

1 **Evidence-informed policymaking at country level: Lessons learned from the South**  
2 **African Tuberculosis Think Tank**

3  
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26 **ABSTRACT**

27

28 **Background**

29 National Tuberculosis Programmes(NTP) require specialist input to support the development  
30 of evidence informed policy and practice, typically against tight deadlines.

31

32 **Aim**

33 Describe lessons learned from establishing a dedicated Tuberculosis Think Tank(TT) to  
34 advise the South African NTP on Tuberculosis(TB) policy.

35

36 **Intervention and evaluation methods**

37 A national TB TT was established to advise the NTP to support evidence based policy. Support  
38 was provided for activities including: meetings, modelling, and regular calls with a wider  
39 network of unpaid expert advisers under an Executive Committee and Working Groups.  
40 Intervention evaluation used desktop analysis of documentary evidence, interviews, and direct  
41 observation.

42

43 **Results**

44 The TB TT evolved over time into three key roles, an 'Institution', a 'Policy Dialogue Forum',  
45 and an 'Interface'. Although enthusiasm was high, motivating participation from NTP and  
46 external experts proved challenging. Motivation of working groups was most successful when  
47 aligned to a specific need for NTP decision-making. Despite challenges, the TB TT contributed  
48 to South Africa's first ever TB&HIV investment case, and the decision to create South Africa's  
49 first ever ring-fenced grant for TB. The TB TT also assisted the NTP in formulating strategy to  
50 accelerate progress towards the WHO Targets.

51

52 **Discussion**

53 The TB TT, with partners, yielded major successes in supporting evidence-informed decision  
54 making, and garnered increased funding for TB in South Africa. Identifying ways to increase  
55 involvement of NTP staff & other experts, and keeping the scope of the TT well defined, could  
56 facilitate greater impact. TT initiatives could be replicated in other settings to support evidence-  
57 informed policymaking.

58

59 **BACKGROUND**

60 Tuberculosis (TB) presents a major health burden in South Africa (1). In response to this, and  
61 with considerable recent political support (2-4), South Africa's National TB Programme (NTP)  
62 has become an early adopter of innovation (5). However, resources are limited and the NTP  
63 requires specialist input to support development of policy and practice, typically against tight  
64 deadlines.

65  
66 International bodies such as the World Health Organization (the WHO) provide global TB  
67 guidance documents and periodic country epidemiological reviews, but these global bodies  
68 cannot provide the rapid, bespoke advice that the South African, and other NTP's, often  
69 require (6).

70  
71 As such, a dedicated 'TB Think Tank' (TB TT) was conceived by the NTP to fill the gap,  
72 drawing on existing national expertise and research capacity, and international networks. It  
73 was tasked with anticipating and responding to policy makers' requests for evaluation of  
74 evidence and quantitative analysis, and with improving TB data utilization.

75  
76 The need for rapid, bespoke advice is not unique to South Africa or Tuberculosis. Advisory  
77 bodies and agencies have been created in many countries globally to fill this advice gap in  
78 low/middle (7-9) and high income counties (10). In South Africa itself, an HIV TT exists, tasked  
79 with '*providing a central place for all stakeholders [under Department of Health], to review  
80 epidemiological, routine monitoring and economic evidence related to the HIV epidemic,  
81 identify priority gaps, and establish consensus on appropriate next steps, including research  
82 projects and pilots of new programs and policies*' (11). However, very little has been written  
83 about the structure and effectiveness of health policy TTs (8, 12-14). Reviewing this literature,  
84 *Bennett et al* concluded that small number of key factors were key to the success of health  
85 policy TTs: production of timely, relevant, credible, trustworthy and actionable evidence, and  
86 close relationships with policy makers (12). In their in-depth analysis of six health policy TTs  
87 in Bangladesh, Ghana, India, South Africa, Uganda and Vietnam, *Bennet et al* also concluded  
88 that a supportive policy environment, some degree of independence from government, and  
89 strong links to policy makers were critical for effective policy engagement. A study on the  
90 formation of a TT-like institution in Indonesia identified challenges that included: longer-term  
91 financial support, a limited number of scientific publications, and difficulties in documenting TT  
92 impact on programmatic performance (9).

