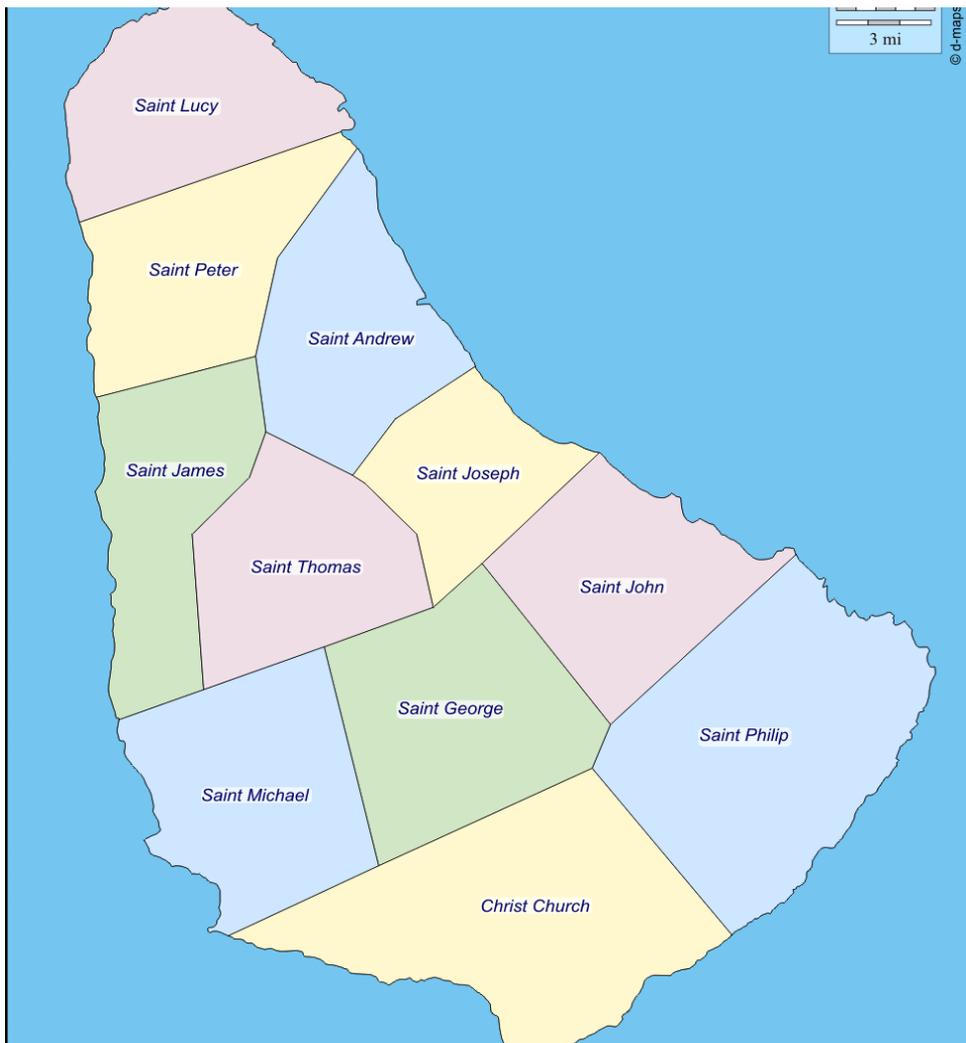


Barbados: Paediatric Cancer Care Organization and Governance

Dr. Cheryl Alexis





Facts

- Geographic location: 13° 10'N, 59° 32'W
- Size: 430 km², 97 km coastline
- Population size: 293,131 (July 2016 est.); 0-14 years: 17.8% (male 26,084/female 26,093), 15-24 years: 12.53% (male 18,236/female 18,477)(2019 est.)
- Ethnicity: Black 92.4%, white 2.7%, mixed 3.1%, East Indian 1.3%, other 0.2%, unspecified 0.2% (2018 est.)
- 11.6 births/1,000 population (2018 est.); population growth 0.26% (2018 est)

