



January 2020



# *h*RHR & JSANDS

## NEWSLETTER

### **The Eastern Mediterranean Public Health Network - EMPHNET**

The Eastern Mediterranean Public Health Network is a regional network that focuses on strengthening Public Health Systems in the Eastern Mediterranean Region (EMR). EMPHNET works in partnership with Ministries of Health (MOH), non-government organizations, international agencies, private sector, and other public health institutions in the region and globally to promote public health and applied epidemiology.

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## **MATERNAL and CHILD HEALTH MATTERS...**

Two IDRC-funded projects are currently under implementation in Jordan, the first project, establishing a Harmonized Reproductive Health Registry (**hRHR**) in Jordan to improve Maternal and Child Health, is being implemented by the Eastern Mediterranean Public Health Network (EMPHNET). The second project, implementing a Perinatal and Neonatal Mortality Surveillance and Auditing System in Jordan (**JSANDS**) is being implemented by Jordan University of Science and Technology (JUST).

Both projects are implemented in collaboration with the Jordanian Ministry of Health.

This creates information-flow gaps between different levels of healthcare and different sectors involved in health (public, private, military); closing current gaps by bringing all data in a digitized, consistent, and readily accessible format (a harmonized Reproductive Health Registry) is deemed the most appropriate intervention to improve MCH.

### **2) The JSANDS Project** ([www.jsands.jo](http://www.jsands.jo))

*Implementing a Perinatal and Neonatal Mortality Surveillance and Auditing System in Jordan*

Jordan lacks a comprehensive registration system for reporting perinatal and neonatal (PNN) deaths and their causes and social determinants.

Given that accurate measures and quality indicators are lacking, an e-surveillance system that automatically transfers the PNN mortality data to the Ministry of Health (MoH) would be invaluable for policy makers.

The Jordan Stillbirths & Neonatal Deaths Surveillance System (**JSANDS**) project aims to develop and assess the implementation of an e-surveillance system for collecting and reporting standardized PNN mortality data and to develop a death auditing system in five major hospitals in Jordan.

## **PROJECTS SUMMARY**

### **1) The hRHR Project**

*Establishing a Harmonized Reproductive Health Registry (hRHR) in Jordan to improve Maternal and Child Health*

Primary data on antenatal care services provided to women in Jordan are scattered amongst hospitals and Maternal and Child Health (MCH) centers. Similarly, pregnancy and childbirth data are collected in both digital and paper formats, with paper registers making limited timely and actionable data available for program management, policy development, and decision making.

“The **hRHR** will allow personalized care information throughout pregnancy and childbirth to be accessed during antenatal visits, labor, delivery, and postnatal visits. The **hRHR** aims to promote equity, accessibility, data confidentiality, and consistency within a collaborative health data system”

“The **JSANDS** system registers all births, equity, and quality statistics to enable accurate calculation of mortality measures. The BABIES matrix was utilized to enable the determination of intervention packages with the greatest impact on preventing PNN mortality”

## ***LINKS between hRHR and JSANDS***

The JSANDS's death review committees identified recommendations emerging from their research into the modifiable factors causing neonatal deaths and stillbirths. The most common problem raised by all death review committees is the *lack of coordination and integration between primary healthcare (PHC) centers* (where a large portion of women seek antenatal care) *and hospitals* (where delivery takes place in the absence of antenatal care data).

The lack of reliable data limits the ability of health providers to make informed (and in some cases, critical) decisions that can influence the well-being of women and children; this is observed particularly within vulnerable and underserved populations.

*It was highly recommended to establish an e-health system that collects MCH data from both MCH centers and hospitals and links the two by enabling retrieval of this data by both MCH centers and hospitals.*

The hRHR project has developed a web-based application in order to achieve a harmonized approach towards MCH data and to enable facilitated data-entry and retrieval by service providers. Through the web-based application, full MCH data and medical records of the mother and her soon-to-be or newborn will be entered and accessible.

