



Ambulance Victoria

GippSIM – A Mobile Simulation Ambulance Project

Improving patient outcomes by providing access to simulation training and exposure for all Paramedic skill sets



Ross Salathiel – Paramedic Community Support Coordinator
Critical Care Paramedic



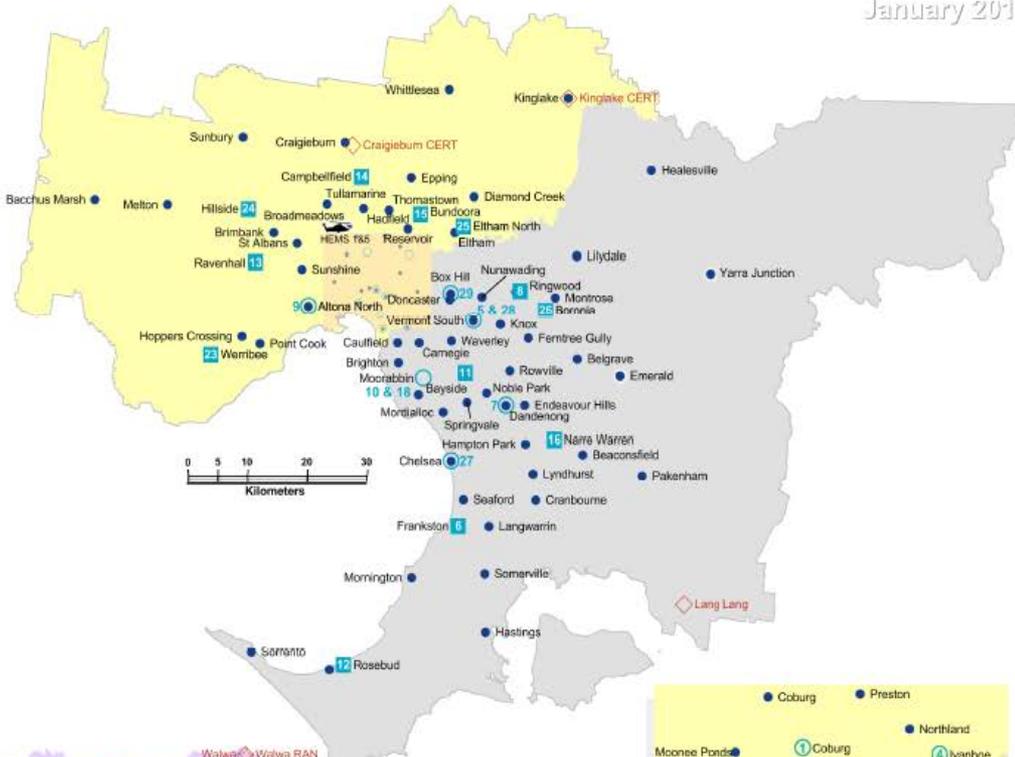






Ambulance Victoria

- 12 MICA Unit
- 27 MICA Single Responder Unit (SRU)
- Professional Branch
- Ambulance Community Officer Branch (ACO)
- ◇ Community Emergency Response Team (CERT)
- ☆ Remote Area Nurse
- ☼ HEMS
- ☐ Locations with Auxiliaries



- Metropolitan East
- Metropolitan West
- Barwon South West
- Grampians
- Loddon Mallee
- Hume
- Gippsland

Why are we here?

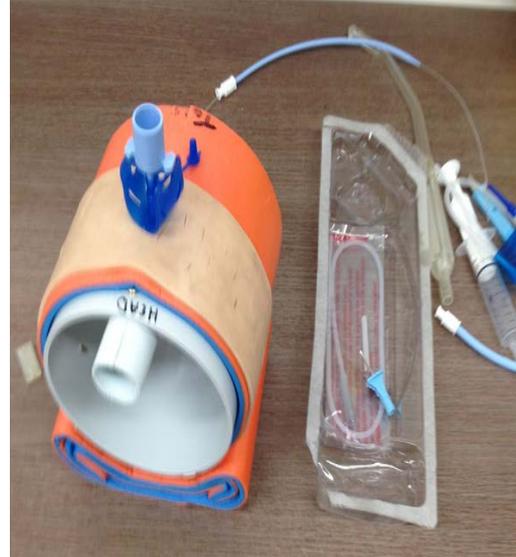
- ▶ It is all about the patient
- ▶ A commitment to best practice
- ▶ Drive to improve performance
- ▶ Staff safety



The job has evolved



Training.....it was hit & miss



The maths didn't make sense

- ▶ 26 branches
- ▶ >300 staff
- ▶ Mannequin \$13k
- ▶ Simulated Monitor \$10k
- ▶ = \$600k (Not Sustainable)



Perceived Challenges

- Complex and evolving skillset
- High risk – Low frequency case types (Drug assisted intubation, TPT Decompression, Cric)
- Staff engagement
- Cost of equipment was prohibitive
- Access to training time and a facilitator in remote locations



How can we be better?



So we tried to be different!





It Worked!!

I thoroughly enjoyed
Being able to practice
using the i-Simulate

Happy to come in
again and again on
my leave for
valuable training
like this

Thankyou so much for coming
down here, it is hard to get the
team inspired to practice so this
has been a great result



Clinical Skills Simulation is proven

Simulation-based training is superior to problem-based learning for the acquisition of critical assessment and management **skills**

[PDF] academia.edu

RH Steadman, WC Coates, YM Huang... - Critical care ..., 2006 - journals.lww.com

Objective: To determine whether full-scale simulation (SIM) is superior to interactive problem-based.

☆ 99 Cited by 470 Related articles All 10 versions

Simulation based teamwork training for emergency department staff: does it improve **clinical** team performance when added to an existing didactic teamwork ...

[PDF] bmj.com

MJ Shapiro, JC Morey, SD Small... - BMJ Quality & ..., 2004 - qualitysafety.bmj.com

... by high fidelity **simulation training** and video playback shows promise in helping providers to exercise these **skills**. Multi-patient **simulator** based **training** offers the opportunity to integrate task and teamwork **skills** in an environment that more closely represents **clinical** care ...

☆ 99 Cited by 446 Related articles All 11 versions

[HTML] **Simulation** technology for **skills training** and competency assessment in medical education

[HTML] springer.com

RJ Scalse, VT Obeso, SB Issenberg - Journal of general internal ..., 2008 - Springer

... We can assess interpersonal and communication **skills** and professionalism: during a **simulation** integrating an SP ... This last example highlights the reality that actual **clinical** encounters often require practitioners to bring to bear their abilities in multiple domains ...

