Paediatric Society of Papua New Guinea Mid –Year Symposium 2022



Edilson Yano – Paediatric Surveillance

Introduction

- CHAC of NDOH continues to release Annual Report on Child Morbidity & Mortality in PNG since the <u>Paediatric Hospital Reporting Systems</u> was introduced into the country
- Committee believes:
- Data & recommendations be <u>read by all health workers</u> & <u>health</u> <u>administrators</u>
- It is only by examining health outcomes that we can improve our services

Recommendations - cover clinical & public health solutions that can result in many more children's lives being saved each year

Paediatric Hospital Reporting System – Brief Background

The Paediatric Hospital Reporting (PHR) System:

- 1. Computer based (software) program
- 2. Record admission and death rates
- 3. Monitor trends and impacts of diseases overtime
- 4. Sought for better action to safe and preserve lives from unnecessary admission and/ or deaths

Purpose

Paediatric Hospital Reporting (PHR) was introduced to:

- 1. Standardize hospital statistics
- 2. Understand disease burdens
- 3. Monitor mortality rates
- 4. Quality of care

Con't!

Program records:

- 1. All admissions
- 2. Common diagnoses in sick children

3. Outcomes (Deaths/Discharged/Transfer/Absconded)



- Produces standardized reports and calculates case fatality rates.
- Diagnostic classifications used are:
- 1. Consistent with ICD-11 classification system
- 2. WHO Guidelines

3. PNG standard treatment classification systems

PHR Data Sheet - Paediatric

Admission date			Paediatric	Hospital Re	eporting data form
Admission date Hospital no Name DOB Province District Village	Age [Sex OM OF	Readmission O Yes O No Anaemia O Yes O No SpO ₂ %	In hospital	complications Acquired Infection ous complications
Vaccinations Referred in Outcome		or age O Partially immuni Referred from	Data of discha	ated HIV	O Negative O Positive O Not tested
Nutritional state	Wt kg (O Weight for age greater t O Weight for age between O Weight for age less than	-2 and -3 standard deviation	ons (underweight)	Mid Upper Arm Circumference
Respiratory O Pneumonia O Pneumonia O COVID-19 act			oup O Asthma onchiectasis	O Acute otitis me O Chronic serous	e
Gastrointestina O Acute water O Persistant di	y diarrhoea 🔘 Dyse	entery O Bottle fed	- Marasmus / kwashiorkor ficiency	O Iron deficiency O Typhoid O Pigbel	 Beri beri Hepatitis Gastrointestinal Other

			N	eonatal H	ospital Reporting data form
Admission date					
Hospital			Sex OM		
Hospital no			Of		Born before arrival / Home birth
Name					O Yes O No Prematurity < 37 wks
DOB		Age			O Yes O No
Estimated age					SpO ₂
Province					%
					HIV O Negative O Positive O Not tested
District					Anaemia
Village					O Yes O No
Referred in	OYes O	No			Readmission
Referred from					OYes ONo
Birth Weight			Weight		Neonatal vaccines given
○ >2500 grams			gram	ns	🗌 Hepatitis B
0 1500 - 2500					BCG
○ 1000 - 1499 g ○ <1000 grams					
Neonatal infectio					
		sis	O Congen	ital rubella syr	ndrome ONeonatal infection - other
	O Congenit				

