Evaluating Impact:
Turning Promises into Evidence

Liberia GPE Ministry of Education Team
Supplementary Readers and Teacher Training Evaluation

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1a. Intervention - Background

❑ Background:

    ❑ Reading level is low in Liberia
    ❑ There are almost no textbooks/reading materials in schools

       (In a recent visit, in the county seat, a school had a library. But in two other nearby schools, not a single book could be found!)

    ❑ There is now a policy push towards reading
    ❑ There are limited pilot activities (for example, LTTP with EGRA in some counties; LET ~36 schools; Read Liberia; etc.)
    ❑ But the Global Partnership for Education (GPE) is providing national-level coverage.

1b. Intervention Summary

❑ GPE provides a packet of 8 "supplementary readers" to each of Grades 1 through 4, with a ratio of 1 packet for every 3 students, **nationwide**: every public school in every district. January 2014.

❑ Intervention
    ❑ We propose to randomize and evaluate the teacher training that is meant to accompany the readers.
    ❑ The training is still being developed, but it is anticipated to roll out in a cascade over one month, and for a particular teacher training, it may last a few days to a week.
    ❑ The training instructs teachers in how to incorporate the new supplementary readers as teaching and learning aids; assist students with word recognition; provide illustrations; etc.

2. Results Chain

Input	Activities	Outputs	Outcomes	Long-term outcomes
o Supplementary readers OR supplementary readers and teacher training	o Distribution of supplementary readers; o Training of teachers; o Sampling facilities and teachers	o Supplementary reader for every 3 children; o This influx of books means more books in the school than before. o Teachers trained o Teachers teach differently with new techniques to reinforce the supplementary readers, as well as the culture of reading.	o Readability improved among students (words read per minute, for example)	o Spillover benefits for other subjects; theoretically enhance learning in every subject. o Better preparation for grades 5-9, where textbooks are also provided by GPE in 4 core subjects.

3a. Research Questions

❑ **What is the impact of teacher training (in how to use new supplementary readers) in <u>different types of districts</u> on different literacy-related outcomes?**

    ❑<u>Types of areas:</u>

        High-literacy versus Low-literacy

        Literacy is measured in census data aggregated by district. If no literacy statistics are available, the district average WAEC score can be used to partition Liberia into High-WAEC and Low-WAEC districts. (This might be a similar partition.)

        Urban versus Rural

        Urbanization also measured in census data at district level.

3b. Research Questions

❑ **What is the impact of teacher training (in how to use new supplementary readers) in different types of districts on <u>different literacy-related outcomes</u>?**

    ❑<u>Outcomes:</u>
        Letter recognition
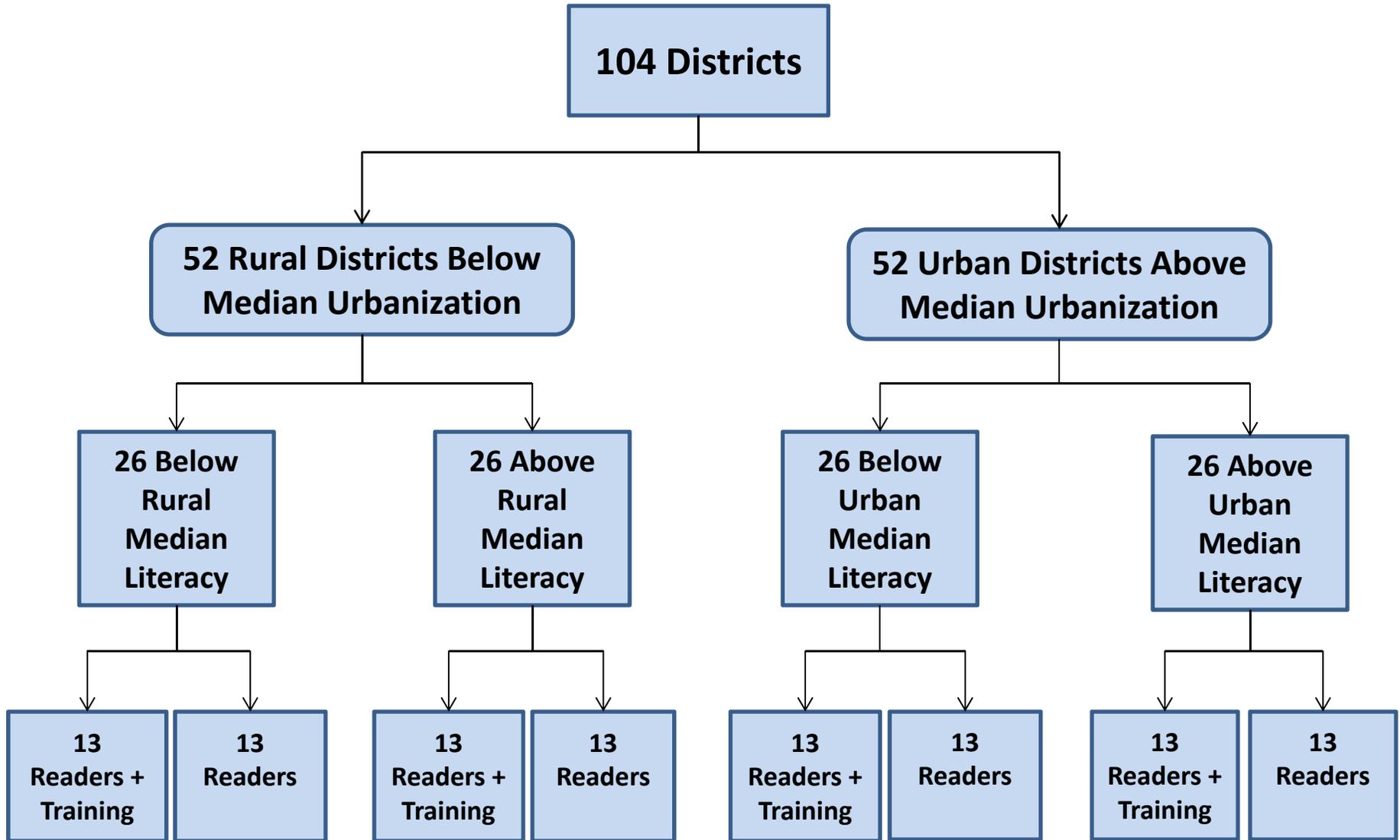   Readability
        Word recognition
        Reading comprehension
        etc.