☆ 99 Cited by 381 Related articles All 21 versions

[HTML] The influence of a full-time, immersive **simulation-based clinical** placement on physiotherapy student confidence during the transition to **clinical** practice

[HTML] biomedcentral.com

A Wright, P Moss, DM Dennis... - ... in Simulation, 2018 - advancesinsimulation.biomedcentral...

... trained to give feedback to students regarding their professional and communication **skills** and in ... of the placement, run by a coordinating project research officer and **clinical** supervisors with ... **Simulation** supervisor **training** involved initial completion of a minimum of the two core ...

☆ 99 Cited by 1207 Related articles All 88 versions

[HTML] Does **simulation**-based medical education with deliberate practice yield better results than traditional **clinical** education? A meta-analytic comparative review ...

[HTML] nih.gov

[PDF] A pilot study to investigate the effect of a **simulation** strategy on the clinical decision making of **midwifery** students

[PDF] researchgate.net

J Cioffi, N Purcal, F Arundell - Journal of Nursing Education, 2005 - researchgate.net

... The decision maker (**midwife**) sought more information from the **simulator** by asking specific questions **simulations** can positively affect the decision-making process among **midwifery** students ... may have provided fewer opportunities for students to use their decision-making **skills** ...

☆ 99 Cited by 159 Related articles All 11 versions

Rethinking theory and practice: Pre-registration student nurses experiences of **simulation** teaching and learning in the acquisition of clinical **skills** in preparation for ...

[PDF] uow.edu.au

J Hope, J Garside, S Prescott - Nurse education today, 2011 - Elsevier

... by doing' or 'being there', sometimes on the basis of initial involvement as an observer but then participating in the care or particular **skill** with supervision ... 14-18. Nursing and **Midwifery** Council, 2007a Nursing and **Midwifery** Council Essential **Skills** Clusters for ...

☆ 99 Cited by 124 Related articles All 11 versions

Two models of in-service training to improve **midwifery skills**: how well do they work?

J McDermott, D Beck, ST Buffington... - ... Journal of Midwifery ..., 2001 - Wiley Online Library

... Senior Indonesian midwives from the IBI National Office and the **Midwifery** Academy in Jakarta who had been trained in LSS through another project served as evaluators ... To reduce interobserver variations in the **skills** scores, each **midwife** evaluator remained at the ...

☆ 99 Cited by 38 Related articles All 5 versions

Integrating **simulation** training into the nursing curriculum

[PDF] semanticscholar.org

A Wilford, TJ Doyle - British Journal of Nursing, 2006 - magonellibrary.com

... progresses the learner is expected to demonstrate increased knowledge and **skill** base for ... Falmer, London Miller GE (1990) The assessment of clinical **skills**/competence/performance ... NMC, London Nursing and **Midwifery** Council (2006) NMC announce **simulation** and practice ...

Full View

☆ 99 Cited by 201 Related articles All 8 versions

Simulation based learning in Australian **midwifery** curricula: Results of a national electronic survey

[PDF] academia.edu

‘Simulation’ already worked in our *Paramedic Service*



The aim

To provide all *Primary Care Paramedics, Intermediate Care Paramedics, Advanced Care Paramedics* and *Critical Care Paramedics* across the Gippsland region with guaranteed and **equitable** access to **relevant** and **appropriate** training equipment to enable excellence in patient care through simulation exposure.



The plan

- ▶ Take a retired Ambulance vehicle
- ▶ Add a full size mannequin
- ▶ Add a commercial simulator Monitor
- ▶ Using the same response bags as are operationally
- ▶ Video recording / debrief and feedback capacity
- ▶ Skills exposure tracking database to 'track' skills exposure



Funding

- ▶ Helimed1 Ambulance Auxiliary



- ▶ Ambulance Victoria Auxiliaries



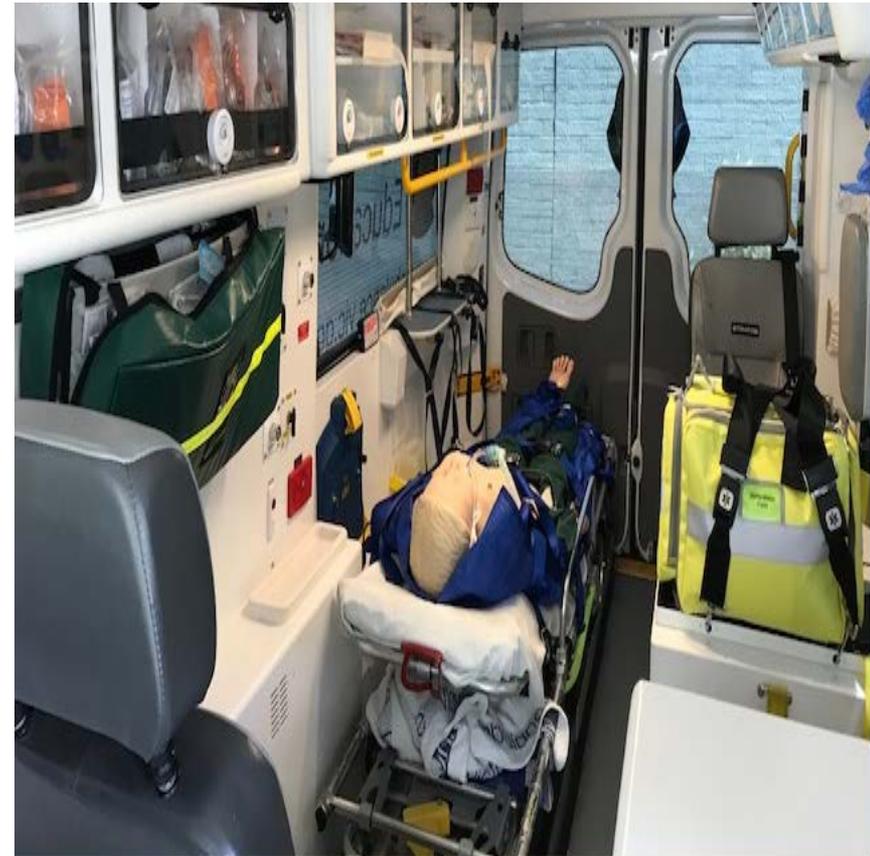
Ambulance
Auxiliaries



Add a lot of work.....



