

TIME TB Model: a new user-friendly tool to support country-level TB control policy

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Aurum Institute
Avenir Health

Symposium 'Modelling to support TB control policy in the era of the End TB Strategy'
Cape Town, 5 December 2015

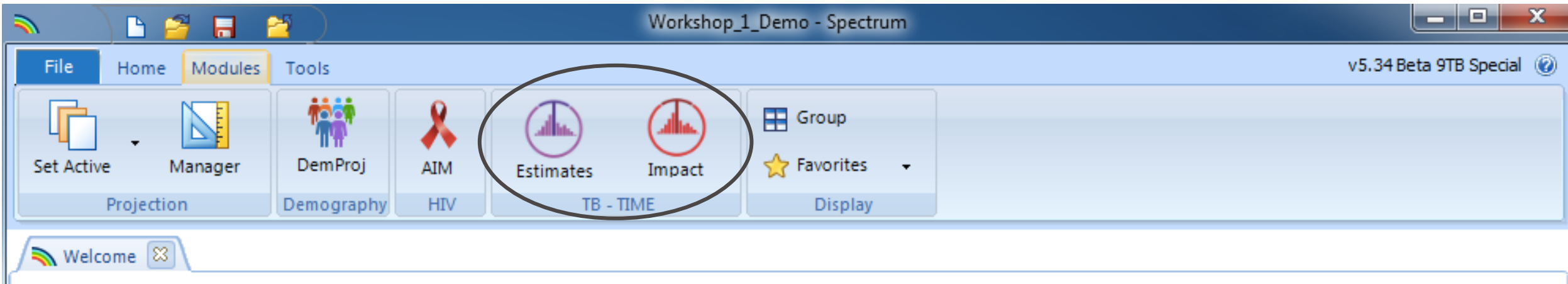


MODELLING GROUP



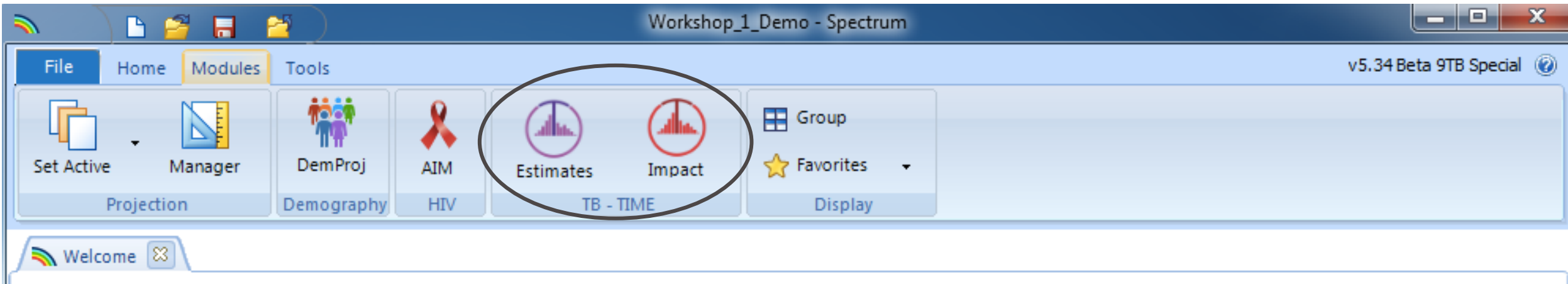
Contents

- Why TIME?
- What is TIME?
- Examples of TIME applications



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Utility of in-country modelling tool



Utility of in-country modelling tool

Speed



Utility of in-country modelling tool

Central talking point



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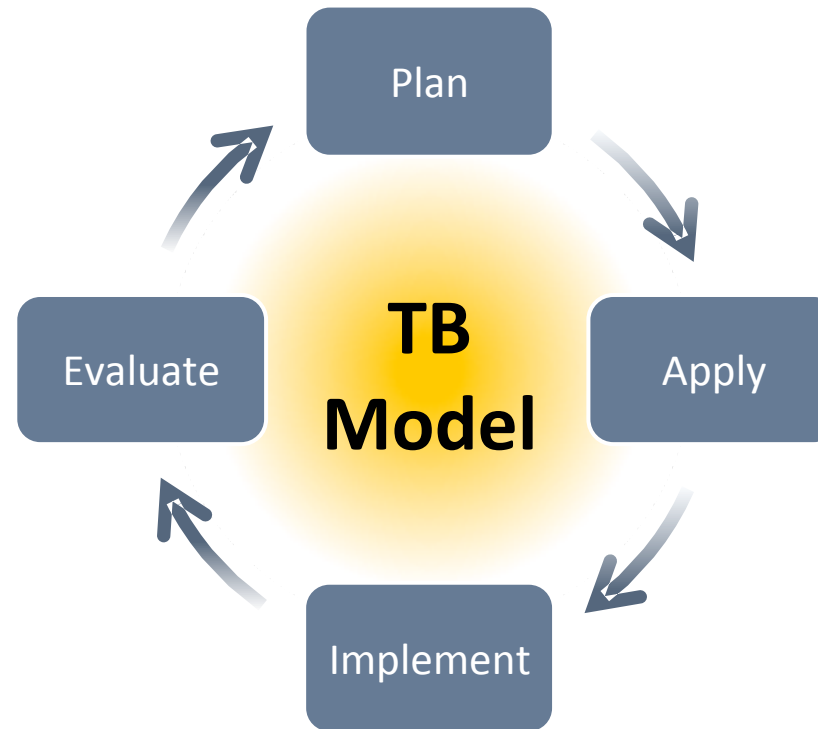
Utility of in-country modelling tool

