

Evaluation of Dissemination of Preliminary Results from STREAM Stage 1

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Introduction

Preliminary results from STREAM Stage 1 showed the 9–11-month regimen for MDR-TB was very close to the previously recommended 20-month regimen in terms of efficacy, but not statistically non-inferior. There was no significant difference between treatment arms in terms of safety. Additionally, the 9–11-month regimen was shown to provide potential cost savings to patients and health systems.

We evaluated the effectiveness of the dissemination strategy adopted for preliminary results from Stage 1 of the STREAM clinical trial disseminated at Stage 1 and 2 sites in 2018 with the following objectives:

- Perceived effectiveness of dissemination materials and presentations
- Perceived overall effectiveness of dissemination events
- Whether community stakeholders understood the results
- What worked, what didn't, and how to improve dissemination in the future

Target Audience	Communication Channel	Dissemination Material
Principal Investigators (PIs)	Webinars led by MRC and Vital Strategies	Briefing note PowerPoint presentation (technical)
Study Team Members	Participation in PI webinar/PI-led meetings	Briefing note PowerPoint presentation (technical)
CAB Members	Study team-led in-person meetings	PowerPoint presentation (non-technical)
Trial Participants	Community dissemination events (most Stage 1 sites) Patient consultations (most Stage 2-only sites)	PowerPoint presentation (non-technical) Two-page information sheet

Table 1: Overview of communications channels and dissemination materials

Methodology

Study Population: Site principal investigators (PIs) from Stage 1 and 2 sites and community participants including STREAM Stage 1 patients, STREAM Stage 2 patients, and friends /family members who attended dissemination events were surveyed/interviewed to obtain their feedback on the dissemination materials and process.

Sampling Methodology: PIs at 13 Stage 1 and 2 sites were surveyed. Convenience sampling was used to select participants for the participant interviews STREAM Stage 1 Sites. Community liaison officers (CLOs) selected interviewees from attendees at community dissemination events.

Data collection: An online survey was distributed to PIs using SurveyMonkey. PIs rated the effectiveness of the dissemination materials in terms of clarity, level of detail, and technical complexity. CLOs conducted telephone interviews of participants using a semi-structured interview guide. Participants rated materials in terms of amount of information and clarity and answered questions on effectiveness, safety, and cost of trial regimens to assess comprehension of results. Surveys and interviews were designed to collect quantitative and qualitative data. Informed consent was obtained from respondents and the evaluation was reviewed and approved by Vital Strategies' research advisory committee.

Data analysis: Descriptive statistics were produced from quantitative data; qualitative data were analyzed using thematic analysis. Quantitative and qualitative findings were triangulated.

Results

The online survey was completed by 10 (77%) of the 13 site PIs. Twenty-seven participants at four sites completed the participant interview – 13 STREAM 1 participants, nine STREAM 2 participants and five family/friends/community members at four sites in Ethiopia, Mongolia, and South Africa (2 sites).

PI perceptions on the effectiveness of dissemination materials for the key audiences are presented in Table 2.

PI Survey: Perceived Effectiveness of Dissemination Materials												
Target audience and Dissemination Material	Level of Detail of Information Presented				Technical Complexity of Information Presented				Clarity of Information Presented			
	Not enough	Just right	Too much	No Data	Not enough	Just right	Too much	No Data	Clear + easy to understand	Clear overall, but some issues	Confusing + difficult to understand	No Data
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Principal Investigators												
Briefing Note	1 (10)	8 (80)	1 (10)	0	0	9 (90)	1 (10)	0	10 (100)	0	0	0
PowerPoint (Technical)	0 (0)	9 (90)	1 (10)	0	0	9 (90)	1 (10)	0	8 (80)	2 (20)	0	0
Study Team												
Briefing Note	1 (10)	8 (80)	0 (0)	1 (10)	2 (20)	7 (70)	0	1 (10)				
PowerPoint (Technical)	0 (0)	9 (90)	0 (0)	1 (10)	1 (10)	8 (80)	0	1 (10)				
CABs												
PowerPoint (Non-Technical)	1 (10)	8 (80)	0	1 (10)	1 (10)	7 (70)	1 (10)	1 (10)	5 (50)	4 (40)	0	1 (10)
Trial participants												
PowerPoint (Non-Technical)	0	8 (80)	1 (10)	1 (10)	0	7 (70)	2 (20)	1 (10)	6 (60)	3 (30)	0	1 (10)
Two- Page Summary	0	7 (70)	2 (20)	1 (10)	2 (20)	6 (60)	1 (10)	1 (10)	6 (60)	3 (30)	0	1 (10)

Table 2: Results of online survey: PI perception of effectiveness of dissemination materials for key audiences

Overall, PIs thought the materials and presentations for PIs and study teams were effective, but only 60% of PIs rated dissemination materials for trial participants as "clear and easy to understand".

Participants' perceptions of the effectiveness of dissemination materials and presentations are presented in Table 3. Most participants reported that the materials and presentations were easy to understand. However, 20 (74%) of the 27 participants interviewed said they received too much information, 5 (19%) said the amount of information was appropriate, and 2 (7%) said the amount of information was not enough.

Participant Interviews: Perceived Effectiveness of Information Disseminated			
Dissemination Material	Clarity of Information Presented		
	Easy to Understand n (%)	Somewhat Understandable n (%)	Difficult to Understand n (%)
Speaker presentation (PowerPoint non-technical)	24 (89)	0 (0)	3 (11)
Two-page summary	26 (96)	0 (0)	1 (4)

Table 3: Participants' perception of effectiveness of dissemination materials and presentations

Comprehension of the results was low (Table 4). A majority of participants answered questions regarding effectiveness (85%) and safety (77%) of the trial regimens incorrectly.

Participant Interviews: Comprehension of Results				
	Shorter Regimen More Effective	Both Regimens the Same	Longer Regimen More Effective	Don't Know
Total Respondents = 27				
Trial Results	n (%)	n (%)	n (%)	n (%)
Effectiveness	23 (85)	4 (15)	0 (0)	0 (0)
Safety	19 (70)	5 (19)	2 (7)	1 (4)
Cost	15 (56)	3 (11)	3 (11)	6 (22)

Table 4: Results of participant interviews: Comprehension of trial results

What Worked and What Didn't

Valuable insights were gained from the qualitative data to improve future dissemination efforts. The inclusiveness and participatory nature of dissemination events, use of translated dissemination materials, and use of PowerPoint (in addition to written materials), were identified as strengths of the dissemination process. PIs also highlighted stakeholder empowerment as a key benefit.

Areas for improvement identified by PIs included use of a wider variety of simpler dissemination materials, including short visual summaries, extending the timeline for dissemination, and arranging for follow-up Q&A sessions with chief investigators to improve PI understanding of study results. PIs and participants also recommended broadening the audience for results dissemination and creating more interactive sessions.

Conclusion

- Design of the dissemination events and materials worked very well for PIs.
- Design of dissemination events worked very well for participants and community members, creating a sense of inclusion and trust.
- Participants' limited understanding of study results highlights the need to improve dissemination materials for participants/community members using more diverse, simpler media and materials.
- Key messages must be simple and direct and be written specifically for each type of audience.
- Increased engagement of CABs to review patient-facing materials before dissemination is vital.

Imperfect data collection tools, small sample size, potential interviewer bias, and failure to collect data on comprehension of results from the PIs were the main limitations of this evaluation. However, the results, coupled with ongoing dialogue with the researchers, partners, and community members will be used to improve dissemination efforts for STREAM Stage 2 clinical trial results.

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