Paediatric Society of Papua New Guinea

Mid-year Symposium 2022

Venue: Kokoda Trail Motel

June 6-10, 2022

Strategising the Child & Adolescent Health Policy and Plan 2021-2030

Conference programme and abstracts

Day 1. Monday June 6th

TIME	ACTIVITY	Chairs and Presenters
0800-0830	**Registration**	
Session 1	**Opening**	**Chairs: Dr Cornelia Kilalang and Dr Rupert Marcus**
0830-0840	Welcome and announcements	Dr Cornelia Kilalang
0840-0845	Opening prayer	TBC
0845-0900	Welcome address	Dr James Amini
0900-0945	The 2021-2030 Child and Adolescent Health Plan	Dr Cornelia Kilalang
0945-1015	**Tea break**	
1015-1100	The changing epidemiology of child and adolescent health	Prof Trevor Duke
1100-1130	The NDOH M&M framework for NHP	Dr Dale Frank
1130-1200	General discussion of Child and Adolescent Health Plan – feedback from members	
1200-1300	**Lunch break**	
Session 2	**Standard Treatment Manual and Nutrition**	**Chairs: Dr Jason Vuvu and Dr Temane Korowi**
1300-1330	Review of Standard Treatment for Common Illnesses of Children 11th edition	Dr Cornelia Kilalang / Dr Henry Welch
1330-1400	Malnutrition guidelines review	Mr Wilson Karoke Dr Jason Vuvu Dr Michael Landi
1400-1430	COVID and children	Dr Rupert Marcus Dr Ian Kintwa Dr Beryl Vetuna
1430-1500	The Paediatric Hospital Reporting Program V12.2 and Annual Child Morbidity and Mortality Report	Mr Edilson Yano / Prof Duke
1500-1530	**Tea break**	
Session 3	**Neonatal care**	**Chairs: Dr Gamini Vali and Dr Maylene Kariko**
1530-1600	EENC and care of high-risk neonatal care	Dr Roland Barnabas
1600-1630	Obstetrics and newborn care (topic TBC)	Dr Mary Bagita
1630-1700	Congenital abnormalities	Dr Anna Toti
1700	**End of day 1**	

Revised Child and Adolescent Health Policy and Plan (CAHPP) 2021-2030

Dr Cornelia Kilalang
Port Moresby General Hospital

The revised CAHPP 2021-2030 spans the next 10 years and is designed as a blueprint for progress in Child Health services and Child Health Program areas. It is a guide for National, Provincial and District Managers, Coordinators, Pediatricians, Nurses, Child Health Program Managers and any other organizations or persons who deal with Child and Adolescent Health; to align their local activities with the National Health Plan 2021-2030.

The first Child Health Policy and Plan was produced in 2009 and incorporated as the Child Health Component of the 2011-2020 National Health Plan. It provided a road map for advancement in Child Health Services from 2009-2020. Much progress occurred in the life of the first plan which included: introduction of new vaccines against pneumonia and meningitis; more pediatrician coverage in the provincial hospitals, publication of the 10th Edition of the Standard Treatment Manual, better surveillance and pediatric hospital reporting through PHR system with production of the Child Annual and Mortality Report, improvement in the malnutrition and pneumonia case fatality rates.

The era 2015-2030 is the era of the Sustainable Development Goals; where old and new challenges will be seen and also an era where there will be new opportunities to progress.

There are new challenges seen in Child and Adolescent Health in PNG and globally in the last 15 years such new emerging drug resistance to TB, HIV and antibiotics, there are now more children with chronic conditions and many children are affected by social and economic conditions that cause ill health and prevent them from reaching their full potentials.

The Child and Adolescent Health Policy and Plan 2021-2030 describes the essential interventions to reduce child morbidity and mortality. It also focuses on the Life Course approach and Health systems approach. It also describes the core indicators that would enable progress over the next 10 years.

The changing epidemiology of child health, and what that means for paediatricians and child health programs

Prof Trevor Duke

In the last 20 years there have been many changes in countries all over the world that have radically changed the picture of child health. This has been recognised by WHO recently when they completely redesigned their program. WHO's Child Health Redesign includes: to extend the focus of programmes from survival of children under 5 years, to health, nutrition, and psychosocial support in the first two decades of life, with a strong focus on health in school aged children and adolescents. To build children's resilience, whether they have a chronic disease, mental health issues, or going through adolescent transition where making health choices is important. At the same time to address mortality in specific age groups and vulnerable populations, with greater emphasis on quality, coverage, and equity.

This presentation will outline four global trends, and what they mean for paediatricians. First, a reduction in infant and child mortality in many countries brought about by economic advancements, reduction in family sizes, new vaccines, improved basic services. This has meant that a greater emphasis is needed on older children and newborns, and on the quality of survival. This comes at a time when there is increased recognition of the importance of chronic childhood diseases such as

asthma, diabetes, cancer, heart disease, epilepsy and neurodevelopmental problems. In Papua New Guinea this epidemiological transition is complicated because of the persistence of acute infectious diseases (pneumonia, diarrhoea, malaria), the co-existence of chronic communicable diseases (HIV, TB, rheumatic heart disease), and the emergence of new pathogens including SARS Co-V 2.

A second trend is that of pathogen resistance – to antibiotics, antimalarials, anti-retroviral therapy, TB medicines. This adds complexity to diseases, therapeutics, training, and guidelines that did not exist before, and calls for paediatricians to literate in antimicrobial stewardship.

A third trend is social and environmental: urbanisation, the Internet, social media, advances in education, climate change, and an understanding of epigenetics have all had a major impact on child and adolescent health.

A fourth trend is the quality-of-care revolution in health. Communities and patients are increasingly demanding a higher quality of care, governments are requiring it, it is known to be safer and more cost efficient for the patients, there is a science around it, and we need to incorporate these concepts into health care worker training.