Data collation and collection



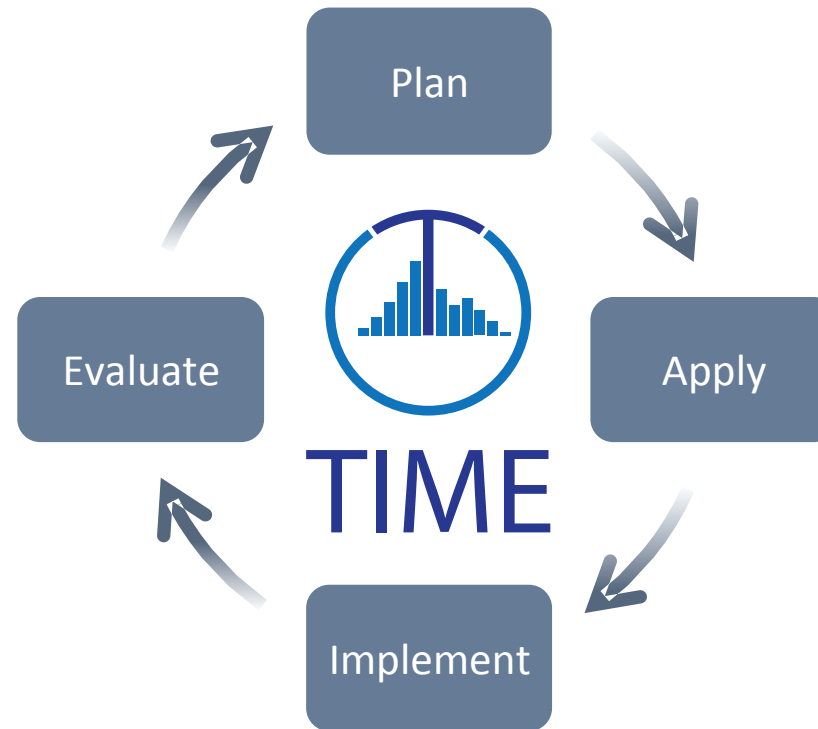
Utility of in-country modelling tool

Sits in centre of programming cycle



Utility of in-country modelling tool

Sits in centre of programming cycle



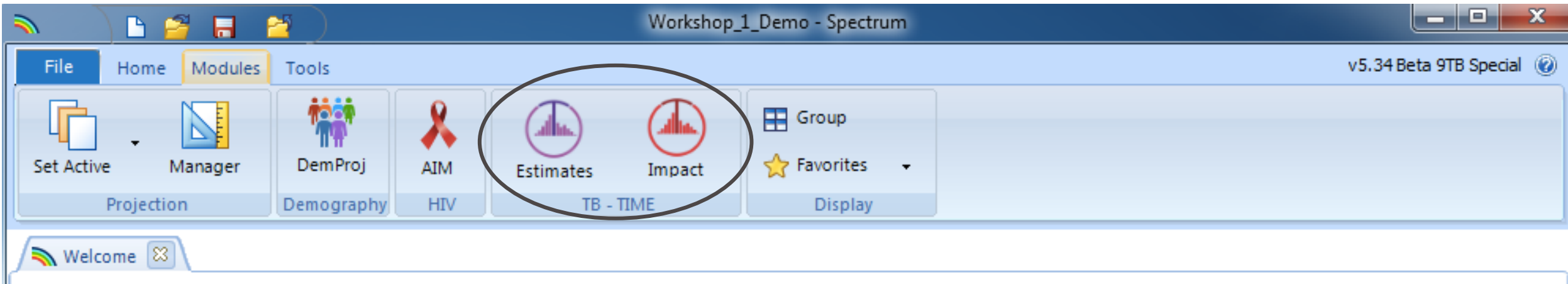
Utility of user-friendly in-country modelling tool

