



National Department of Health

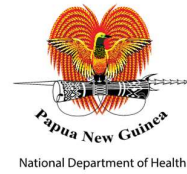


Ambulance Service Activity Report 2023

1 JANUARY – 31 DECEMBER 2023

24 March 2024, Port Moresby

A service provider of the National Department of Health.



OUR MISSION

Being the **First to Care** for
Papua New Guineans in times of
sickness, distress, crisis and danger,
and helping communities to improve
health and protect life.



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Introduction

The Papua New Guinea St John Ambulance Service (SJAS) is a statutory organisation governed by its own Act of Parliament. SJAS reports to the Ministry for Health through the National Department of Health, which has long engaged SJAS for providing ambulance services.

SJAS provides primary emergency ambulance services in PNG. The service operates 24 hours from stations in Port Moresby, Central Province, Kokopo, Lae, and other areas listed on our website. As a Papua New Guinean statutory body, our mission is to provide timely and professional emergency medical services as a service agency of the National Department of Health.

Ambulance services are provided at no-cost to citizens needing care and transport to a public health facility in an emergency situations. There are service charges applicable for individuals requiring transport to private hospitals, for non-citizens or for non-emergency services. These charges ensure the service can continue to provide essential services across the community.

Funding: SJAS is subsidised by funding from the government and SJAS's own community fundraising. The national Treasury supports operating costs for the 111 National Ambulance Operations Centre, administration, and management functions. Provincial governments support the staffing and operating costs for ambulance services in their respective provinces. Other sources of revenue for SJAS include fees paid by private patients and non-citizens, memberships, and direct donations. SJAS raises around PGK 3.8m through teaching first aid to workplaces and from selling first aid kits – 100% of this revenue supplements the government funding for the ambulance service.

Reporting period: This document reports the activity of the ambulance service for the period of 2023 (1 January 2023 until 31 December 2023). Activities are described by their clinical, demographical, and geographical characteristics in all provinces that SJAS operates.



Summary of 2023

Ambulance Service Data

Table 1: Ambulance service summary data, 2023 vs 2022

Metric	2022	2023	% change
Emergency calls handled 📞	1,597,859	1,883,385	18%
Emergency incidents 🚨	20,742	28,432	37%
Patients helped * 🧑🏻	16,238	23,392	44%
Patients transported 🚑	14,490	19,444	34%
Distance covered (km) 📏	829,854	1,118,414	35%
Caller satisfaction 👍	89.21%	92.34%	4%
Patient satisfaction 😊	97.13%	98.23%	1%

*Patients assisted by ambulance (treat at scene and/or transport to hospital) that are documented using an electronic medical report system

National Time-based Operational Performance Measures

Table 2 summarises national operational performance for 2023. Response times greater than the target are attributable to distance and geography between station and the patient location, and whether an ambulance was available at time of call.

Table 2: Time-based operational performance measures, national, 2023

Category:	Priority 1A		Priority 1B & 1C		All other priorities P2, P3, P4, P5, P6	
Urgency:	Critical		Urgent		Non-urgent	
Timing:	Target	2023	Target	2023	Target	2023
Dispatch time (median)	3 minutes	3 mins 5 secs	3 minutes	9 mins 21 secs	Case dependent	22 mins 16 secs
Response time (median)	12 minutes	15 mins 14 secs	15 minutes	36 mins 27 secs	Case dependent	57 mins 24 secs
Scene time (median)	30 minutes	20 mins 46 secs	30 minutes	18 mins 37 secs	Case dependent	16 mins 38 secs
Overall Case time (median)	1 hr 15 min	1 hr 12 mins	2 hours	1 hr 28 mins	Case dependent	1 hr 52 mins



Ambulance Staff Trained

Table 3: Number of ambulance staff trained 2023 vs 2022

Courses	2022	2023
First Responder 🚒	-	128
Ambulance Officer 🚑	45	-
RAO/RAD 🚑	5	48
Total	50	176



Public Trained in First Aid

Table 4: Number of people trained in first aid, and student satisfaction, 2023 vs 2022

Metric	Number trained			Student satisfaction 😊	
	2022	This year	% change	2022	This year
Free First Aid in Schools 🏫	2,617	1,285	-51%	-	-
First Aid for Work* 👷👷👷	2,842	2,661	-6%	96.2%	95.9%
Public Awareness 🧑🧑🧑	600	703	17%	-	-
Hosp Advanced Resuscitation 🧑🚑	0	443	-	-	100%
Total	6,090	4,775	-22%		

* Workplace first aid includes L1 (BEFA), L2 (PSFA), L3 (AFA).

Resourcing

The table below indicates the number of crews available in each province at any one time:

Table 5: Crews available at any one time, by province, December 2023

24-hour resources	NCD	Central	Morobe	ENB	Total
Advanced Life Support	1	-	-	-	1
Basic Life Support	5	-	1	1	7
Reservist	-	2	-	-	2
Total	6	2	1	1	10

Table 6: On-call resources, by province, December 2023

On-call resources	NCD	Central	Morobe	ENB	Total
Reservist	-	2	-	-	2
Advanced Life Support	4	-	1	1	6
Paramedic	3	-	-	-	3
Doctor	2	-	-	-	2
Command	4	1	1	1	7
Total	13	3	2	2	20



The number of operational and corporate staff in each province is summarised below.
The workforce figures represent staffing as at 31 December 2023:

Table 7: Staffing levels (headcount), by province, December 2023

Province	NCD	Central	Morobe	ENB	Total
Clinical staff					
RAO	8	-	2	5	15
RAD	-	10	12	-	22
AO2	4	-	1	-	5
TAO	0	-	0	-	0
QAO	37	-	7	3	47
EMT	1	-	-	-	1
Ambulance Nurse	1	-	-	-	1
Ambulance HEO	1	-	-	-	-
Paramedic (incl management)	3	-	-	-	3
RAMO (medical officer)	2	-	-	-	2
RAN (nursing officer)	3	-	1	-	4
RAHEO	1	-	-	-	1
RN - clinical projects	8	2	-	-	10
HEO - clinical projects	2	2	1	-	5
Support Services Staff					
Fleet & Maintenance	6	-	-	-	6
Service Planning	4	-	-	-	4
All Other	27	-	-	-	27
HQ staff					
Finance	7	-	-	-	7
People Workforce & Culture	5	-	-	-	5
Office of CEO	9	-	-	-	9
Enterprise & Education	12	-	-	-	12
Clinical	18	-	-	-	18
Total	159	14	24	8	204
Ambulance staff with leadership qualifications	LEAP:	15	L&M:	12	



Foreword from the Chief Executive

Mobile intensive care team helps snakebite victim

04 November 2023

In a small village along the Magi Highway in Central Province, a terrifying incident unfolded when Sali Inuga was attacked by a deadly Taipan snake while tending to her garden. Taipan bites are known for their high fatality rate, and Sali's life was hanging by a thread.

As soon as she arrived at Kwikila Hospital in critical condition, the clinic doctor and HEO sprang into action, administering antivenom to counteract the venom's effects. But Sali's breathing was severely already compromised by the snake's venom, and she needed immediate advanced care to survive.

Recognizing the urgency, the doctor at Kwikila Hospital called for help from the SJAS mobile intensive care ambulance team crew, a highly skilled team prepared for critical interventions. Two ambulance units rushed to the scene, equipped with a doctor, a paramedic, and two ambulance officers.

The challenge was daunting. Sali was in a critical condition. She was fighting for life, breathing at a rate of 40 breaths per minute. The snakebite venom had already caused partial paralysis of the muscles used for breathing. She was in a life-threatening respiratory state called hypercapnia. Unable to move properly, bleeding and agitated, she needed a risky medical procedure called rapid sequence intubation to take over the function of her breathing and keep her airway open. This procedure is complex and time-sensitive, requiring skill and precision. Dr Arabella Koliwan said "We have a very small window of only about 30 seconds to secure a breathing tube in her lungs" so the St John doctor and paramedic have to act swiftly."

After a painstaking hour to resuscitate and intubate her at the Kwikila District Hospital, Sali was stabilized and ready for transport. The St John team, along with the ambulance officers, ensured she received the meticulous care she needed during the difficult 2.5-hour journey from the district hospital to Port Moresby General Hospital.

Sali's husband, who anxiously waited at Kwikila Hospital, boarded the ambulance determined to be by her side. Throughout the journey, he witnessed the unwavering dedication of the St John medical team as they provided vital support to his ailing wife. Overwhelmed with gratitude, he expressed his heartfelt appreciation for their commitment to saving her life.

Snakebite emergencies are unfortunately common in this region, and SJAS responds to hundreds of cases of snakebite each year. estimated 1,000 Papua New Guineans lose their life each year from snakebite – which is a preventable and curable condition. St John's collaboration with hospitals, provincial health authorities, and medical professionals ensures that patients receive timely and specialized treatment.

The dedication of the SJAS team extends beyond emergency response. They conduct snakebite awareness programs in communities, educating people about snakes, and teaching first aid management.

Thanks to the coordinated efforts of Kwikila Hospital and SJAS, Sali's life was saved. She is a testament to the importance of swift medical intervention and the unwavering commitment of these healthcare heroes.





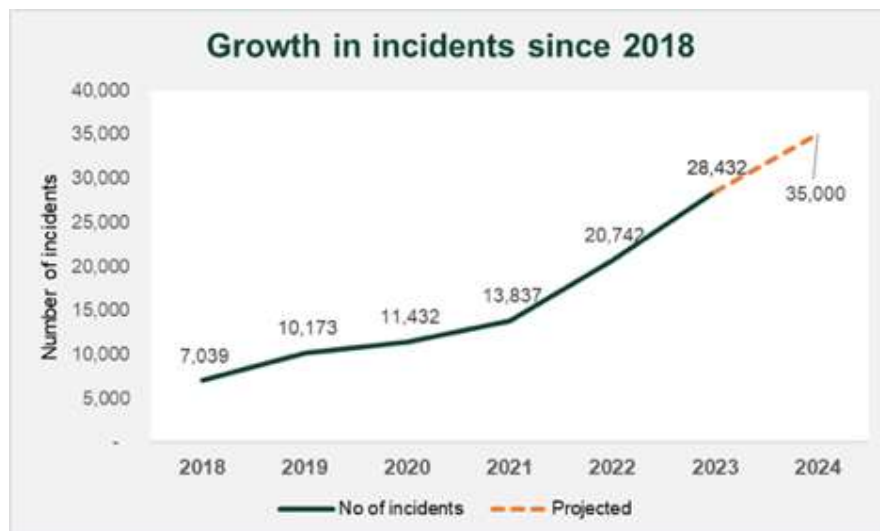
National Performance Reporting

Emergency Incident Growth

The graph above indicates the total incidents responded to since 2018. In Quarter 2 of 2020, SJAS started opening new ambulance stations in regional centres, beginning with a station opening in East New Britain. This expansion is reflected in the increase in incidents and is expected to continue into 2024.

