

Baseline Standards for Providing Pediatric Oncology Nursing Care in Low and Middle Income Countries



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THE SIOP PODC BASELINE STANDARDS TASKFORCE

Presentation Overview



- Pediatric Oncology Survival Gap
- Nursing Challenges
- Development of Standards: Purpose & Process
- Current Work

Childhood Cancer in Developing Countries



- 175,000 children diagnosed with cancer annually
- What percentage of these children live in low-and middle-income countries?
 - 20%
 - 60%
 - 80%

Global Childhood Cancer Distribution

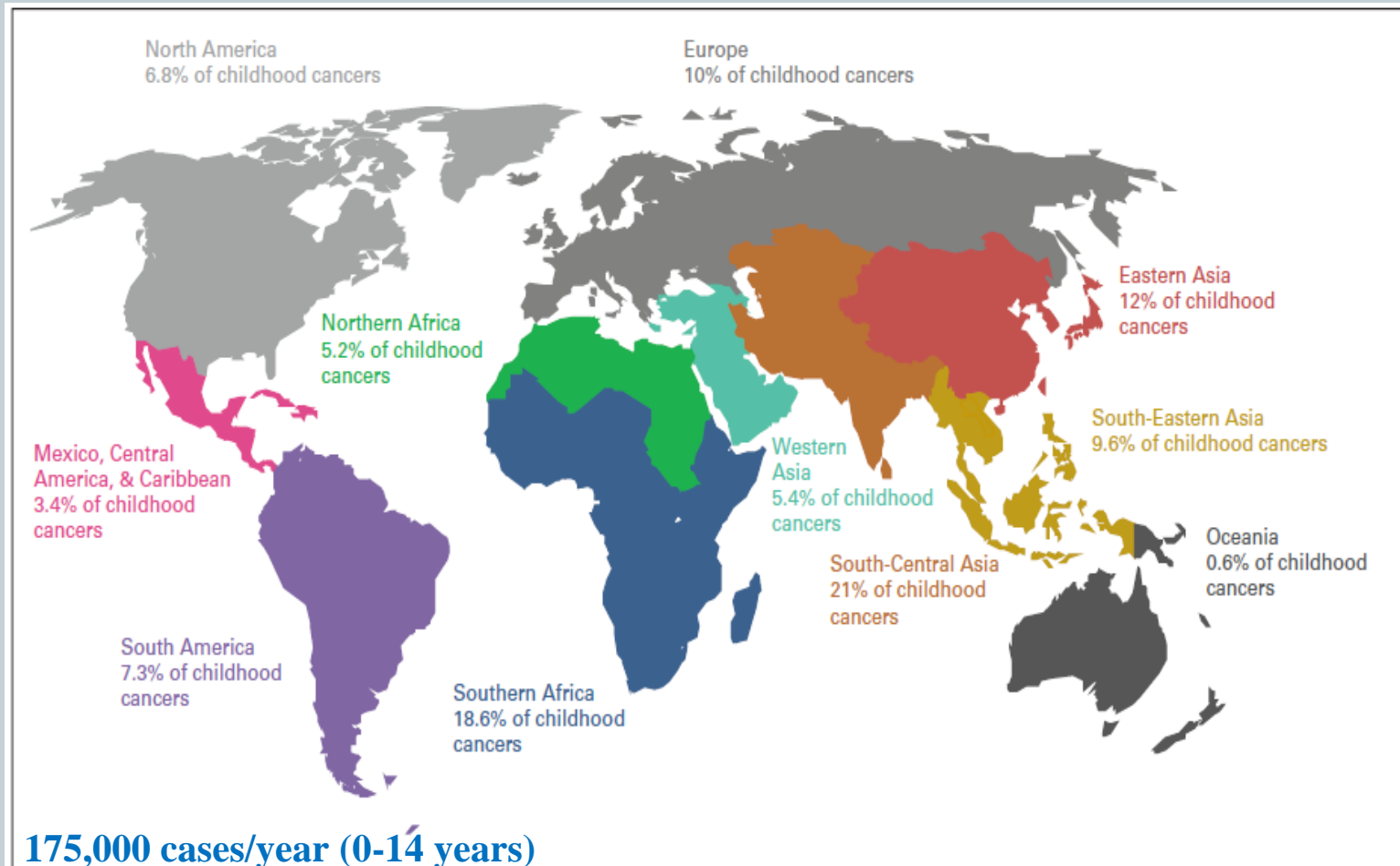
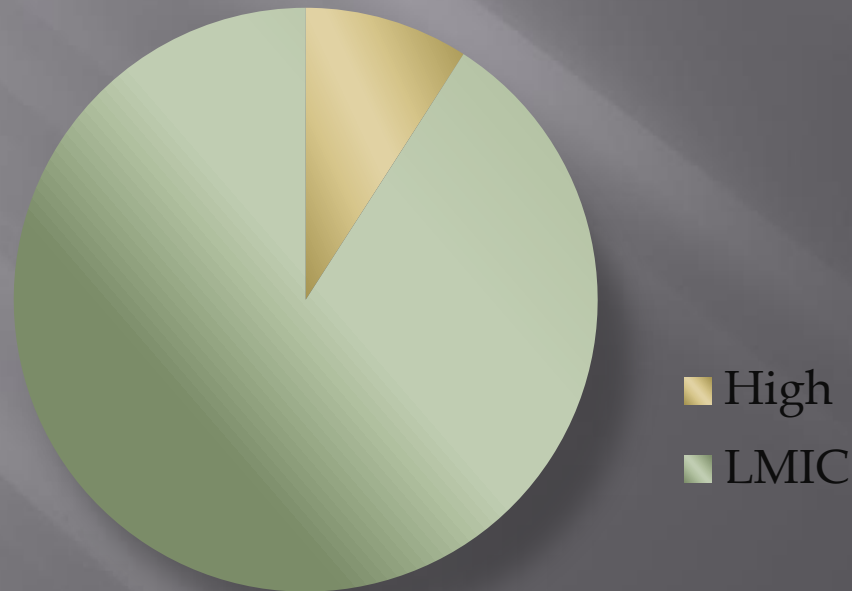