These trends have major implications in this decade for the content and structure of child and 21-adolescent health programs and are reflected in the 2021-2030 Child and Adolescent Health Plan.

How do we align and monitor the PNG National Health Plan 2021-2030 and the PNG Child and Adolescent Health Policy and Plan into provincial activities?

Dr Dale Frank
Paediatrician and Alotau Provincial Hospital Administrator

The PNG National Health Plan and the PNG Child Health Policy and Plan are nationally sanctioned plans that work towards addressing the health needs of the citizens of PNG. However good these plans and policies are, the managers and implementers at the provincial and district level find it difficult to translate them to workable activities.

The Milne Bay Provincial Health Authority has worked hard to get the managers to understand the NHP, NHSS and Specialist Plans and input into their Annual Work Plan. These are reviewed during the quarterly reviews. It took two years for the Alotau Provincial Hospital to align its AWP and present these at the quarterly reviews. The health facilities in the districts have missed out a lot on the AWP processing until 2021. They now have a district work plan that caters the level 1 to level 4 health facilities. Evaluating the workplans quarterly will improve performance and foster creativity in achieving the desired outcomes towards achieving the goals of the national plans.

Nutrition challenges

Dr Andrew Musyoki
UNICEF

The presentation on nutrition challenges will provide a brief overview of nutrition situation especially of children in the country. Additionally, it will also provide information on the situation of micronutrient deficiencies. The importance of addressing nutrition issues in the country will also be covered. Additionally, we will explore what is being done by the Government and UNICEF to address

the challenge of childhood stunting and micronutrient deficiencies in the country. During panel discussions, we shall explore what the paediatricians can support the work around nutrition.

Maternal Newborn Child and Adolescent Health challenges

Dr Garba Safiyani
UNICEF

High-risk neonates and Early Essential Newborn Care

Dr Roland Barnabas
Port Moresby General Hospital

Since 2015, together with our partners WHO and UNICEF, much effort has been put into addressing neonatal morbidity and mortality in our country. This includes introduction of the Early Essential Newborn Care (EENC), Hospital assessment and gap strengthening, introduction of Kangaroo mother care and improved postnatal care for mothers and babies. According to the DHS (2016-2018), our neonatal mortality rate has improved from 29 per 1000 live births to 20 per 1000 live births[1]. However, it remains amongst some of the highest in the Southeast Asian and the Western Pacific region[2].

According to WHO, 2.4 million children died globally within the first month of life in 20202. The report also showed that approximately 6700 newborn babies died every day from prematurity, neonatal infections, hypothermia, hypoglycaemia, and birth asphyxia, which are conditions and diseases associated with lack of quality care at or immediately after birth and in the first days of life[2].

Most neonatal deaths (75%) occur during the first week of life, and in 2019, about 1 million newborns died within the first 24 hours.[2]

To reach the Sustainable Development Goal's (SDG) target neonatal mortality rate of less than 12 per 1000 live births by 2030, we need to refocus on the Global priority strategies for Improving survival, health of newborns and ending preventable stillbirths. We must increase the coverage of quality antenatal care, improve skilled care at birth, improve postnatal care for mother and baby, and care of small and sick newborns2. We also need to mobilize community support, and advocate, develop and strengthen our partnership with different community-based groups, faith-based groups, NGOs and international partners.

Since its introduction, EENC training has been rolled out to almost all the provinces in the country we have covered 359 health facilities, trained 1340 health workers who have altogether resuscitated and saved 1034 babies.

Provincial training included awareness and advocacy for the EENC program; training targeted labour ward (SIC and senior nurse/influential person), Provincial health (Family Health division), Obstetricians, Paediatricians, Midwives, and nurses from district hospitals. However, many factors including the global Covid 19 pandemic, has stopped the progress of the roll out to the remaining provinces. Upscaling within provinces remains a major challenge.

By improving the number birthing facilities, upscaling the coverage of the quality of antenatal care and the coverage of EENC, we have that opportunity to provide quality essential newborn care to more neonates, to identify high risk babies including those with low birth weight and managing them appropriately.

WHO has recommended Postnatal care follow up of newborn babies at 24 hours, 3 days, 7-14 days and 4-6 weeks. However, this has not been implemented effectively. Only a few women and newborns stay in the facility for the recommended 24 hours after birth, which is the most critical time when complications can present. In addition, too many newborns die at home because of early discharge from the hospital, barriers to access and delays in seeking care 2.

High Risk Neonates

Based on their risks, all newborn babies can be classified as either well, high-risk, or sick neonates. Reviewing the antenatal and birth history together with examination of the baby would help decide which group the baby falls into.

A high-risk neonate appears well but has a much greater chance than most infants, of developing complications such as hypothermia, hypoglycaemia, apnoea, infection, etc. in the newborn period (WHO). The following babies can be classified as high risk: Infants that are born preterm or post term; low birth weight infants and those weighing 4 kilograms or more; small for gestational age babies; birth asphyxia (Apgar <7) and have been resuscitated; babies born to mothers with a complicated pregnancy, labour or delivery; born before arrival (BBA), prolonged rupture of membranes and signs of chorioamnionitis; infants who were sick but have now recovered. High-risk infants often fall into more than one of the above categories.

A high-risk baby can easily progress to a sick infant, presenting with changes in heart rate, respiratory rate and pattern, baby's colour, temperature, and the baby's level of activity.

It is very important to identify these babies, anticipating possible complications and develop appropriate plans for prevention, monitoring for early signs of the problem and early treatment or referral to another facility for better care. Minimum requirements for different levels of health facilities should be met; strengthening EENC practises, establishment of Kangaroo mother care (KMC) units and training, providing quality care for babies who are HIV/TB exposed, improving care of the sick neonate, good community engagement and support, and effective postnatal care follow up would push us closer to our SDG target NMR of 12 or less per 1000 live births.