Local capacity building

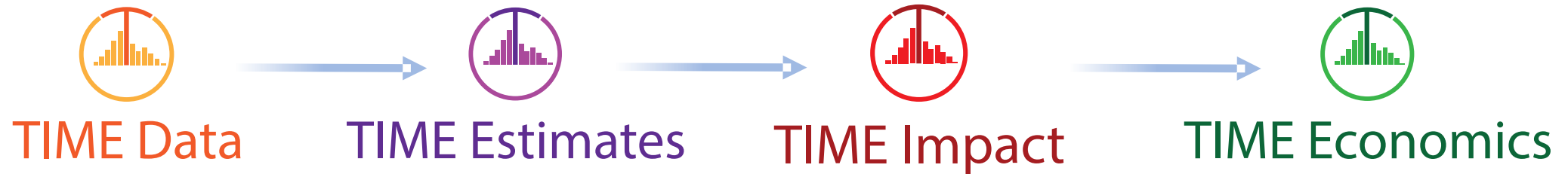


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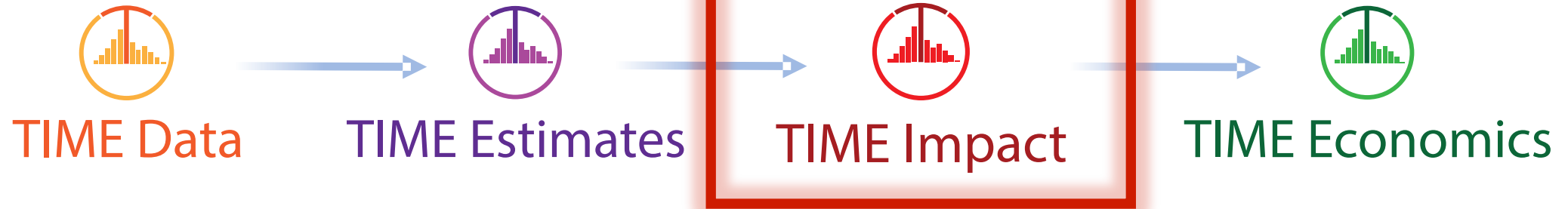


TIME Modules



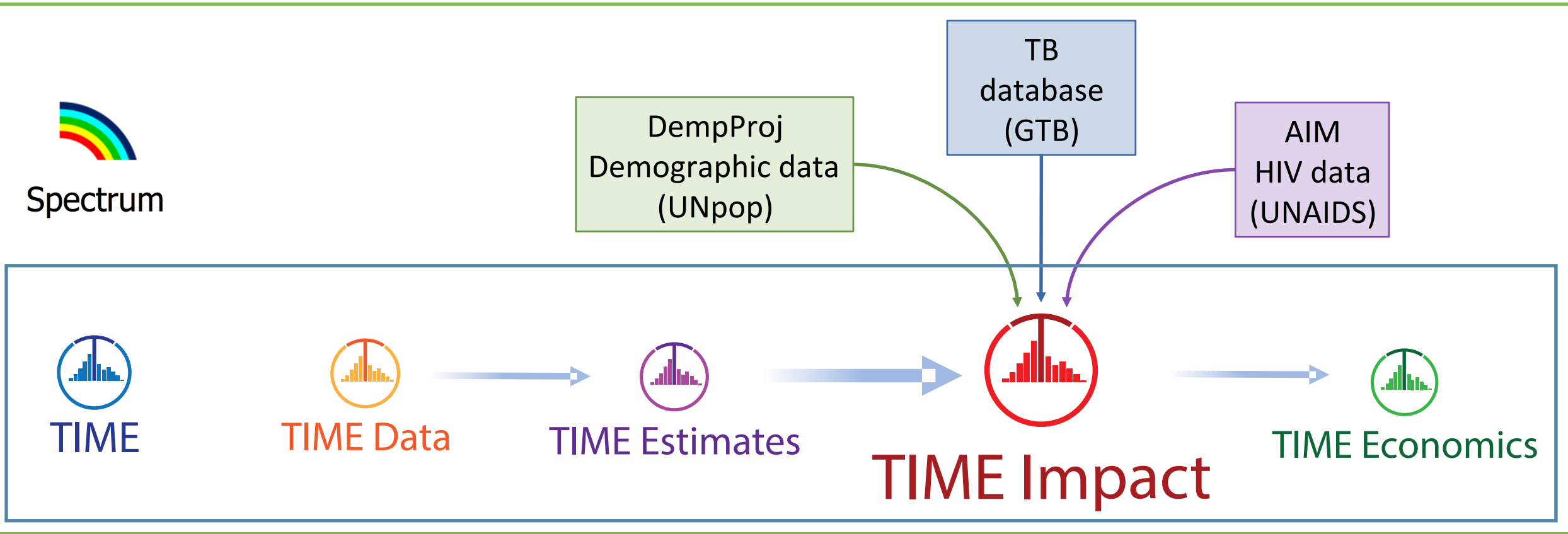
1. Data review, quality assessment and certification
2. Estimation of current burden and past trends
3. Projection and epidemiological impact
4. Resource allocation and resource needs