93

94 To contribute to this critical, but limited, literature, the aim of this paper was to describe the  
95 lessons learned from establishing a dedicated TB TT to advise the South African NTP on TB  
96 policy.

97

## 98 INTERVENTION AND EVALUATION METHODS

99

### 100 INTERVENTION

#### 101 *Mission and structure*

102 The mission of the TB TT was to advise the NTP on TB treatment and prevention policy and  
103 programmatic implementation, to achieve the National Strategic Plan (NSP)/World Health  
104 Assembly targets for TB with focus on innovations. The TB TT's internal structure evolved  
105 over time and its current organizational structure is shown in Figure 1. The TT was co-chaired  
106 by the Deputy Director General for Health Strategy and the head of a SA research institute.  
107 The TT was created to include an Executive Committee and three expert working groups. The  
108 three expert working groups were each chaired by two or more co-chairs including: an  
109 individual from the NTP and another individual (or two) from domestic expert organisations.

- 110 • Working group 1: Modernising a national response to TB aligned to the Post-2015  
111 Global TB programme Strategy, including
  - 112 ○ Know your epidemic (systematic analysis of data)
  - 113 ○ Define your interventions: e.g. access to care, and active case finding
  - 114 ○ Plan your response (including modelling and economics)
- 115 • Working group 2: Implementation and Delivery, including
  - 116 ○ Information and communication technologies, monitoring and evaluation,  
117 and surveillance
  - 118 ○ Forecasting and budgeting
  - 119 ○ Monitoring implementation of new policy
  - 120 ○ Human resources planning and training
- 121 • Working group 3: Research on diagnostics, drugs and vaccines

122

123 The SA Government Health and Finance departments were at the core of the TT, supported  
124 by South African and international research institutions, including the Department of Science  
125 and Technology, the South Africa Medical Research Council, London School of Hygiene and  
126 Tropical Medicine, technical support agencies, funders & WHO Global TB Programme and  
127 UNAIDS.

128

#### 129 *Objectives*

130 The wider project supporting the TT had five main objectives: 1) Formalizing the TB TT; 2)  
131 Creating and applying epidemiological and economic modelling tools in order to identify cost-  
132 effective and affordable strategies to assess, and reach, NSP goals; 3) Promoting the use of

133 the quantitative evidence generated by these tools, to inform TB prevention and care policy  
134 and practice in South Africa; 4) Building capacity and sustainable systems to ensure the tools  
135 can be used within country to inform TB prevention and care policy and practice; and 5)  
136 Assessing the success of the project disseminating findings, and if successful, identifying  
137 funding to support systems beyond the end of project.

138

### 139 ***Activities and resources***

140 The TB TT was designed to consider policy and implementation questions requiring evidence  
141 to inform policy by carrying out the following activities: 1) Collating, reviewing, synthesizing  
142 and evaluating evidence, 2) Requesting evidence, and if necessary, commissioning research,  
143 3) Brainstorming innovations & making recommendations to the NTP for policy and  
144 implementation in the form of policy briefs, 4) Assisting NTP in developing operational  
145 guidelines, and 5) Advising NTP on key implementation activities in support of budget  
146 discussions with the National Treasury and as part of investment case development for new  
147 donor grants. The TT was set up with financial support from the Bill and Melinda Gates  
148 Foundation (BMGF). This funded quarterly face-to-face TT meetings, the dedicated  
149 epidemiological modelling and economic staff (~3.5 people), and convening of regular calls  
150 with a wider network of unpaid expert advisers in the Executive Committee and the three area  
151 Working Groups. **The Box illustrates** the TT activities for the example of childhood screening  
152 for TB.

