

**a**

| Discovery   | Translation  | Knowledge  |
|---|--|--|
| <i>Biobanks</i>                                       | <i>Clinical Trials</i>                                       | <i>Scientific Literature</i>   |
| 70 biobanks   | 563,725 trials   | 13.1 million abstracts   |
| 29 countries  | 770,178 sites  | 175 diseases   |
| 38,595 publications                                   | 194 countries  | PubMedBERT embeddings  |
| <b>Key metrics:</b>                                   | <b>Key metrics:</b>  | <b>Key metrics:</b>  |
| Gap Score:<br>research coverage<br>vs. disease burden | Research Intensity:<br>trials per million<br>DALYs           | Semantic Isolation<br><b>Index (SII):</b><br>distance from other<br>disease research |
| Equity Alignment                                      | Geographic Ratio:<br>HIC vs. LMIC<br>trial site distribution | Knowledge Transfer<br><b>Potential (KTP):</b><br>cross-disease similarity            |
| <b>Score (EAS):</b><br>biobank-level equity           |  |  |

**b****c**