TIME Impact

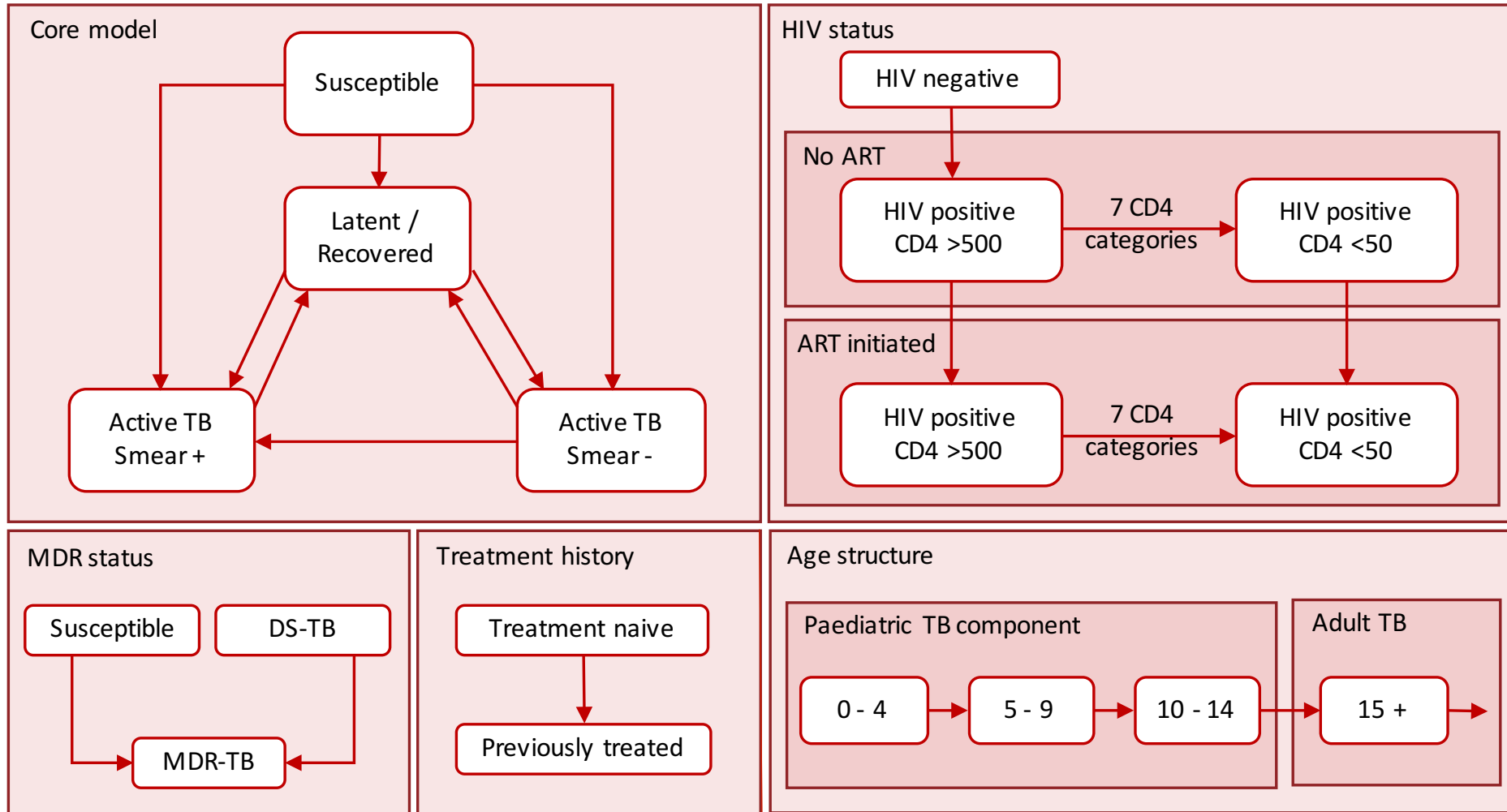


1. Data review, quality assessment and certification
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3. **Projection and epidemiological impact**
4. Resource allocation and resource needs