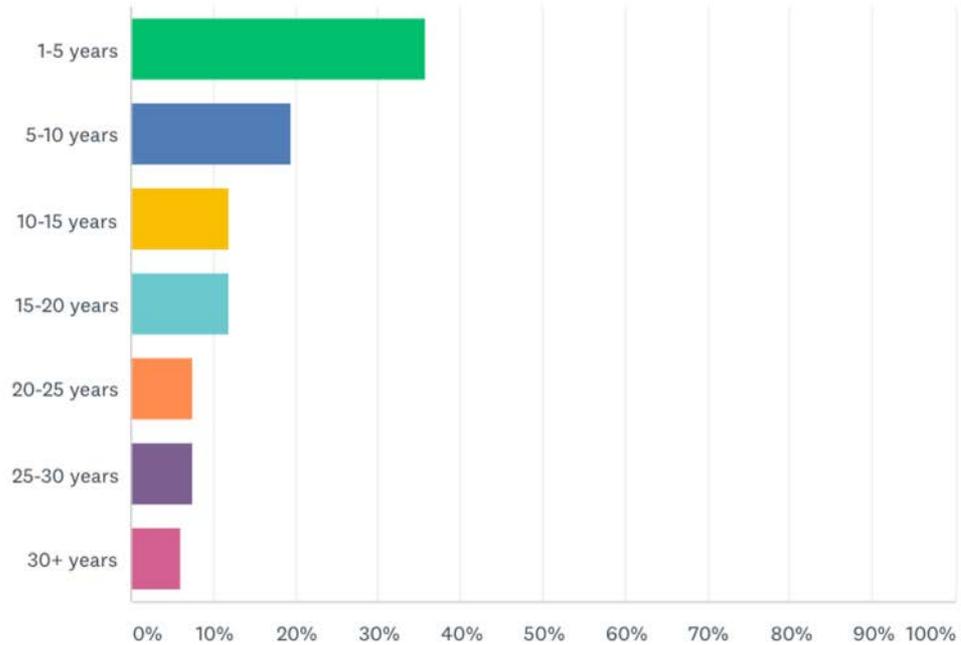
Success





Pre Deployment Evaluation

How long have you been a paramedic (not exclusive to Ambulance Victoria)



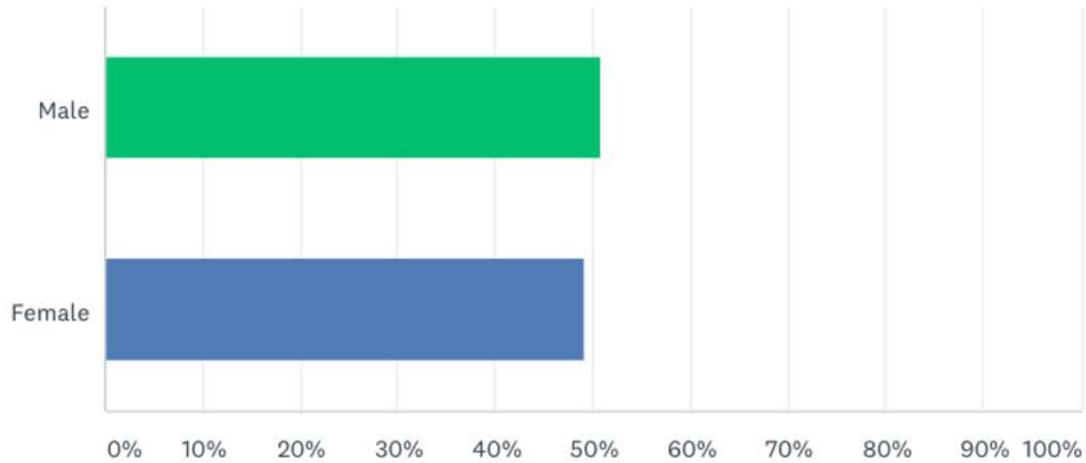
ANSWER CHOICES	RESPONSES
▼ 1-5 years	35.82% 24
▼ 5-10 years	19.40% 13
▼ 10-15 years	11.94% 8
▼ 15-20 years	11.94% 8
▼ 20-25 years	7.46% 5
▼ 25-30 years	7.46% 5
▼ 30+ years	5.97% 4
TOTAL	67

Q2

Customize

Export ▼

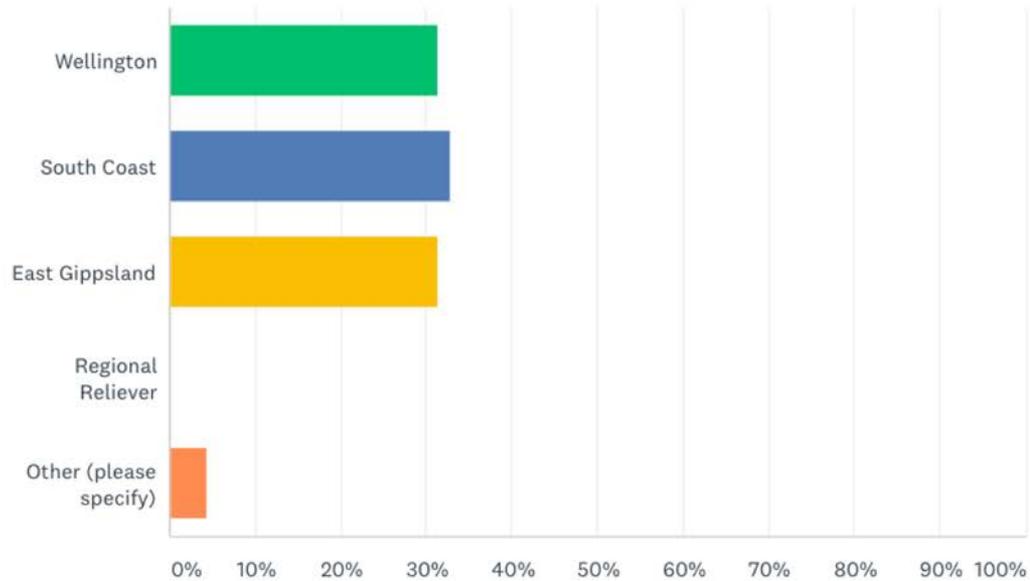
What is your Gender?