As leaders in newborn health, we must continue to push within our hospitals, PHAs, Districts and with our partners to fully implement strategies outlined in Child Health Plan and Policy 2021-2030 to achieve our goals.

References

Demographic Health Survey, Papua New Guinea, 2016-2018

WHO Fact sheet, Newborn Mortality, 28 January 2022

Day 2, Tuesday June 7th

Session 4	**HIV and TB**	**Chairs: Dr Cecilia Pakule and Dr Michael Landi**
0800-0825	Update on HIV – antiretroviral therapy and clinical care	Dr Gamini Vali
0825-0850	Early infant diagnosis for HIV in Mt Hagen Hospital	Dr Paulus Ripa
0850-0915	Transitioning of HIV care from paediatric services to adult care	Ms. Modalen Wobiro
0915-0940	Update on TB I – Multi-drug resistant TB	Dr Henry Welch
0940-1005	Update on TB II – Drug sensitive TB	Dr Vela Solomon
1005-1030	Asthma and peak flow recordings	Dr Philip Taylor, Red Cross
1030-1100	**Tea break**	
Session 5	**Common diseases – new and old**	**Chairs: Dr Francesca Failing and Dr Jimmy Aipit**
1100-1130	Malaria and other vector-borne diseases	Dr Moses Laman
1130-1200	Typhoid	Dr Casparia Mond
1200-1230	Rheumatic heart disease	Dr Diana Olita'a
1230-1330	**Lunch**	
Session 6	**Vaccines and the immunisation program**	**Chairs: Dr Fiona Kupe and Dr Mathilda Aloitch**
1330-1400	Current status and strategies to improve routine immunization coverage	Dr Satish Gupta, UNICEF
1400-1430	Polio in PNG – situation post outbreak response and what is needed to prevent recurrence	Dr Deborah Bettles, WHO
1430-1500	Measles – what is the risk for outbreak in the future	Ms Martha Pogo, NDoH
1500-1530	**Tea break**	
Session 6	**Nutrition and Quality Improvement**	**Chair: Dr Paulus Ripa**
1500-1530	Nutrition challenges in PNG – what is being done	Dr Andrew Musyoki, UNICEF
1530-1600	MCH challenges in PNG – what is being done	Dr Garba Safiyani, UNICEF
1600-1630	Clinical quality improvement programs in Mt Hagen	Dr Ian Kintwa / Dr Paulus Ripa
1630	**End of day 2**	

Early infant diagnosis for HIV in Mt Hagen Hospital

Dr Paulus Ripa
Paediatrician, Western Highlands Provincial Health Authority

Mortality in children from HIV in PNG is still very high, based on current figures of children diagnosed and those dying in hospital. Data is sketchy on outcome of infants from antenatal diagnosis of Mother baby pairs to survival at 2 years of age.

Despite the adoption of Option B there is still unacceptably high loss to follow up of mother baby pairs from antenatal diagnosis to registration at Paediatric HIV clinics. This is further compounded by lack of timely early infant diagnosis.

In the 2018 Paediatric Society meeting we presented data on the turnaround times for early infant diagnosis based on DBS testing by the CPHL. We reported median turnaround times of 21 weeks with an interquartile range of 12-41 weeks. 75% of results were still not available by 12 weeks and 50% were not available by 21 weeks.

In January 2021 early infant diagnosis using gene expert testing was instituted in Mt Hagen Hospital. Data for 2021 shows a 1.3% positivity rate for HIV in antenatal clinic mothers. A total of 275 children were tested with gene expert diagnosis with 38 positives giving a HIV positivity rate of 13.8%. There will be discussions on how we plan to reduce this rate.

Transition of HIV care from paediatric to adult services at Port Moresby General Hospital and other provincial hospitals

Ms Modalen Wobiro
Social Services Department, Port Moresby General Hospital

Transitioning of adolescence HIV patients from Paediatric Services to Adult Care has not always been an easy task for health workers. This same challenge is also posed with our counsellors in the Social Work Department. There is a pressing need to transfer them from paediatric to adult care known as the transition of care within a given time. Working with emerging teenagers within a given timeframe poses a lot of challenges mentally and physically for our counsellors and the patients as well. The number of adolescents with acquired HIV recommended for counselling for the purpose of transition from paediatric into adult care with the Social Work Department has increased steadily over the past years as the Medical Team recognize the significance of counselling to equip and prepare adolescence in their fight to survive into adulthood in the era of antiretroviral therapy.

In addition to that we also must deal with other issues such as family disharmony, defaulting to treatment, stigma and discrimination which is still very much present in this era.

In this presentation we will highlight the specific needs and challenges in these population brought out through our counselling sessions, and the recommendations for improvement of the treatment plan for these group of people in the hopes of giving them the opportunity to grow into healthy adults.

Drug-resistant tuberculosis (DRTB)

Dr Henry Welch
TB Paediatrician, Port Moresby General Hospital, and School of Medicine and Health Sciences, UPNG

Drug-resistant tuberculosis (DRTB) remains problematic in PNG. Cases of DRTB have been reported in several provinces. Guidelines to treatment for DRTB have also changed. In this presentation, we will discuss 1. When to suspect and diagnose DRTB; 2. Updated treatment guidelines; 3. How to monitor children on treatment; and 4. How to order drugs to your province

Drug-sensitive tuberculosis (DSTB)

Dr Vela Solomon
TB Paediatrician, Port Moresby General Hospital, and School of Medicine and Health Sciences, UPNG

PNG is one of WHO's list of High Burden Countries for tuberculosis (TB), TB-HIV, and Drug Resistant-TB (DR-TB) (WHO, 2018). Nearly 30,000 people are diagnosed with TB in PNG each year, with 27% of reported cases occurring in children. For this presentation, recent updates in child TB and which, if any, can be adapted to PNG. Included in the discussion will be the use of diagnostics (Xpert) in child TB, including on stool specimens. We will also discuss advances in TB Preventive Therapy (TPT). Previously, 6 months of daily INH (IPT) was used to treat TB infection. Additional options now include 3 months of rifampicin-isoniazid (3RH) as well as weekly isoniazid-rifapentine (3HP) for children over 2 years of age. Finally, a discuss about treatment duration will be discussed regarding shortening treatment duration to 4 months for DSTB.