Maternal/Newborn/Reporting Data Form

			Materna	l / Newborn	/ Reporti	ng da	ta form
Maternal							
Date of admission Name	Hospital number	Readmission 2 or more doses of		O Tuberculosi O Heart disea	is OMa se OOth		
DOB	Але	during pregnancy		 Kespiratory 	miness		
Province					O Positive O	Not test	ed
District		antenatal care					
Village		Date of delivery		-		y infectio	n
Date of admission Hospital number Readmission Yes No Mame 2 or more doses of tetanus toxoid Yes No Heart disease Other Name tetanus toxoid Yes No Respiratory illness Malaria D0B Age No of antenatal visits HV infection Negative Not tested District antenatal care Ores OCVID-19 OcviD-19 OcviD-19 acute respiratory infection District Date of delivery Date of delivery CoVID-19 acute respiratory infection Maternal complications other Maternal date of discharge / transfer / death Maternal complications post delivery Post partum haemorrhage Urinary tract infection Hypertension Unsafe abortion Post partum haemorrhage Urinary tract infection Pre-eclampsia Unsafe abortion Wound infection Complications during delivery Placental abruption Maternal sepsis Maternal sepsis Severe bleeding (antepartum haemorrhage) Obstructed labour High blood pressure Placental abruption Placenta praevia Prolapsed cord Eclampsia Skin to skin care Yes No<							
Maternal date of di	scharge / transfer /	death					
Complications durin	ng pregnancy			Complications	post delivery		
Urinary tract infe	ection Pre-ecla	ampsia 🗌 Uns		Puerperal s	epsis		
Complications duri	ng delivery		_	. —			
Severe bleeding	(antepartum haemo	rrhage) 🗌 Obstruct	ted labour	High blood pressure	e		
Newborn							
Name							
Est Gestational age	weel	s Breast feeding	g first hour O	Yes O No	Vaccines		
Sex OM OF					BCG		
Birth Weight	grams	Cord care Eye care Vitamin K	0	Yes ONo Yes ONo Yes ONo	Hepatitis B	O Yes	

Summary Data Sheet

A <u>Summary Data Sheet</u> is generated automatically for any selected time period (e.g. annually or monthly) describing:

- Admissions
- Deaths
- Case-fatality rates

For:

- 1. Common diseases
- 2. Co-morbidities
- 3. Vaccine-preventable diseases
- 4. Age-specific mortality rates

Summary (Automated) Data Reporting - Paediatric

ecords Scripts Window Help		the second s					
Paediatric Summary		Search from 1/1/2021	Search	Search to 31/12/2021			
Total Pneumonia Severe pneumonia Bronchiolitis Asthma	Admissions To 1421 406 116 91 16	tal Deaths Case 80 22 20 1 0	Fatality Rate 5.6 % 5.4 % 17.2 % 1.1 % 0.0 %	HIV Number of HIV exposed patients Proportion of HIV patients on ART	Admissions 39 25 Patie 15	9 0	%
Diarrhoea (all cases) Dysentery Cholera	246 23 0 21	19 1 0	7.7 % 4.3 % ? % 4.8 %	Proportion of HIV patients on Cotrimoxazole Malnutriton Severe malnutrition	Admissions 324 161	Total Deaths	Case Fatality Rate
Typhoid Malaria Anaemia Iron deficiency	180 253 2	9 43 1	5.0 % 17.0 % 50.0 %	Moderate malnutrition Vitamin A deficiency Vaccine preventable disease Measles			0.0 % 7 % 7 %
Meningitis / Encephalitis (all cases) S. pneumoniae meningitis H influenzae meningitis Neisseria meningitidis	66 8 2 2	9 1 1	13.6 % 12.5 % 50.0 % 0.0 % 0.0 %	Rubella Whooping cough Tetanus Acute Flaccid Paralysis Pigbel			0.0 % 0.0 % 0.0 % ? %
<i>Cryptococcal meningitis</i> Japanese encephalitis Encephalitis other Severe sepsis / septic shock	1 0 3 62	0 0 1 35 0	? % 33.3 % 56.5 % 0.0 %	Fully immunised Partially immunised Unvaccinated Child protection	434 647 89 0	% Fully immunised % Part immunised % Unvaccinated 0	37.09 % 55.3 % 7.61 % ? % 0.0 %
Dengue fever COVID 19 Tuberculosis	2 1 192 102	1 18 5	100 % 9.4 % 4.9 %	Trauma Cancer Rheumatic fever / Rheumatic heart disease Congenital heart disease Endocrine problems	6 3 3 30 0	2 1 4 0	66.7 % 33.3 % 13.3 % ? %
Pulmonary TB Extra pulmonary TB CNS TB Multi-resistant drug TB	90 44 2	13 7 1 of patients admitted	14.4 % 15.9 % 50.0 %	Endocrine problems Neurology and development Epilepsy Febrile convulsions Developmental disability	12 16 7	1 0 0	8.3 % 0.0 %