Fig 1. Global distribution of childhood cancer by region. Source: World Bank Databank¹⁰ and GLOBOCAN 2012.¹¹

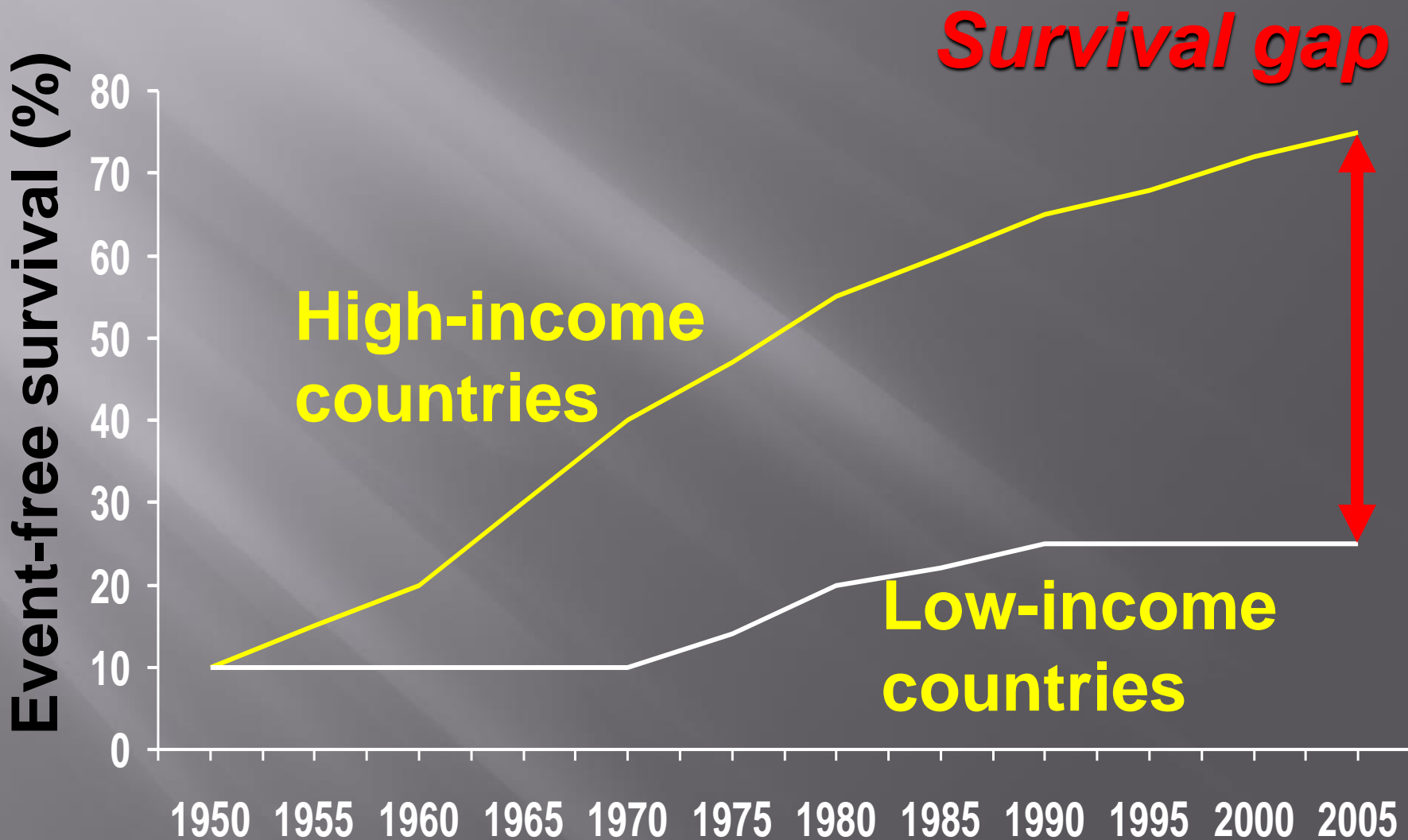
Low and Middle Income Countries: Survival Gap

- ▣ High Income Countries(HICs): 80% survival
- ▣ Low & Middle Income Countries (LMICs): 20% survival or less

Children Diagnosed Annually



Pediatric cancer survival gap



Nursing Challenges



- **Nurses face many challenges to providing quality care:**
 - Inadequate staffing
 - Lack of pediatric oncology education and clinical training
 - Restricted access to medical staff, nights and weekends
 - Shortage of allied health care professionals
 - Lack of basic medical equipment
 - Limited communication between physicians and nurses
 - Unsafe working environment

Nursing Research



- Inadequate nursing education, staffing and resources contribute to disparity in childhood cancer outcomes
 - Research in US, Canada, UK :
 - Adequate nurse staffing contributes to decreased hospital stay, complications, and mortality
 - Nursing education contributes to improved patient outcomes, including mortality

Nursing Research



- Nursing research in LMICs:
 - A study to assess the impact of a comprehensive nursing program on treatment abandonment found:
 - ✦ Post program incidence intervention site (6.5) was significantly lower ($p=0.0003$) than post program incidence for control site (14.7)

Closing the Survival Gap



- *Nurses have tremendous responsibility with little preparation, support and resources*

- *The lack of quality nursing care is a major impediment to successful treatment and contributes to the low survival rates in LMICs*

A Call to Action

11

- **PODC Nursing Working Group:**
 - Represents nurses from 22 countries
 - Met in London 2012
 - Need to develop a position statement on baseline standards for pediatric oncology nurses in LMICs was recognized



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Position Statement: Purpose/Development

13

- Nurses' ability to provide minimal level of quality care to pediatric oncology patients requires:
 - Achieving and sustaining basic standards of care
 - To address the needs of pediatric oncology nurses in LMICs we developed 6 baseline standards for providing quality nursing care

Position statement: Purpose/development

14

- Recognition by childhood cancer programs (local, national and international) of the need for such standards
- Acknowledgment by clinicians of the role played by nurses in providing safe care

Standard 1

15

Staffing plans based on patient acuity

- A nurse to patient ratio of 1:5 for paediatric oncology units and 1:2 for critical care and transplant units is recommended
- Nurses trained and experienced in oncology should remain within the service and not rotate among specialities



