

Road to Health Booklets as Unique Patient Identifiers

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Introduction

- No unique patient identification system within public health sector
 - Hampers surveillance efforts, e.g. estimating incidence and prevalence of laboratory diagnosed diseases
 - Monitoring paediatric HIV particularly challenging
 - The National Department of Health has developed a Health Patient Registration System (HPRS)
 - First step is to register primary patient identifiers and link these to HPRS-created Unique Patient Identification Number (MPI)
 - RSA IDs and alternative numbers from official documentation (e.g. asylum seeker permits, passports) used as primary patient identifiers
- **This leaves a gap in providing unique patient identifiers to neonates**

Methods

- Between May 2016 - June 2017, Tshwane District Health Services implemented a unique patient identifier pilot project
 - unique readable barcoded patient identifiers were incorporated within Road to Health Booklets (RTHBs) prior to distribution
- We report on
 - use of RTHB Identifiers at birth HIV PCR testing
 - describe performance of RTHBs in linking follow-up HIV PCR results



ROAD TO HEALTH





10mm PEEL OFF TAPE

PEEL OUT CARD HERE

Name:



Date of Birth:





Patient Inquiries

Help

Request Type Patient Location User Site

Episode No. N.I.C.D.

MRN Doctor Date From Last Episode Only

Hospital No. Date To Soundex

Surname ID Number Type Department Search All Names

First Name Reference No Test Set

Second Name Case Number

Date of Birth Internal Lab Reference Worksheet Name

Sex Alternate Ref No

Patient Find

Dr AF Haeri Mazanderani

Patient Find

Surname Hospital Folder Number Episode Specimen Reference

Name Doctor Code MRN Alt Ref Number

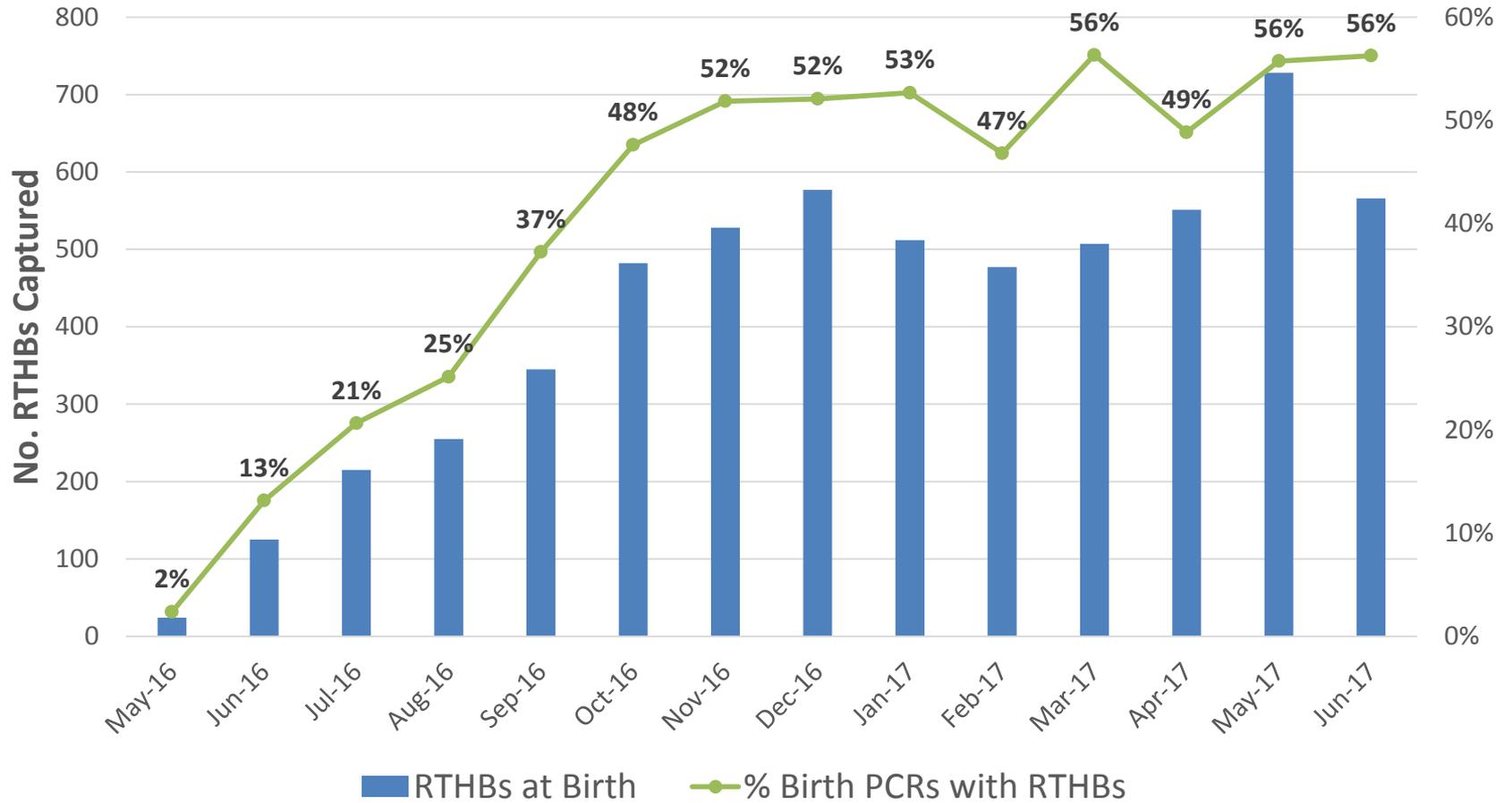
Advanced Search

Surname Name MRN Sex Date Of Birth Read Viewed Hospital Number Laboratory

No matches found!

District	Facility	Ward	Folder No	Patient Surname	Patient Name	Patient Age	Taken Date	Episode No	RTHB No	HIV PCR Result
City of Tshwane Metro	Dr George Mukhari Hospital	Ward 31				1 day	18-DEC-2016		RTHB7512FBCD	
City of Tshwane Metro	Kgabo Health Centre Clinic	Not Applicable				1 day	23-DEC-2016		RTHB5841ABCD	
City of Tshwane Metro	Kalafong Hospital	Paediatric Opd				4 months 25 days	30-NOV-2016		RTHB7498GBCD	