Summary (Automated) Data Reporting – SCN

Neonatal Summary		SALES AND AND A COMPANY OF A DESCRIPTION	earch from	Search to			
Incontatal Summary		1	/1/2021	Search 31/12/2021 🗐			L
	Admissions	Total Deaths	Case Fatality Rate		Admissions	Total Deaths	Case Fatali
Neonatal	1651	113	6.8 %	Number of HIV exposed patients	51		
Prematurity	198	0	28.8 %	Congenital infections			
Neonatal sepsis	1294	59	4.6 %	Congenital rubella syndrome	0	0	?
Birth asphyxia	378	53	14.0 %	Congenital syphilis	13	0	0.0
Respiratory distress syndrome (RDS)	19	14	73.7 %	Congenital malaria	0	0	?
COVID 19 acute respiratory infection	5	2	40 %				
Low birth weight	1626	112	6.9 %	Congenital malformations	35	[11]	31.4
1500g - 2500 grams	340	30	8.8 %				
1000g - 1499 grams	51	26	51.0 %	Congenital heart disease		3	37.5
<1000 grams	24	17	70.8 %	Microcephaly	5	2	40.0
Born before arrival / Home birth				Congenital gastrointestinal anomolies	10	1	10.0
	142	8.6	6	Congenital genito-urinary malformation	1	0	0.0
	Admissions	% Admissions		Congenital limb abnormalities	5	3	60.0
Fully breast fed at discharge	1417	? 9	Vo				
Neonatal vaccines given							
Hepatitis B vaccine given	830	? .	10				
BCG vaccine given	924	? •	6				
	Admissions	% Admissions					
Patient with hospital acquired	2	1					

Manual Paediatric Summary Form

Paediatric Summary	Sear	ch from	Search to		(-
		Case Fatality Rate	HIV Number of HIV exposed patients Proportion of HIV patients on ART Proportion of HIV patients on Cotrimoxazole Malnutriton Severe malnutrition Vitamin A deficiency Vaccine preventable disease Measles Rubella Whooping cough Tetanus Acute Flaccid Paralysis Pigbel Fully immunised Unvaccinated Child protection Trauma Cancer Rheumatic fever / Rheumatic heart disease Congenital heart disease Endocrine problems Neurology and development Epilepsy Febrile convulsions	Admissions Total Deat Image: State of the	ns Case Fatality Rate
Patients with hospital acquired infection Patients with IV complications			Developmental disability		

Manual Reporting – Paeds Ward

ediatric Hospital Reporting V12.2 Summary Sheet

uch harm The With Manap	march to: 21/09/1023	Total Admissions	Total Depths	P
	Patients	2875	62	-
	Papumonia		131	T
	Severe presimilaria	718		F
Respiratory	Browniniolitis	10	0	T
room the royalta of the second	Asthma		processing and	F
	Diarrhoea (all cases)	201	0	F
	Dysentery	80	0	F
Diamoea	Cholera	-0-		F
	Typhoid	301	0	4
Malaria	Malaria	-F-	0	F
	Anzemia	26	0	-
Anaemia	trun deficiency		The second se	F
	Meningitis (all cases)	91	13	-
Meningitis	5. paseumonia menungicia			-
	H onfluenzae meninghtis			4
	Netssenia meningitida		-1-	7
	Crytoolccol meningitidis	-0-		F
	Japanese encophaitis			1
	Viral enceptialitis other		Anne and a second secon	-
Neurology	Epilapiny		0	4
	Petrile convulcions	4 7	0	-
development	Developmental disability	L 8 1		L
Sepsis	Severe sepsis / septic shock	225	4	E
COVID 19	Acute respiratory illness or COVID 19 with fever	3		L
Dengue	Dengue (all types)		0	E
	Tuberculosis	87	5	
	Pulmonary TR	90		L
Tuberculosis	Extra pulmonary TB	30	0	C
	CNS TB	17	5	C
	Multi-drug resistant drug TB	0	0	L
	Number of HIV patients	33		
	Number of HIV exposed patients	33		
			the second s	