153

### 154 ***Operating modes***

155 The TT was established flexibly to operate through two modes: 1) to respond to specific,  
156 usually time limited, requests from the NTP and 2) to serve as thought drivers for large national  
157 strategy development processes such as the new five-year NTP Strategy.

158

## 159 **EVALUTION METHODS**

160 This BMGF project was evaluated by an independent external evaluator (DC) based on desk-  
161 top analysis of documentary evidence, interviews, and direct observation.

162 The main audience was the project sponsors (the funder and the NTP) and other key  
163 stakeholders. However, the evaluation was also designed to provide the project team with  
164 regular constructive feedback to help improve the likelihood of a successful outcome. It  
165 recognised that the project's evolutionary nature and organisational change themes were  
166 often best supported through an 'appreciative inquiry' approach, focusing more on identifying  
167 and building on what was working well and less on correcting problems or deviations from the  
168 detail of the original proposal. The funder was amenable to this approach.

169 The evaluator's synthesis of the evidence and his conclusions and recommendations were  
170 published in his March 2017 Final Evaluation Report, which drew on:

- 171 • Baseline interviews during June-September 2014 with project team members and external  
172 stakeholders and a review of project documents (Interim Report 1).
- 173 • Project team interviews and a review of progress reports during July-December 2015  
174 (Interim Report 2).
- 175 • Participant interviews and observation of the December 2015, April 2016, and August 2016  
176 TB TT and NTP workshops (Interim Reports 2 and 4).
- 177 • An analysis of think tank models and evolving TB TT roles (Interim Report 5).
- 178 • Final evaluation interviews November-December 2016 with project sponsors, international  
179 and national stakeholders, project team members and an audit of project management  
180 documentation and procedures.

181 All interviews were non-attributable. The project team was invited to comment on factual  
182 accuracy before publication, but the evaluator retained complete discretion over their  
183 inclusion. The recommendations included in this paper were based on the findings from the  
184 evaluator's external evaluation.

185

## 186 **RESULTS AND LESSONS LEARNED**

### 187 ***Main achievements***

188 The TT, with partners, yielded several major successes over the first three years (Table 1).  
189 Soon after the TT was launched, impact modelling, carried out by modellers supporting the  
190 TT, was used to help define the scope of a SA MRC/UK MRC funding call on operational  
191 research with a budget of R70m. In 2015, the TT supported the establishment of the National  
192 TB Research Plan and Investment Case for TB Research, by convening meetings and  
193 developing the initial concept note. Also in 2015, the TT provided evidence supporting the  
194 creation of SA's first ever joint TB & HIV Investment Case. This led to changes in NTP budgets  
195 for TB in 2016, and formed the basis of Intensified Case Finding recommendations in the new  
196 NTP strategy. In 2016, the TT provided evidence that led to SA's first ever TB conditional grant  
197 (ring fenced funds) for TB, and increased domestic funding for TB by R500m. Later that year,  
198 the TT provided evidence that informed the NTP decision to use '3HP' preventative therapy  
199 for people living with HIV and child contacts, instead of 'IPT'. Also in 2016, the TT provided  
200 evidence that supported the NTP decision to use Bedaquiline in the treatment of all multi-drug  
201 resistant TB patients. This evidence supported the recommendation in the NTP Strategic Plan  
202 that Bedaquiline be included in the MDR TB short-course regimen during the second phase  
203 of roll out (15). The Bedaquiline containing short course regimen will initially be implemented  
204 in centres of excellence under operational research conditions. The TT also took a leading  
205 role in supporting the NTP development of the new South Africa NTP Strategic Plan 2017-  
206 2021. The TT convened meetings on the Plan, compiled and verified information from experts,  
207 and created a first draft of the Plan for NTP finalisation. The Plan has yet to be formally  
208 released, but will shape the TB response in South Africa for the next 5 years. The TT also has  
209 representation on the South African National AIDS council (SANAC) Steering Committee, a  
210 body bringing together government, civil society and the private sector to create a collective  
211 response to HIV, TB and STIs. The TT provided TB evidence for the new SANAC NSP,  
212 ensuring alignment with the NTP TB department's Strategic Plan.