Health

- ❖ Expenditure: 7% of GDP (2019)
- ❖ GDP per capita 17,758 US (2018); 157/196
- ❖ Hospital bed density: 5.8 beds/1,000 population (2012)

Policy

National Cancer Control Programme (draft agenda)

- Prevention
- Early Detection
- Diagnosis and Treatment
- Palliative Care

National cancer control plan and partnership

Rapid cancer action plan 2015:

- o HPV vaccine uptake
- o National cancer screening program (prostate, colorectal, cervical, breast)
- o Palliative care for the public sector
- o Continue work of tobacco reform (policy ratification)
- o Develop “Cancer Control Barbados” (plan and partnership)

Other stakeholders

- Barbados Cancer Society support of tobacco prevention and control initiatives, national screening and diagnosis and the National Cancer Plan for Barbados. **Paediatric arm**
- Cancer Support Services – Family and community support including bereavement counselling, palliative care and some primary care screening
- LIONS – community screening and support for annual World Health Day activities
- Others: Rotary, Kiwanis, Sandy Lane Charitable Trust

Generalised Health Spending

2016-2017 (US AID)

- Allocation- 75% - curative care. Treatment at hospitals 30%; Other facilities 42%
- Funding – Government 50.9%; Household 42.6%; Employers(insurance) 5.8%; NGOs and Donors <1%
- Providers – Private medical clinics 39.8%; QEH 27.6%; Polyclinics 5.4%
- Out of pocket spending – private facilities 79%; private hospital 5%; QEH private wing 1%, alternative practitioners 10%
- Diseases consuming the most drugs – CVS 16%; Diabetes 13% other NCD 7%
- QEH expenditure \$88 million (96% government); Cancer – 5%

Financing on childhood cancer

- Socialised medicine
- Cancer care 100% Government funded
- Full access to all Barbadian children
- Limited Medical aids scheme
- Private charities- some assistance
- Shaw Centre for Paediatric Excellence



Organization of Care



Healthcare at QEH

- 600 beds
- 49 pediatric beds: 28 medical; 17 surgical; 4 PICU
- 2 dedicated 'isolation rooms'
- Outpatient beds 7' shared with adults

Service Load

- Average inpatient daily – 2
- Average monthly admissions – 6
- Average daily outpatient – 3
- Annual new cases - 10

Organization of Care

- Referral pattern –established
- Specialist -2 Paediatric Haematologist/Oncologist
- Multidisciplinary specialist care
- Nursing
- Outpatient care mainly
- Inpatient includes 2 ‘isolation rooms” and PICU

Cancer care Human Resources

	Available, works exclusively with PHO service	Available, but not exclusive with PHO service	Moderate availability upon request	Limited availability	Not available
Pediatric hematologist/ oncologist	1	1			
General pediatrician	3				
Senior Registrars	3				
General pediatric residents	5				
PHO-trained nursing staff	3				
Social worker	4				
Pharmacist	2				
Pediatric surgeon	1				
Radiation oncologist	1				

Nursing

- 4 trained paediatric haematology/oncology `
- Inpatient staffing
 - Oncology ratio – 1 nurse: 2 patients
 - PICU ratio – 1 nurse: 1.5 patients
 - Dedicated once patients admitted
- Continuing education points needed for registration – limited local training
- Participate in rounds and grand rounds and meeting with patients
- Nursing policies being drafted

Other Available Medical care

- Facility for cytotoxic preparation
- Availability of blood products
- Laboratory investigations
- 24 hour access to specialists
- Drug access and availability

Stakeholders for Childhood Cancer Care in Barbados

Major stakeholders for childhood cancer with on-going collaboration

- Sickkids Caribbean Initiative (SCI)
- Children's charities
- American Society of Hematology
- Shaw Centre for Paediatric Excellence

