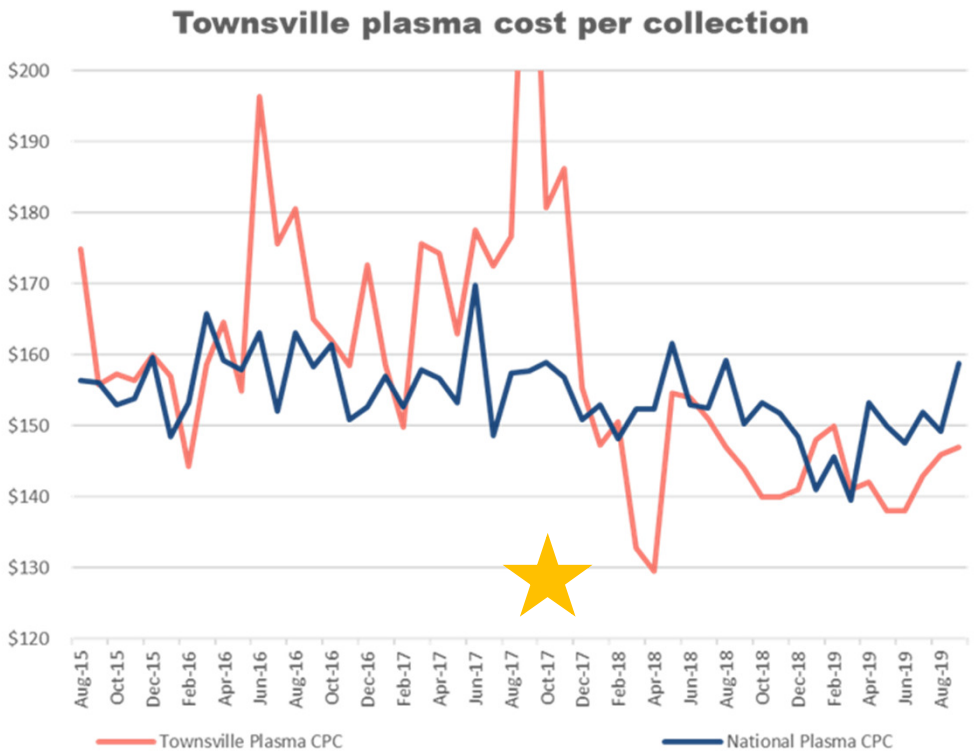


Donor appointments - self service

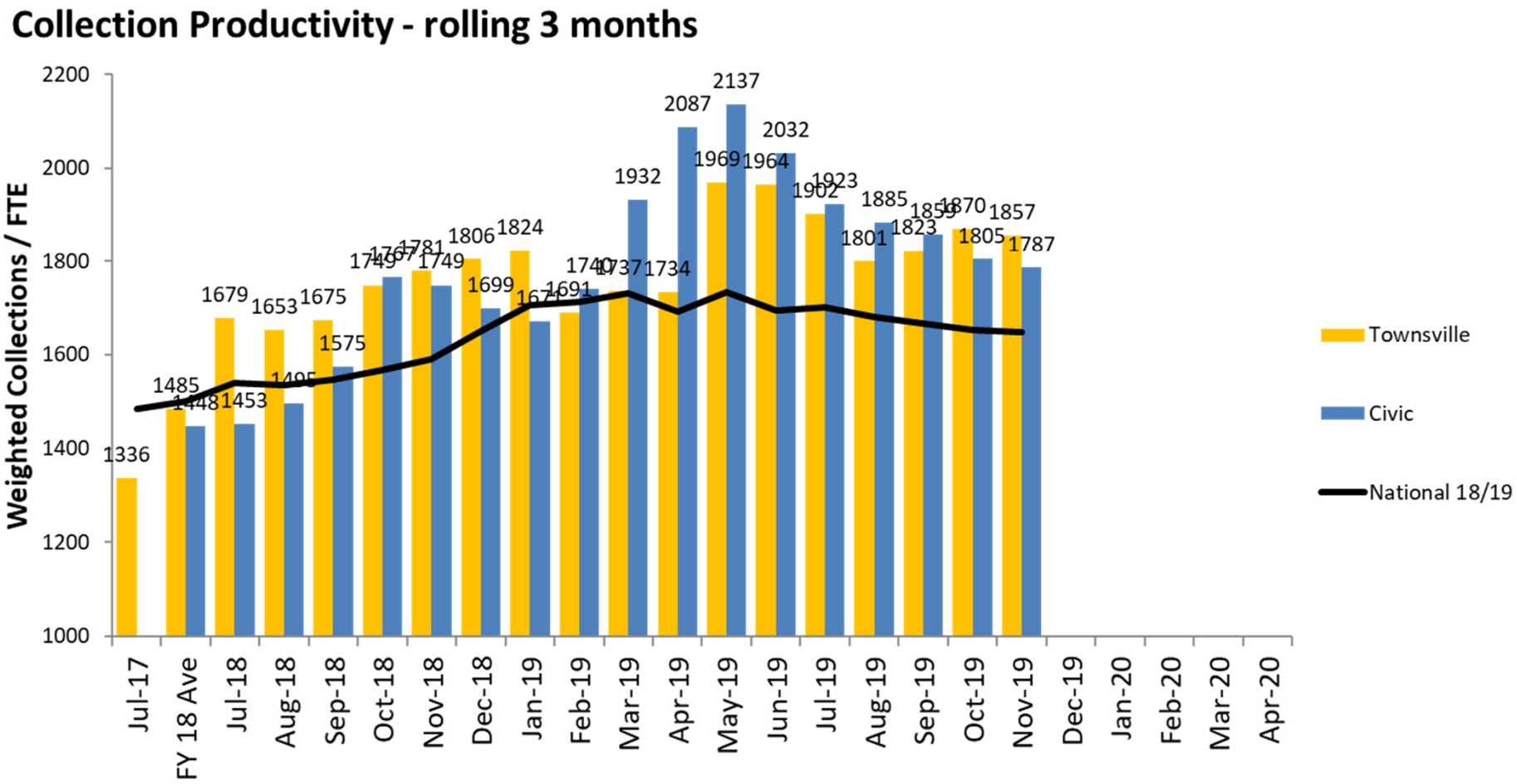


Repurposing model:
Townsville

- Single collection type
- Redesigned process
- Electronic donation process / no paper
- Revised staff model – more assistants (based on commercial model)



Staff productivity



Learnings

- We can dramatically increase collection volume and population penetration in existing collection areas
- We can operate plasma only centres next to mixed centres
- We can successfully transition existing panels to plasma only
- We can improve the performance of existing sites through repurposing
- We have successfully generated donor education and engagement in plasma
- The streamlined process and technology enables efficiency

Learnings - Canberra specific:

- Canberra as a location proved difficult around student and government based panel composition, particularly in December and January
- Approach to collection planning for future aggressive growth areas to take account of local conditions and transient panel groups

Increasing manufacturing capacity - Batch processing

- New shipper
- Blast freezing
- Dedicated plasma storage hub with automated release system