Actual activity in 2023 exceeded expectations. The 28,432 incidents SJAS responded to was 14% higher than the 25,000 incidents projected for the year.

Figure 1: Growth in clinical incidents since 2018





Incidents by Clinical Presentation (Medical Problem)

During the reporting period, SJAS attended to **28,432** incidents. This is an increase of 7,690 incidents (37%) compared to the previous year, 2022. When comparing 2022 to 2023, SJAS has seen a 37% increase in emergency incidents. Incidents, split by clinical presentation, are shown in Table 8 below.

Table 8: Incidents by clinical presentation 2022 vs 2023

Clinical Presentation	2022	2023	Change	
			Number	%
Bites/Stings	227	305	78	34%
Cardiovascular	523	752	229	44%
Gastrointestinal	1,629	2,489	860	53%
Infectious disease	82	1	-	0%
Medical general (other)	5,825	8,921	3,096	53%
Mental health	17	43	26	153%
Mortuary	253	236	-17	-7%
Motor vehicle collision	221	231	10	5%
Obstetric/ maternal	2,537	3,893	1,356	53%
Other trauma	2,951	4,395	1,444	49%
Respiratory	3,280	4,494	1,214	37%
Shooting	468	61	-407	-87%
Toxicology	139	185	46	33%
Transfer	2,590	2,426	-164	-6%
Total	20,742	28,432	7,690	37%

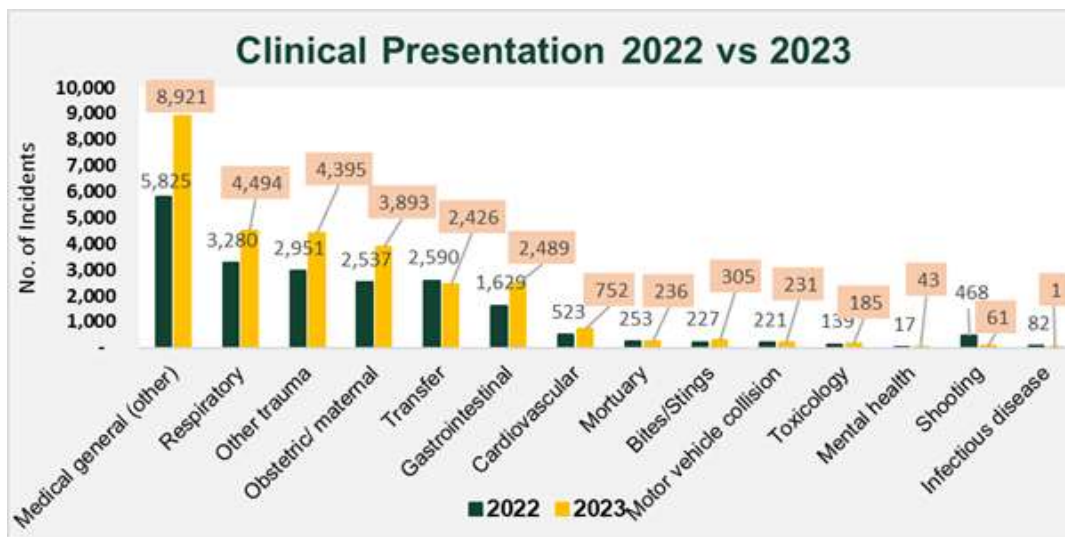
The majority of clinical cases during in 2023 fell under the category of general medical issues, constituting 31% of all incidents. These are cases such as catch-all 'sick person', diabetic, headache, seizure, stroke, unconscious and back pain. Compared to the previous year, the highest increases (53% year on year) have been seen in obstetric, gastrointestinal and general medical presentations since 2022.

Trauma cases, including incidents involving motor vehicle collisions, toxicology, shootings, bites/ stings and other trauma, have witnessed an 29% growth year on year. Trauma constitutes 18% of the total incident workload. Obstetric/maternal cases account for 14% of all incidents, while respiratory cases make up 16% for this year.



Figure 2 shows the 2023 incidents that SJAS attended nationally, by clinical presentation, in graphical format.

Figure 2: Clinical presentations 2023 vs 2022



Incidents by Province and Clinical Presentation

Table 9 indicates incidents by province and clinical presentation. We assisted a few patients in Simbu, even though we do not have an ambulance station there:

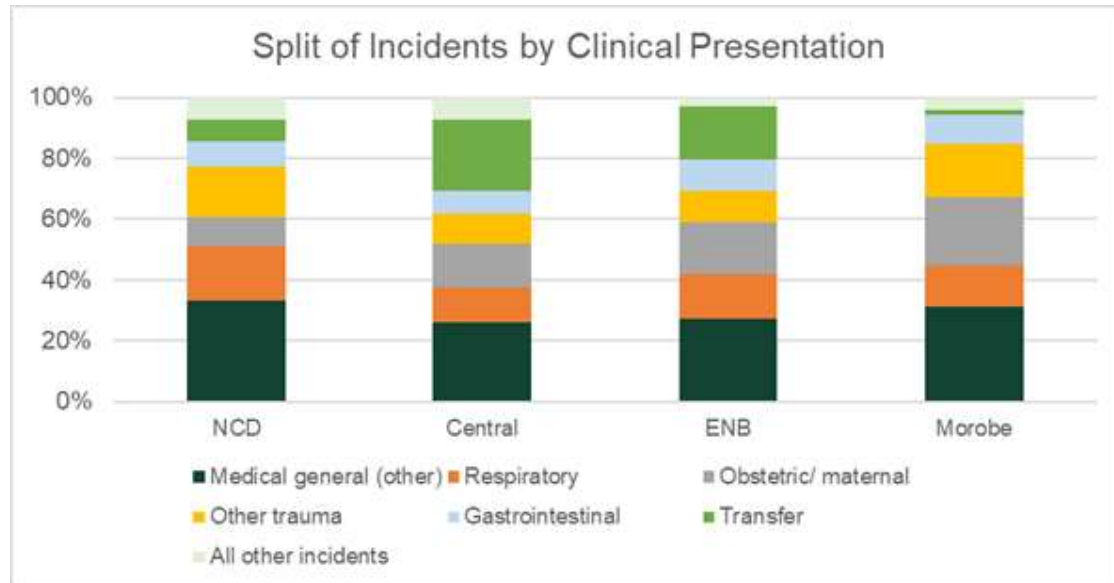
Table 9: Incidents by clinical presentation and province, 2023

Clinical Presentation	NCD	Central	ENB	Morobe	Total
Bites/Stings	127	145	1	32	305
Cardiovascular	494	94	31	132	752
Gastrointestinal	1,398	310	157	620	2,489
Infectious disease	1	-	-	-	1
Medical gen'l (other)	5,334	1,062	413	2,069	8,920
Mental health	34	3	1	5	43
Mortuary	214	13	1	7	236
Motor vehicle collision	176	22	2	28	231
Obstetric/ maternal	1,536	592	258	1,501	3,893
Other trauma	2,658	407	152	1,159	4,396
Respiratory	2,898	470	223	898	4,495
Shooting	47	2	3	9	61
Toxicology	113	17	7	48	185
Transfer	1,090	955	263	117	2,426
Total	16,120	4,092	1,512	6,625	28,432



The split of clinical presentations varies by province. For example, obstetric/ maternal cases are 23% of the workload in Morobe (vs average 14% in other provinces). Transfers ranged between 4% of incidents (Morobe) and 23% of incidents (Central).

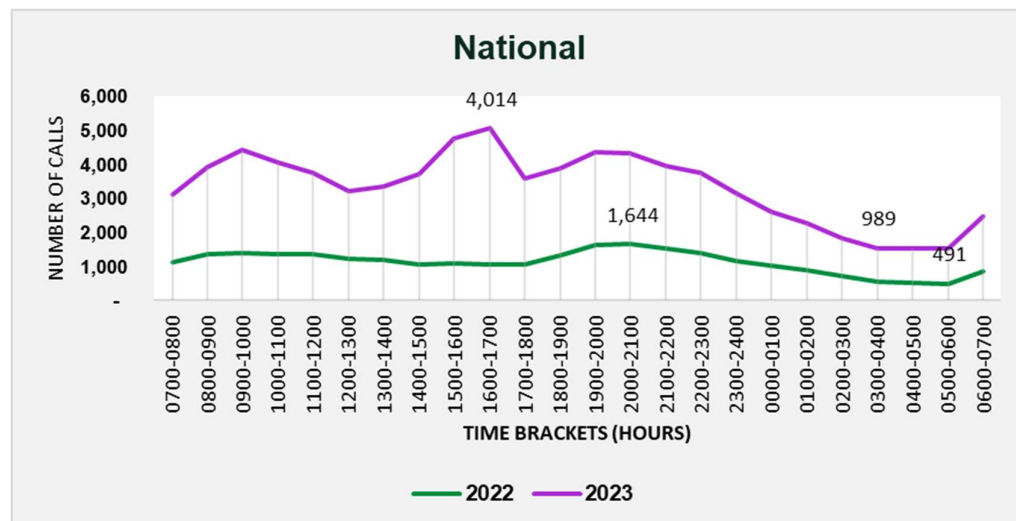
Figure 3: Split of incidents by clinical presentation, by province, 2023



Peak Call Periods

We keep track of the times at which calls for help are received. For 2023, the busiest time when calls for help are received is between **16:00 – 17:00** with a total of 4,014 calls, while the least number of calls received is between **03:00 – 04:00 AM** with a total of 989 calls.