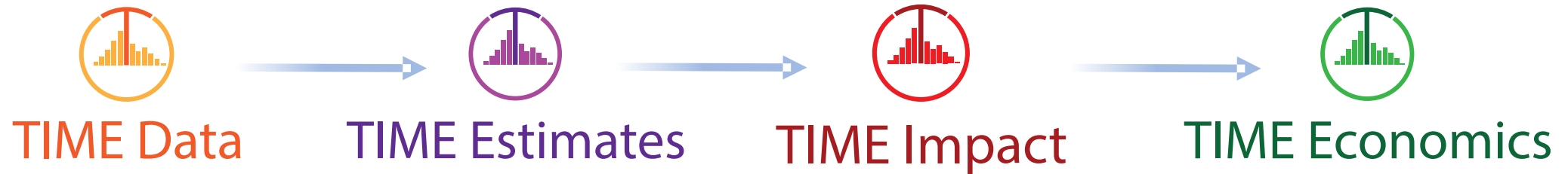
TIME Impact



TIME Impact structure

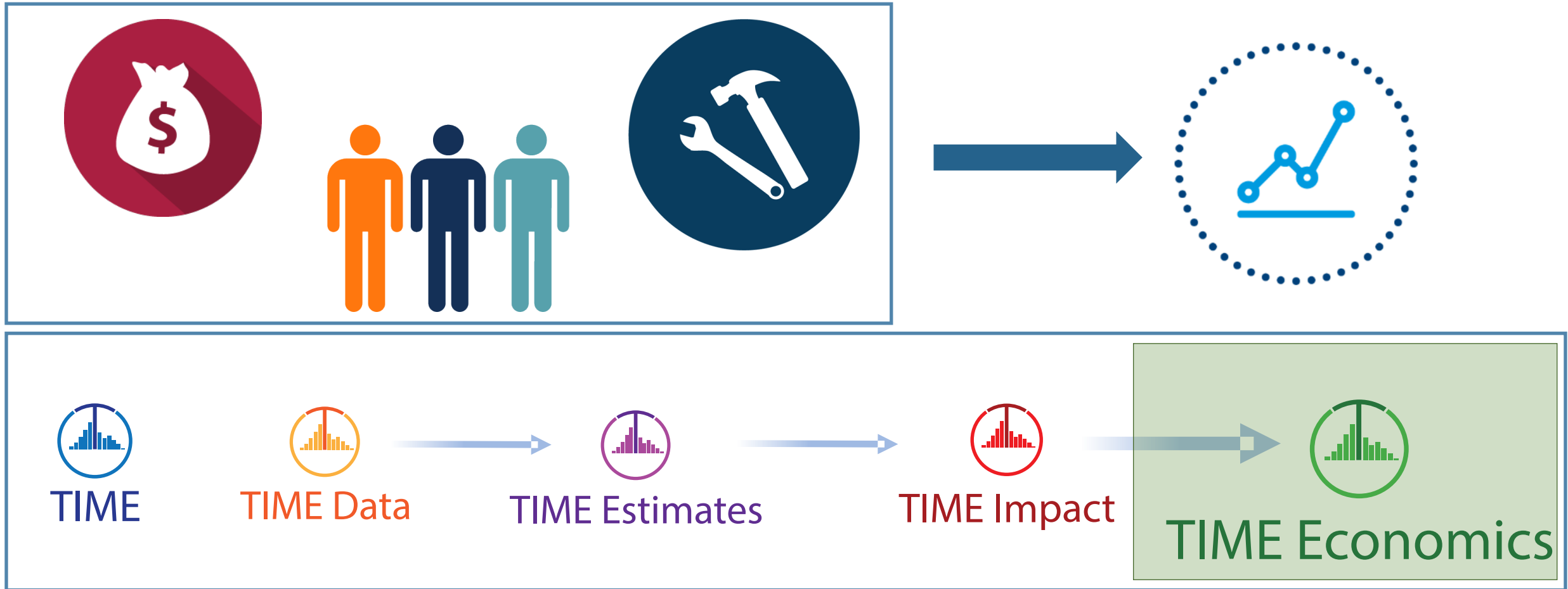


Resource needs and resource allocation in TIME

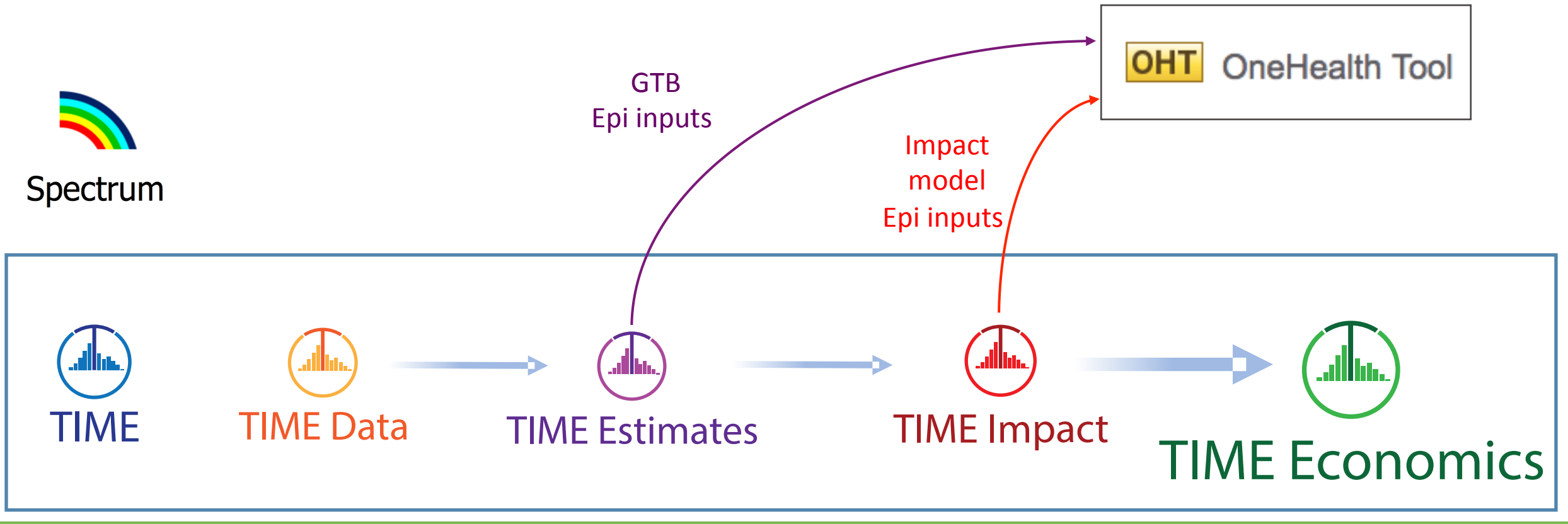


1. Data review, quality assessment and certification
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4. **Resource allocation and resource needs**