213

### 214 ***Main challenges and enablers***

215 Although initial enthusiasm was high, motivating active and sustained participation from NTP  
216 and external experts proved challenging. From its initiation, it was evident that broad active  
217 participation of NTP staff was essential for the success of the TT. However, there were real  
218 constraints in terms of the amount of time that individual NTP staff could dedicate to the TT in  
219 the absence of a mandate from NTP leadership and/or provision of relief from other duties.  
220 The same was true of external experts. They were time constrained and were funded largely  
221 through grants and therefore the ability to provide substantial amount of unfunded time was  
222 limited. There was also a perception that the TT agenda was overly driven by key partners.



223

224 This then became the challenge to the Secretariat: to facilitate open and transparent TT calls  
225 and meetings that included robust and sustained NTP and external expert participation.

226

227 Within one year of TT formation, it became evident to the Secretariat that the required level of  
228 stakeholder input would be hard to achieve. Due to scant participation at its programmed  
229 monthly teleconferences, the Secretariat abandoned the monthly format in favour of quarterly  
230 face-to-face meetings.

231

232 Also evident was the need to flesh out robust agendas, to provoke vigorous discussion, and  
233 provide a platform for active decision making. There was a general perception that these  
234 quarterly TT meetings were to be different from typical TB conferences where researchers are  
235 asked to present their latest research work and findings to a general (TB) audience, with little  
236 required input from the audience. Rather, NTP staff and external experts demanded meeting  
237 agendas at which their targeted input was required in the form of yes/no votes on, for example,  
238 the implementation of Strategy A vs. Strategy B.

239

240 Thus, the Secretariat worked with the TT co-chairs to create meeting agendas that identified  
241 the 2-3 highest priority items facing the NTP, e.g. whether ultraviolet lamps should be used for  
242 infection control, and the value of serological tests for diagnosis of *Mycobacterium tuberculosis*  
243 infection and TB disease. Once chosen, the Secretariat reached out to experts, collated the  
244 evidence required for presentation to the TT, and organised the meeting with the goal of  
245 provoking vigorous debate, but also consensus building and decision making.

246

247 By reducing the frequency of the TT meetings to a quarterly format, and by focusing the  
248 agenda on 2-3 priority items requiring concrete input from its membership, the Secretariat  
249 could mobilise vigorous participation from both the NTP staff and external experts, and to  
250 channel this participation to result in concrete suggested paths of action for NTP strategy.

251

252 The roles and activities of the TT greatly expanded over time in response to the needs of the  
253 NTP. First as a science-based 'Institution' – providing robust and independent evidence for  
254 policy formation, usually in response to an NTP request for rapid evidence. An example was  
255 providing evidence on potential use of 3HP therapy for people living with HIV and child  
256 contacts (Table 1). Second, as a 'Policy Dialogue Forum' facilitating the wider engagement  
257 between NTP and stakeholders on TB Policy. An example was facilitating the development of  
258 the NTP National Strategic plan (Table 1). Finally, as an 'Interface' between the NTP and the

259 modelling/economics community, where resource constraints limited the NTP's ability to act  
260 as a critical consumer of research output.

261

262 In addition, other enablers included strong political support from the South African President  
263 and Minister of Health, for improving TB prevention and care, core funding for convening  
264 activities and analytical work, and, over time, improving communication channels between the  
265 NTP, modellers, economists & other experts.

266

### 267 ***Summary of independent evaluation, future directions and sustainability***

268 The TT was set up to be both demand-and supply-driven (i.e. responding to requests  
269 originating in the NTP but also investigating issues originated by its working parties).  
270 However, over time, it evolved towards the demand end of the spectrum. In response, its remit  
271 and processes have developed to find a balance that matches the national need.