2-B9

3-11

0.48

0.3

33-3

6.3

4 2 2 -

29:41

14-2

-

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" " " " " " "

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Manual Reporting - SCN

Neonatal Hospital Reporting V12.2 Summary Sheet

Neonatal Neonatal sepsis Birth asphyxia Prematurity Respiratory distress syndrome (RDS) COVID 19 (acute respiratory illness) Low birth weight

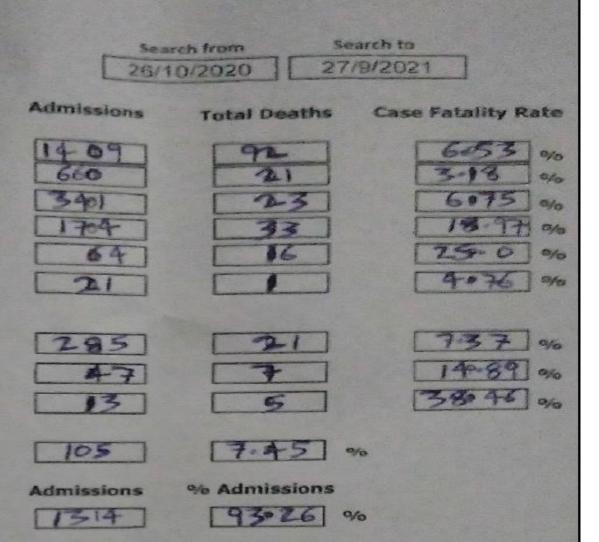
1500g - 2500 grams (LBW)

1000g - 1499 grams (VLBW)

<1000 grams (ELBW)

Born before arrival / Home birth

Fully breast fed at discharge



Excel Reporting is but 'Not Encourageable'