Asthma, and the potential for using peak-expiratory flow to aid diagnosis and monitoring

Dr Philip Taylor
Red Cross, Port Moresby

I am a family doctor (GP) who trained in a context (United Kingdom) where asthma is the most common long-term condition among children and young people (1) with 1.1 million children currently receiving asthma treatment. Asthma continues to be among the top 10 causes of emergency hospital admission for children and young people in the UK.

This talk is inspired by the observation that preventive treatment with inhaled corticosteroids for asthma appears to be used uncommonly in PNG, despite being the mainstay of management of this chronic disease in various international guidelines (2). Some of the available literature, limited and now relatively historic, points to asthma being more problematic for PNG adults than it is for children.(2) This raises questions about the current prevalence of asthma in PNG's children and why there may be such a stark difference between populations, and approaches to treatment.

As PNG continues its epidemiological transition, with a rapidly growing urban population, it seems likely that the burden of asthma will increase (along with other atopic conditions). Could asthma

already be underdiagnosed or misdiagnosed, despite its potential to drive more familiar disease states such as pneumonia and failure to thrive?

Measurement of FEV1 and FVC with spirometry is the pivotal diagnostic test for asthma (although FeNO is emerging as the gold standard in rich countries). Battery powered hand-held devices make this theoretically accessible even in primary care. But where not practicable, simple peak expiratory flow may assist the detection and management of asthma.

After a brief review of the mechanisms of disease of this inflammatory disorder, I will give a perspective on how (serial) peak flow measurement may be a helpful adjunct to history taking in diagnosing asthma; how, in it can be useful to monitor the response to treatment; and its role in promoting self-management and early escalation of treatment, particularly in those who get poor symptomatic warning of deteriorating lung function.

Lastly, I will share the principles – derived from a resource-rich setting - of step-up/step-down management, which seeks to prevent exacerbations while minimising the risk of serious and irreversible harm of oral corticosteroids.

References

1. Ferrante G, La Grutta S. (2018). The Burden of Olatunde Asthma. Frontiers in Pediatrics, 6, 186.

2. Global Initiative for Asthma
https://ginasthma.org/wp-content/uploads/2021/05/GINA-Main-Report-2021-V2-WMS.pdf

3. Dowse GK, Smith D, Turner KJ, Alpers MP. Prevalence and features of asthma in a sample survey of urban Goroka, Papua New Guinea. Clin. Allergy. Sep;15(5):429-38 (1985)

Malaria and other vector-borne diseases

Dr Moses Laman
Deputy Director, Papua New Guinea Institute of Medical Research

Vector Borne Diseases such as malaria and lymphatic filariasis (LF) remain significant causes of morbidity and mortality in PNG. Over the past decade, artemisinin-based combination therapies and vector control interventions such as the scale-up of Long-lasting Insecticide Treated Nets (LLIN) have contributed to the reduction of malaria. However, there has been a recent malaria surge since 2015. Our recent study identified decreased bio-efficacy of LLIN as a contributing factor, creating global scrutiny in the way LLINs are being manufactured in recent years to cut cost. Therapeutic Efficacy Studies of artemisinin resistance suggest no clinically significant treatment failures to date despite a number of artemisinin resistant mutations being identified. Feasibility studies investigating radical cure of vivax malaria using a higher dose of primaquine and trials investigating the use of Dihydroartemisinin-piperaquine for the prevention of malaria in pregnancy are ongoing. Additionally, LF studies conducted in PNG have resulted in a major local and global impact. The triple drug therapy (ivermectin, albendazole and diethylcarbamazine) is efficacious, safe, effective and an acceptable regimen that can be used to accelerate efforts to eliminate LF in endemic countries. Based on this body of work, Provincial Health Authorities (PHA) in provinces such as ENB have begun LF elimination efforts using the triple drug therapy. In the first round of the ENB PHA-led Mass Drug Administration (MDA) campaign, over 300,000 individuals were treated. We conducted monitoring and evaluation in 50 sentinel sites in ENB as part of this elimination efforts. Globally, WHO guidelines for MDA have been changed to the triple drug regimen for use in LF endemic countries outside of sub-Saharan Africa and the drug company Merck Inc. has increased their donation of ivermectin to

100 million additional doses per year for the next 7 years to support the rollout of the triple drug therapy in LF endemic countries. A summary of these studies of malaria and LF and their impact will be presented.

A cluster of paediatric blood stream infection with *Salmonella typhi* in Goroka Hospital

Dr Casparia Mond
Paediatrician, Goroka Hospital

Typhoid is endemic in Eastern Highlands Province. Clinical typhoid is one of the top 10 commonest cause of admissions to the Goroka Hospital Paediatric Ward in the last 2 years. Typhoid has been a common reason for presentations to the hospital and the children's outpatient clinic in Goroka. Between January and April 2022, 18 children admitted to the paediatric ward with clinical typhoid. Several were quite sick with typhoid psychosis. These 18 blood cultures grew salmonella typhi or salmonella species. Surprisingly, almost all these isolates were susceptible to ampicillin, cotrimoxazole (septrin), and chloramphenicol, and this enabled us to reduce our use of ceftriaxone or ciprofloxacin for the treatment of severe typhoid. We will share our typhoid experience.