Resource allocation in TIME

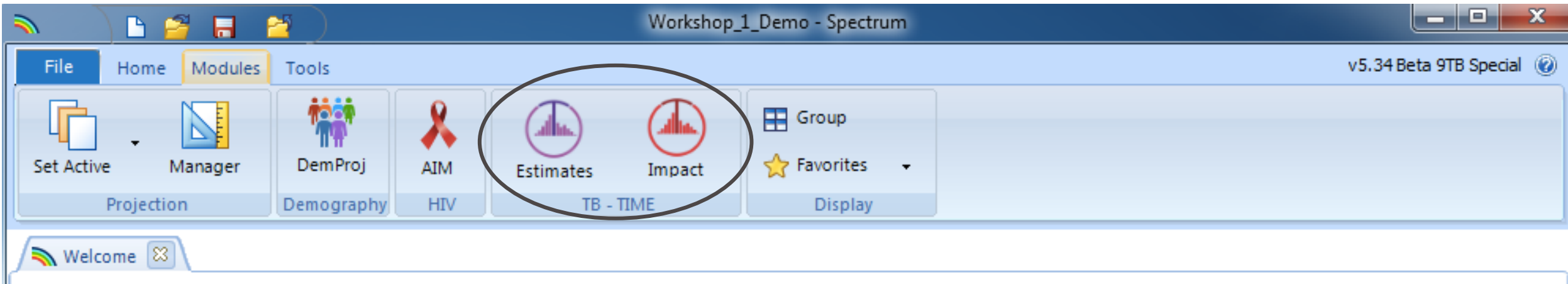


Resource needs in TIME - budgeting

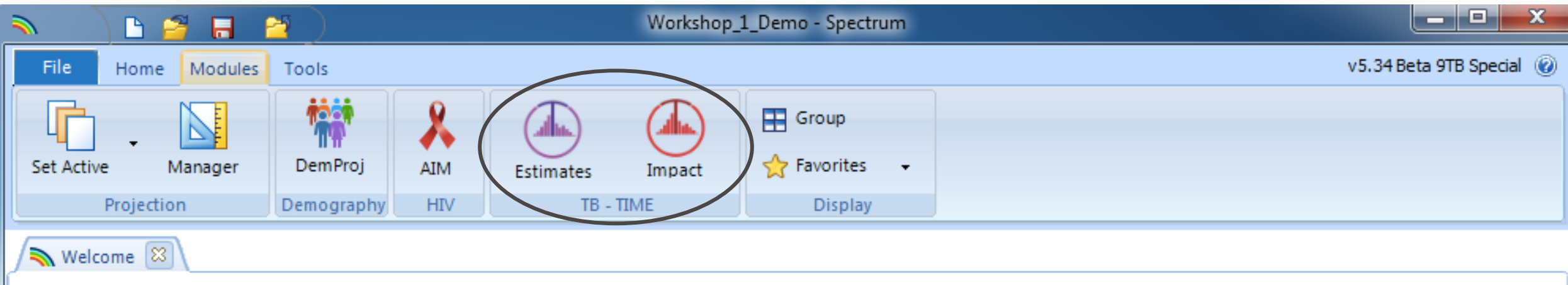


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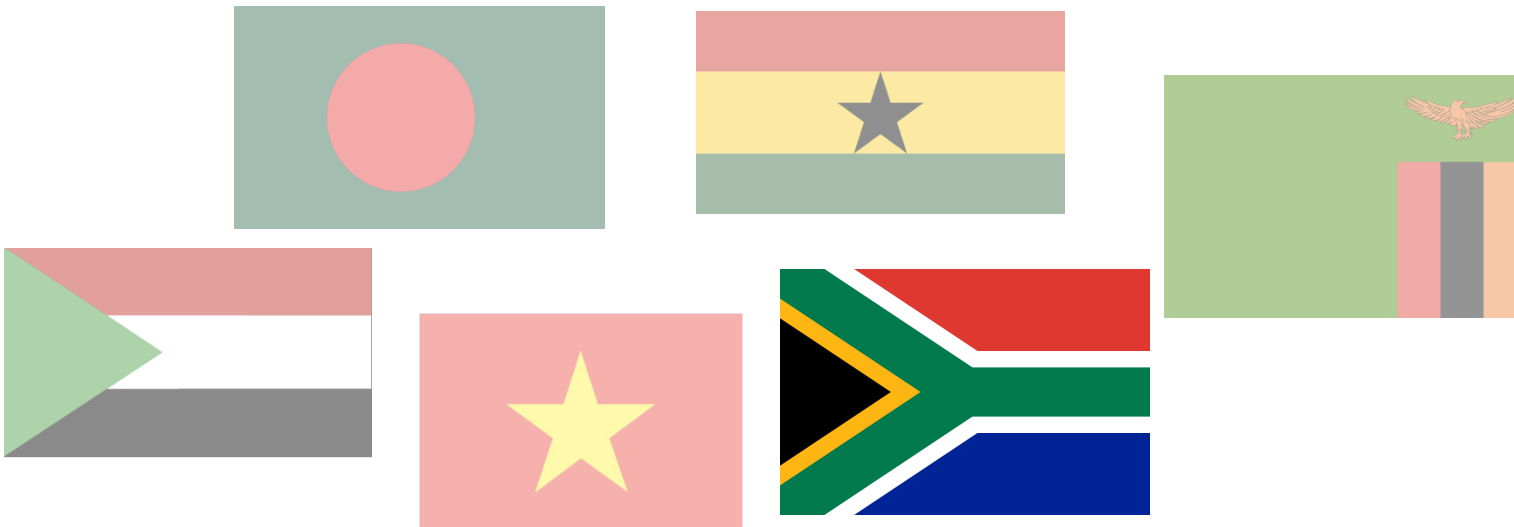