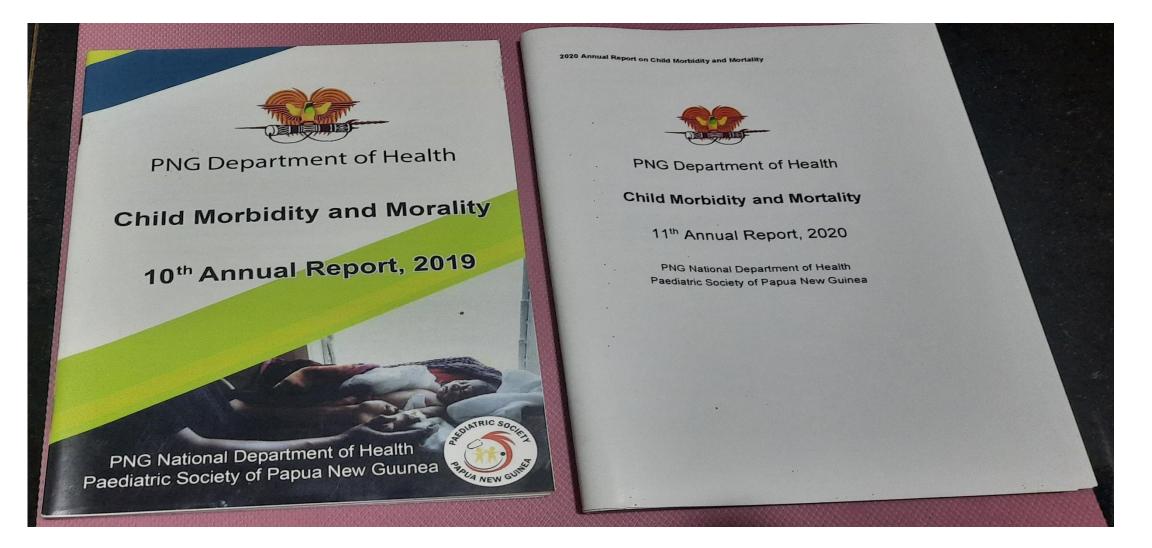
D	Record num	nber Date	e of Admission	Discharge date Name	Hospital record number Hospital	Age_months_S	Sa ?	Readmission S	02 <u>.</u> Sats	Anaemia S	١١	Nutritional 80 ENA S	Nutritional 60 80 EWA .	S Nutritional less 60 ENV	Sitcome Survived disch	rge Outcome Transf Out	S Outcome Absconded S	Outcome Died S	hHospital Complications	InHospital Complications	2 Preumonia Severe S	Preumonia non severe S	Bronchiolitis S	Whooping cough_S	Croup <u>s</u>	Bronchiectasis_S	Asthma <u>.</u> S	Acute otitis media <u>S</u>	ronic serous otitis media	Respiratory other S	Acute_watery_diarrhoea_S	Persistant diarrhoea S
!	62	504	13/01/2021	21/01/2021 Cinere MARAKUS	19066 Kompian District Hospital	60	0	0	9	3 (1		0	0	0	0	1	0			0 (0	0 0	0	0)	0	0	0	0
1	64	506	13/01/2021	15/01/2021 Sobilar TIRA	13085 Kompiem District Hospital	60	0	0	10) (1		0	0	1	0	0	0			0 (0	0 0	0	0)	Q	0	0	0
1	6	507	02/06/2021	04/06/2021 Tindi Kyekas	13355 Kompiem District Hospital	120	1	0		(Q		0	0	1	0	0	0			0 (0	0 0	0	0)	O	0	0	0
1	66	508	15/01/2021	18/01/2021 Jessica TIMOTHY	13091 Kompian District Hospital		0	0	9	3 (1		0	0	1	0	0 1	0			0 (0	0 0	0	0)	O	0	1	0
:	67	509	18/01/2021	19/01/2021 Stallone ULKE	19092 Kompian District Hospital	120		0	9	3 (1		0	0	0	1	0	0			0 (0	0 0	0	0)	O	0	0	0
:	68	510	02/01/2021	15/01/2021 Dorin LAGAPU	13066 Kompian District Hospital	11	0	0	99) (1		0	0	1	0	0	0			0 (0	0 0	0	0)	O	0	0	0
	69	511	02/01/2021	11/01/2021 Frida KONE	19065 Kompiam District Hospital	11	0	0	8	. (1		0	0	1	0	0	0			0 1	. 0	0 0	0	0			O	0	0	0
	70	512	05/01/2021	11/01/2021 Pricilla KONE	19071 Kompian District Hospital	10	0	0	9) (1		0	0	1	0	0	0			0 1	. 0	0 0	0	0			O	0	0	0
	71	513	20/05/2021	02/06/2021 Shirelyn Mendai	13331 Kompian District Hospital	96	0	0	93	1		0 0		0	0	0	0	1	0			0 (0	0 0	0	0			O	0	0	0
	n	514	21/02/2021	26/02/2021 Immanual Mark	13156 Kompian District Hospital	4	1	0	8) (1		0	0	0	O	1	0 Numleft Thehospital at o	wińsk		1 (0	0 0	0	0			O	0	0	0
	78	515	29/05/2021	31/05/2021 Jessi Isadk	Kompian District Hospital	3	1	0	9£	i (0 0		0	0	1	O	0	0			0 1	. 0	0 0	0	0			O	0	1	0
	14	516	18/05/2021	21/05/2021 Daniel Samu	13323 Kompian District Hospital	6	1	0	93	} (0 0		0	0	1	O	0	0			0 1	. 0	0 0	0	0			O	0	1	0
	13	517	31/03/2021	07/04/2021 Simion Gideon	Kompiam District Hospital	б	1	0	8	8 (0 1		0	0	1	0	0 1	0			1 (0	0 0	0	0			0	0	1	0
	76	518	12/04/2021	14/04/2021 NakeSalas	Kompiam District Hospital	8	1	0		(0 1		0	0	0	0	0 :	1			0 (0	0 0	0	0			0	0	1	0
