

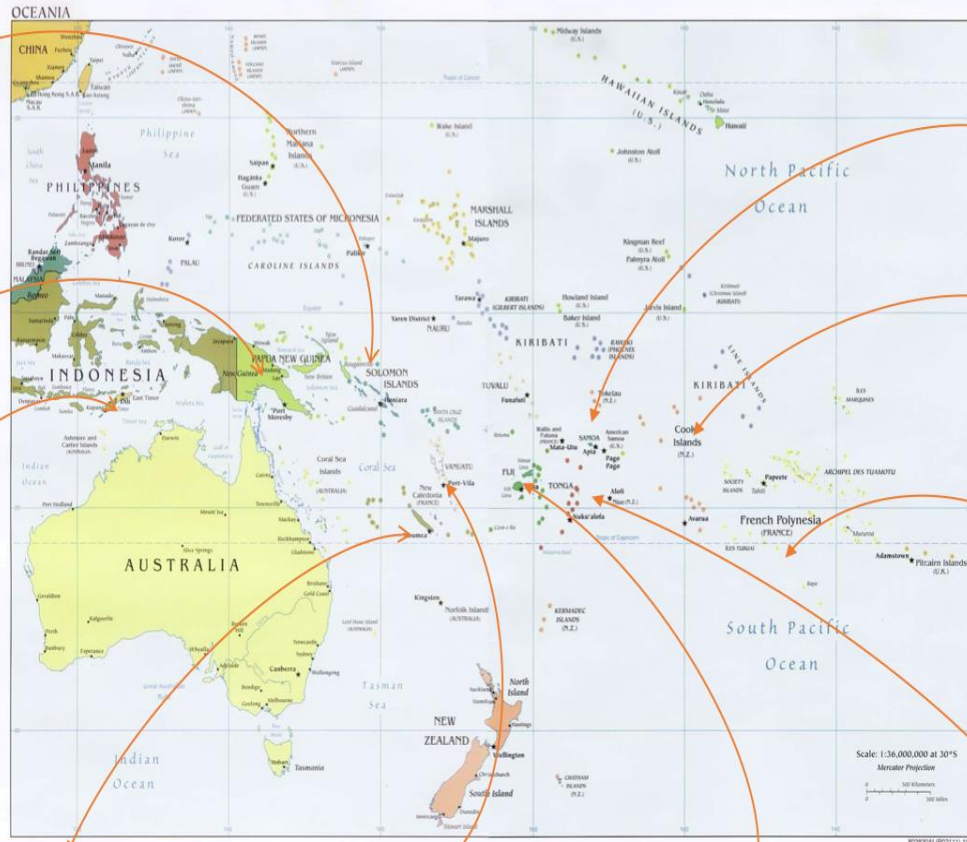


*Better Health*

# CHILDHOOD CANCER

GWENDA ANGA  
PEDIATRICIAN- ONCOLOGY  
PMGH

# Childhood Cancer in Oceania and the Pacific



**Solomon Islands**  
 Pop 523k  
 Area; 28k km<sup>2</sup>, islands 138  
 GDP: \$1553 Health 3%  
 Child cancer per year ~30  
 XRT = No  
 PODC -0  
 Survival: unknown

**Papua New Guinea**  
 Pop 8-11m  
 Area; 462k km<sup>2</sup>, islands 126  
 GDP: \$1124, Health 7%  
 Child cancer per year ~600  
 XRT = no  
 PODC level 2  
 Survival: unknown

**Timor Leste**  
 Pop 1.5m  
 Area; 15k km<sup>2</sup>, islands 2  
 GDP: \$3570, Health 4.5%  
 Child cancer per year ~60  
 XRT = no  
 PODC level 1  
 Survival: unknown

**New Caledonia**  
 Pop 256k  
 Area; 12k km<sup>2</sup>, islands ?  
 GDP: \$38000 Health (France)  
 Child cancer per year ~20  
 XRT = Yes (private)  
 PODC - referred to Sydney -4  
 Survival: unknown

**Vanuatu**  
 Pop 256k  
 Area; 12k km<sup>2</sup>, islands 65  
 GDP: \$3036 Health ? %  
 Child cancer per year ~20  
 XRT = No  
 PODC -0  
 Survival: unknown