Figure 4: Average calls per hour, National, 2023

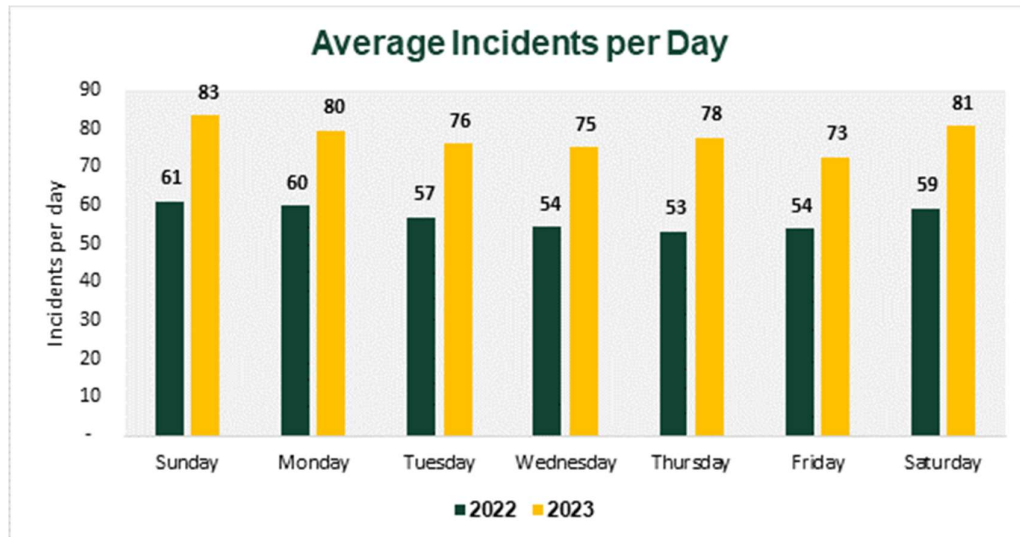




Average Cases per Day

The graph below indicates the average number of cases responded to per day in 2023 in comparison to 2022. The busiest day this year is **Sunday** and the quietest day is **Friday (although there is no much variation between week days)**. The slightly higher workload on a Sunday is the same with 2022.

Figure 5: Average cases per day, 2023 vs 2022



Median Response Performance by Priority

The response time of the ambulance services is an elemental factor for prehospital care to be successful and, therefore, must be targeted to increase the chances of survival.

Calls to 111 are assessed and triaged by SJAS call-takers. The call-taker uses a computer-aided dispatch system to ask scripted questions. The computer automatically determines the priority based on the answers the caller gives to the scripted questions. Higher priority is automatically given according to the patient's level of consciousness and respiratory status.

Incidents are responded to in order of priority and availability of ambulances. Category 1A is the highest priority. All category 1 calls receive a lights and sirens response. Other categories generally receive a response under normal driving conditions. The time to reach a patient can be affected by many factors. Some factors are relatively within SJAS's control, such as how long it takes to handle the call (call handling time) and how long it takes an ambulance crew to go from the station to their ambulance. Other times cannot easily be controlled by SJAS, such as the distance from the station to the patient's location, and the difficulty of the terrain.



Dispatch Time

‘**Dispatch time**’ is defined as the time between when the call-taker first receives the call about a case and the dispatcher tasks an ambulance crew to attend the case by sending a message to the crew (usually by radio or pager). The median dispatch time in each province is show in the table below. Extended dispatch times indicate SJAS ambulances were not available at time of call because they were attending to other incidents. The table demonstrates that SJAS triages calls and responds much faster to Priority 1A calls.

Table 10: Median dispatch times, by priority, 2023

Category	Priority 1A		Priority 1B & 1C		All other priorities P2, P3, P4, P5, P6	
Urgency	Critical		Urgent		Non-urgent	
Timing	Target	2023	Target	2023	Target	2023
NCD	3 minutes	2 mins 47 secs	3 minutes	8 mins 59 secs	Case dependent	21 mins 1 sec
Central	3 minutes	3 mins 44 secs	3 minutes	16 mins 33 secs	Case dependent	38 mins 39 secs
Morobe	3 minutes	3 mins 55 secs	3 minutes	20 mins 4 secs	Case dependent	34 mins 29 secs
East New Britain	3 minutes	3 mins 43 secs	3 minutes	13 mins 34 secs	Case dependent	19 minutes
National Median	3 minutes	3 mins 5 secs	3 minutes	9 mins 21 secs	Case dependent	22 mins 16 secs

The graph below shows national median dispatch time by quarter for priority 1A, 1B, and 1C cases, from Q1 2021 to the current reporting period.

Figure 6: Dispatch times by priority, national, Q1 2021 onwards

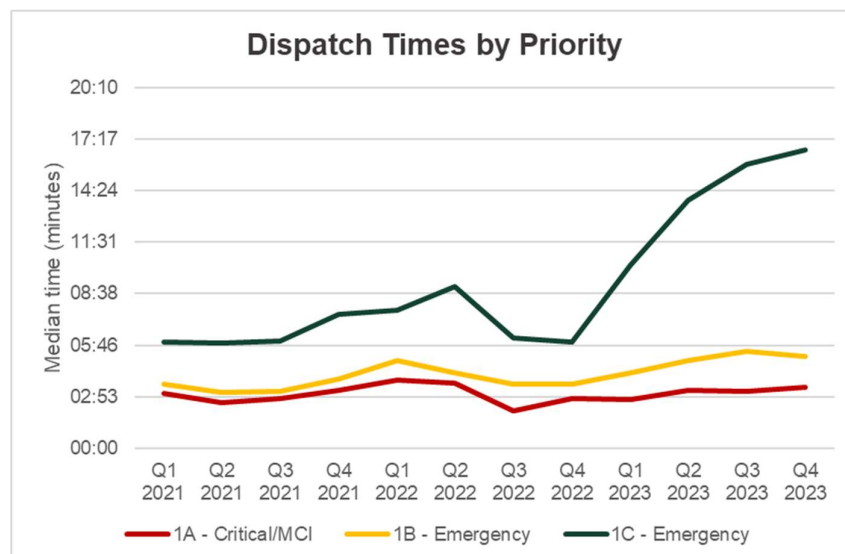




Figure 6 shows that as SJAS has responded to more incidents (without a corresponding increase in resources), 1C dispatch times have extended as SJAS has prioritised its response to the highest priority cases (1A).

Response Time

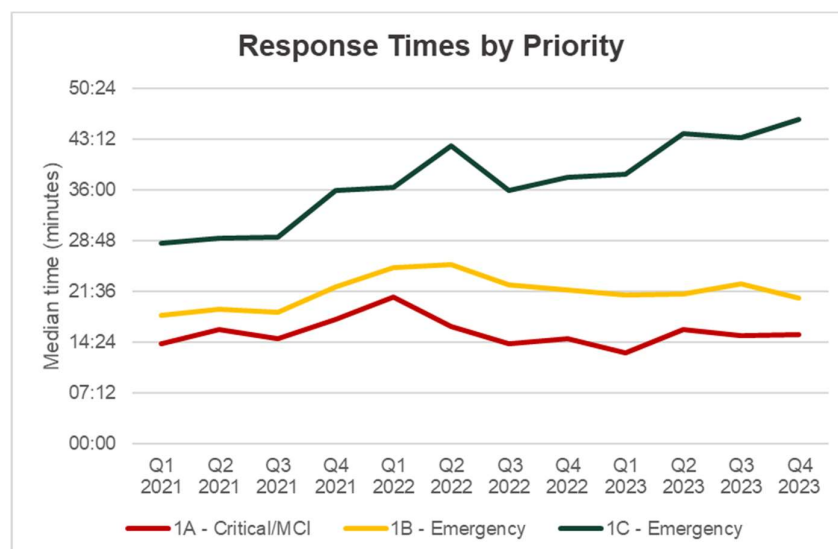
Response time is the time between notification of an occurrence and the ambulance's arrival at the scene. According to the WHO, an ideal response time for priority 1A critical cases is less than 8 minutes. SJAS targets 12 minutes in urban areas. This **2023 median response time** in minutes and seconds is shown below for each province.

Table 11: Median response times, by priority, 2023

Category	Priority 1A		Priority 1B & 1C		All other priorities P2, P3, P4, P5, P6	
Urgency	Critical		Urgent		Non-urgent	
Timing	Target	2023	Target	2023	Target	2023
NCD	12 minutes	13 mins 8 secs	15 minutes	32 mins 1 sec	Case dependent	47 mins 1 sec
Central	12 minutes	32 mins 34 sec	15 minutes	81 mins 7 sec	Case dependent	118 mins 11 secs
Morobe	12 minutes	19 mins 37 secs	15 minutes	47 mins 20 secs	Case dependent	61 mins 56 secs
East New Britain	12 minutes	32 mins 15 sec	15 minutes	60 mins 41 secs	Case dependent	69 mins 34 secs
National Median	12 minutes	15 mins 14 secs	15 minutes	36 mins 27 secs	Case dependent	57 mins 24 secs

The graph below shows national median response time by quarter for priority 1A, 1B, and 1C cases, from Q1 2021 to the current reporting period.

Figure 7: Response times by priority, national, Q1 2021 onwards





Scene Time

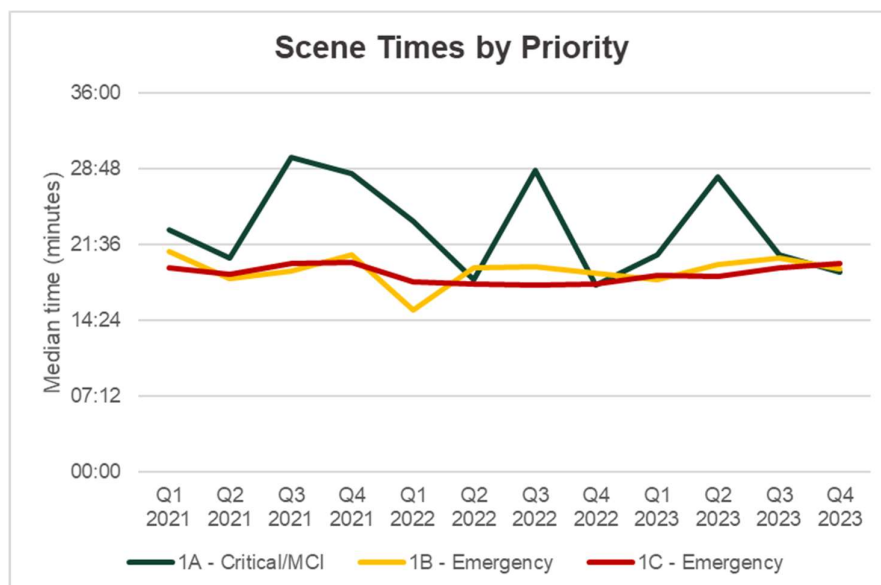
Scene time is the time between when the first ambulance arrives at the incident to when it departs the scene. The table below shows this quarter's scene time in minutes and seconds. In most provinces, scene times were below target, indicating that crews treat and transport patients to hospital efficiently.

