

## Supplemental File 1. Guidance and frameworks identified which assisted in IPT development

<b>Guidance and Frameworks Identified</b>	
<b>Scale-Up</b>	<p>Scale-up frameworks are categorised into; determinant frameworks, process models and evaluative frameworks (depending on their primary focus) as per Nilsen <sup>1</sup>;</p> <p><b>Determinant frameworks</b></p> <ul style="list-style-type: none"> <li>• Scaling up health service innovations: a framework for action, ExpandNet<sup>2 3</sup></li> <li>• Dynamic Sustainability Framework (DSF)<sup>4</sup></li> <li>• A framework for understanding the constraints of scaling up<sup>5</sup></li> <li>• Scaling up; A proposed framework for success<sup>6</sup></li> <li>• The non-adoption, abandonment, scale-up, spread, and sustainability (NASSS) for patient facing health and care technologies<sup>7</sup></li> <li>• The learning process approach<sup>8</sup></li> <li>• Conceptual framework for priority setting in health<sup>9</sup></li> </ul> <p><b>Process Models</b></p> <ul style="list-style-type: none"> <li>• Scaling up Management (SUM) Framework<sup>10</sup>, updated by<sup>11</sup></li> <li>• Practical guidance for scaling up health service innovations, ExpandNet<sup>12</sup></li> <li>• Nine steps for delivering a scale up strategy, ExpandNet<sup>13</sup></li> <li>• Beginning with the end in mind, ExpandNet<sup>14</sup></li> <li>• SEED Scale<sup>15</sup></li> <li>• A guide to scaling up population health interventions<sup>16</sup></li> <li>• IHI framework for going to full scale<sup>17</sup></li> <li>• A guide to fostering change to scale up effective health services<sup>18</sup></li> <li>• AIDED model for dissemination, diffusion and scale up of family health innovations in LICs<sup>19</sup></li> <li>• Program assessment guide for scaling up nutrition interventions<sup>20</sup></li> <li>• Scaling up breastfeeding<sup>21</sup></li> <li>• MuSCLE framework<sup>22</sup></li> </ul> <p><b>Evaluative Frameworks</b></p> <ul style="list-style-type: none"> <li>• Scaling out<sup>23</sup></li> </ul> <p>Not specific to scale-up but highlighted to be of relevance to implementation and adapting for local context were;</p> <ul style="list-style-type: none"> <li>• Consolidated Framework For Implementation Research (CFIR)<sup>24 25</sup></li> <li>• Promoting Action on Research Implementation (PARIHS) Framework<sup>26</sup></li> <li>• Integrated i-PARIHS Framework<sup>27</sup></li> <li>• Knowledge to action framework<sup>28</sup></li> <li>• Implementation Research (IR) Toolkit<sup>29</sup></li> <li>• Taxonomy of implementation outcomes<sup>30</sup></li> <li>• RE-AIM (Reach, Effectiveness, Adoption, Implementation and Maintenance) Framework<sup>31 32</sup></li> <li>• Methods to Improve the Selection and Tailoring of Implementation Strategies<sup>33</sup></li> </ul>

<b>Adaptation</b>	<ul style="list-style-type: none"> <li>• Elements to consider in cultural programme adaptation<sup>34</sup></li> <li>• Finding the balance program fidelity and adaptation in substance abuse prevention<sup>35</sup></li> <li>• Key principles for adapting research based interventions in HIV<sup>36</sup></li> <li>• Intervention mapping to adapt an effective HIV, sexually transmitted disease, and pregnancy prevention programs<sup>37</sup></li> <li>• ADAPT MAP draft guidance for adapting HIV interventions<sup>38</sup></li> <li>• ADAPT-ITT model for adapting EBI for HIV<sup>39</sup></li> <li>• Replicating effective programs (REP) framework<sup>40</sup></li> <li>• ADAPTE guidelines<sup>41</sup></li> </ul>
<b>Fidelity</b> (including Intervention Development and Testing)	<ul style="list-style-type: none"> <li>• Bauman’s parameters for consideration in intervention development<sup>42</sup></li> <li>• The conceptual framework for adaptive interventions<sup>43</sup></li> <li>• NIH Behaviour Change Consortium (BCC) fidelity concepts<sup>44</sup></li> <li>• Comprehensive intervention fidelity guide<sup>45</sup></li> <li>• Carroll’s conceptual framework for implementation fidelity<sup>46</sup></li> <li>• Hasson’s modified conceptual framework for implementation fidelity<sup>47</sup></li> <li>• The modified Carroll’s fidelity framework<sup>48</sup></li> <li>• Fidelity variation concepts from ASSIST RCT<sup>49</sup></li> <li>• Figuring out fidelity<sup>50</sup></li> <li>• Contextualised Interventions<sup>51</sup></li> <li>• Medical Research Council (MRC) guidance for process evaluations<sup>52</sup></li> <li>• The conceptual model for translating evidence based Interventions into community Settings<sup>53</sup></li> <li>• Template for Intervention Description and Replication (TIDieR) guidance<sup>54</sup></li> <li>• RE-AIM framework<sup>31 32</sup></li> </ul>
<b>Some examples from the wider literature</b> (including general implementation literature and theories)	<p>Some examples of wider literature used to also inform IPT Framework (please note this is not comprehensive and all wider literature is referenced in the full research logbook available on request);</p> <ul style="list-style-type: none"> <li>• Mechanisms for scale-up by Willis and colleagues<sup>55</sup> and large system transformation in healthcare by Best and colleagues<sup>56</sup></li> <li>• Barriers and facilitators to scale-up, Norton and Mittman<sup>57</sup></li> <li>• Diffusions of innovation theory, Rogers<sup>58</sup></li> <li>• Complex adaptive systems theory, Paina and colleagues<sup>59</sup></li> </ul>

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