**Fiji**  
 Pop 900k  
 Area; 18k km<sup>2</sup>, islands 106  
 GDP: \$4083, Health ? %  
 Child cancer per year ~20  
 XRT = No  
 PODC 2  
 Survival: unknown

**Niue, Tokelau, Tuvalu, Kirbas**  
 Pop (combined - 20k  
 GDP: \$1500-3000)  
 Child cancer per year ~2-4  
 XRT = No  
 PODC -0  
 Survival: unknown

**Samoa**  
 Pop 200k  
 Area; 2.8k km<sup>2</sup>, islands 10  
 GDP: \$3451, Health ? %  
 Child cancer per year ~10  
 XRT = No  
 PODC 1  
 Survival: unknown

**Cook Islands**  
 Pop 20k  
 Area; 240k km<sup>2</sup>, islands 10  
 GDP: \$9100, Health NZ%  
 Child cancer per year ~2-4  
 XRT = No  
 PODC - NZ = 4  
 Survival: >80%

**French Polynesia**  
 Pop 270k  
 Area; 4.1k km<sup>2</sup>, islands ?  
 GDP: \$27000 Health (France)  
 Child cancer per year ~10  
 XRT = Yes (private)  
 PODC - referred to Paris -4  
 Survival: >80%

**Tonga**  
 Pop 103k  
 Area; 2.8k km<sup>2</sup>, islands 36  
 GDP: \$4220, Health ? %  
 Child cancer per year ~10  
 XRT = No  
 PODC 1  
 Survival: unknown

