Description of C1 Activity Analysis Methods [DRAFT]

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Overview

This primary question addressed by this report is, "How efficiently and thoroughly was the state covered by C1 between 2007 and 2010?" The 20 regions in Oklahoma (officially called "Lead Nurse Regions" within OSDH) serve as the unit of analysis. There are at least three perspectives of the primary question. For each perspective, the longitudinal trends and between-region variability received extra attention.

1. How many C1 clients were served?

2. What proportion of infants in need were served (were need is estimated by WIC)?

3. How many referrals were obtained?

4. How many referrals were successfully converted to enrollments and initial visits?

Multiple datasets were combined to address these questions.

1. The Phocis records for a C1 **Referral** (Form #473). Each record is one referral received by C1, which roughly corresponds to one record per mother.

2. The Phocis records for the C1 **Client Activity Status** (Form #439). Each record is one change in a mother's C1 status; mothers typically have multiple records in this dataset.

3. The OSDH **T&E** (Time and Effort) database contains the amount of time each month each OSDH employee dedicated to C1 (and other OSDH programs). The activity is further categorized by type (eg, administrative leave, program support). Each record is a combination of employee x month x activity type.

4. A dataset of the C1 **Nurses** , compiled for us by OSDH. This links the nurse names (in the T&E dataset) to the nurse IDs (in the Phocis datasets). Each of the 453 records is a current or former C1 nurse in the [rural counties].

5. The 2010 WIC **Estimate of Need**, which sits in the middle of our analysis window. Each record is one county, with several estimates. The county's number of infants in need was used in this report.

6. The OSDH records of each C1 **Clinic**. Each of the 223 records was a clinic, and contained variables such as the clinic's county.

7. The OSDH records of each state **County**. Each of the 77 records was a county, and contained variables such as the county's Lead Nurse Region.

8. The OSDH records of each **Lead Nurse Region**. Each of the 20 records was a region, and contained variables such as ZZZZ.

9. The OSDH **CodeTable**, which translated numeric lookup codes used in the OSDH to meaningful labels. Each of the 1,337 records was a possible response, although only a few dozen were required for this project.

1 Stage: Align Patient Records

The C1 program currently requires all potential clients have at least one referral record; an Activity Status record is required only if ZZZZZ. However the operating practice for some counties during some years relaxed this requirement and consequently 15% of mothers present in the Activity Status dataset did not have a Referral record; however only 5% of mothers present in the Referral dataset did not have a Activity Status record. An outer join created an overall list containing all unique members in both datasets. The mother's earliest date (found in either dataset) was important in later longitudinal analyses because it indicates when the mother first interacted with C1, while avoids the holes in the two forms' dates. Although both forms had a field for the county, the form's clinic variable was used to determine the county, since it was entered much more reliably.

2 Stage: Determine Region Membership of Nurse

The T&E database was the primary sourced used to determine the amount of OSDH funds spent in each region. However, the T&E records did not indicate which clinic, county, or region benefited from the nurses' time. [The patient records, which had the nurse's ID, were used to determine the nurse's mode for each month.]

3 Stage: Aggregate By Region