272 Key elements now need to be addressed to ensure the future sustainability and utility of the  
273 TT. Perhaps most importantly, decision makers and funders should consider the balance the  
274 benefits of continuing to use the TT in its three roles ('Institution', 'Policy Dialogue Forum', and  
275 'Interface'), against the risk that its resources will be spread too thinly and it will fail to deliver  
276 fully against any of them.

### 277 *Institutional role*

278 In its 'Institutional' role, the TT placed more emphasis on responding to government needs  
279 rather than proactively promoting the TT members' analysis of key priorities. Under this model,  
280 the TT operated more as an integral part of the NTP policy development process; sponsored  
281 by it, but carrying out work at arm's length from ministers. Although there are, as yet, only a  
282 few completed examples (i.e. development of policy briefs) the TT has shown it can be an  
283 independent body, supporting decision making by advising on issues put to it by Government.  
284 Improvements can be made: feedback from the NTP on decisions eventually taken often did  
285 not reach contributing experts, so it is essential in future to maintaining engagement and to  
286 help Members keep their advice relevant. Some saw this reactive 'Institution' role as less  
287 valuable, but we propose this role may in fact be more critical over the long term, as it has the  
288 benefit of being aligned to the NTP's expressed needs, and build the NTP's trust and belief in  
289 the TT's utility. We propose that the Working Groups could still originate issues under an  
290 institutional model. In addition, to further strengthen the 'Institutional' aspects of the TT, it could  
291 be structured in a similar way to other 'arm's length' advice giving organisations like the  
292 National Institute of Clinical Excellence in the UK, and it may not want NTP 'ownership' which

293 may compromise its independence. Finally, for the 'Institution' to function more efficiently, we  
294 propose improved linkages between the TB TT and other TTs, particularly the HIV TT (11).

#### 295 *Policy dialogue convener role*

296 The NTP encouraged the TT from the start to take on a significant 'Policy Dialogue Convener'  
297 role across initiatives and funders. In future, this could continue to be a major secondary  
298 benefit, but only if it is clear which organisation is responsible for which function or programme.  
299 This complementary policy dialogue role has proved very valuable to the NTP and National  
300 TB Strategic Plan stakeholders, including a wide variety of national institutions and NGOs,  
301 and deserves to be explicitly supported. However, if it is not covered explicitly in future funding  
302 agreements, we warn that the TT may end up doing the job anyway again, with consequences  
303 for both the quality of the dialogue and the TT's other work. In addition, to further strengthen  
304 this role of the TT, we recommend the NTP needs to be enabled to take an increased  
305 ownership for the TT by taking on (or being seconded) a dedicated member of staff  
306 responsible for the TT. We also recommend external experts are better enabled to contribute  
307 to the TT, perhaps by funding their time directly, or with citeable acknowledgment of their  
308 contribution to the NTP decision making. We recommend the TT is better integrated into the  
309 existing longer-term planning cycles in South Africa, as has occurred for the SANAC 2017-22  
310 National Strategic Plan. There is also a need to change any perception that the TT agenda is  
311 overly driven by key partners, perhaps by diversifying the TT membership. Finally, the TT  
312 needs sustained funding, with a plan to transition to NTP funding over time.

#### 313 *Interface role*

314 In its third role, the TT has also provided value as an 'Interface' between the NTP and  
315 modelling initiatives, and provided resources where constraints limited the NTP's ability to act  
316 as an 'intelligent customer' of analytical work. It helped the NTP formulate its requirements  
317 and interpreted/packaged modelling outputs for NTP use. However, TB modelling skills are  
318 extremely rare South Africa. As such we recommend that there is short term funding  
319 specifically to support TB modelling, until other South African institutions can maintain TB  
320 modelling expertise, so that the TT can draw on these skills when required for specific (usually  
321 short term) TT task. A grant commissioning management ability could also be included in the  
322 TT funding renewal to facilitate more engagement with a wider range of experts.