ANSWER CHOICES ▼	RESPONSES ▼
▼ Male	50.75% 34
▼ Female	49.25% 33
TOTAL	67

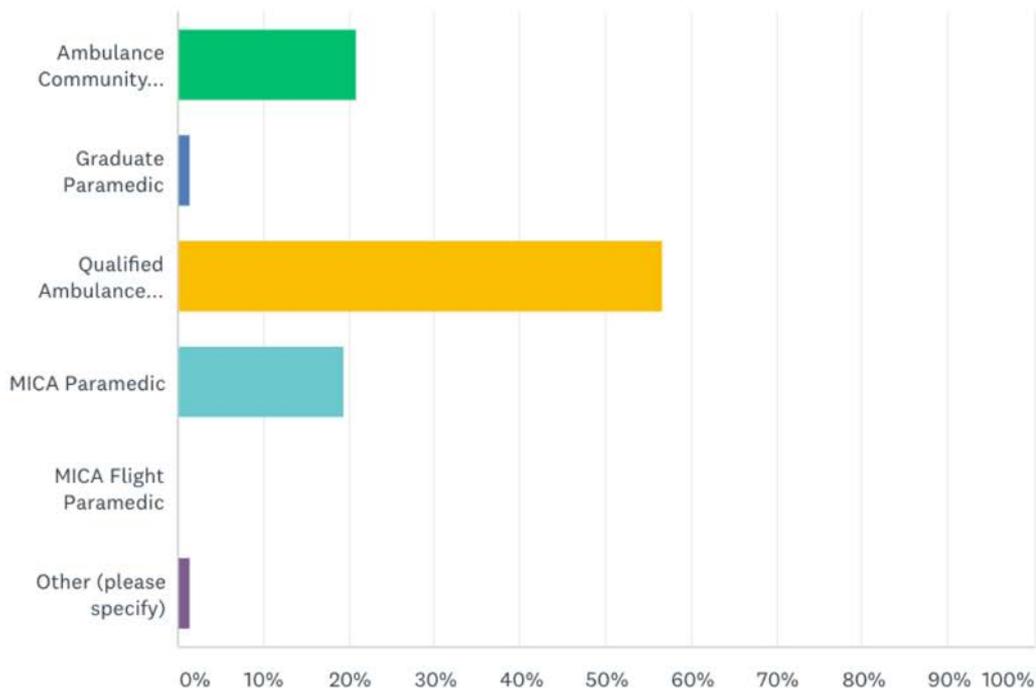


What is your primary work location?



ANSWER CHOICES		RESPONSES	
▼ Wellington		31.34%	21
▼ South Coast		32.84%	22
▼ East Gippsland		31.34%	21
▼ Regional Reliever		0.00%	0
▼ Other (please specify)	Responses	4.48%	3
TOTAL			67

What is your qualification level?

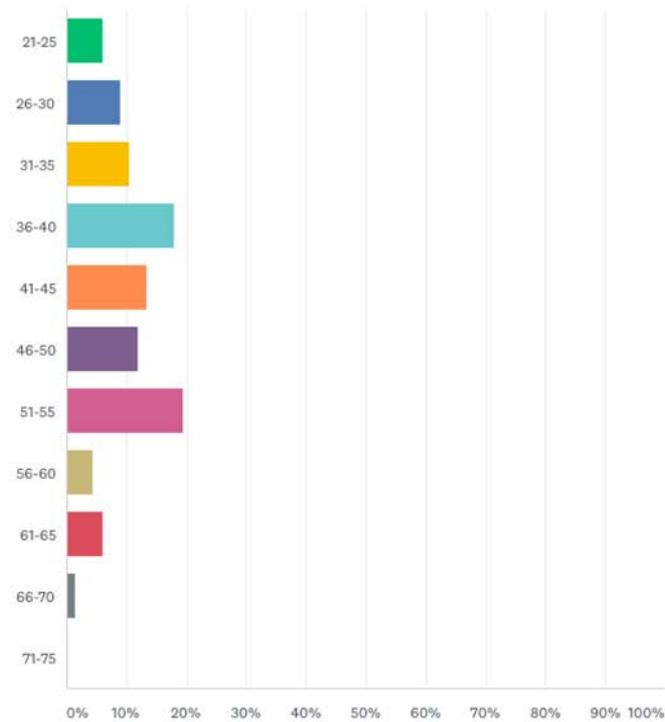


ANSWER CHOICES	RESPONSES	
▾ Ambulance Community Officer or CERT volunteer	20.90%	14
▾ Graduate Paramedic	1.49%	1
▾ Qualified Ambulance Paramedic	56.72%	38
▾ MICA Paramedic	19.40%	13
▾ MICA Flight Paramedic	0.00%	0
▾ Other (please specify)	1.49%	1
TOTAL		67

Responses

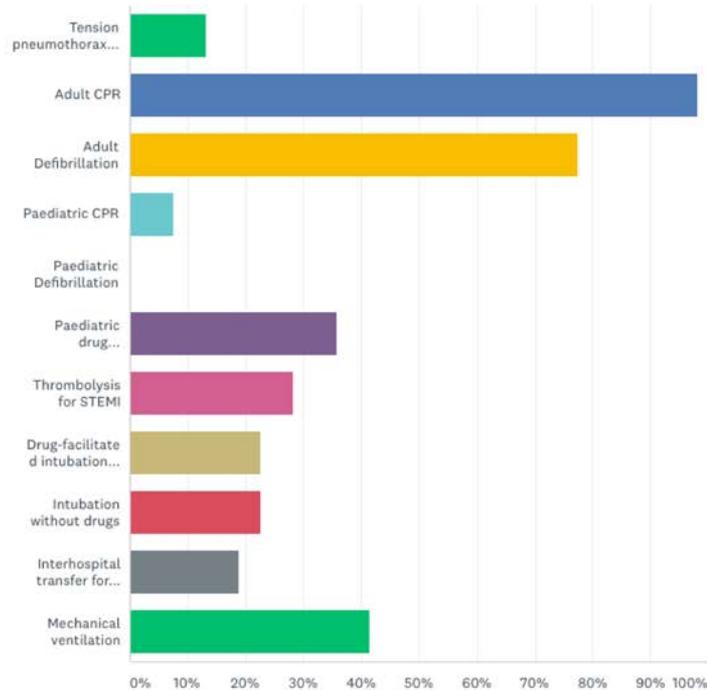


What is your age?