Standard 2

16

A formalized paediatric oncology orientation program for new nurses

- The program should define specific learning objectives and include both theory and clinical skills training, followed by 3–4 weeks of working with an experienced nurse
- New nurses must successfully complete orientation before providing unsupervised patient care

Standard 3

17

Continuing education and training to increase paediatric oncology clinical skills and knowledge

- A minimum of 10 hours of continuing education/training annually is recommended



Standard 4

18

Acknowledgment of nurses as core members of the multidisciplinary paediatric oncology team

- A nurse should be included in patient rounds and all meetings with patients and parents/caregivers regarding diagnosis and treatment plans



Standard 5

19

Available resources for safe paediatric oncology care

- Intravenous pumps
- Hand washing, sanitizing
- Isolation supplies
- Nurses should prepare chemotherapy drugs only if a pharmacist is not available and when provided with:
 - personal protective equipment
 - biosafety level two cabinet



Standard 6

20

Evidence-based paediatric oncology nursing policies and procedures to guide the delivery of quality nursing care



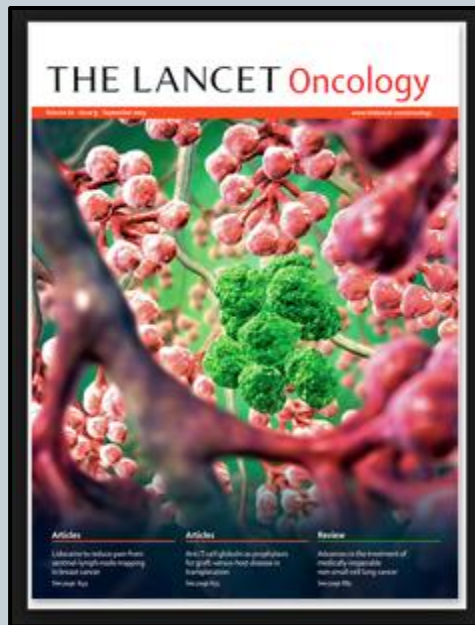
Publication of Standards



PODC Nursing Working Group Position Statement

Lancet Oncology (2014)

Cancer Control (2015)



Editor's Choice

22



- **Paediatric oncology nursing in low resource settings**: the Paediatric Oncology in Developing Countries Nursing Working Group outlines baseline standards for nursing care

SIOP Nursing Group Baseline Standards Endorsements



Current Work



- Development of an instrument to measure baseline standards in LMICs
 - Measurable criteria for each standard were created
 - Content validity was assessed by panel of expert pediatric oncology nurses representing all 6 geographical regions of WHO
 - Content validity index of .98

Current Work



- A valid instrument is needed to accurately measure the baseline standards for pediatric oncology nursing care.
- A valid instrument will:
 - Allow future research on the effects of nursing standards clinical outcomes, including mortality and abandonment of treatment
 - Influence health policy decisions and improve nursing support in LMICs

Conclusion

26

- To close the survival gap, institutions that develop cancer services/twinning partnerships must invest in the nursing workforce
- Providing resources and support to improve medical care without comparative interventions for nursing care will produce results that fall short of what is possible and optimal

Conclusion

27

- In some cases, implementation of modern protocols without adequate nursing care can actually cure fewer children due to higher rates of toxic death
- HIC:
 - Death due to toxicity is 2 to 4%
 - Abandonment of treatment is virtually unknown
- LMICs toxicity and abandonment of treatment are the leading causes of death
 - Both require quality nursing care to improve

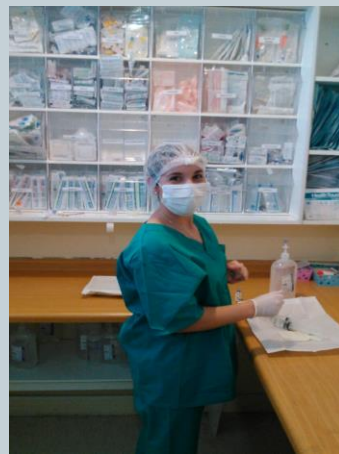
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Questions?