Rheumatic heart disease in Papua New Guinea

Dr Diana Olita'a
Paediatrician, Port Moresby General Hospital

Rheumatic heart disease (RHD), the major long-term consequence of acute rheumatic fever (ARF), is by far the most important form of acquired heart disease in children and young adults living in developing countries. Patients with advanced RHD face high rates of mortality and morbidity. Morbidity relates to the development of complications such as heart failure, atrial fibrillation, stroke, recurrent carditis and infective endocarditis.

In our setting, most patients upon first presentation to the health facilities have advanced disease with heart failure as a common complication. This would suggest that the diagnosis of ARF is frequently missed, with the initial or recurrent insults being subclinical or not detected. With early detection of mild, asymptomatic RHD, secondary prophylaxis can prevent progression of the disease.

Screening programs using echocardiography to detect asymptomatic ARF and RHD cases can be an effective way to reduce morbidity and mortality from chronic RHD in our resource limited setting.

Current status of routine immunization, and strategies to improve coverage

Dr Satish Gupta
Chief Health, UNICEF Papua New Guinea

The routine immunization coverage has been stagnant in PNG for last several years. There are challenges in terms of supply, demand and health system. Immunization program has also become complex over the years with addition of newer vaccines and cold chain requirements. Community

acceptance is also posing a challenge. This presentation will discuss current immunization system, challenges, and strategies to improve immunization coverage in the country.

Update on the polio situation post-outbreak response and what is needed to prevent recurrence

Dr Deborah Bettles
World Health Organization

The polio outbreak in PNG in 2018 was brought to a close by early 2019 and the last polio case was detected in October 2018. Since then, no disease-causing polio virus has been detected in PNG. While this was a great achievement, there remains a risk for recurrent outbreak in PNG. This presentation will give a brief update on the current status of AFP surveillance and Routine Immunization and what needs to be done in these areas to ensure children of PNG remain free from the threat of polio virus.

Update on the measles situation in Papua New Guinea – what is the risk for outbreak in the future?

Ms Martha Pogo
Acting-manager, EPI, National Department of Health

The COVID-19 pandemic has put stress on Routine Immunization programs around the world, hindering the ability to raise or even maintain childhood vaccination rates in most countries. PNG is no exception, having MR antigen coverage less than 50%. What are the implications of low measles vaccination coverage and what can be done to lesson risk of a large measles outbreak in PNG? This presentation reviews the current situation and plans for prevention of a measles outbreak.

The Paediatric Hospital Reporting Program 2021

Mr Edilson Yano and Prof Trevor Duke

We will discuss the latest version of the PHR V12.2, and the data from 2021. This includes over 29,000 admissions from 18 hospitals participating in 2021. There have been sustained overall improvements in death rates, with stable improvements in survival of children with severe malnutrition, and further progress in the outcome of very low birth weight babies. Some outcomes have remained static or worsened in 2021, including the case fatality rates for pneumonia. As COVID-19 testing has not been done by many hospitals, it is possible that COVID-19 respiratory infections, or delays in health care seeking, disruptions to quality of care, or the significant toll the pandemic has taken on health care workers are factors in the slight rise in severe pneumonia deaths in 2021. The PHR has been adapted to recent trends, including more detail on congenital malformations, MDR-TB, COVID-19, and chronic conditions of childhood. V12 also has a maternal component, which hopefully will be used by Obstetric Units in the future. It is now a stable program, and further soft-ware changes will be minimal in the next 5 years. By implementing the Child and Adolescent Health Plan, and quality improvement strategies, we will see further improvements in outcomes, and these can be tracked by the PHR.

Child quality improvement programs - the experience in Mt Hagen

Dr Ian Kintwa
Paediatrician, Mt Hagen General Hospital

Dr Paulus Ripa
Director of Quality and Research, Mt Hagen General Hospital and Western Highlands Provincial Health Authority

Child Quality Improvement Programs are vital in improving quality of any general endeavor.

Programs currently being done include

- Weekly death reviews
- Monthly audit presentations
- Monthly perinatal meetings
- Monthly RCA meetings if deaths need to be discussed with other specialist teams (surgery etc.) or with the referring health facilities
- Preparing quarterly audit reports
- Monthly clinical governance meetings
- Proper communication and cooperation with our partners such as UNICEF and Susu mama urban clinic
- Malnutrition, HIV and Kangaroo mother care programs
- Encouraging staff to go for workshops and training, i.e. Malnutrition training conducted in conjunction with UNICEF
- Continuous medical education for all staff x 3 sessions per week
- Organizing ward into compartments. i.e. Acute beds, malnutrition beds, chronic beds, recovery beds etc.
- Maintaining the stock of essential medical consumables as best as possible thanks to our hospital management
- Daily medical ward rounds, weekend rounds and night cover as per roster
- etc.

This presentation basically discusses the Child quality programs - The experience in Mt Hagen from January to March 2022. What benefits are currently being reaped from these programs and possible ways forward along with statistics over the first 3 months of 2022.

COVID-19 in children, the Papua New Guinea experience

Dr Rupert Marcus, Dr Beryl Vetuna, and Dr Ian Kintwa
Port Moresby General Hospital, Nonga Base Hospital, Mt Hagen General Hospital

Presenters from select centres throughout Papua New Guinea will provide reports on cases and experiences of managing COVID-19 in children. This presentation also delves into the specific issues faced by the paediatric departments and the recommendations to these. This is to be followed by discussion and recommendations on management of COVID-19. A standard treatment protocol for COVID-19 in children will also be discussed by all.