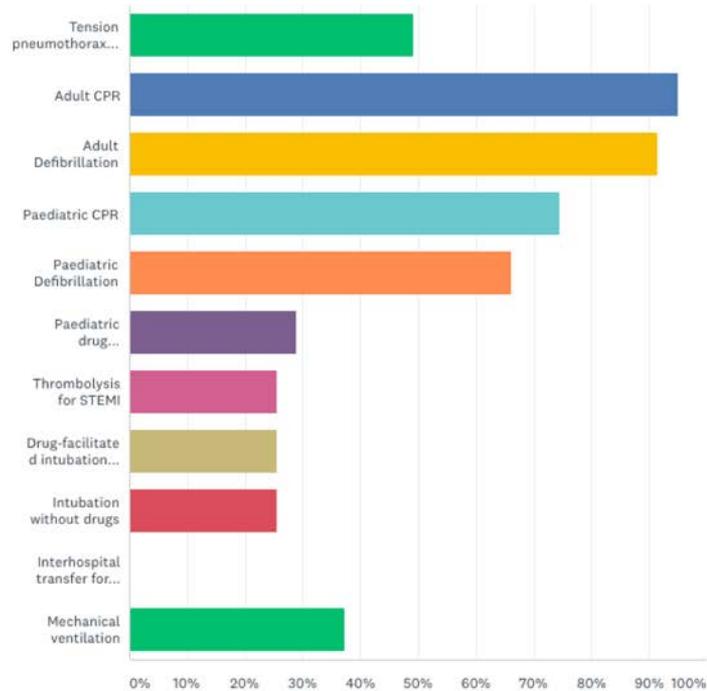
ANSWER CHOICES	RESPONSES
21-25	5.97% 4
26-30	8.96% 6
31-35	10.45% 7
36-40	17.91% 12
41-45	13.43% 9
46-50	11.94% 8
51-55	19.40% 13
56-60	4.48% 3
61-65	5.97% 4
66-70	1.49% 1
71-75	0.00% 0
TOTAL	67

In the past 12 months, have you performed any of the following skills in actual patient care situations? (check as many as apply)



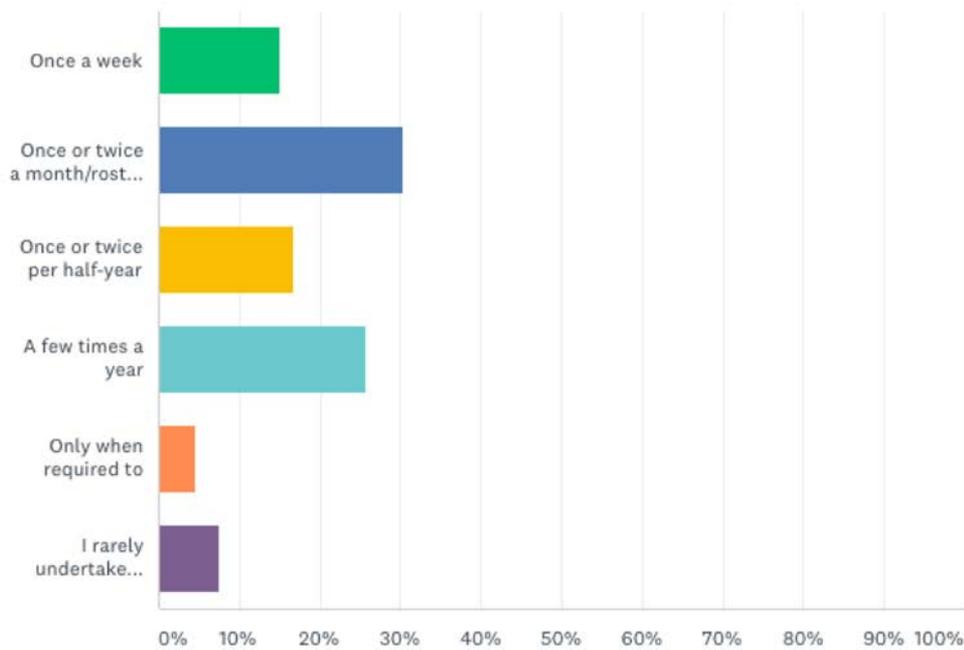
ANSWER CHOICES	RESPONSES
▼ Tension pneumothorax decompression	13.21% 7
▼ Adult CPR	98.11% 52
▼ Adult Defibrillation	77.36% 41
▼ Paediatric CPR	7.55% 4
▼ Paediatric Defibrillation	0.00% 0
▼ Paediatric drug administration	35.85% 19
▼ Thrombolysis for STEMI	28.30% 15
▼ Drug-facilitated intubation (including RSI and IFS)	22.64% 12
▼ Intubation without drugs	22.64% 12
▼ Interhospital transfer for endovascular clot retrieval in stroke	18.87% 10
▼ Mechanical ventilation	41.51% 22
Total Respondents: 53	

In the past 12 months, have you performed any of the following skills in SIMULATED patient care situations? (check as many as apply)



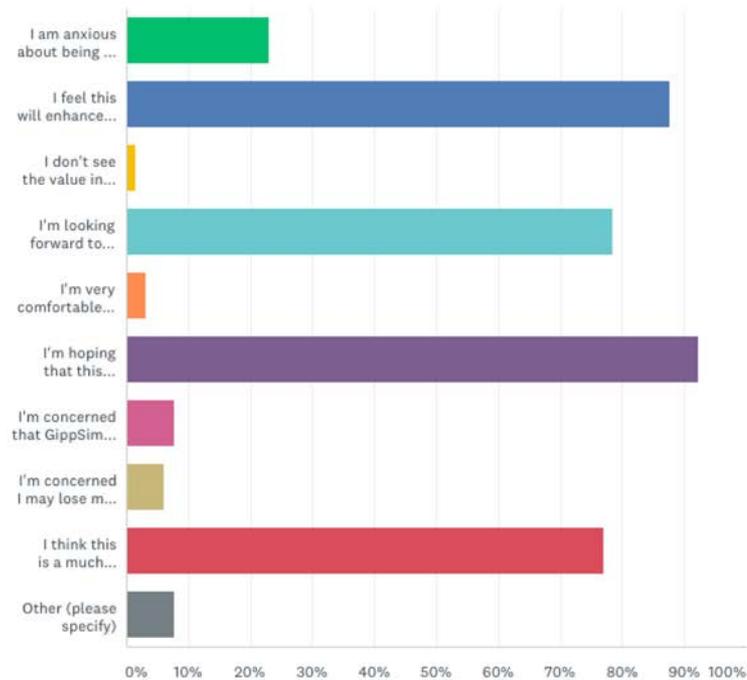
ANSWER CHOICES	RESPONSES
▼ Tension pneumothorax decompression	49.15% 29
▼ Adult CPR	94.92% 56
▼ Adult Defibrillation	91.53% 54
▼ Paediatric CPR	74.58% 44
▼ Paediatric Defibrillation	66.10% 39
▼ Paediatric drug administration	28.81% 17
▼ Thrombolysis for STEMI	25.42% 15
▼ Drug-facilitated intubation (including RSI and IFS)	25.42% 15
▼ Intubation without drugs	25.42% 15
▼ Interhospital transfer for endovascular clot retrieval in stroke	0.00% 0
▼ Mechanical ventilation	37.29% 22
Total Respondents: 59	

How often do you undertake formal scenario-based simulation at your branch?