***The successful implementation of the hRHR web-based application was the highest-impact intervention recommended by the JSANDS project to improve maternal and child health and reduce mortality rates.***



*2-day workshop for the Information and Communications Technology (ICT) Subcommittee to discuss implementation scenarios of the hRHR on January 22-23, 2019*

The **hRHR** and the **JSANDS** projects maintain close coordination and continually share lessons learned to ensure the smooth operation of their newly developed systems. The two projects have implemented two distinct interventions that complement each other, where data and evidence generated through the two projects will aid in enhancing MCH in Jordan, thus contributing to the achievement of the Sustainable Development Goals, namely SDG 3: Ensure healthy lives and promote wellbeing for all at all ages, and SDG5: Achieve gender equality and empower all women and girls.



*Midwives at one of the primary healthcare centers at Al Mafrq using both electronic and paper-based health information systems*

*Steering and technical committees were formed to ensure proper implementation of the two projects, also all necessary ethical approvals were obtained.*

**PROJECTS UPDATE****hRHR****JSANDS****FORMATIVE RESEARCH**

A mixed-methods situation analysis was conducted to explore factors associated with low- and non-registry issues. The quantitative approach assessed legal, ethical and social implications, ICT infrastructure, dissemination of information, and essential Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCAH) interventions. The Qualitative approach included:

- A SWOT analysis of the existing SRH data system
- Assessment of the Gender-issues related to SRH
- Two focus group discussions (FGDs) for women and MCH service users.

Two abstracts have been accepted to be presented in two international conferences. A policy brief has been drafted and disseminated.

Formative qualitative and quantitative research was conducted to assess health professionals' training needs in relation to the use of health information systems (HIS), their intention to use HIS, and the factors that motivate them to use HIS.

Moreover, qualitative research was conducted to assess women's perceptions, awareness, and experiences of PNN death reporting to inform the development of interventions and training manuals.

Five journal papers, two book chapters, and one conference paper from the desk review and survey data have been published.

**PROJECT APPLICATIONS**

A web application is being developed to achieve a harmonized approach to data collection, use, and reporting by targeted service providers. The application is being designed to enable patients' health records to be consistent across all service points. The application will collect all MCH data previously collected by hand on the MOH-authorized cards.

The structure, framework, procedures, and components of the electronic surveillance system that will automatically transfer perinatal mortality data to the MOH has been developed. The system will log and monitor indicators for PNN mortality that include clinical and sociodemographic measures and quality of care.

**TRAINING**

Authorized system users and administrators will be provided with full training where comprehensive training material and user-manuals have been developed to orient users to the new system and the proper process of data entry, retrieval, and reporting.

Modular training material has been developed to orient healthcare professionals on the new reporting system, registration of deaths, assignment of causes of deaths, and to inform professionals about the death review and audit committees.



## hRHR

## JSANDS

### EVENTS

#### *hRHR Debriefing Session*

On December 10<sup>th</sup>, 2018, a debriefing session was held in Amman, Jordan at the Landmark Hotel with the objective of communicating and discussing the situation analysis results with partners and stakeholders.

Participants and invitees represented governmental and non-governmental agencies working in the field of SRH and health information and technology.



*Dissemination and discussion of situation analysis findings with stakeholders. A debriefing session was held in Amman, Jordan at the Landmark Hotel on December 10<sup>th</sup>, 2018*

The session was covered extensively by several national and local news and media outlets.

#### **About the IDRC**



International Development Research Centre  
Centre de recherches pour le développement international



The International Development Research Centre – IDRC (<https://www.idrc.ca>) funds research in developing countries to promote growth, reduce poverty, and drive large-scale positive change.

#### *JSANDS Workshops*

On April 15<sup>th</sup>, 2019, a workshop was held at Le Royal Hotel in Amman to present the JSANDS software application to the steering and technical committees and other stakeholders. Several workshops were also organized from May through July 2019 to train staff in involved healthcare facilities on the new reporting system and to run test implementations of the new system in five major healthcare facilities.

The JSANDS project midterm workshop was held in Irbid city on the November 27<sup>th</sup>, 2019, where the project's director (Prof. Yousef Khader) demonstrated features of the JSANDS system that enhance its suitability and functionality (such as simplicity, flexibility, sensitivity, representativeness, timeliness, and stability).



*The JSANDS project mid-term workshop, 27<sup>th</sup> of November 2019, Irbid city*

The JSANDS team also highlighted the most common causes of preventable neonatal deaths and stillbirths and the related modifiable factors across the five hospitals where JSANDS is being utilized.