Day 3, Wednesday June 8th

0750-0800	Prayer	
Session 7	**Social and community paediatrics I**	**Chair: Dr Francis Pulsan and Dr Mary Baki**
0800-0820	Social and community child health – the paediatricians' role	Dr Mary Paiva
0820-0840	Improving community health services for children in urban areas – the experience in Gerehu and NCD	Dr Fiona Kupe
0840-0900	Improving community health services for children in rural areas – the experience in Milne Bay Province	Dr Gilchrist Oswyn
0900-0920	Child abuse and the role of social workers in PNG hospitals	Ms Francisca Vangun
0920-0940	National training modules for Child Welfare Services and Protection	Mr Sebastian Robert Ms Fred Walai Sui
0940-1000	Child protection and domestic violence – what can paediatricians do? Child sexual abuse and the role of O&G Society	Dr Allanie Rero Dr Mary Paiva Dr Mary Bagita
1000-1030	**Tea break**	
Session 8	**Social and community paediatrics II**	**Chair: Dr Doreen Panauwe and Dr Joseph Ande**
1030-1100	Disability services in the community	Dr Beryl Vetuna
1100-1130	Child and adolescent mental health	Dr Monica Hagali
1130-1200	Adolescent health	Dr Mary Paiva
1200-1230	Paediatric palliative care	Dr Villa Watch
1230-1330	**Lunch**	
Session 9 1330-1500	**Practical sessions (1.5 hours):** • Echocardiography • Paediatric ultrasound • CT interpretation • Giving chemotherapy	Dr Kilalang (cardiology) Dr Mamba (radiologist) Dr Clement (radiologist) Dr Anga (oncology)
1500-1530	Tea break	
1530-1700	**Paediatric Society of PNG AGM 2019**	Dr James Amini and Paediatric Society Executive

* Dr Madeline Salva, Reproductive Maternal Neonatal Child & Adolescent Health Medical Officer at WHO may be available on Wednesday and may give a virtual address (by Zoom).

Social and community child health – the paediatrician's role

Dr Mary Paiva
Paediatrician, Buka Hospital

Child Health in PNG stands at a turning point: today's health challenges are chronic, complex, and connected, but health services are ill-equipped. Given the well-established epidemiological literature which shows that health status in PNG is heavily determined by social factors, the profession is now forced to realign itself. What role should paediatricians play in the health systems of the future? What extended role should paediatricians play in the health of the communities we serve? How might the application of a 'social lens' and development of 'social and community child health' help the profession to reconsider its roles and responsibilities?

This presentation represents a first attempt to respond to these questions. Using child poverty and education as examples of how socially conscious practice can broaden child health interventions for both the individual and wider population, it lays the ground for further work, which is both timely and necessary if paediatricians are to be properly empowered and equipped to deal with child health in the 21st century.

Improving community health services for children in urban areas - experience in Gerehu and the National Capital District

Dr Fiona Kupe
Provincial Paediatric Clinical Coordinator – NCD Provincial Health Authority

The World Health Organization defines Community Health as "The environmental, social and economic resources to sustain emotional and physical well-being among people in ways that advance their aspirations and satisfy their needs in their unique environment."

The rapid urbanization of the 20th century reflects changes in global political, economic, and social forces thus the health of urban populations has changed as cities have evolved. It is imperative to understand how urban living affects population health.

The presentation discusses Community Health Services in Port Moresby, NCD, the key determinants of health in the space of urban settings and what can be done at different levels to improve child health.

Improving community health services for children in rural areas - the experience in Milne Bay Province

Dr Gilchrist Oswyn
Paediatrician and SSMO Physician Public Health, Milne Bay Provincial Health Authority

As Paediatrician involved in public health, how do we maintain priority for child health services in the provinces for rural areas? Public Health Divisions have defined programs in Family health, environmental health, disease control, health promotion, oral health and has direct links to curative and district health services.

The last couple of years has seen heightened response to polio outbreak and soon after with covid 19 pandemic. The resource burdens were further challenged in all above routine programs.

This paper hopes to share MBP experiences and suggestions and hope to deliberate discussion on the question of how to maintain priorities for child health in community and rural areas.

Child abuse and the role of social workers in Papua New Guinea hospitals

Ms Francisca Vangun
Social Services Department, Port Moresby General Hospital

This presentation will define what a hospital worker is. It will highlight the roles, responsibilities, and capabilities of a social worker in a medical setting, despite level and introduce the Medical Social Work Classification System which is currently in use in Port Moresby General Hospital.

It will discuss and compare data dating back to 2018 to 2021 on the different cases seen and the interventions with and through which they were managed. Possible suspected causes of data fluctuations will be mentioned with room for further discussion.

Under the Medical Social Work Classification System, you will be able to see how child abuse cases which come through the hospital are identified and managed. It will make mention of different laws and particular sections of those laws, regulations and policies which aid that management. Essential service providers and referral pathways will be made mention off as well.

Challenges faced in the management of child abuse cases and recommendations for improvement will also be highlighted. This presentation will enable you to see the significance of a hospital Social Worker and the impact they have in the holistic recovery of child patients.

Child protection and domestic violence – what can paediatricians do?

Dr Allanie Rero
Paediatrician, Milne Bay Provincial Health Authority

Child protection refers to any action that aims to prevent, protect, and respond to violence, exploitation, and abuse against children.

Global estimates suggests that more than half (1 billion) of the world's children aged 2-17 years experienced physical, sexual, or emotional abuse.

Violence against children was already at pandemic proportions before the outbreak of Covid 19. The pandemic threatens to exacerbate the risk of violence against children, particularly girls, poor children, children with disabilities and those in fragile context.