Table 12: Median scene times, by priority, 2023

Category	Priority 1A		Priority 1B & 1C		All other priorities P2, P3, P4, P5, P6	
Urgency:	Critical		Urgent		Non-urgent	
Timing:	Target	2023	Target	2023	Target	2023
NCD	30 minutes	20 mins 47 secs	30 minutes	18 mins 2 secs	Case dependent	16 mins 10 secs
Central	30 minutes	33 mins 8 secs	30 minutes	21 mins 13 secs	Case dependent	16 mins 10 secs
Morobe	30 minutes	15 mins 56 secs	30 minutes	19 mins 55 secs	Case dependent	16 mins 58 secs
East New Britain	30 minutes	8 mins 35 secs	30 minutes	21 mins 22 secs	Case dependent	18 mins 17 secs
National Median	30 minutes	20 mins 46 secs	30 minutes	18 mins 37 secs	Case dependent	16 mins 38 secs

The graph below shows national median scene time by quarter for 1A, 1B, and 1C, from Q1 2021 to the current reporting period.

Figure 8: Scene times by priority, national, Q1 2021 onwards





Overall Case Time

Overall case time is the time between when the emergency call is received by SJAS to when the ambulance arrives back at the station, (or is tasked to another emergency). The table below shows this **2023 median case time** in minutes and seconds.

Table 13: Median case times, by priority, 2023

Category	Priority 1A		Priority 1B & 1C		All other priorities P2, P3, P4, P5, P6	
Urgency:	Critical		Urgent		Non-urgent	
Timing:	Target	2023	Target	2023	Target	2023
NCD	1 hour 15 min	1 hr 11 mins	2 hours	1 hr 21 mins	Case dependent	1 hr 38 mins
Central	1 hour 15 min	1 hr 54 mins	2 hours	2 hrs 47 mins	Case dependent	4 hrs 1 min
Morobe	1 hour 15 min	1 hr 1 min	2 hours	1 hr 35 mins	Case dependent	1 hr 51 mins
East New Britain	1 hour 15 min	1 hr 19 mins	2 hours	2 hrs 5 mins	Case dependent	2 hrs 21 mins
National Median	1 hour 15 min	1 hr 12 mins	2 hours	1 hr 28 mins	Case dependent	1 hr 52 mins

Distance Travelled and Fuel Consumption

Distance Travelled

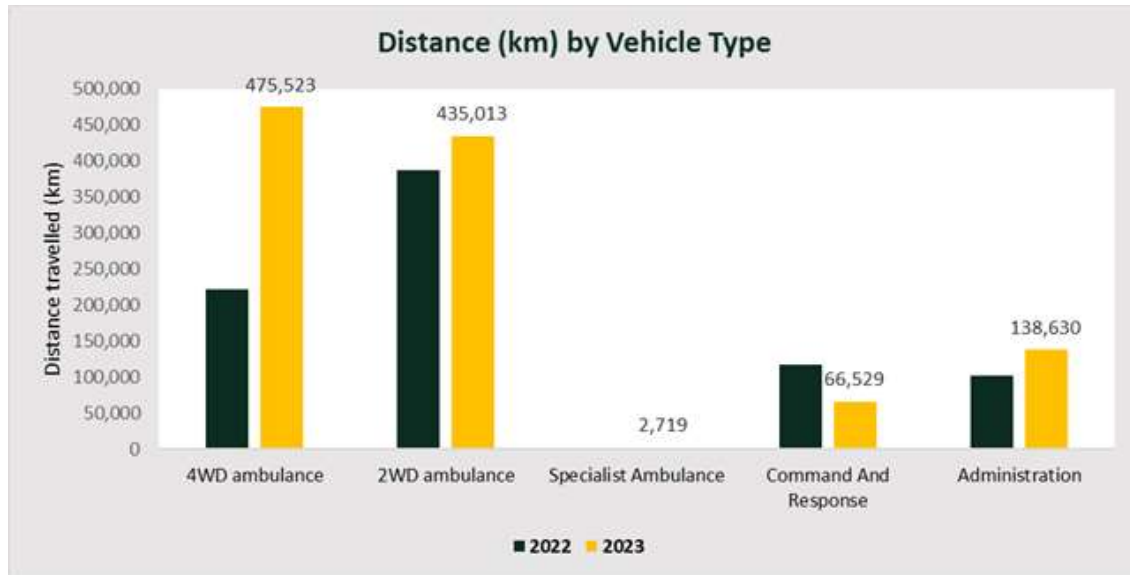
Nationally, a total distance of 829,854 kilometres was travelled last year. For this year, a total distance of **1,118,414 km** was travelled (288,560 km or more than last year). This is illustrated in the following graph and table. The increase in distance travelled by 4WD ambulance reflects the addition of more of these types of vehicles to the fleet.

Table 14: Distance travelled by vehicle type (km), 2023 vs 2022

Vehicle Class	2022	2023	Change
4WD ambulance	221,463	475,523	254,060
2WD ambulance	388,158	435,013	46,855
Specialist Ambulance	561	2,719	2,158
Command And Response	116,861	66,529	-50,332
Administration	102,810	138,630	35,820
Total km travelled	829,854	1,118,414	288,560



Figure 9: Distance travelled by vehicle type (km), 2023 vs 2022



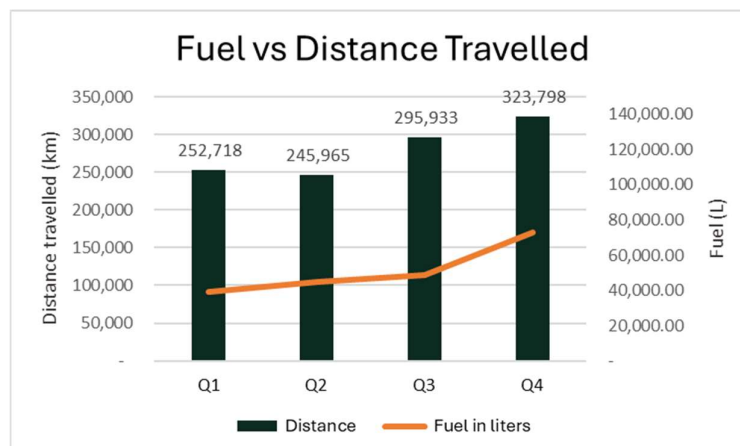
Fuel consumption

The table and chart below show fuel consumption in litres for 2023 compared with 2022, and fuel versus distance travelled, by quarter, for 2023.

Table 15: Amount of fuel in litres consumed by quarter, 2023 vs 2022

	2022	2023	Change
Q1	35,822	38,996	3,174
Q2	31,861	44,662	12,801
Q3	41,093	48,993	7,900
Q4	43,252	73,139	29,887
Total	152,028	205,790	53,762

Figure 10: Fuel vs distance travelled, by quarter, 2023





Reporting by Province

National Capital District



Incidents by Electorate

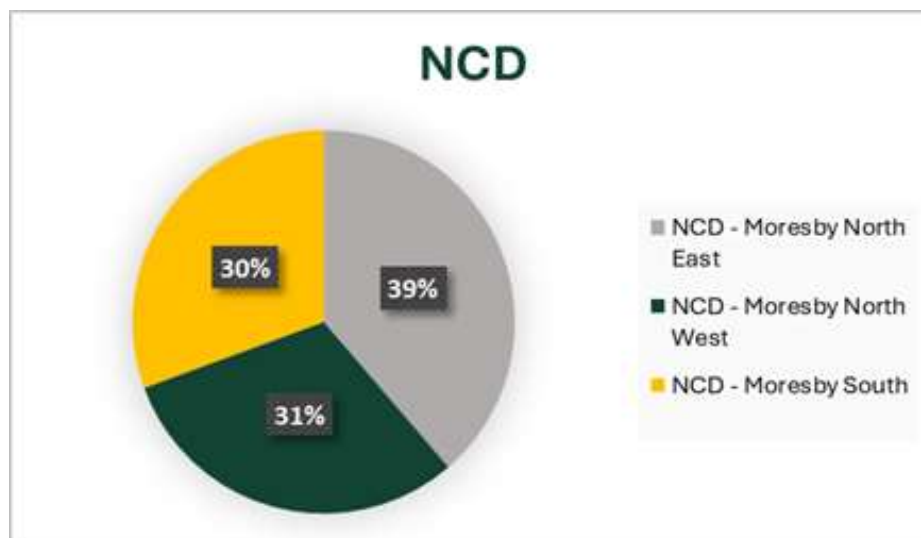
There has been an overall increase in NCD incidents of 16%, with the largest growth (62%) in Moresby South.

Table 16: Incidents by electorate, NCD, 2023

Electorate	2022	2023	% of total	Change	
				Number	%
NCD - Moresby North East	5,768	6,236	39%	468	8%
NCD - Moresby North West	4,670	4,952	31%	282	6%
NCD - Moresby South	3,044	4,932	31%	1,888	62%
Unknown	460	-	-	-460	-100%
Total incidents	13,942	16,120	100%	2,178	16%

Figure 11 shows the split of incidents by electorate.

Figure 11: Share of incidents by electorate, NCD, 2023

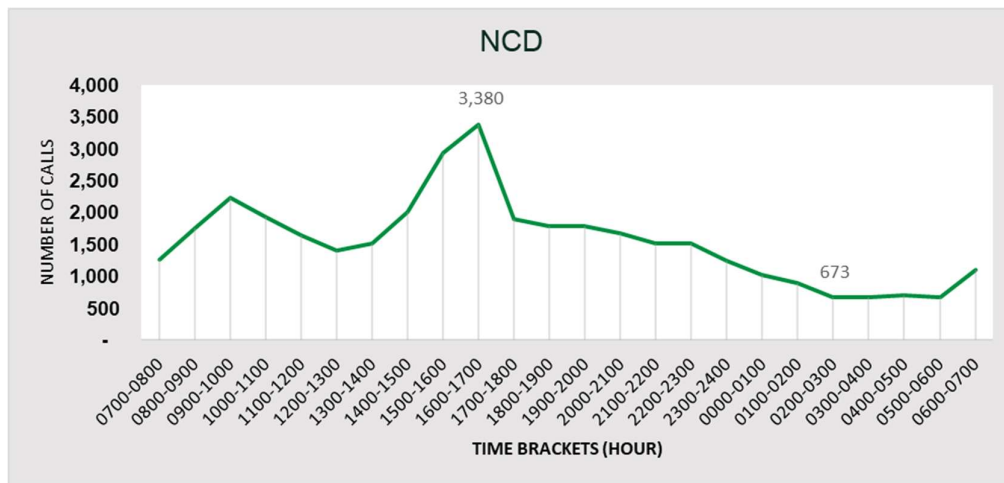




Peak Call Periods

We keep track of the times at which calls for help are received. For NCD, the highest number of calls occurred between **16:00 -17:00** hours, while the least number of calls occurred between **02:00 – 03:00** hours.