Roles in the establishment of childhood cancer programs

SCI

Networking

Capacity building

Charities

- Financial support
- Emotional support

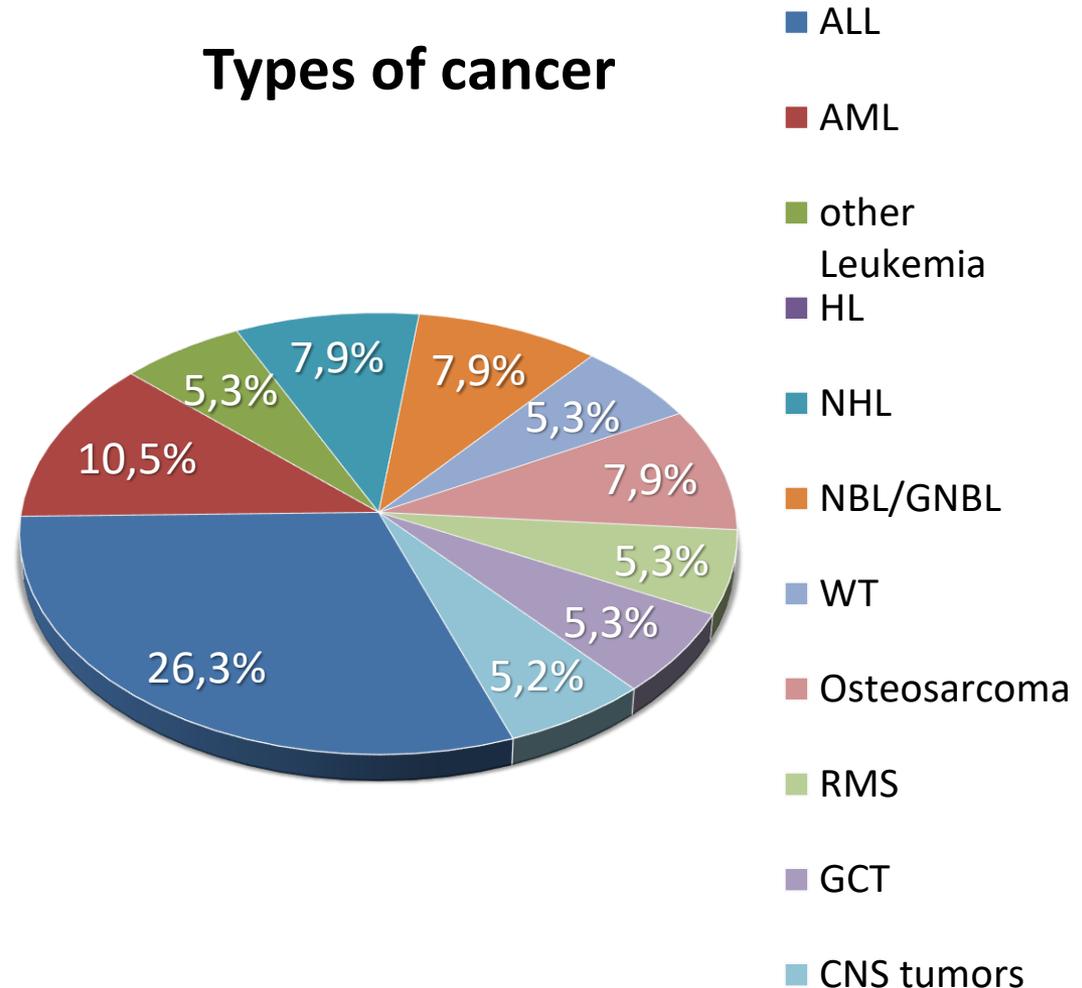
REGISTRY OUTCOMES

Epidemiological Situation of Pediatric Cancer in Barbados

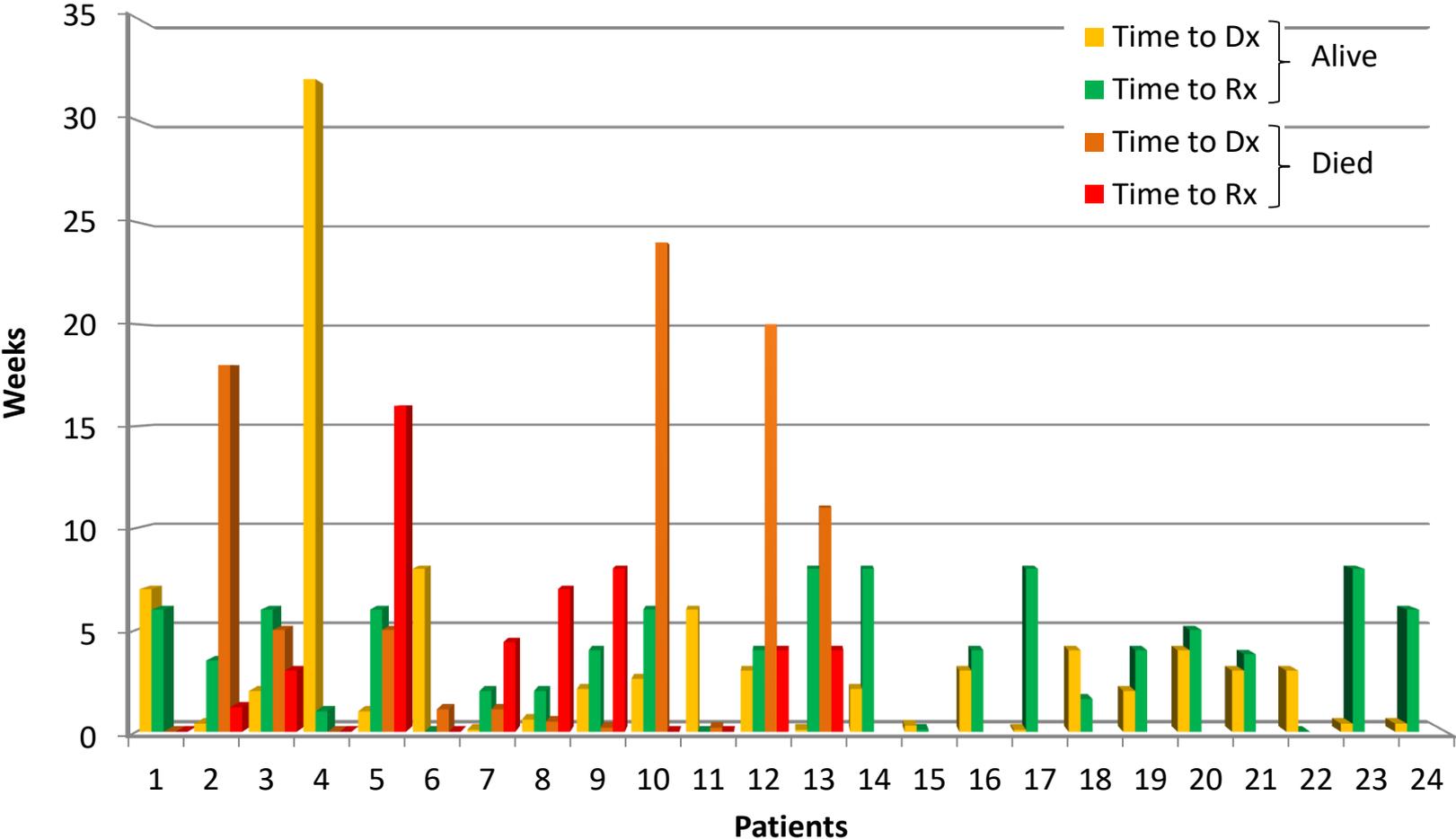
Data from Registry : January 2012-December 2016

- **Incidence** = 16 cases per 100,000 population; age range 6-16 years, median 11 years, M:F =1.1:1
- **Most common cancers:** Leukemias 42%, Lymphomas 10.5% and CNS tumors 5%.
- **Adverse Events:** Relapse rate 40%, Progressive disease 13%, Death 27%, abandonment 7%
- **Mortality rate:** 4 cases per 100,000 population
- 2 year overall survival rate: 69%, 1985-1989: 34%