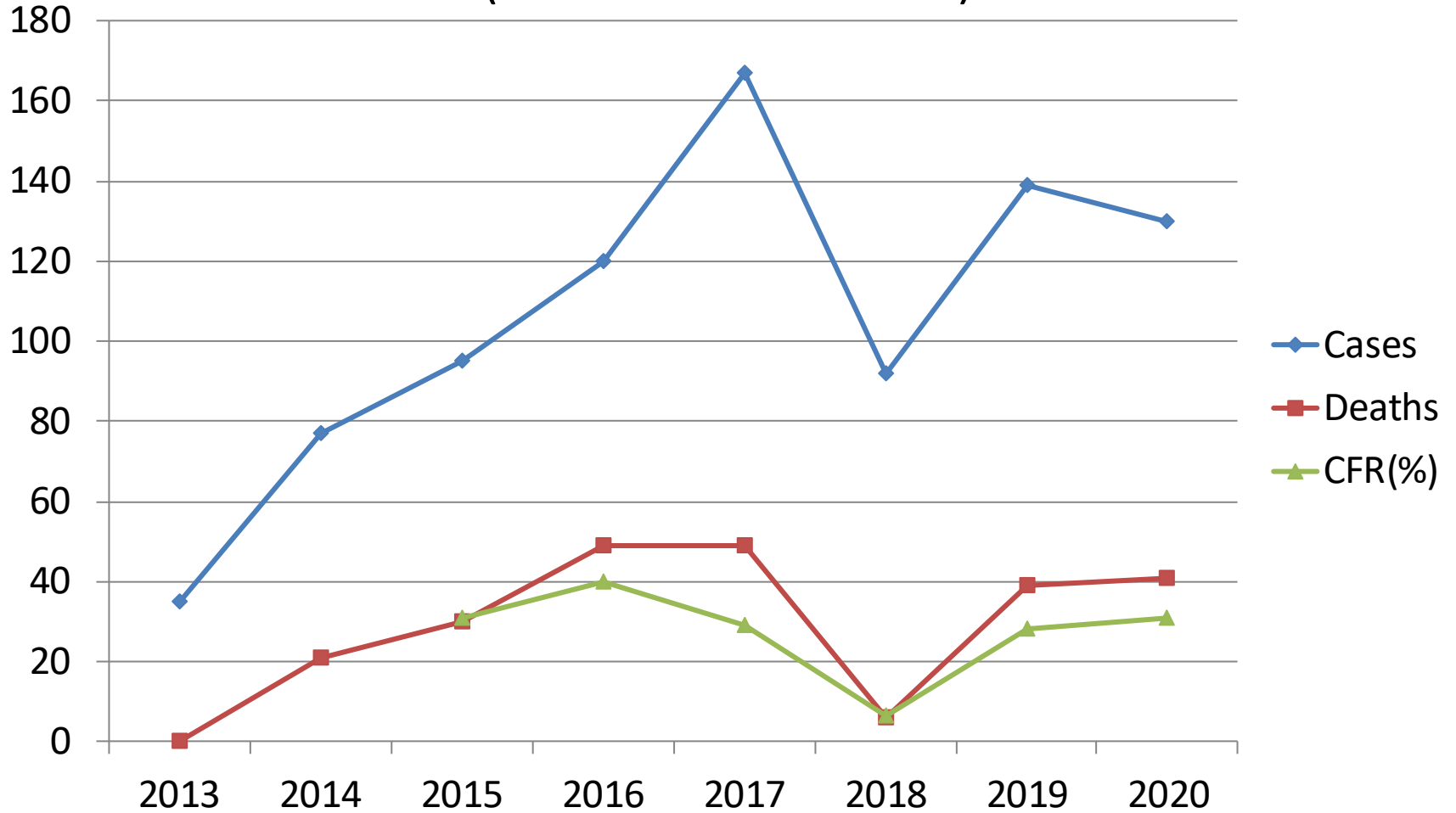
# INCIDENCE

- Each year -400 000 children develop cancer.
- 1 in 6500 children and adolescents
- PNG: 0- 15 years : 3 365 483
- 517 children per year with cancer.

Source:- Ries et al., 2002- Epidemiology of childhood cancer PubMed  
- PNG Demographics