Figure 12: Average calls per hour, NCD, 2023



Distance Travelled

There was a 26% increase in km travelled in NCD in 2023 compared with 2022, as shown below.

Table 17: Distance travelled by vehicle type (km), NCD, 2023 vs 2022

Vehicle Class	2022	2023	Change
4WD ambulance	139,010	213,462	74,452
2WD ambulance	324,094	417,115	93,021
Specialist Ambulance	561	2,719	2,158
Command And Response	85,493	47,207	-38,286
Administration	102,810	138,630	35,820
Total km travelled	651,968	819,133	167,165





Central Province



Incidents by Electorate

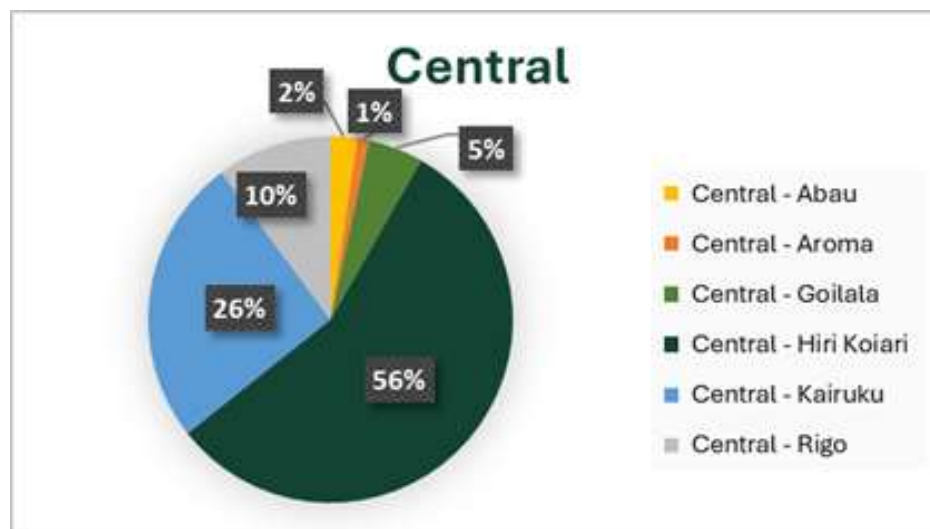
In Central, Hiri-Koiari, the largest district accounted for the most incidents attended with 56% in 2023. The formerly known Kairuku-Hiri district is now separated into Hiri-Koiari and Kairuku districts. Incidents in Central Province increased by 49% over the previous year.

Table 18: Incidents by electorate, Central, 2023

Electorate	2022	2023	% of total	Change	
				Number	%
Central - Abau	29	97	2%	68	234%
Central - Aroma	-	42	1%	42	+
Central - Goilala	-	200	5%	200	+
Central - Hiri Koiari	-	2,294	57%	2,294	26%
Central - Kairuku	2,650	1,042	25%	-1,608	
Central - Rigo	72	417	10%	345	497%
Total incidents	2,751	4,092	100%	1,341	49%

Figure 13 shows the split of incidents by electorate.

Figure 13: Share of incidents by electorate, Central, 2023

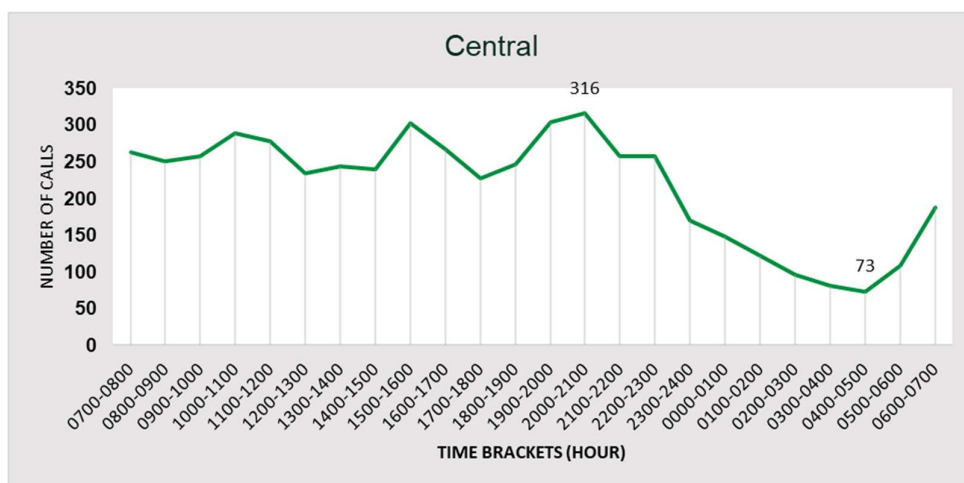




Peak Call Periods

We keep track of the times at which calls for help are received. For Central Province, the highest number of calls are received between **20:00 – 21:00** hours, and the least number of calls are received between **04:00 – 05:00** hours during the year.

Figure 14: Average calls per hour, Central, 2023



Distance Travelled

There was a 26% increase in km travelled in NCD in 2023 compared with 2022, as shown below.

Table 19: Distance travelled by vehicle type (km), Central, 2023 vs 2022

Vehicle Class	2022	2023	Change
4WD ambulance	36,803	115,742	78,939
Total km travelled	36,803	115,742	78,939





East New Britain



Incidents by Electorate

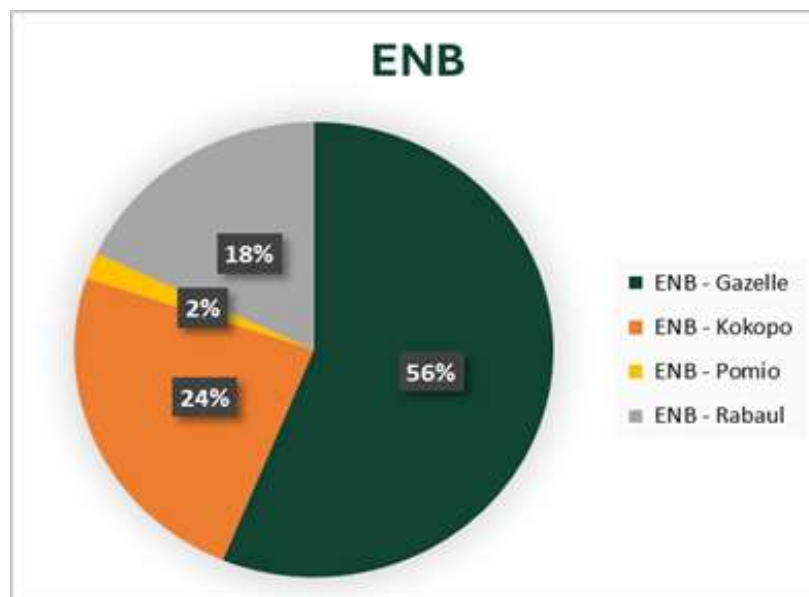
Kokopo and Gazelle, the districts in East New Britain with the highest number of incidents, together accounted for 80% of incidents this year. Incidents in Gazelle apparently accounted for all of the growth in incidents this year, increasing far more than in Kokopo electorate. However, it is likely that this reflected an improvement in reporting (i.e. being able to allocate more incidents accurately).

Table 20: Incidents by electorate, ENB, 2023

Electorate	2022	2023	% of total	Change	
				Number	%
ENB - Gazelle	284	850	56	566	199%
ENB - Kokopo	490	361	24	-129	-26%
ENB - Pomio	34	28	2	-6	-18%
ENB - Rabaul	245	273	18	28	11%
Others	18	0	-	-18	-100%
Total incidents	1,071	1,512		441	16%

Figure 15 shows the split of incidents by electorate.

Figure 15: Share of incidents by electorate, ENB, 2023

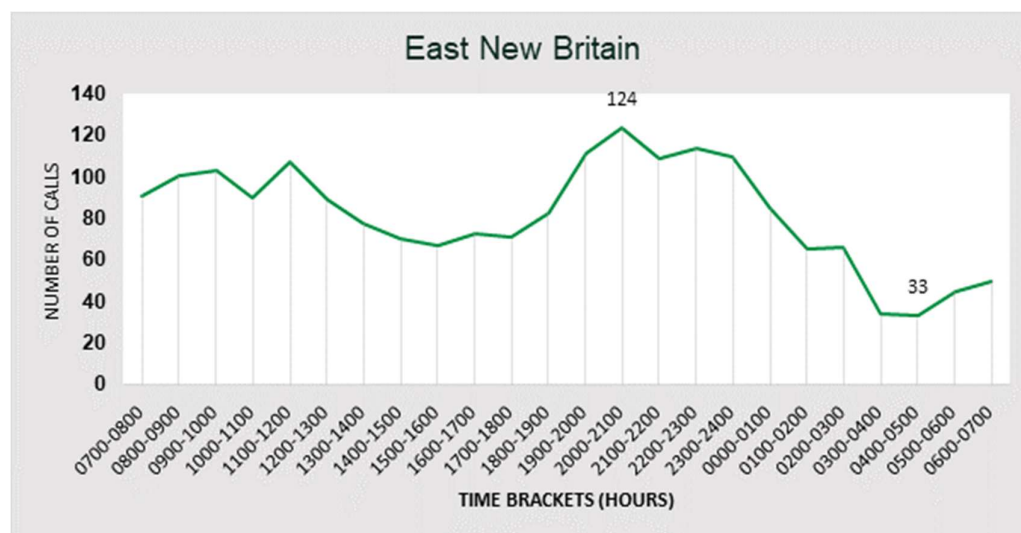




Peak Call Periods

We keep track of the times at which calls for help are received. For East New Britain Province, the highest number of calls are received between **20:00 – 21:00** hours while the least number of calls for this quarter were between **04:00 – 05:00** hours.

Figure 16: Average calls per hour, ENB, 2023



Distance Travelled

There was a 51% increase in km travelled in East New Britain in 2023 compared with 2022, as shown below.