ANSWER CHOICES	RESPONSES
▼ Once a week	15.15% 10
▼ Once or twice a month/roster cycle	30.30% 20
▼ Once or twice per half-year	16.67% 11
▼ A few times a year	25.76% 17
▼ Only when required to	4.55% 3
▼ I rarely undertake scenario-based simulation	7.58% 5
TOTAL	66

GippSim Mobile Simulation Unit will be coming to your location soon! Please share your thoughts by checking the boxes that apply



ANSWER CHOICES	RESPONSES
▼ I am anxious about being put through scenarios	23.08% 15
▼ I feel this will enhance my clinical practice	87.69% 57
▼ I don't see the value in scenario-based simulation	1.54% 1
▼ I'm looking forward to using this facility	78.46% 51
▼ I'm very comfortable with my current clinical knowledge and practice	3.08% 2
▼ I'm hoping that this initiative will increase my confidence in managing high-risk, low frequency procedures	92.31% 60
▼ I'm concerned that GippSim will be used punitively	7.69% 5
▼ I'm concerned I may lose my Authority to Practice or be placed on a CIBOR program	6.15% 4
▼ I think this is a much needed resource to enhance my ability to provide safe and effective patient care	76.92% 50
▼ Other (please specify)	Responses 7.69% 5
Total Respondents: 65	

GippSIM – In Action



GIPPSLAND MOBILE SIMULATION UNIT

Credentialing Record

Region: South Coast

Please complete the blue & grey cells below, entering a new line for each Sim Skill activity completed

NAME	EMPLOYEE ID	BRANCH	DISTRICT	QUALIFICAITON	DATE SIM COMPLETED	SIM ACTIVITY	FACILITATOR	PROFICIENT	SIM STATUS	
DU	3045	WONTHAGGI SRU	SOUTH COAST	TMZR	23-Apr-18	Drug Assisted Intubation	Rebecca Venstra	Proficient	Current	
DU	3045	WONTHAGGI SRU	SOUTH COAST	TMZR	23-Apr-18	Difficult Airway Guideline	Rebecca Venstra	Proficient	Current	
DK	51323	WONTHAGGI SRU	SOUTH COAST	MPIR	23-Apr-18	Drug Assisted Intubation	Rebecca Venstra	Proficient	Current	
GR	501	WONTHAGGI SRU	SOUTH COAST	MPIR	23-Apr-18	Drug Assisted Intubation	Rebecca Venstra	Proficient	Current	
DA	3576	WARRAGUL	SOUTH COAST	MPI	15-May-18	Drug Assisted Intubation	Ben Meadley	Proficient	Current	
SIM	1780	WARRAGUL	SOUTH COAST	AP/ED	15-May-18	Cardia Arrest (ALS)	Ben Meadley	Proficient	Current	
DA	3576	WARRAGUL	SOUTH COAST	MPI	15-May-18	Cricothyroidotomy	Rebecca Venstra	Proficient	Current	
RC	3509	WARRAGUL	SOUTH COAST	MPIR	16-May-18	Chest Decompression	Ben Meadley	Proficient	Current	
LIS	29807	WARRAGUL	SOUTH COAST	MPIR	16-May-18	Chest Decompression	Ben Meadley	Proficient	Current	
RC	1212	WARRAGUL	SOUTH COAST	TMZR	16-May-18	Chest Decompression	Ben Meadley	Proficient	Current	
JE	52244	DROUIN	SOUTH COAST	API	16-May-18	Chest Decompression	Ben Meadley	Proficient	Current	
WJ	50459	DROUIN	SOUTH COAST	API	16-May-18	Chest Decompression	Ben Meadley	Proficient	Current	
JO	1305	WARRAGUL	SOUTH COAST	AP	16-May-18	Chest Decompression	Ben Meadley	Proficient	Current	
EL	71722	LEONGATHA	SOUTH COAST	AP	10-May-18	Chest Decompression	Stuart Reid	Proficient	Current	
EL	52249	WARRAGUL	SOUTH COAST	AP	16-May-18	Chest Decompression	Ben Meadley	Proficient	Current	
SE	50227	WARRAGUL	SOUTH COAST	API	16-May-18	Chest Decompression	Ben Meadley	Proficient	Current	
EL	52249	WARRAGUL	SOUTH COAST	AP	16-May-18	Cardia Arrest (ALS)	Ben Meadley	Proficient	Current	
RC	1212	WARRAGUL	SOUTH COAST	TMZR	16-May-18	Drug Assisted Intubation	Ben Meadley	Proficient	Current	
LIS	29807	WARRAGUL	SOUTH COAST	MPIR	16-May-18	Drug Assisted Intubation	Ben Meadley	Proficient	Current	
RC	3509	WARRAGUL	SOUTH COAST	MPIR	16-May-18	Drug Assisted Intubation	Ben Meadley	Proficient	Current	
MA	1600	WONTHAGGI SRU	SOUTH COAST	MPIR	23-May-18	Drug Assisted Intubation	Rebecca Venstra	Proficient	Current	
MA	EIN	WONTHAGGI	SOUTH COAST	API	23-May-18	PHT	Rebecca Venstra	Proficient	Current	
MA	EIN	WONTHAGGI	SOUTH COAST	API	23-May-18	Cardia Arrest (ALS)	Rebecca Venstra	Proficient	Current	
SA	S	51996	WONTHAGGI	SOUTH COAST	AP	23-May-18	PHT	Rebecca Venstra	Proficient	Current
SA	S	51996	WONTHAGGI	SOUTH COAST	AP	23-May-18	Cardia Arrest (ALS)	Rebecca Venstra	Proficient	Current

Facilitator - mark if employee was proficient or non proficient



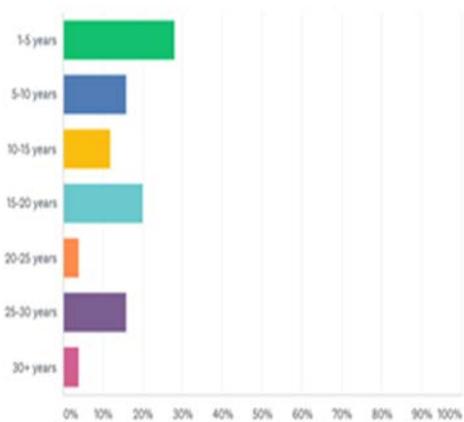
Where to from here?

