

**Using a Decision-Support Smartphone application to enhance Community Health Volunteers' effectiveness in reducing Maternal complications and reducing Newborn Deaths in the informal settlements of Nairobi, Kenya**

Project Title

| Objectively Verifiable Indicators   |   |  |
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| Domain of inquiry   | Indicators  | Method of calculation  |
| 1. Assess the feasibility and acceptability of using a decision-support module of mPAMANECH | Percentage time for which the system is down on a monthly basis                             | <b>(Numerator:</b> Number of times (in minutes) when the system is down<br><b>Denominator:</b> Total active time in a month. Down time defined as 30 minutes of hanging and Active time as time without hitches) * 100   |
|   | Number of CHVs effectively using the decision support tool                                  | <b>Numerator:</b> Number of CHVs able to either correctly refer or manage clients at home (target is 50 CHVs).<br>Within the system, on a quarterly basis we will be able to generate reports on decisions made by the CHVs. These will also be compared to the control site that will only have a paper based system of data collection |
|   | Proportion of CHVs able to identify at least 4 danger signs among neonates                  | <b>Numerator:</b> Number of CHVs able to identify at least 4 danger signs among neonates (aged upto 28 days). <b>Denominator:</b> Total number of CHVs in the selected CUs (total 50 CHVs).  |
|   | Proportion of CHVs able to identify at least 2 post-partum complications                    | <b>Numerator:</b> Number of CHVs able to identify at least 2 post-partum complications. <b>Denominator :</b> Total number of CHVs in selected Cus (total 50 CHVs)  |
|   | Percentage of correct referral decisions by CHVs for post-partum mothers with complications | <b>(Numerator:</b> Number of correct referrals by CHVs for post-partum mothers with complications. <b>Denominator:</b> Total number of postpartum women referred. )*100  |

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|   | Percentage of correct referral decisions by CHVs for neonates (aged upto 28 days) with danger signs | <b>(Numerator:</b> number of correct referrals by CHVs for neonates (aged upto 28 days) with danger signs. <b>Denominator:</b> Total number of neonate referrals)*100                                 |
|   | Proportion of pregnant women referred for ANC by CHVs   | <b>Numerator:</b> Number of pregnant women referred for ANC to selected health facilities by CHVs <b>Denominator:</b> Total number of women-pregnant seen by CHVs                                     |
|   | Proportion of mothers referred for PNC by CHVs  | <b>Numerator:</b> Number of post-delivery women referred for PNC to selected health facilities by CHVs. <b>Denominator:</b> Total number of deliveries in selected facilities and at home             |
| <b>2. Determine the decision-support platform's effect on utilization of MNH services</b> |   |   |
|   | Proportion of women attending at least 4 ANC's  | <b>Numerator:</b> Number of pregnant women attending 4 or more ANC visits in project sites. <b>Denominator:</b> Total number of pregnant women seeking ANC services in the selected health facilities |
|   | Proportion of all mothers attending at least 2 PNC's  | <b>Numerator:</b> Number of mothers attending at least 2 PNC's in project sites. <b>Denominator:</b> Total number of postpartum women seeking PNC services in the selected health facilities.         |
|   | Proportion of deliveries assisted by trained personnel  | <b>Numerator:</b> Number of assisted deliveries by trained personnel (at home or at the facility). <b>Denominator:</b> Total number of deliveries in the facilities and CUs covered by project        |
|   | Percentage of women who accessed first ANC within the 1st trimester                                 | <b>(Numerator:</b> Number of women attending the first ANC within the first semester. <b>Denominator:</b> Total number of women attending ANC in project sites)*100                                   |
|   | Proportion of women referred by CHVs for post-partum family planning                                | <b>Numerator:</b> Number of post-partum women referred and seen at facilities for family planning. <b>Denominator:</b> Total number of women referred in the facilities and Cus in project sites      |
|   | Proportion of newborns (aged upto 28 days) with atleast one danger sign referred by CHV             | <b>Numerator:</b> Number of CHVs able to identify at least 4 danger signs among neonates (aged upto 28 days). <b>Denominator:</b> Total number of CHVs in the selected CUs (total 50 CHVs).           |

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|  | Proportion of low birth weight newborns (< 2500g) referred       | <b>Numerator:</b> Number of low birth weight newborns (< 2500g) referred to selected health facilities. <b>Denominator:</b> Total number of live birth weighted in selected facilities  |
|  | Proportion of women lost during follow up                        | <b>Numerator:</b> Number of women referred by CHVs who fail to report to the selected facilities. <b>Denominator:</b> Total number of women referred by CHV                             |
|  | Proportion of newborns (aged upto 28 days) lost during follow up | <b>Numerator:</b> Number of newborns (aged upto 28days) who failed to report to selected facilities. <b>Denominator :</b> Total number of newborns (aged upto 28 days) referred by CHVs |