Table 21: Distance travelled by vehicle type (km), ENB, 2023 vs 2022

Vehicle Class	2022	2023	Change
4WD ambulance	7,578	66,469	58,891
2WD ambulance	24,283	9,903	-14,380
Command And Response	18,678	-	-18,678
Total km travelled	50,628	76,372	25,744



Lae City & Morobe Province



Incidents by Electorate

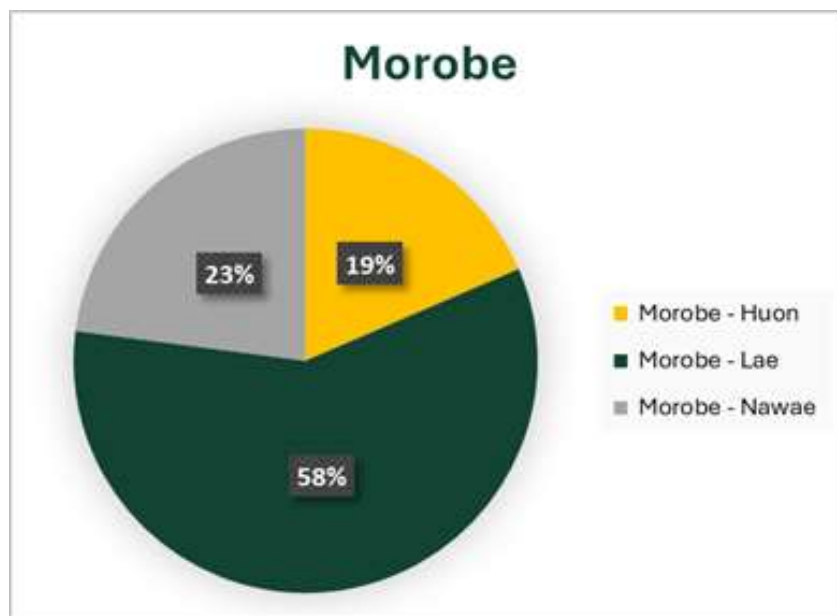
In Morobe, Lae city accounted for most of the incidents with 58% compared to other electorates. Incidents in Lae increased by 75% between 2022 to 2023; total incidents in the province increased by 131% year on year.

Table 22: Incidents by electorate, Morobe, 2023

Electorate	2022	2023	% of total	Change	
				Number	%
Morobe - Huon	325	1,227	19%	902	278%
Morobe - Lae	2,209	3,874	58%	1,665	75%
Morobe - Nawae	288	1,519	23%	1,231	427%
Morobe - Bulolo	1	4	0%	3	300%
Morobe - Kabwum	1	-	-	-1	-100%
Morobe - Markham	47	-	-	-47	-100%
Total incidents	2,871	6,625		3,754	131%

Figure 17 shows the split of incidents by electorate.

Figure 17: Share of incidents by electorate, Morobe, 2023

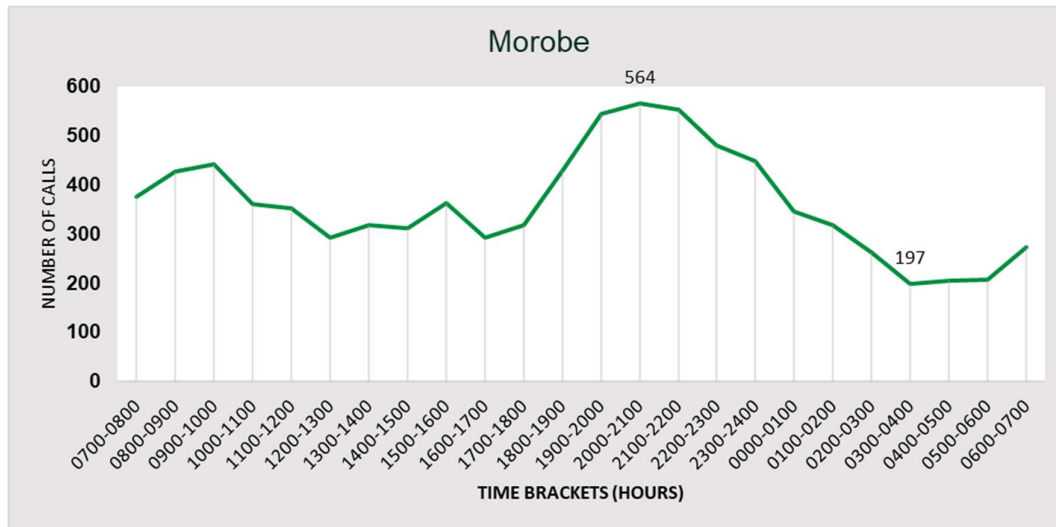




Peak Call Periods

We keep track of the times at which calls for help are received. For Morobe Province, the highest number of calls received are between **20:00 – 21:00** hours during the night and the least number of calls were received between **03:00 – 04:00** hours.

Figure 18: Average calls per hour, NCD, 2023



Distance Travelled

The table below illustrates a doubling of the kilometers travelled in Morobe in 2023 compared to the figures recorded in 2022, reflecting a 100% increase.

Table 23: Distance travelled by vehicle type (km), Morobe, 2023 vs 2022

Vehicle Class	2022	2023	Change
4WD ambulance	6,696	79,850	73,154
2WD ambulance	39,782	7,996	-31,786
Command And Response	12,600	19,322	6,722
Total km travelled	59,078	107,167	16,712



Air Ambulance Services

SJAS has expanded its services to include aeromedical support for patients within different provinces in Papua New Guinea. This initiative utilises helicopters and fixed-wing aircraft to efficiently transport patients from remote areas to medical facilities. Collaborating with trusted aircraft and rotary-wing organizations, SJAS ensures a comfortable and stress-free experience for patients and their families during domestic and international medical transport. This service caters to both planned patient transfers and swift responses to emergent situations, reflecting the organization's commitment to providing comprehensive and timely healthcare solutions.





Air Ambulance Services

Fixed wing missions and flight hours

SJAS oversaw 30 fixed wing missions this year, a reduction from 48 missions in 2022.

Table 24: Fixed wing missions, 2023 vs 2022

Fixed-wing	2022	2023	Qtly average (missions)
Southern	6	6	1.5
Momase	11	4	1.0
NGI	16	6	1.5
Highlands	8	5	1.3
Australia	7	7	1.8
International (other)	0	2	0.5
Total missions	48	30	7.5

The chart below shows quarterly fixed wing missions over the last three years.

Figure 19: Fixed wing missions by quarter, Q1 2021 onwards





The total hours flown by fixed wing aircraft to provide care during this year are shown below.

Table 25: Fixed wing flight hours, 2023 vs 2022

Fixed-wing	2022	2023	Qtly average (hours)
Southern	9.0	16.2	4.1
Momase	27.0	8.8	2.2
NGI	59.0	17.6	4.4
Highlands	20.0	12.2	3.1
Australia	38.0	30.2	7.6
International (other)	-	32.7	8.2
Total hours	153.0	117.7	31.5

The chart below shows quarterly fixed wing flight hours over the last three years.

Figure 20: Fixed wing flight hours by quarter, Q1 2021 onwards





Helicopter missions and flight hours

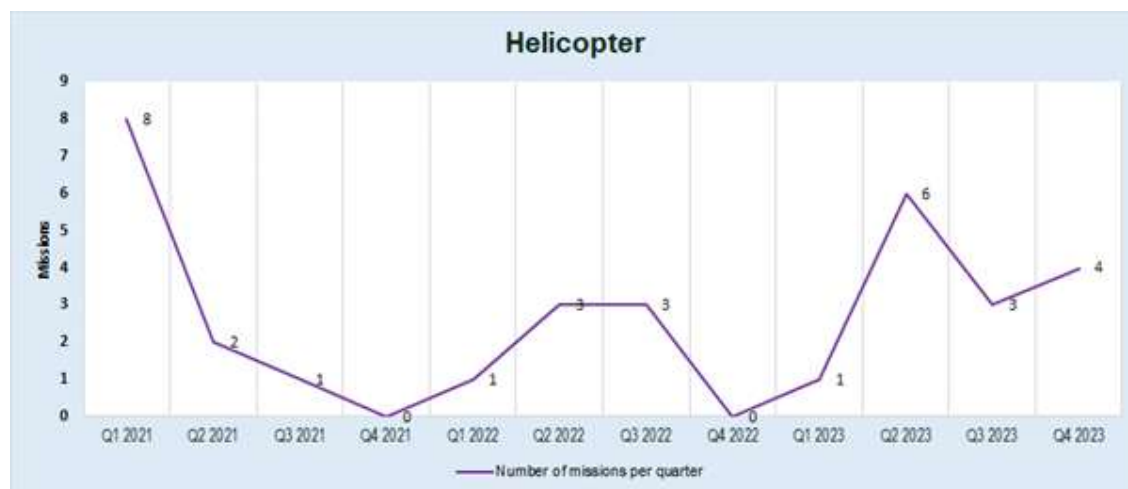
SJAS oversaw 14 helicopter missions this year, all in Southern Province.

Table 26: Helicopter missions, 2023 vs 2022

Helicopter	2022	2023	Qtly average (missions)
Southern	7	14	3.5
Momase	-	-	-
NGI	-	-	-
Highlands	-	-	-
International	-	-	-
Total hours	7	14	3.5

The chart below shows quarterly helicopter missions over the last three years.

Figure 21: Helicopter missions by quarter, Q1 2021 onwards





The total hours flown by helicopter to provide care during this year are shown below.

Table 27: Helicopter flight hours, 2023 vs 2022

Helicopter	2022	2023	Qtly average (hours)
Southern	14.5	22.9	5.7
Momase	0	0	0
NGI	0	0	0
Highlands	0	0	0
International	0	0	0
Total hours	14.5	22.9	5.7

The chart below shows quarterly helicopter flight hours over the last three years.

Figure 22: Helicopter flight hours by quarter, Q1 2021 onwards



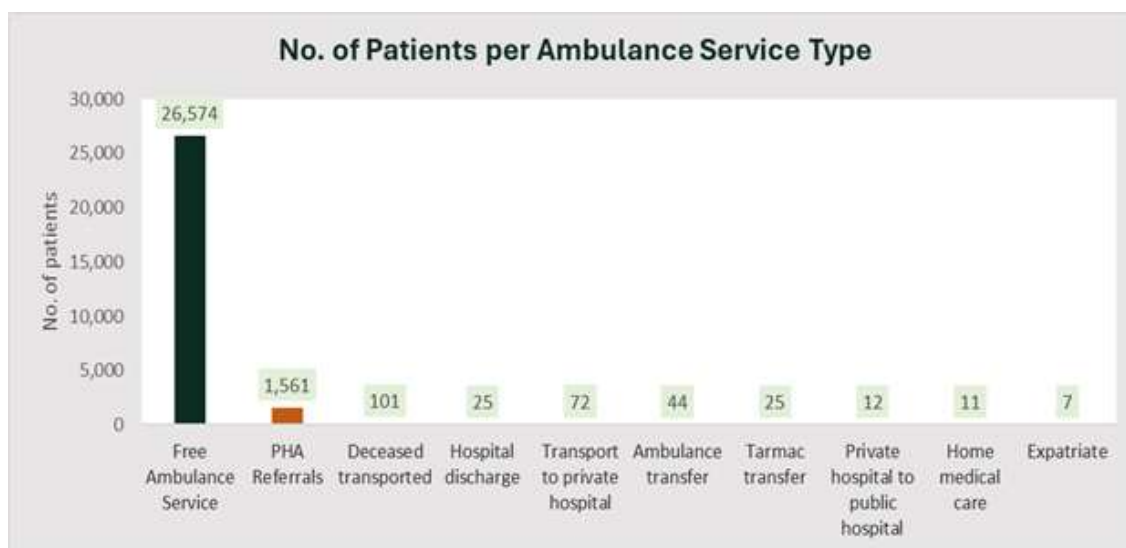


Private Patient Transport Fees

Public vs private patients

All emergency services provided to Papua New Guineans and PNG Residents are free if the patient is seeking emergency transport to a public hospital. The average ‘real’ expense incurred by SJAS helping one patient is estimated at PGK 800. However, over 98% of patients are public patients and SJAS provides services to them entirely free. The graph below demonstrates that the overwhelming majority of patients are public patients.