City of Tshwane Metro	Laudium Community Health Centr	Arv Clinic				2 months 21 days	22-DEC-2016		RTHB8758MMCD	
City of Tshwane Metro	Mamelodi Hospital	Post-natal Ward 7				1 day	11-DEC-2016		RTHB9601GBCD	
City of Tshwane Metro	Stanza Bopape Chc	Ward Not Stated				6 years	26-NOV-2016		NO RTHB NUMBER	
City of Tshwane Metro	Lotus Gardens Clinic	Arv Clinic				10 months 5 days	29-NOV-2016		NO RTHB NUMBER	
City of Tshwane Metro	Mamelodi Hospital	Post-natal Ward 7				1 day	02-DEC-2016		RTHB8395CBCD	
City of Tshwane Metro	Bronkhorstspriet Hospital	Unknown				1 day	07-DEC-2016		NO RTHB NUMBER	
City of Tshwane Metro	Dr George Mukhari Hospital	Ward 31				10 months	13-DEC-2016		RTHB7052DBCD	
City of Tshwane Metro	ODI Community Hospital	Labour Ward				1 day	06-OCT-2016		RTHB1439CBCD	

RTHBs Captured at Birth



Results

- 5 318 HIV PCR tests among infants aged <7 days were extracted from the NHLS CDW
 - 635 (11.9%) infants had a linked HIV PCR test after birth test
- Demographic details at the time of birth and subsequent PCR test were compared
 - <4% of infants had exact matches for name, surname, date of birth and sex
 - 74% had variations of 'born to', 'baby to', 'baby', etc. in place of a first name on their birth test
 - 61% had surnames that matched exactly
 - 18% of infants had both tests performed at the same facility, of whom only 27% had the same patient folder number on both test results
 - **>20% of cases no potential matching would have been possible using a probabilistic matching algorithm**

Conclusions & Recommendations

- 1) Leveraging RTHBs as unique patient identifiers promises to be an effective, scalable solution to providing all infants at birth, irrespective of nationality, a means of reliable identification
- 2) RTHB Identifiers can be integrated within electronic health records systems, and can potentially be incorporated within the HPRS, thereby filling a much needed gap in providing neonates with unique patient identifiers
- 3) Use of RTHB Identifiers will assist clinical and laboratory surveillance as well as provide an opportunity to link mother-infant pairs and facilitate longitudinal cohort monitoring, provide ready-to-use neonate folder numbers, and link a child's RTHB to electronic health records (including electronic RTHB)

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