323

#### 324 ***Comparison with other Think Tank initiatives***

325 There are similarities between the challengers, and enablers, identified in previous research  
326 on health policy TTs (9, 12), and in our study. The SA TB TT was fortunate to have a  
327 supportive policy environment, some degree of independence from government, and strong  
328 links to policy makers, which facilitated effective policy engagement. Despite challenges, the  
329 SA TB TT also tended to provide timely, relevant, credible, trustworthy and actionable  
330 evidence to NTP, that further strengthened the relationship between the TT and NTP, over  
331 time. The SA TB TT was also fortunate that, so far, it has only suffered temporary shortfalls  
332 in financial support, unlike the longer-term shortfalls experienced by TTs in Bangladesh, India,  
333 and Uganda and Indonesia (9, 12).

334

335 Unlike the Indonesian TT (9), the SA TB TT's evaluation focussed on the strategic and process  
336 level pre-conditions for impact on TB control, rather than practice level impacts. This was a  
337 deliberate decision, taken during TT creation, because it was thought impact on practice was  
338 unlikely over the ~ 2 years of the initial funding. However, given that alleviating suffering from  
339 TB (via changes in practice), is the SA TB TT's ultimate goal, perhaps in the current funding  
340 cycle, the SA TB TT's impact on practice, as well as policy, could be evaluated.

341

342 We believe that the likely utility of this TT, and the contribution of other health policy TTs (9,  
343 12), justify their wider application to support evidence-informed TB decision making. Some  
344 key characteristics for effective engagement and practical delivery have now been identified,  
345 and many aspects of the South African TT model could be replicated in other settings.

346

347

348 **CONCLUSION**

349 The TB TT, with partners, yielded major successes in supporting evidence-informed decision  
350 making, and garnered increased funding for TB in South Africa. Identifying ways to increase  
351 involvement of NTP staff & other experts, and keeping the scope of the TT well defined, could  
352 facilitate greater impact. TT initiatives could be replicated in other settings to support evidence-  
353 informed policymaking.

354

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414 **BOX, TABLES AND FIGURES**

415 **Box – Illustrative example of Think Tank Processes – Childhood screening for TB**

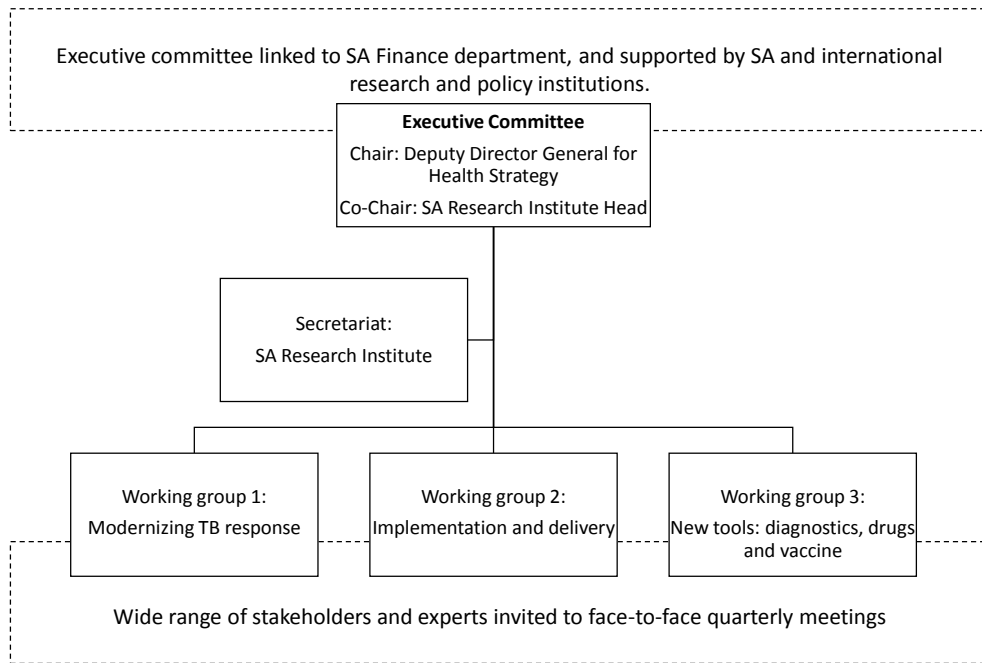
416 In 2014, the TB Think Tank was requested by the South African National Department of  
417 Health to provide recommendations on whether screening of children in schools was an  
418 appropriate intervention. A policy brief was compiled, based on review of key publications,  
419 and input from experts from at least three different institutions:

- 420
- 421 1. The national data were reviewed to determine the proportion of notified TB cases  
422 nationally among children. It was determined that paediatric (<15 years) cases of TB  
423 made up 11% of notified TB cases, and that approximately 50% of these were in children  
424 under 5 years of age.  
425
  - 426 2. TB Prevalence studies, undertaken as part of TB vaccine studies, were reviewed to  
427 determine the TB prevalence in different child populations. It was determined that TB  
428 prevalence amongst adolescents was very low, at 0.3%, indicating that active case  
429 finding in this group would not yield a high number of TB cases. In infants, *M.tb* infection  
430 prevalence was around 5.3%.  
431
  - 432 3. Further evidence for screening of children among TB household contacts was reviewed  
433 to determine the most appropriate intervention for identifying TB.  
434
  - 435 4. All additional considerations were listed such as:
    - 436 • Higher prevalence of more severe TB types such as TB meningitis among children
    - 437 • Difficulty in diagnosis of TB in children
    - 438 • Reduced transmission from children therefore limited public health benefit.  
439

440 The recommendation to the National TB department was that TB in children accounts for a  
441 small proportion of the national burden of TB. There was little evidence to suggest that  
442 school based education and active case finding in schools will impact on the national TB  
443 epidemic.  
444

445 The National TB department then decided to focus their case-finding interventions on  
446 creches (children under five), rather than schools.  
447





449

450 **Fig 1 Current organizational structure of the South Africa TB Think Tank.** SA = South  
451 Africa. TB = tuberculosis.

452

453 **TABLE 1 Examples of likely policy influence of TB Think Tank 2014-16.** TT = Think Tank. SA = South Africa. TB = tuberculosis, MRC =  
 454 Medical Research Council, NTP = National Tuberculosis Programme, UNAIDS = Joint United Nations Programme on HIV/AIDS, ICF=  
 455 Intensified Case Finding, IC = Investment case, 3HP = Once-weekly isoniazid and rifapentine for 3 months, IPT = Isoniazid preventive therapy,  
 456 PLWHIV = People Living with HIV/AIDS, BDQ = Bedaquiline, MDR = Multi-drug-resistant, WHO= World Health Organization, NTP = National  
 457 TB Programme, NICD = National Institute for Communicable Diseases , URC = University Research Co, SAMRC = South Africa MRC, NHLS =  
 458 National Health Laboratory Service, SANAC = South African National Aids Council, USAID = U.S. Agency for International Development, CDC  
 459 = Centers for Disease Control and Prevention, NGO = non-governmental organization.

460

Policy area	Policy output	Timeframe of influence	Key actor (other stakeholders)	Key Think Tank activities	Impact	Evidence for Impact
SA MRC research funding	Funding call	2014/5	SA MRC, MRC UK	Data analysis, modelling, call & presentation to SA MRC	TT provided evidence that helped define scope of SAMRC/ UKMRC funding call on operational research (R70m)	<a href="#">Presentation to SAMRC</a> <a href="#">Funding call on SAMRC website</a>
NTP TB screening policy	Childhood TB screening policy brief	2014/5	NTP, Researchers	Development of Policy Brief	Change in strategy with regards TB screening for children	Active case-finding practice in under 15s
SA funding for research	NTP decision to support	2015+	SA MRC, NTP	Meeting convening	TT asked to convene meetings & develop concept until NTP supported National TB Research Plan and Investment Case for TB Research. Now MRC led.	Meeting notes