Figure 23: Number of patients treated, by billing category, 2023



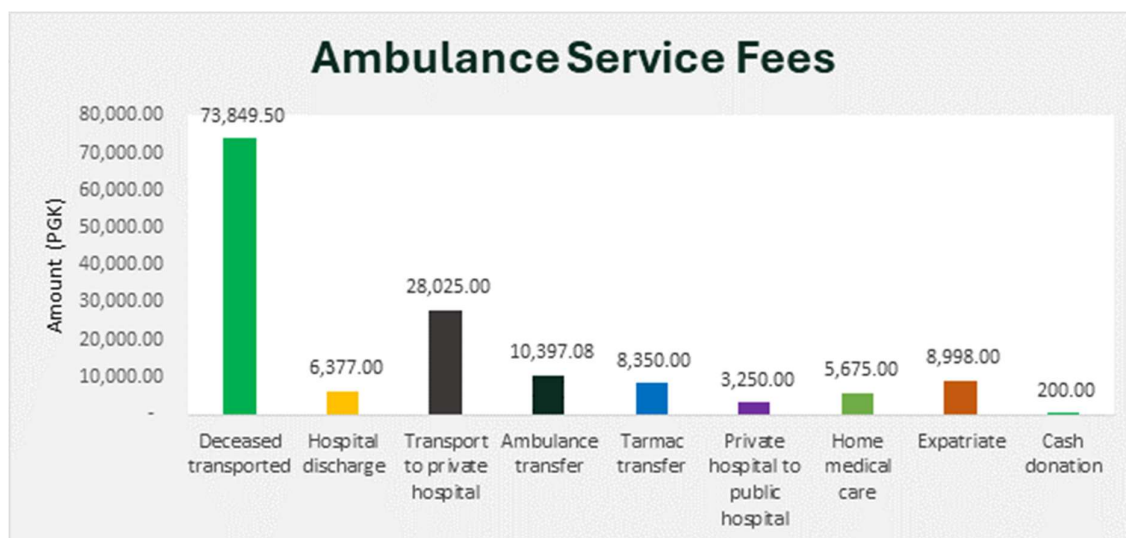
Private patient fees

Sometimes patients request SJAS to transport them to a private hospital, or request services that are not for an emergency, such as transport from a hospital to home (patient discharge), to an airport for overseas treatment, or where a family requests mortuary transport. SJAS charges a fee for these services on a cost recovery basis, and to ensure sufficient operating revenue.

SJAS has a “no cash policy”, so all payments were received through EFTPOS or bank transfer from quarter two of 2022 onwards. Total private patient fees collected in 2023 amounted to **PGK 145,121.58**. These fees helped subsidise the free public ambulance service.



Figure 24: Ambulance service fees by category, 2023



The table below shows ambulance service fees for of 2023 compared to the previous year.

Table 28: Ambulance fees, PGK, 2023 vs 2022

Form of Payment	2022	2023
Cash	1,620.00	200.00
EFTPOS	186,536.50	144,421.58
Cheque/Internet transfer	3,740.00	500.00
Total (PGK)	191,896.50	145,121.58



Key Performance Indicators

Ambulance Operations Centre 111

Area	Target	Indicator source	2023 indicator
Call Answering Time	Calls to 111 are answered by the call-taker within 10 seconds on average	PABX call-logs	17 seconds
Dispatch Time (NCD)	An ambulance is dispatched to life-threatening (1A and 1B) medical emergencies within 3 minutes on average of the call being received by SJAS in Port Moresby and Lae.	CAD Dispatch logs	3 minutes 52 seconds
Dispatch Time (Regional)	An ambulance is dispatched to life-threatening medical emergencies within 7 minutes on average of the call being received by SJAS in rural areas	CAD Dispatch logs	6 minutes 19 seconds
Caller Satisfaction	≥ 90% of the callers' report that the 111 call-taker was helpful	Weekly Patient Experience Survey	92.34% caller satisfaction

Ambulance Service Key Performance Measures

Area	Target	Indicator source	2023 indicator
Response Time (NCD)	An ambulance arrives on scene within 12 minutes from time of call for 1A cases, ≥ 50% of the time	CAD Dispatch logs	Median 13 minutes 8 seconds
Response Time (Regional)	An ambulance arrives on scene within 20 minutes from time of call for 1A and 1B cases, ≥ 50% of the time	CAD Dispatch logs	Median 31 minutes 06 seconds
Patient Satisfaction	≥ 90% of patients report being satisfied or very satisfied with SJA's service	Patient Experience Survey	98.23 % Satisfaction





Ambulance Service Staffing

Area	Target	2022	2023 indicator
Minimum ambulance crewing	The number of ambulances on duty meets that required in Annexe A 90% of the time.	88.00%	96.47%
Referrals (Reservist Stations)	80% of Central Province referral incidents to PMGH are met midway by NCD ambulance. Measured through CAD.	60.50%	34.57%
Submission of electronic medical report (eMR)	An eMR is completed for all instances that an ambulance officer assesses a patient.	91.00%	65.88%

National Ambulance Coordination Centre (111)

The National Ambulance Coordination Centre (NAAC) is the hub for the 111-emergency call centre and ambulance dispatching systems. It facilitates communication with, and coordination of, the ambulance service across NCD, Central, Morobe, Kundiawa, and East New Britain provinces and tracks Air Ambulance missions.

The NACC also provides clinical advice to communities and health workers in other provinces. The NACC enables interagency cooperation with other emergency service providers during times of mass casualty or complex incidents such as earthquakes.



Name	Target	2022	2023 indicator
Dispatch time	The median time that an ambulance is dispatched to a 1A case is less than 90 seconds from the time the first call about the incident is received.	3 minutes 34 seconds	3 minutes and 5 seconds
Skill Maintenance	Skills Maintenance and reaccreditation program implemented for all NACC roles	93% achieved: <ul style="list-style-type: none"> 3 weeks coaching and mentoring sessions for 11 full-time call takers by SJAS Ambulance Australia (SJAA) Paramedic Trainers Nov 2022. 4/4 Duty Operation Commanders and 10/10 phone operators benefited from relevant cross-functional skills offered during sessions conducted SJAA Paramedic Trainer. Reaccreditation training conducted in Q1 and Q3 2022 only. 	99%: 2 x 3 week mentoring & coaching sessions for 12 full-time and 4 volunteer call-takers by a paramedic Trainers of SJAS Ambulance Australia for all NAOC. 98% for FTE: 4/4 full time Duty Operation Commanders (DOCO), 2 Acting DOCO and 8 phone operators benefited from relevant cross-functional skills offered during sessions conducted by SJAA Paramedic Trainer. 88%. Ambulance & First Aid reaccreditation training conducted in Q1 & Q2 of 2023. 82%. First Responder Training conducted Q1, Q2 & Q3 of 2023
Use of call-taking script	The call-taker completes the call-taker script for 100% of genuine calls	99%. Random selection of 6 cases each week reviewed for use of script.	99%. Scripts not usually followed for 1A motor vehicle mass casualty cases.
Feedback to call-takers	2 calls are randomly selected each week with feedback given to the call-taker by registered paramedics	72.5%. Feedback is given to call takers by the NAOC Manager.	1x case reviews done every shift by Dispatch Supervisors.



Education & Training

For the reporting period 1 Jan – 31 December 2023, the tables below show the number of students who had **completed** training as at the last day of the reporting period. If students are still completing (studying) the course at the end of the reporting period, the course completion is shown in the next reporting period.

Ambulance Education

The table below summarises ambulance education courses in 2023.

Course	Location	Students started *	Students Completed	Course satisfaction score
Ambulance Reaccreditation	NCD	76	75	
Ambulance Reaccreditation	Kokopo	6	6	
Ambulance Reaccreditation	Lae	9	9	
Reservist Ambulance Officer RAO23_01	Kokopo	11	11	
Reservist Ambulance Driver RAD23_01	Kokopo	13	13	
Reservist Ambulance Driver RAD23_02	ASTA, NCD	8	6	
Reservist Ambulance Officer RAO23_02	Lae	10	10	
Reservist Ambulance Driver RAD23_03	Lae	8	8	
Reservist First Responder RFR23_01	ASTA, NCD	25	25	95%
Reservist First Responder RFR23_02	ASTA, NCD	28	28	89%
Reservist First Responder RFR23_03	ASTA, NCD	23	23	92%
Reservist First Responder RFR23_04	ASTA, NCD	23	23	93%
Reservist First Responder RFR23_05	AEC, NCD	29	29	94%
Clinician First Responder (NSWA)	AEC, NCD	14	14	

* (includes those that did not finish)



First Aid in Schools

Free first aid training conducted by the SBBF-SJA First Aid in Schools Team to high school students is shown below.