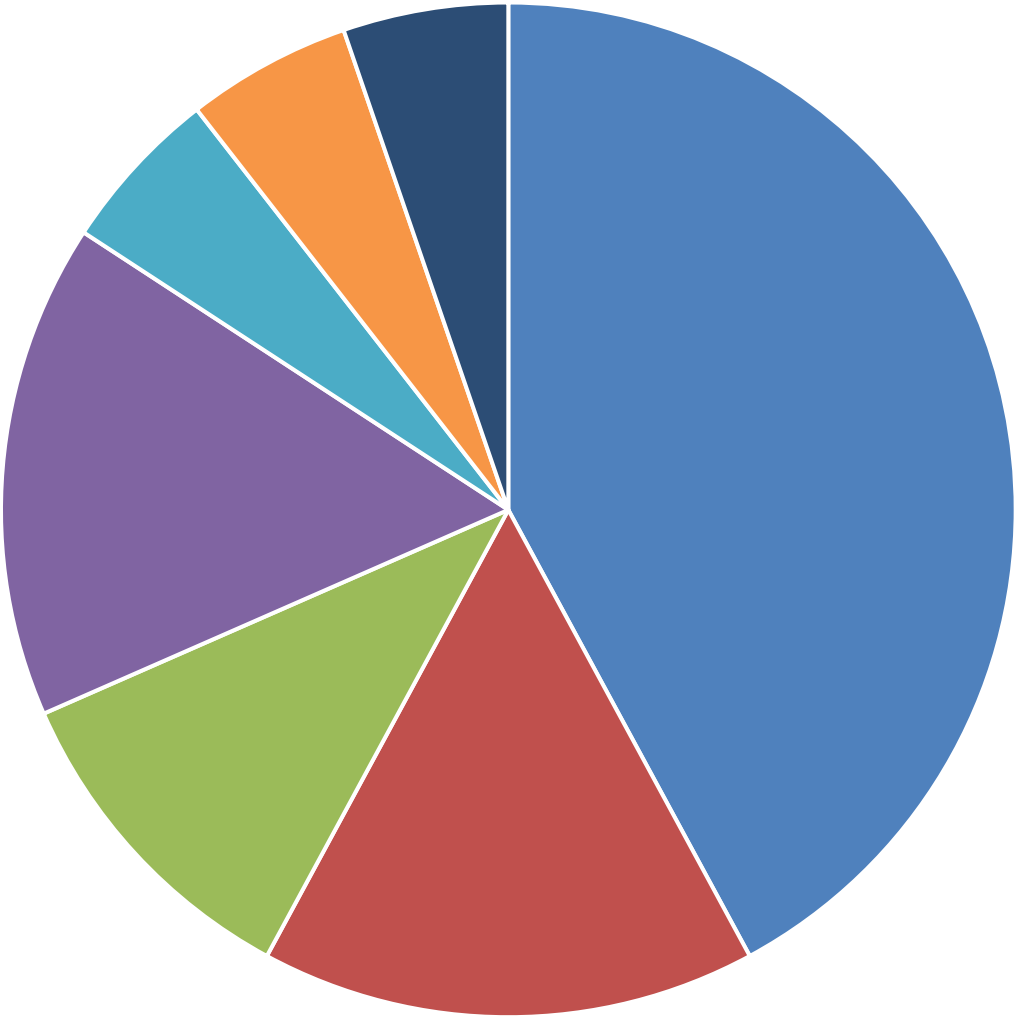
# PNG childhood cancer statistics

( PNG PHR 2013-2020)



ORIGIN%

- 60% REFERRED FROM PHAS
- 40 % FROM NCD AND CENTRAL



■ NCD ■ NIP ■ AROB ■ WHP ■ ESP ■ MENDI ■ MADANG

Hospital	Personel resp for chemo	Conditions treatable	# of Pts in 2021	Drugs available	Challenges	Comments
PMGH	Chemo nurse	ALL Retinoblastoma Burkitt Lymphoma Wilms GCT Lymphomas (NHL/HD) Sarcomas Histiocytosis	60	Most in WHO list except Asperiginase, Ifosphamide	Delayed dx Unavailability of reagents for tests Inconsistent drug supply Social support for families Palliative care	
Buka	SMO	RMS Retinoblastoma Wilms	1	Vincristine Cyclophosphamide	Chemo drug supply Lab Support	Can administer chemo post-surgery.
Goroka	SMO/MO	Retinoblastoma Rhabdomyosarcoma( after surgery)	4	Vincristine Cyclophosphamide Doxorubicin Etoposide( 1 off) Carboplatin ( nil stock after expired)	Lab support Chemo supply	
Nonga	SMO	Wilms Lymphoma RMS Leukemia (Maintenance phase)	6	Cyclophosphamide Vincristine Methotrexate oral Prednisolone	Lab support Chemotherapy supply	X2 LTFU patients
WHPPHA	SMO	Leukemia( maintenance phase)	10	No chemotherapy agents currently	Diagnostic services	
Wewak	SMO	Retinoblastoma Wilms ALL maintenance phase	4	Oral methotrexate	No other chemotherapy drugs Only able to do Hb in lab Xray only	

# Barriers to adequate cancer care in children

- Late presentations and delayed diagnosis
- Lack of diagnostic facilities and manpower.
- Unavailability of drugs for chemotherapy, palliative care
- Lack of supportive care and facilities: nutrition, blood products.
- Poor social support of patients and their families during treatment
- Limited ward space for children needing referral.
- No data base.
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# Recommendations

- **Immediate**
  - Awareness
  - Diagnostic services: telemedicine/ pathways for specimen/slides etc. to be sent overseas.
  - Strengthening MDMs.
  - Standardized paediatric cancer protocols ( PNGPS website)
  - Training – medical- registrar rotation 3- 6 months
    - nurses : safe preparation/ administration of chemotherapy
- **Ongoing**
  - Ensure constant supply of all cancer drugs per WHO essential drug list
  - Training and support for palliative care
  - Social support for families ( Parent support Groups)
  - Establish or strengthen twinning with well set up cancer centres
  - Training Medical- Higher diploma in paediatric oncology
    - Nurses : safe preparation/ administration of chemotherapy
    - pharmacists, social workers, nutritionists.
  - Cancer registry.



# Plans

- Monthly Cancer CMEs ( 3<sup>rd</sup> Thursday of each month – 12pm-1pm)
- MDT meetings fortnightly – to discuss cases.
- Nov 14 – 18 run a workshop on childhood cancers for nurses and Drs . ( SIOP – Oceania)
- Registry/ PHR

# What's Next

30 June 2022

RN Jayne Harrison

Chemotherapy Overview and Practicalities





Thank you