survival rates at CCHE were inferior; 79.9% for ALL; 53.8% for AML; 56.5% for Neuroblastoma; 56.4% for Hepatoblastoma; 49.1% for Osteosarcoma. Trends in age-adjusted mortality-rates will be presented.

Conclusions Studying 5-year survival in childhood cancer health outcomes at CCHE would help generate real-world evidence about those having inferior outcomes and identify priority areas that need future improvements. Making better use of the evidence generated at CCHE would enhance real-world practice through making informed decisions that are adapted to a local context setting—CCHE.

20 ACHIEVING EVIDENCE INTEROPERABILITY IN THE COMPUTER AGE: SETTING EVIDENCE ON FHIR

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Objectives Evidence-based practice requires the use of research results to inform care. Computers can add capacity for evidence-based practice by making the information from research results, appraisals, and summarizations searchable and re-usable without labor-intensive manual screening and repetition of data entry. Such interoperability can be achieved by establishing universal standards for data exchange for communicating evidence concepts in machine-interpretable formats.

Method Health Level 7 (HL7) is a standards development organization that has developed a standard for electronic exchange of healthcare information called Fast Healthcare Interoperability Resources (FHIR). We are using the HL7 standards development methodology to extend FHIR to create an Evidence Resource for exchanging descriptive, statistical and certainty concepts related to evidence.

Results The FHIR Resources for Evidence-Based Medicine Knowledge Assets (EBMonFHIR) project is in active development with a substantial coalition of international organizations and coordination with other standards development groups. The Statistic Resource currently supports explicit descriptions of the populations and subgroups (exposureBackground elements), interventions or exposures and comparators (exposure-Variant elements), the outcomes (measuredVariable elements), and for each statistic the sample size, the value with unit of measure, the precision estimate, the p value, and the certainty of the statistic. The project website (<http://wiki.hl7.org/index.php?title=EBMonFHIR>) includes multiple examples and information on how to participate.

Conclusions Working together we can achieve interoperability for evidence in the electronic era to realize the technological breakthroughs we see in other domains such as navigation support. A common information architecture will also facilitate the harmonization of ‘Real World Evidence’ and ‘Evidence Based Medicine’ which collectively represent clear understanding of evidence and its certainty, regardless of evidence source. Extending the solutions achieving interoperability for healthcare services provide a means to not only solve this challenge for the Evidence Ecosystem but also to keep it well connected with healthcare services delivery.

21 THE USE OF EVIDENCE IN HUMANITARIAN RESPONSE DECISION MAKING

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Objectives The need to use evidence in humanitarian settings is recognized yet utilising that evidence to make decisions about humanitarian response remains a challenge. The objective of the study was to identify how, when, and why decision makers in humanitarian response use scientific, peer-reviewed evidence to make decisions.

Method An online cross-sectional survey of fifteen open- and closed-ended questions on demographics, experience and role in humanitarian response was developed by Evidence Aid (EA) and Karolinska Institutet (KI). The online survey was available on the EA website from 20 August-15 October 2018. Participants were self-selected, recruited through social media channels and mailing lists of EA and KI. All respondents and responses were anonymized. Responses were analyzed with descriptive statistics and content analysis.

Results Forty-seven people responded, primarily working in Europe or North America with roles of humanitarian response director/manager, independent consultant, or policy maker. Personal assessment of the quality of information, trust in the source, and information that was contextually relevant or based on field experience were factors for deciding whether information should be considered evidence. Reasons for using evidence when making decisions included adhering to good practice to maximize impact and effectiveness of aid, reassurance that the right decisions were being made, personal or organizational values, and using evidence as a tool to protect beneficiaries and organizations from poor quality decisions and program content.

Conclusions Using evidence for decision making was common practice during the process of designing implementing and evaluating humanitarian response content, yet reasons for use varied. The importance of evidence developed and validated from field experience and trust in the source reported by this sample suggests that strengthening collaborative efforts between decision makers and evidence generators could be one approach to improve evidence and evidence use in humanitarian response.

22 DECISION AIDS FOR ORGANIZED CANCER SCREENING IN GERMANY

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Objectives Germany has organized programs for breast, colorectal and cervical cancer screening. The target audience receives regular letters that are accompanied by a decision aid. Besides general information about the screening programmes, the decision aids include description of the advantages and disadvantages of screening to support informed choice. The Institute for Quality and Efficiency in Health Care (IQWiG) was commissioned to produce the cover letters and the decision aids. The development process and the user testing results will be presented.

Method The decision aids were developed in accordance with the International Patient Decision Aid Standards (IPDAS). A systematic search and evidence assessment were performed to analyse the benefits and risks of screening. The decision aids were tested in focus groups and surveys. The process also included a public commenting procedure.