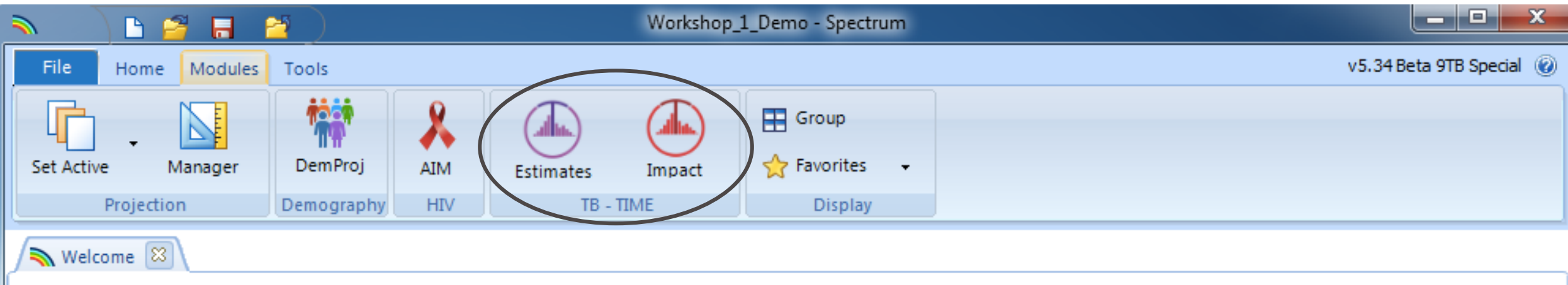
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TIME – examples of use



TIME – examples of use



Modelling to rationalise TB policy

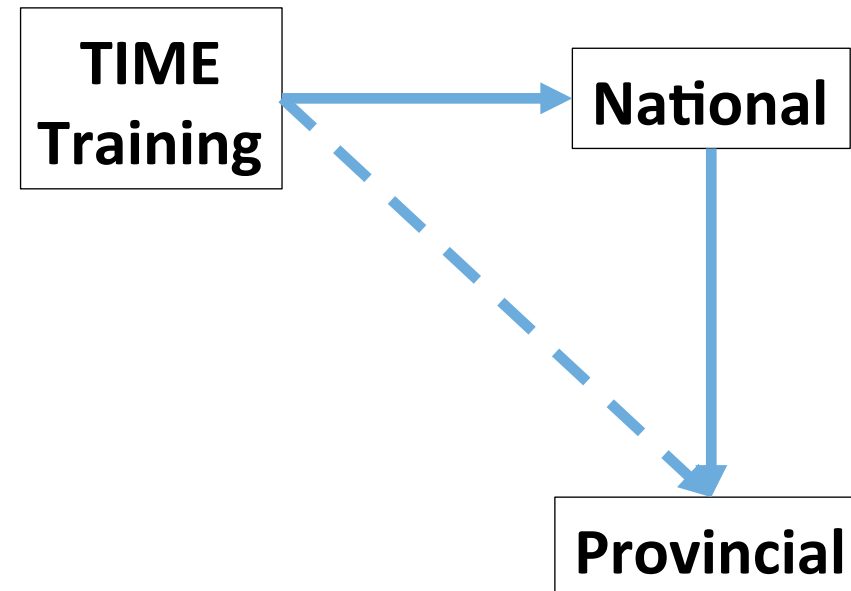
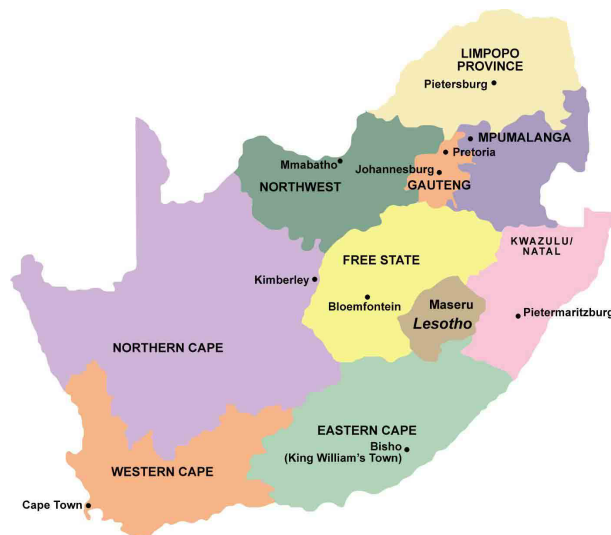