- ▶ GippSIM evaluated over 12 months (*see next)
- ▶ Qualitative review of attitudes towards simulation
- ▶ Review of confidence of practitioners
- ▶ Preparation for professional registration – Can GippSIM sessions count toward CPD points??
- ▶ Recommendation to *Paramedic Service* around replication across the state



6 Month Progress Survey

How long have you been a paramedic (not exclusive to Ambulance Victoria)

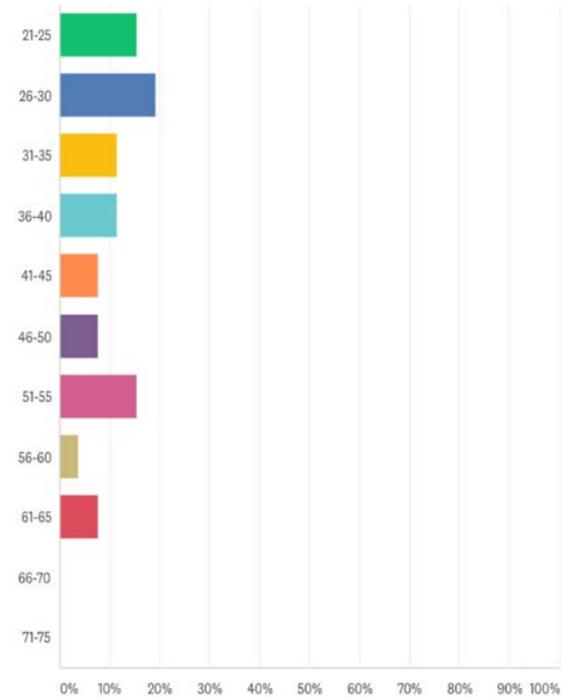


ANSWER CHOICES	RESPONSES
▼ 1-5 years	28.00% 7
▼ 5-10 years	16.00% 4
▼ 10-15 years	12.00% 3
▼ 15-20 years	20.00% 5
▼ 20-25 years	4.00% 1
▼ 25-30 years	16.00% 4
▼ 30+ years	4.00% 1
TOTAL	25

Q5

What is your age?