Types of cancer



Outcomes

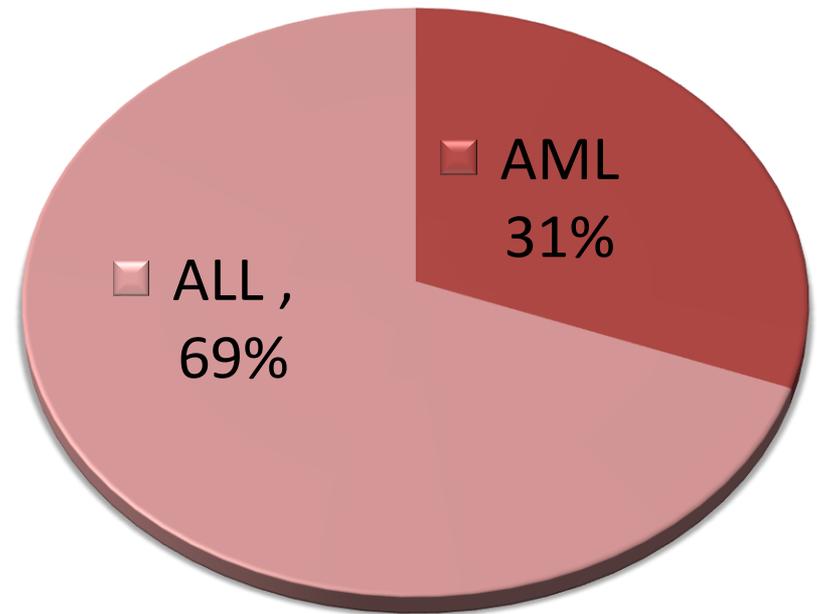


Acute Leukemias

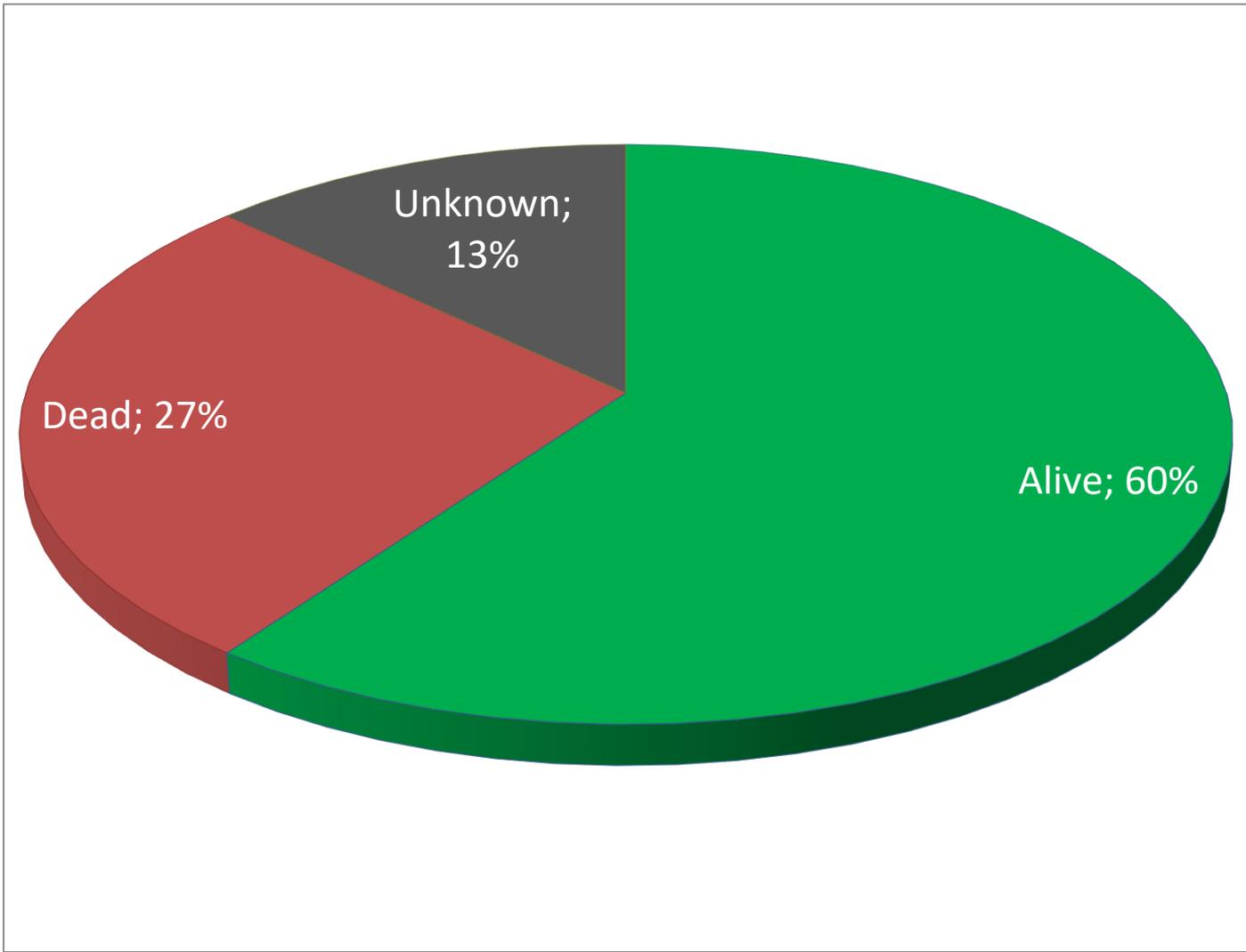
Demographics

- M:F = 1.2:1
- Age Range = 5 - 18 years
- Median age = 10.6 years
- ALL = 10.5 years;
- AML = 10.8 years