So as paediatricians, we need to increase awareness, establish appropriate channels of dealing with child protection, improve child protection policies and critically advocate for the implementation of these policies.

Disability services in the community

Dr Beryl Vetuna
Paediatrician SSMO, Nonga Base Hospital
Deputy Chief Paediatrician, New Guinea Islands

PNG's national disability policy emphasises the protection of human rights, inclusiveness, barrier free services and partnerships for an estimated 1 million people with disabilities (PWD) living in PNG. An estimated 5% of children in PNG have a disability (CWD) although there is little data on exact numbers. Most PWD and CWD live in rural areas with ~2% being able to access support services such as community-based rehabilitation and special education resource centres.

In PNG illnesses causing disability are common and include meningitis, birth asphyxia, tuberculous meningitis, trauma, and prematurity/low birth weight. These illnesses may result in cerebral palsy, the most common physical disability in childhood, blindness, deafness, intellectual problems, and epilepsy. Health consequences include malnutrition, increased risk of pneumonia, skin problems and dental decay. In addition to direct health consequences children with disabilities are vulnerable to socio-economic exclusion and disadvantage. It has been estimated that more than 90% of children with disabilities in developing countries do not attend school. Children with disabilities are also at increased risk of abuse and neglect. For example, the annual incidence of violence experienced by children with disabilities in some countries is several times greater than the rate experienced by children without disabilities. Despite the extent of these problems, research into the situation of children with disabilities in PNG is limited.

Having access to appropriate support services can help in detection and treatment of issues such as pain, growth, and development problems, learning difficulties, illnesses, time off from work for parents/guardians, and other serious health problems. These support services include developmental monitoring and screening, physical therapy, hearing and vision services, speech therapy, occupational therapy, nutrition, and orthopaedic services.

The presentation aims to look at what services we have available locally, and at how we can improve access of children with disability to these services.

Child and adolescent mental health

Dr Monica Hagali
Chief Psychiatrist, National Department of Health.
Child and Adolescent Psychiatrist and Clinical Coordinator Psychiatry, Port Moresby General Hospital

Mental Health is defined as a state of well-being in which a person realizes his or her abilities, can cope with normal stresses of life, can work productively and fruitfully and is able to contribute to his or her community (WHO). Mental health is an important part of the overall health and well-being. Physical Health and Mental Health interact with each other, they are inseparable. Mental health or well-being in children and adolescents is about the child reaching the normal development and emotional milestones and learning healthy social skills, learning how to cope, staying resilient when there are problems. Mental Health Problems are more likely to emerge in late childhood and early adolescents. Developmental disorders an important group of disorders that affect both the physical and mental well-being can be detected early. Mental Health in children and adolescents is shaped by many factors across different domains that include health, environment, sociocultural, economic,

and neighbourhoods. To attain mental health or mental well-being, health promotion, mental health promotion and mental illness prevention strategies and prompt treatment of mental illness in children becomes crucial.

Adolescent health

Dr Mary Paiva
Paediatrician, Buka hospital

Adolescence is a relatively new concept in 21st century Papua New Guinea. Traditionally, a person was a child until an initiation marked their transition into adulthood. This period of growth and development as we know happens over several years and stages of a child's life. WHO defines the age of 'adolescence' as from 10 to 19 years. As young children transition through life into becoming responsible, healthy, and wholesome adults, they need careful care and attention to their health and general well-being by those in positions of authority. And more so, adolescents require dedicated and accessible spaces in health and education systems that are free from judgment, fear, and stigma.

Adolescents make up almost a quarter of PNG population (22.5%), and yet are one of the most overlooked groups of people in terms of healthcare access. Prevalent health needs of adolescents are well documented. A paradigm shift in the service delivery for adolescent health and well-being is what is needed from all sectors of society to improve and advance the health status of adolescents in PNG.

Perspectives of parents and health workers on Paediatric Palliative Care in Port Moresby General Hospital, Papua New Guinea

Dr Villa Watch
Paediatric Unit, Port Moresby General Hospital

Paediatric palliative care as defined by the World Health Organization involves the child's body, mind and spirit, but also involves supporting the family. Palliative Care starts from diagnosis and continues whether child is receiving curative treatment or not. As clinicians, identifying and relieving the child's physical, psychosocial, and spiritual distress is imperative.

This study aims to identify the characteristics of children admitted to the Paediatric Ward of the Port Moresby General Hospital with palliative care needs and how parents and health care workers view the palliative care services provided to these children.

Data will be collected from the child's admission chart and will be analysed using frequency and percentages while in-depth interviews will be carried out on parents and health care workers using semi-structured questionnaires which will be analysed using thematic analysis.

The results will be useful in improving palliative care for children admitted with life-threatening and life-limiting illnesses in our setting.

Day 4, Thursday June 9th

0750-0800	Opening	
Session 10	**Specialty paediatrics and paediatric workforce**	**Chair: Dr Tarcisius Uluk and Dr Edwina Baleo**
0800-0830	Childhood cancer	Dr Gwenda Anga
0830-0900	Cardiology	Dr Cornelia Kilalang
0900-0930	Critical care paediatrics – emergency and acute wards	Dr Rupert Marcus
0930-1000	Workforce needs and projections 2021-2030	Dr James Amini Dr Cornelia Kilalang
1000-1030	**Tea break**	
Session 11	**Training in paediatrics and child health**	**Chair: Dr Gwenda Anga and Prof Trevor Duke**
1030-1100	Post-graduate paediatric training: MMed and DCH, and sub-specialty training	Prof John Vince Prof Trevor Duke
1100-1130	Continuing medical education	Dr Anna Toti Dr Rupert Marcus
1130-1200	How well does the Child Health Nursing program prepare nurses for clinical life at Port Moresby General Hospital	Sr. Merelyne Pindau
1200-1230	Discussion on paediatric and child health training issues • DCH and MMed • CME • Subspecialty training • Child health nurses • HEOs	Prof Nakapi Tefuarani Dr James Amini Prof John Vince Dr Gwenda Anga Sr. Merelyne Pindau Prof Trevor Duke Dr Anna Toti Dr Rupert Marcus
1230-1330	**Lunch**	
Session 12	**Child and adolescent health plan**	**Chairs: Dr Kunera Kiromat and Dr Dale Frank**
1330-1430	Implementation of the Child and adolescent health plan in provinces	Dr Magdalynn Kaupa Dr Jimmy Aipit Dr Doreen Panauwe
1430-1500	**Tea break**	
1500-1700	**Meeting resolutions**	All participants: Dr Martin Saavu, Paediatric Society Secretary
1700	Close of meeting	