	11	519	12/02/2021	13,102/2021 Nəomi Bill	13147 Kompian District Hospital	NS	0	0	9	} (1		0	0	0	0	1	0 Mumleft Thehospital at o	wrńsk		0 (0	0 0	0	0)	O	0	1	0
	18	520	10/02/2021	15/02/2021 Lapson Karaso	13144 Kompian District Hospital	1	1	0	75	i (1		0	0	1	0	0	0			1 (0	0 0	0	0)	O	0	1	0
	19	521	10/02/2021	12/02/2021 Joyce Joseph	13138 Kompiam District Hospital	3	0	1	9	(1		0	0	1	0	0 1	0			0 1	. 0	0 0	0	0)	0	0	1	0
	80	522	05/02/2021	06/02/2021 B/O Nisiam Argan	13134 Kompiem District Hospital	05	0	0	9) (1		0	0	0	0	1	0 Mumleft Thehospital at o	wn risk		1 (0	0 0	0	0)	0	0	1	0
	81	523	03/02/2021	OS/02/2021 Sakare Alus	13118 Kompian District Hospital	120	1	0	10) (0		1	0	1	0	0	0			0 (0	0 0	0	0)	O	0	1	0
	8	527	23/06/2021	25/06/2021 Trenee Hanao	13387 Kompiam District Hospital	84	0	0		(0		0	0	1	0	0	0			0 (0	0 0	0	0)	O	0	1	0
	66	528	29/05/2021	21/06/2021 Joshua Maldio	13388 Kompian District Hospital	60	1	0	95	i 1		0		0	1	1	0	0	0			0 (0	0 0	0	0)	O	0	1	0
	8	529	19/06/2021	21/06/2021 Jamaih Jerry	13381 Kompian District Hospital	1323	1	0		(0 1		0	0	1	0	0	0			0 1	. 0	0 0	0	0)	O	0	1	0
	88	530	09/06/2021	11/06/2021 Thyson Titus	13365 Kompiam District Hospital	3	1	0	10) (0 1		0	0	1	0	0	0			0 (0	0 0	0	0)	0	0	1	0
	89	51	04/02/2021	15,02/2021 Yombon Karato	13123 Kompiam District Hospital	156	1	0	10) (1		0	0	1	0	0	0			0 (0	0 0	0	0			0	0	1	0
	90	52	13/06/2021	16/06/2021 Kynlasen Daniel	13376 Kompiam District Hospital	6	1	0	9	} (0 1		0	0	1	0	0	0			1 (0	0 0	0	0)	0	0	1	0
	91	533	10/06/2021	14/06/2021 baby of losephine	13370 Kompian District Hospital	NS	1	1	9	(1		0	0	1	0	0	0			0 (0	0 0	0	I			O	0	1	0

Data

Data from Hospitals are:

- 1. Collected Combined Analysed
- 2. Annual reports of Child Morbidity and Mortality are published (2010-2021)
- 3. Considered by the Child Health Advisory Committee
- 4. Lessons learned Considered in terms of Policy and Practice

Annual Morbidity & Mortality Report



Soft ware Program – Latest Revised Version (12.2)

The Soft ware Program has been revised in recent years to include:

- 1. Chronic illnesses in children
- 2. Congenital anomalies
- 3. Emerging diseases including COVID-19
- 4. *Maternal component* is also included in the latest version (v12.2) of the PHR to include:
- Maternal health outcomes and complications

- 1. Prof Glen Mola and (O & G) team are in support to role out this program in their wards to monitor their level of care
- 2. Slowly getting <u>interested by</u> all including our <u>neighbouring countries</u>:
- Solomon Islands
- Fiji
- Vanuatu