Customize Export

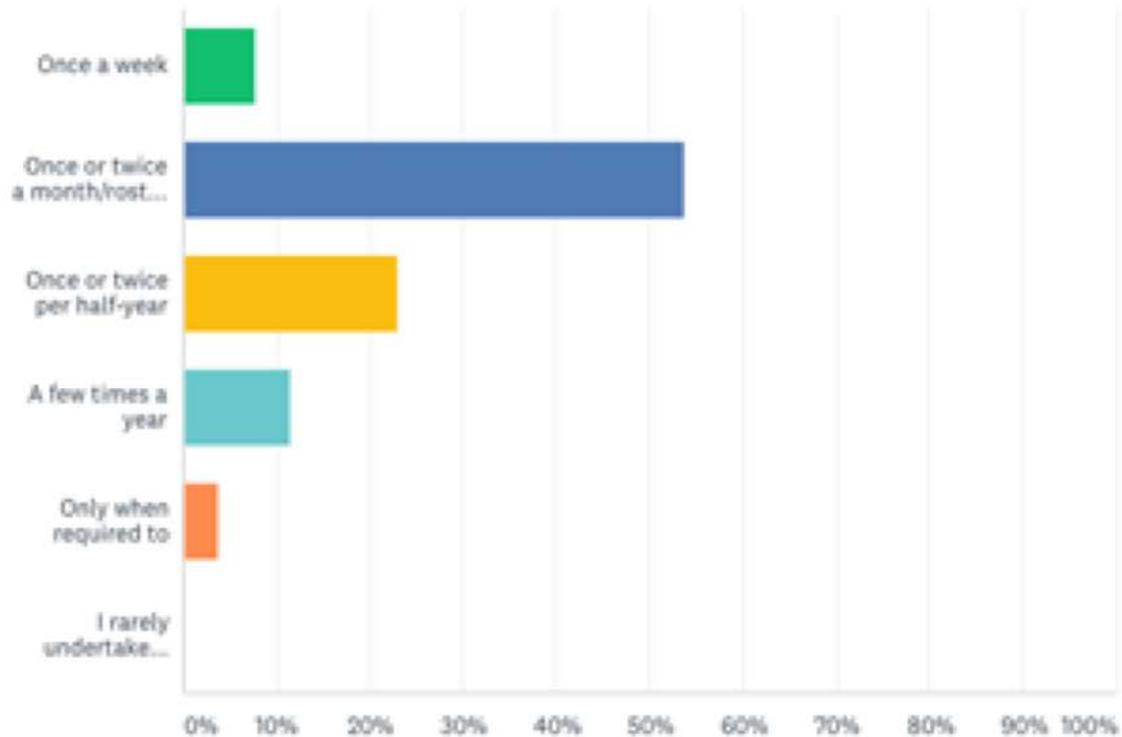


Q8

Customize

Export ▾

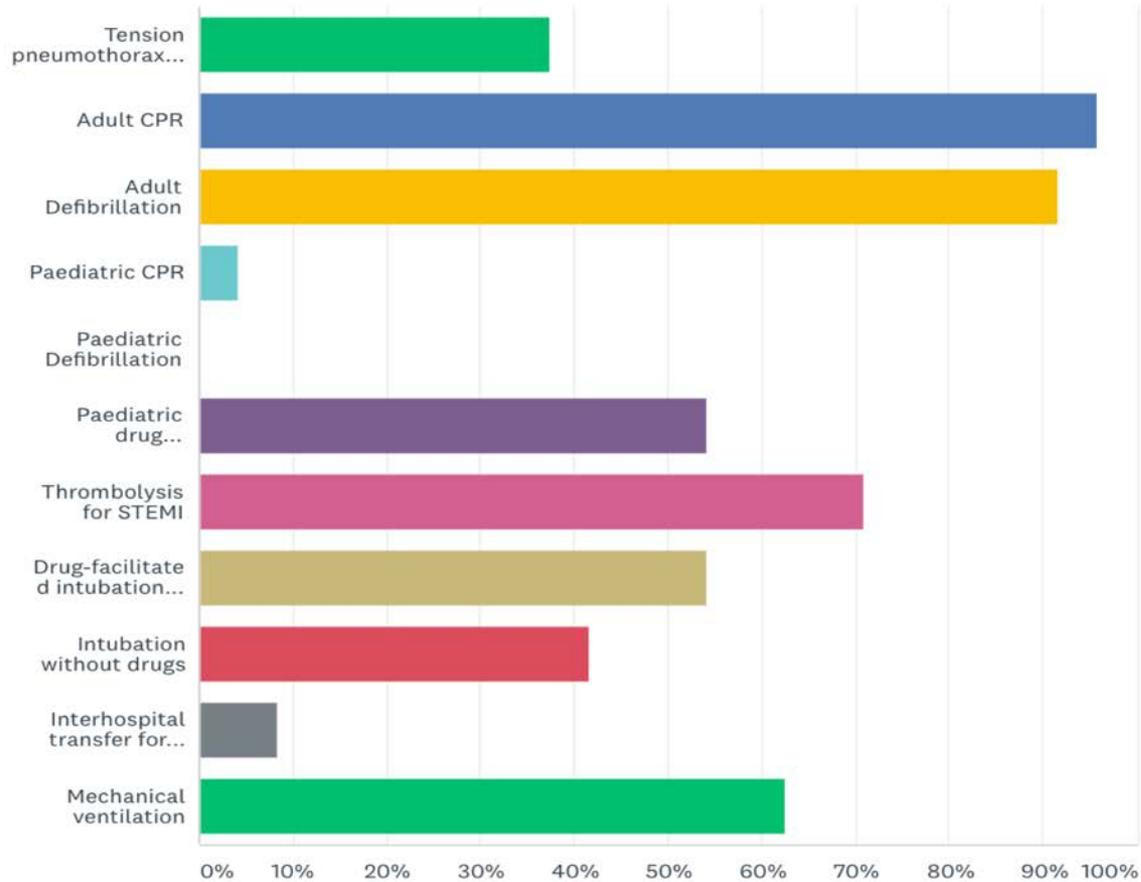
How often do you undertake formal scenario-based simulation at your branch?



Q6

Customize Export

In the past 12 months, have you performed any of the following skills in actual patient care situations? (check as many as apply)

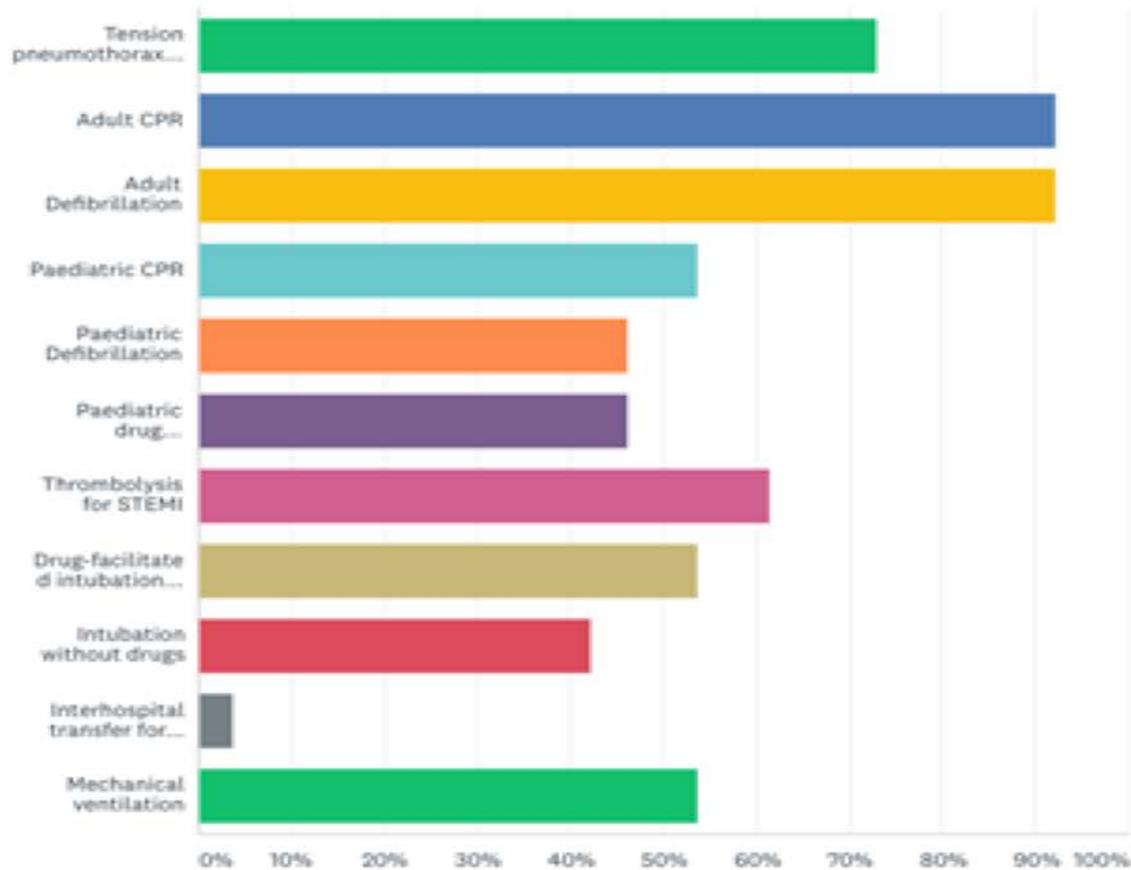


Q7

Customize

Export

In the past 12 months, have you performed any of the following skills in SIMULATED patient care situations? (check as many as apply)



This is an awesome resource and we are lucky to have it

The GippSIM provides opportunity for structured scenarios which can be filmed for the individual to review, it is a brilliant learning resource and should be integrated into everyone's practice once or twice a year

It has equipment which I can find in a normal ambulance – I **do not see the point of GippSIM**

As an educator, I still feel we can increase peoples understanding as to why the GippSIM is here – I love it



Challenges

- Staffing the vehicle
- Transporting the vehicle across the region
- Skills Tracking Database

- Culture change is still an issue
- Engaging staff still an issue





AmbulanceVictoria

Thank you