Decentralising paediatric cancer care in PNG

Dr Gwenda Anga
Paediatrician, lead of Paediatric Oncology, and coordinator PMGH paediatric services
Port Moresby General Hospital

It is current practice that children needing cancer diagnosis confirmation and treatment be referred to Port Moresby General Hospital. This is where there are specialists in terms of diagnostic services and availability of a wider range of chemotherapy agents.

This practice means that patients and guardians referred will spend, depending on the diagnosis, a period ranging from 3 months to 2 years away from home and their families.

This causes a lot of social and financial stress on families. Studies have also shown that this contributes to treatment abandonment.

We now plan to look at ways in which this service can be decentralized to Provincial Health Authorities.

Thus, will require collaboration from the National Department of Health, Port Moresby General Hospital, Provincial Health Authorities, and our supporting partners.

Update on paediatric cardiology services

Dr Cornelia Kilalang
Port Moresby General Hospital

Heart diseases in children in PNG is relatively small compared to the other major infectious diseases and nutritional health problems. However, heart diseases are an important cause of illness and mortality in infants, a cause for chronic disease in children, with poor quality of life, high rates of hospitalisation and high costs to families and hospitals if left untreated.

Hearts Diseases in children maybe congenital or acquired. Congenital heart disease comprises the largest group.

Rheumatic heart disease, caused by Group A streptococcus infection is also common in PNG. It is the commonest Acquired Heart Disease seen in Children in PNG.

Pericardial disease is mainly infective with tuberculosis the predominant cause.

Management of cardiac disease in children depends on individual cardiac diseases that the children have. Management can be no treatment, conservative management, medical and surgical treatment. Diagnosis, treatment options and outcome are usually discussed with families and carers once confirmation is done on echo.

Over the last decade there has been increasing training and responsibility transferred to the local PNG team, to the extent that in most closed heart operations are performed by the PNG national team.

Emergency care and critical care for children in Papua New Guinea

Dr Rupert Marcus
Children's Emergency Department, Port Moresby General Hospital

As a subset of patients, acutely ill children present a challenge to all working in child health in Papua New Guinea. This group of children demand a certain standardized protocol for proper care which is often lacking in most facilities receiving referrals especially. Thus, this talk highlights some of the reasons for this deficiency in service. And a discussion on key "minimum standards of requirement" for (1) triage, (2) emergency treatment and (3) critical care for children for all paediatric departments will be presented.

Postgraduate training program in child health

Prof John Vince and Prof Trevor Duke
School of Medicine and Health Sciences, University of PNG

The post-graduate paediatric training program has been running since 1979. In that time there have been 93 MMed graduates (80 Papua New Guineans and 13 Pacific Islanders). 44 remain clinicians, 18 are working in hospital or health administration, and some from the early years have retired and others have sadly passed on. Very few MMed graduates have migrated overseas. Clinical paediatricians are now working in all but 5 provinces in PNG. The last decade we have seen 39 Masters graduates. Currently there are 26 trainees in the DCH or Masters program, as many as the MMed graduates we have had in the last 6 years. To achieve at least 2 paediatricians in each province, we need at least 5-6 DCH candidates each year. That will ensure an output of 4 MMed graduates per year, the minimum number to continue to make progress. We will discuss the reasons why some graduates move into administration, the challenges of overseas training, the future which includes higher post-graduate diplomas in priority specialty areas, the need to maintain standards while increasing numbers, and more support for supervisors and mentors in the form of CME and training.

How well does the Child Health Nursing program prepare nurses for clinical life at Port Moresby General Hospital?

Sr Merelyne Pindau
Paediatric Nurse, Port Moresby General Hospital

Child health nursing is all to do with the care of children who are sick as well as well and healthy children.

In the General Nursing Certificate and Diploma programs basics about nursing are being taught. While they are out in the field practicing, they seem to develop their interest in the different disciplines. And taking up Paediatrics is one's choice.

While at the School of Medicine and Health Sciences in the Nursing division, the Child Health strand is being taught. There are 8 domains being taught in this strand. What needs to be integrated into this domain are as below.

1. PICU

2. PUBLIC HEALTH (TB/MALNUTRITION) NEW PEDIATRIC TB RX PROTOCOLS
3. HIV/AIDS
4. AUDIT/RESEARCH
5. NEONATAL NURSING
6. EMERGENCY NURSING
7. PEDIATRIC ONCOLOGY
8. PEDIATRIC CARDIAC NURSING

Recommendations are made each year at the end of the degree program. However, nothing much has been done to date.

Continuing Medical Education – experience in Port Moresby and beyond

Dr Anna Toti and Dr Rupert Marcus
Port Moresby General Hospital

Continuing medical education (CME) is an important tool for all health workers. Child health services in Papua New Guinea need to integrate CME into the routine activities of the department in each respective facility. This short talk on CME is a reflection on experiences of the presenters on running and organizing CMEs and the benefits of such activities for child health services.