Results Most users perceived the decision aids to be informative, helpful and balanced. The majority found the information on harms of screening relevant, including overdiagnosis and overtreatment. Healthcare professionals were more reluctant to provide information on harms in the decision aids, fearing it might lead to lower participation in screening. The surveys showed that the decision aid only had little impact on screening intention. The majority would participate in the screening programmes, despite the possible harms. The results of user testing concerning acceptance of the decision aids and screening intention were quite similar across the different decision aids. Larger differences occurred for example in the acceptance of certain graphical formats.

Conclusions Decision aids are a useful tool to support informed choice in an organized screening programme. They were well accepted by most users. There is further need for research on the implementation of the decision aids.

23

BELIEFS, KNOWLEDGE, AND UTILISATION LEVELS OF EVIDENCE-BASED PRACTICE AMONG NURSES AND MIDWIVES IN THE REPUBLIC OF IRELAND

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Objectives Evidence-based practice (EBP) is an approach to healthcare that combines the use of the best available evidence, the healthcare professional's expertise, and patient preferences/values, when making healthcare decisions. Application of EBP in healthcare yields economical delivery of optimal patient outcomes, standardizes practice, enhances practitioner job satisfaction and empowerment and is therefore a particularly relevant concept in the current climate. Despite this, there is little evidence of EBP among healthcare professionals, including nurses and midwives. In the absence of EBP in healthcare, questions may arise in relation to the standard of care provided, the answers to which may not always be satisfactory or indeed defensible. It is therefore paramount that care afforded to patients is always based upon the best available evidence, in order to ensure optimal outcomes for all concerned. Integral to the success of any EBP initiative are the individual practitioners who deliver patient care and the organisations in which they work. Practitioners require relevant knowledge and skills to apply EBP to patient care delivery. This is particularly important for nurses and midwives, one of the largest groups of healthcare practitioners, and who are the key focus of this study. Furthermore, the organisational culture must be open and prepared to embrace and support EBP. In order to make EBP a reality in nursing and midwifery practice, its implementation must be tackled at organisational and individual levels within both the clinical and educational settings responsible for nurse and midwifery education. The current EBP beliefs and utilisation levels among nurses and midwives along with the organizational

culture and readiness within these settings must be established in order to determine the current situation and the best way forward in the Irish context. This national study sets out to do this. Data will be collected from under-graduate nursing and midwifery students and lecturers in nine Higher Education Institutes in Ireland, along with staff nurses and midwives and nurse and midwife managers in affiliated clinical services. The findings of this study will inform the development of an implementation strategy at individual, organisational and potentially national levels to foster a sustainable culture of EBP use among nurses and midwives within the Irish healthcare system.

The objectives of this PhD study are;

1. To establish the beliefs, knowledge level and utilisation of evidence-based practice (EBP) of;
 - o lecturers who teach on undergraduate, pre-registration nursing and midwifery programmes delivered in Higher Education Institutes (HEIs) in the Republic of Ireland
 - o students undertaking undergraduate, pre-registration nursing or midwifery programmes delivered in these HEIs.
 - o clinically-based nurses and midwives working in teaching hospitals affiliated with these HEIs?
2. To determine the culture and preparedness of the HEIs and hospitals (within which these nurses and midwives, student nurses and student midwives, nurse and midwifery lecturers work, learn and teach) for EBP?
3. To establish informed starting point from which a specifically tailored EBP education programme, underpinned with specific knowledge of the needs of the nurses and midwives, as well as the challenges and opportunities present in their workplaces, can be developed and implemented where necessary.

Method A national cross-sectional survey of three cohorts of nurses/midwives (hospital-based nurses/midwives, nurse/midwifery lecturers, and student nurses/midwives) was undertaken. This quantitative study used three EBP questionnaires that explored EBP beliefs, implementation levels, and organisational culture and readiness for EBP, respectively. One open-ended question was included on the survey which invited participants to write down in their own words, what they believe EBP to be, the purpose of which was to gain insight into participants' knowledge and understanding of EBP. Power analysis determined adequate sample sizes for the three cohorts, and these were achieved. Randomised sampling was used to select nine Higher Education Institutions (Schools of Nursing/Midwifery), and seven teaching hospital sites. Descriptive, correlational and inferential statistics were used to analyse the relationships among EBP attitudes and beliefs, knowledge level and utilization. Content analysis facilitated exploration of the participants' responses to the open question on the survey.

Results Quantitative results revealed that overall, across the three cohorts of participants, there is a positive attitude towards, and belief in the potential of EBP to produce improved patient outcomes. Beliefs in practitioners' own ability to implement EBP is not as positive. Utilisation levels of EBP are poor across all three cohorts, with clinical nurses and midwives scoring lowest in this area. Further insights that contribute to some explanation of these findings have been extrapolated from closer scrutiny of the quantitative data, but also from exploration of the qualitative data, which reveal poor knowledge and understanding of what EBP actually is,