Province	School Name	Days of training	Students Completed
Morobe	Bugandi Secondary	1	41
	Lae Secondary	1	48
	Busu Secondary	1	44
	Lae Christian Intergrated	1	50
	Lae Christian Academy	1	36
	Emmanuel Lutheran	1	15
	Lae Community College	1	43
	Nawaeb Lutheran	1	50
	Bumayong Lutheran	1	50
Western Highlands	Hagen Park Secondary	1	45
	Mt Hagen Secondary	1	56
	Kundiawa Lutheran Day Secondary	1	44
Simbu	Kunabau EBC High	1	48
Simbu	Kerowagi Secondary	1	46
Simbu	Gumine Secondary	1	51
Simbu	Muaina Secondary	1	47
Simbu	Yauwe Moses Secondary	1	55
ENB	Kabaira Girls Technical Vocational Centre	1	52
ENB	St Mary's Vuvu Secondary	1	50
East New Britain	Nojanah Intergrated	1	47
ENB	Kokopo Secondary	1	47
ESP	Mercy Secondary School Yarapos	1	51
ESP	Bishop Leo Secondary	1	53
Madang	Good Shepherd Secondary	1	44
	Madang Christian Academy	1	47
NCD	St Joseph International College	1	69
NCD	Paradise College	1	56
Total			1,285



Community First Aid Training

Free community first aid training conducted by SJAS in communities.

Province	Location	Days of training	Students Completed	Comments
NCD	Koki SDA mission church	2	120	Collaboration with Sir Brian Bell Centre transfusion medicine team

Public Awareness

Province	Location	Days of awareness	No. of participants	Comments
NCD	Airways Residences staff	2	51	Snakebite Envenomation Awareness
Motu Koitabu Assembly	Taurama United Church (MKA CHOP program)	1	55	CPR Awareness
Motu Koitabu Assembly	Vabukori United Church(MKA CHOP Program)	1	50	CPR Awareness
Motu Koitabu Assembly	Elevala Community Hall, Hanuabada	1	100	CPR Awareness
Central	Kuriva Market Area (with Total team)	1	40	Ambulance awareness/ Snakebite first aid
NCD	Port Moresby Nature Park (snaketastic Event)	4	80	Snakebite first aid / safety awareness
NCD	Gordon's Plaza, Brian Bell (World First Aid Day)	1	90	Ambulance / First aid awareness
Madang	Kalibobo Ward 2	1	50	CPR Awareness
NCD	Tatana BbP Library Learning Centre	1	15	First aid awareness
NCD	Hagara BbP Library Learning Centre	1	13	First aid awareness
NCD	Koki BbP Library Learning Centre	1	49	First aid awareness
East Sepik	Ela Motors Wewak	1	30	CPR awareness
East Sepik	BSP Wewak	1	40	CPR awareness
East Sepik	PNG Ports Wewak	1	25	CPR awareness
NCD	NJSS (as per invitation from Rotary Club)	1	15	CPR/AED Awareness



Hospital Emergency Life Support Training

Free training conducted by SJAS in hospitals.

Province	Location	Days of training	Students Completed	Student satisfaction score
NCD	Port Moresby General Hospital	31	182	100%
NCD	Gerehu General Hospital	5	110	100%
NCD	NCDPHA – Urban Clinics	4	35	100%
NCD	Taurama Military Hospital	2	30	100%
NCD	Adventist Health Services	1	29	100%
NCD	Catholic Church Health Services	2	34	100%
NCD	Living Light Four Square Health Services	2	23	100%





INTERNAL REPORTING ONLY

Workplace First Aid Training

Training conducted by SJAS during the quarter.

Trainer	Number courses	Number students	Student satisfaction score (average)
Nelson Mare	5 courses	704	93.74%
Elvis Saitere	5 courses	617	96.60%
Sharon Wabiyawi	2 courses	241	96.61%
Bobby Kakare	4 courses	418	98.81%
Affiliated Trainers (Ok Tedi)	4 courses	681	95.39%

Province: NCD

Course	Students Completed	Student satisfaction score (average)
CPR	160	94.60%
Essential First Aid	672	95.88%
Senior First Aid	248	95.75%
Advanced First Aid	30	91.33%
Advanced CPR / BLS	106	92.64%
Low Voltage Rescue	13	93.85%
Remote Area First Aid	0	
Mental Health First Aid	0	
Caring for Kids	0	

Province: Morobe-Lae

Course	Students Completed	Student satisfaction score (average)
CPR	17	97.65%
Essential First Aid	213	96.70%
Senior First Aid	15	92%
Advanced First Aid	0	
Advanced CPR / BLS	20	100%
Low Voltage Rescue	37	99.46%
Remote Area First Aid	0	
Mental Health First Aid	0	
Caring for Kids	0	



Province: New Ireland

Course	Students Completed	Student satisfaction score (average)
CPR	73	100%
Essential First Aid	75	97.33%
Senior First Aid	116	97.41%
Advanced First Aid	60	97%
Advanced CPR / BLS	0	
Remote Area First Aid	0	
Mental Health First Aid	0	
Caring for Kids	0	

Province: Hela-Tari

Course	Students Completed	Student satisfaction score (average)
CPR	0	
Essential First Aid	72	94.65%
Senior First Aid	0	
Advanced First Aid	12	98.33%
Advanced CPR / BLS	0	
Remote Area First Aid	0	
Mental Health First Aid	0	
Caring for Kids	0	

Province: East Sepik

Course	Students Completed	Student satisfaction score (average)
CPR	0	
Essential First Aid	12	95%
Senior First Aid	0	
Advanced First Aid	13	93.1%
Advanced CPR / BLS	0	
Remote Area First Aid	0	
Mental Health First Aid	0	
Caring for Kids	0	



Affiliated Training Partners

Training conducted by SJAS Accredited Affiliated Training Partners

Partner: OK TEDI Mining Ltd

Course	Students Completed	Student satisfaction score (average)
CPR	39	85.88%
Essential First Aid	184	95.29%
Senior First Aid	272	96.66%
Low Voltage Rescue	186	94.28%



General Information

Background and history

SJAS is a Papua New Guinean charity and statutory emergency service organisation that provides emergency medical services, first aid training, and humanitarian assistance to the people of Papua New Guinea. SJAS has been serving Papua New Guinea for over 65 years and has a strong presence in many provinces across the nation.

SJAS is committed to making a difference in Papua New Guinea by providing quality health and ambulance services and responding to emergencies and disasters. In addition to emergency services, SJAS offers a range of health and safety courses, including first aid, CPR, and AED training. SJAS is also involved in various community projects, including health clinics, educational programs, and youth development initiatives. The organisation relies on the support of volunteers and donors to continue their important work and make a positive impact in the lives of the people they serve.

Since 1983, SJAS has been engaged by the National Department of Health (NDOH) under a Memorandum of Agreement (MOA) to provide PNG's primary emergency ambulance services. As the responsibility for health services transferred to Provincial Health Authorities, SJAS now works closely with Provincial Health Authorities under similar MOAs to provide their provincial emergency ambulance services.

SJAS Station Locations

SJAS currently provides PNG's primary emergency ambulance service, serving a combined population of about 3 million people by road, and the entire population by air. SJAS has stations in each the following towns:

- Port Moresby (NCD)
- Baruni (NCD)
- Bereina (Central)
- Kupiano (Central)
- Kuriva (Central)
- Lae (Morobe)
- Kokopo (East New Britain)



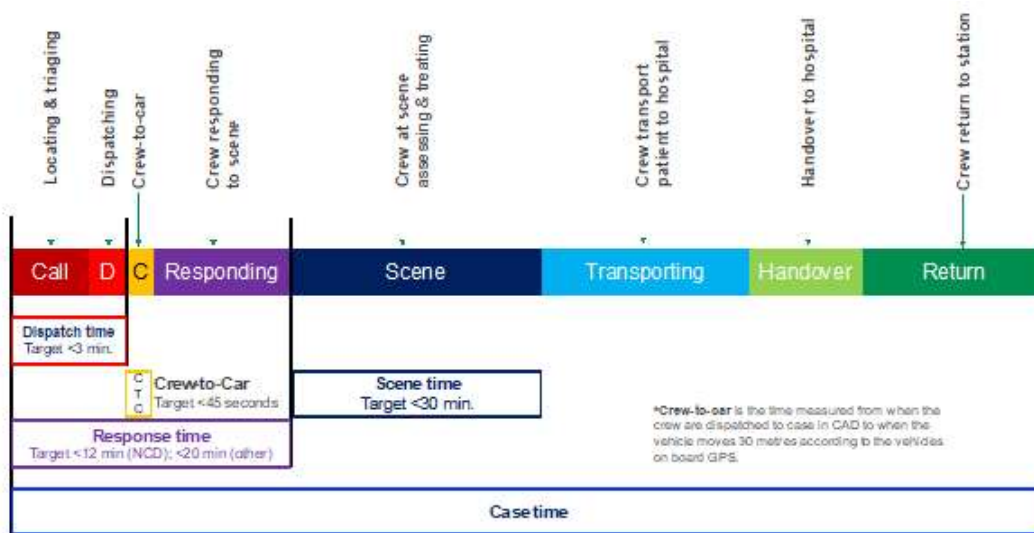
Definitions & Terminology

Terminology

These definitions match that of the Council of Ambulance Authorities Australasia's Report on Government Services.

Term	Definition	Comment
Incident	An event that results in a demand for ambulance resources to respond.	Incidents are logged in CAD as a case. Incidents are measured using CAD data.
Response	An ambulance response is a vehicle sent to an incident.	There may be multiple responses to one incident if several units are dispatched to a single incident
Patient	A patient is someone assessed, treated, or transported by the ambulance service.	Patients are counted by the number of episodes. Patients may be the subject of more than one (1) episode per year. The ambulance worker completes an individual 'patient care report' for each patient. The patient care report is documented either on a paper sheet or using SJAS's eMR system.

Key Incident Time Intervals





Response priorities

Response Code	Problem	Urgency	Lights & Sirens	Recommended resources to send	Target response time (median)
1A	Immediately life-threatening problem <i>e.g., cardiac arrest, ineffective breathing</i>	Immediate Highest priority response. Closest ambulances to respond.	Yes	Minimum 3, preferably 4	Within 12 minutes (Ideally < 8 minutes)
1B	Potentially life-threatening problem <i>e.g., unconscious</i>	Immediate High priority	Yes	1 – 2	Within 15 minutes
1C	Possible life-threatening emergency <i>e.g., breathing problem or chest injury, or serious bleeding</i>	Priority	Yes	1 - 2	Within 15 minutes
2A	Unlikely threat to life. <i>e.g., abdominal pain</i>	Urgent	No	1	Within 30 minutes
2B	No threat to life <i>e.g., unwell for days, limb injury</i>	Mobilise when sufficient resources available	No	1	Within 60 minutes
3	Medical response requested by a doctor or nurse. often referral case	Within requested timeframe	No	1	Usually within 90 minutes
4-9	Non-emergency	Routine transport	No	1	-



Papua New Guinea Since 1957

SJA is a statutory organisation operating in accordance with the
St John Council Incorporation Act of 1976.

For more information about this report contact enquiries@stjohn.org.pg
www.stjohn.org.pg