Policy area	Policy output	Timeframe of influence	Key actor (other stakeholders)	Key Think Tank activities	Impact	Evidence for Impact
NTP TB funding	SA TB & HIV Investment Case (first ever)	2015+	UNAIDS (SANAC, NTP, Treasury)	Analysis, modelling and report preparation	TT provided evidence that led to change in NTP budgets for TB in 2016. IC phase II results form the basis of ICF recommendations in NTP strategy 2016.	<a href="#">IC Phase I report on SANAC website</a> <a href="#">IC overview presented to Dr Lindiwe Mvusi</a> <a href="#">Key IC Phase II findings for NTP, presented to TT</a>
NTP TB funding	SA conditional grant (ring fenced funds) for TB (first ever)	2016+	UNAIDS (SANAC, NTP, Treasury)	Analysis, modelling, presentation to the NTP to inform parliamentary budget bid	TT provided evidence that led to SA's first ever TB conditional grant (ring fenced funds) for TB and increased domestic funding for TB (R500m). TT has assisted with collecting information on current TB expenditure and supplying unit costs for conditional grant provincial business plans.	<a href="#">Cost model</a> <a href="#">NTP presentations</a> <a href="#">Budget bid</a> <a href="#">Letter from Deputy Director General for Health Strategy</a>
NTP TB treatment policy	Policy and NTP strategy	2016+	National Health Committee	Developed 3HP component of the National TB Strategic Plan and co-led the development of the NTP Strategic plan	TT provided evidence to support NTP justification to use 3HP, instead of IPT, for PLWHIV/ child contacts	3HP included in the <a href="#">NTP Strategic Plan (draft)</a> . <a href="#">Letter from Deputy Director General for Health Strategy</a>
NTP TB treatment policy	Policy and NTP strategy	2016+	NTP, National Health Committee	Convened an expert working group to review the evidence from the Bedaquiline (BDQ)	TT provided evidence that supported the NTP decision to use Bedaquiline in the treatment of all multi-drug resistant TB patients.	SA Data from BCAP and National rollout program presented to WHO by TT, to be included in the individual

Policy area	Policy output	Timeframe of influence	Key actor (other stakeholders)	Key Think Tank activities	Impact	Evidence for Impact
				clinical access programme and the national rollout data to evaluate the effect of BDQ on mortality. Facilitated engagement with WHO. Facilitated inclusion of BDQ in the short course MDR TB in the National Strategic Plan	This evidence supported the recommendation in the NTP Strategic Plan that Bedaquiline be included in the MDR TB short-course regimen during the second phase of roll out. The Bedaquiline containing short course regimen will initially be implemented in centres of excellence under operational research conditions	level meta-analysis of BDQ effectiveness and safety commissioned by WHO. TT also facilitated inclusion of BDQ in the short course regimen in the <a href="#">NTP Strategic Plan (draft)</a> . Meeting minutes. <a href="#">Letter from Deputy Director General for Health Strategy</a>
National TB prevention and care strategy and resource allocation	NTP Strategic Plan, 2017-2021	2017-2021	NTP, NICD, URC, SAMRC, NHLS, SANAC, USAID, CDC	Meeting convener, note taker, document writing, sub-group hosting, compiler and verifier of information.	Forthcoming	Meeting report: 19-20/4/16 <a href="#">NTP costing analysis</a> <a href="#">NTP Strategic Plan (draft)</a> <a href="#">Letter from Deputy Director General for Health Strategy</a>
National TB prevention and care strategy and resource allocation	SANAC national strategic plan document	2017-2022	SANAC, NTP, Civil Society Development, Partners, NGOs	Representation on NSP Steering Committee Participation at NSP consultation meetings and workshops	Forthcoming	<a href="#">SANAC final report</a> <a href="#">Letter from Deputy Director General for Health Strategy</a>