Types



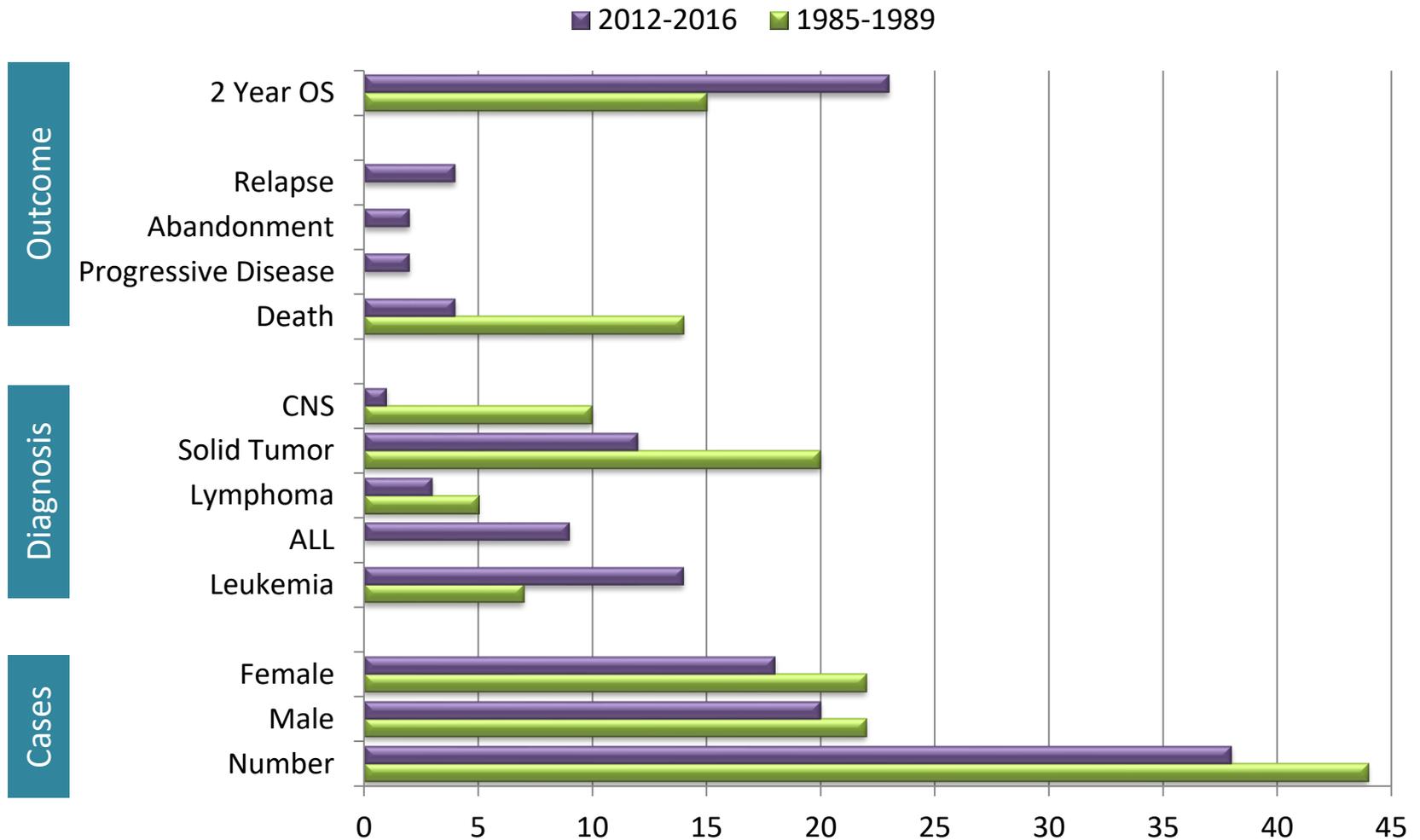
Outcome of the Acute Leukemias



Response to Treatment

- ALL -80% in remission at the end of induction
- AML -20% in remission after induction; 40% died before
- IHC done on 100% - PreB-ALL 77%; T-ALL – 18%
- Cytogenetics done on 56% (ALL); 20% (AML) - T21
- No CNS or testicular disease at presentation

Comparison over decades



Information to date

- Older median age
- Delay in referral time
- Delay in time to treatment
- Relapse rate is 50% of adverse events
- Majority of death after 8 weeks into diagnosis
- Acute myeloid Leukemia, 100% mortality
- No death from infection
- Improved overall survival

Gaps in Care

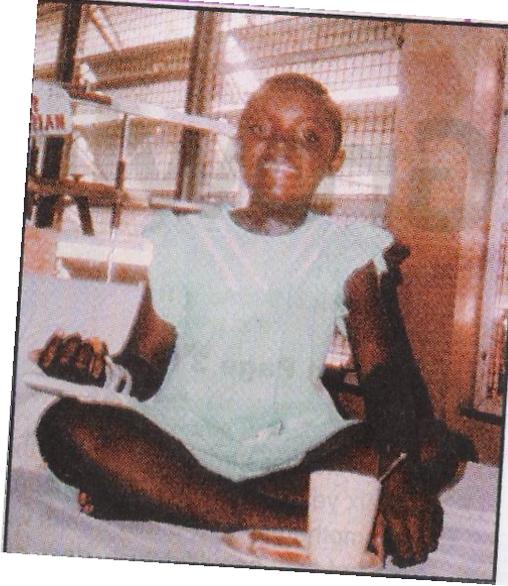
- Obstacles to early diagnosis
 - Delay at Primary level and surgical level
 - Delays in pathology reports
- Staffing - retention
- Psychosocial Support
- Palliative Care
- Limitations :
 - *Diagnostics limited in public sector*
 - *Erratic Drug availability and increased costs*

Needed Support for establishing a childhood cancer program

- Advocacy within the region
- Regional Collaboration in making good healthcare standards similar within the region and in Drug Procurement
- Economics

Conclusions

- No change in incidence of Pediatric cancer in Barbados
- Improvement of survival rate over 2 decades from 34% to 60%
- **Positives:** Registry, access to all to free health care, specialist in the field, positive collaboration with SCI, strong charity support
- **Negatives:** Shortfalls in diagnostic and some therapeutic measures, difficulty with drug procurement, very limited psychosocial support
- **Future:** Advocacy for awareness and financial aid for comprehensive childhood cancer care, Continued capacity building in training, diagnostics and therapeutics, Possible twinning capabilities



“To cure a child with cancer is to save a lifetime.”

THANK YOU