4. Impact Evaluation Design

❑ **Stratified randomization at the district level – see diagram:**

Stratified Randomization Model

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                          ┌─────────────────┐
                          │  104 Districts  │
                          └────────┬────────┘
              ┌────────────────────┴────────────────────┐
   ┌──────────────────────┐                  ┌──────────────────────┐
   │ 52 Rural Districts    │                  │ 52 Urban Districts    │
   │ Below Median          │                  │ Above Median          │
   │ Urbanization          │                  │ Urbanization          │
   └──────────┬───────────┘                  └──────────┬───────────┘
        ┌─────┴─────┐                              ┌─────┴─────┐
┌───────────┐ ┌───────────┐              ┌───────────┐ ┌───────────┐
│ 26 Below  │ │ 26 Above  │              │ 26 Below  │ │ 26 Above  │
│ Rural     │ │ Rural     │              │ Urban     │ │ Urban     │
│ Median    │ │ Median    │              │ Median    │ │ Median    │
│ Literacy  │ │ Literacy  │              │ Literacy  │ │ Literacy  │
└────┬──────┘ └────┬──────┘              └────┬──────┘ └────┬──────┘
  ┌──┴──┐       ┌──┴──┐                    ┌──┴──┐       ┌──┴──┐
```

| 13 Readers + Training | 13 Readers | 13 Readers + Training | 13 Readers | 13 Readers + Training | 13 Readers | 13 Readers + Training | 13 Readers |

5a. Sample and Data: Outcome Data

❑ **<u>Outcome data:</u>**

    ❑ Measures relating to <u>literacy</u>
        ❑ Letter recognition
        ❑ Word reading
        ❑ Sentence reading
        ❑ "Readability"
        ❑ Comprehension

    ❑ Measures of <u>other subjects</u> – spillovers? *Not yet decided.*

5b. Sample and Data: Process Data

We want to be able to interpret our results meaningfully. Were there breakdowns in the delivery process? The training process? Are teachers using what they learned?

❑ **Process/monitoring data:**
   ❑ Delivery records of supplementary readers
   ❑ Attendance records of trainings at all levels
   ❑ Later school visit data:
      ❑ Pedagogy: do teachers reinforce readers? Teach phonics? How much instructional time is devoted to reading?
      ❑ Supplies: are all readers still present? Where are they? Locked? Available?

5c. Sample and Data: Sampling

❑ Some issues remaining:

❑SAMPLING

   ❑How many schools per district to sample?
      2? 4? How many? Power calculations still needed.
   ❑How many pupils per grade to sample?
      5? 10? 15? Power calculations still needed.

   ❑Which grades to sample?
      Grades 1, 2, 3, 4 are "treated" versus "comparison," but
      we might also consider Grade 6 or Grade 7 to provide
      something like the "1996 vaccination rates" did in the
      JPAL Vaccination example.