South Africa TB Think Tank (2014 – current)

- See later presentation
- Example of capacity building + provincial-level modelling

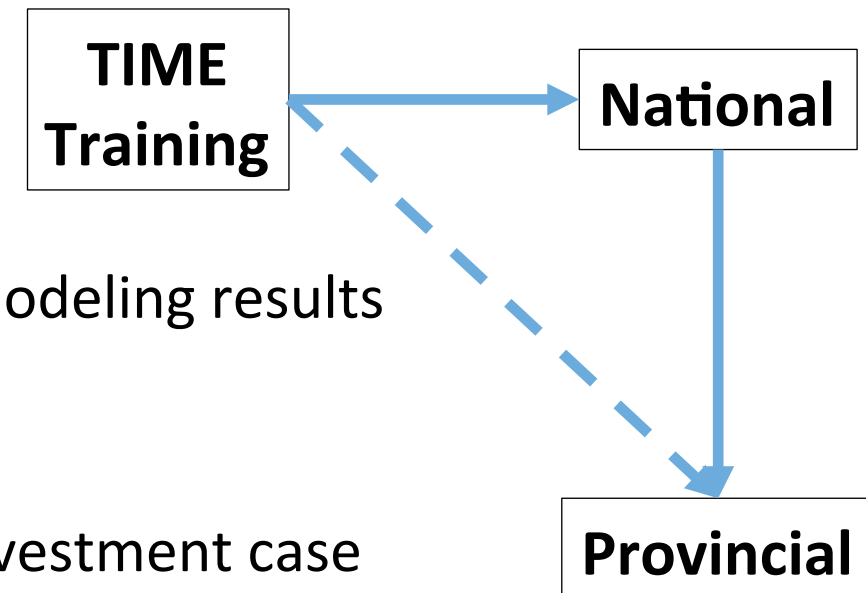


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GATES foundation

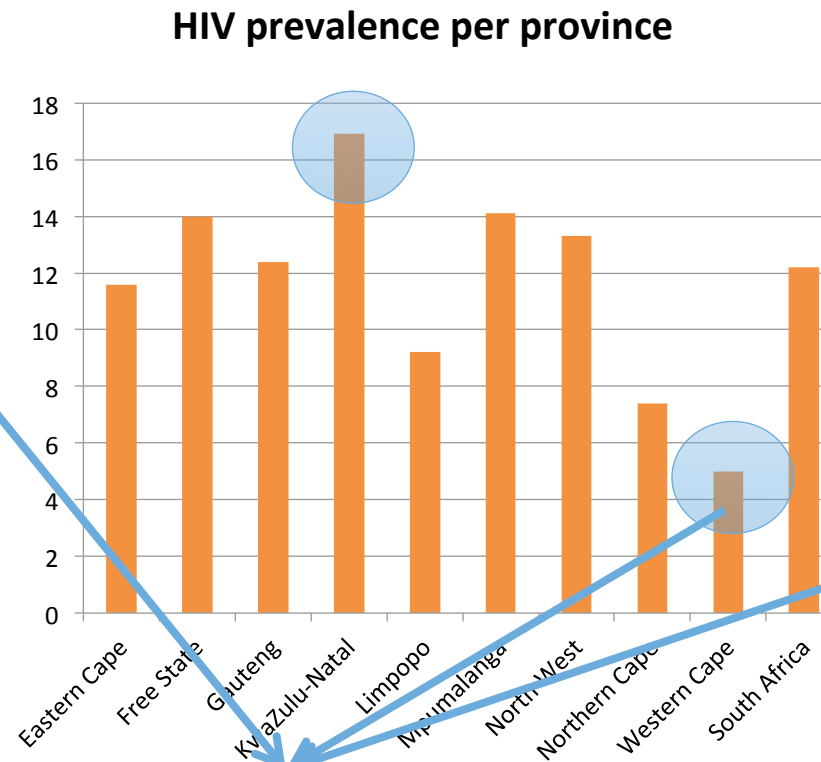
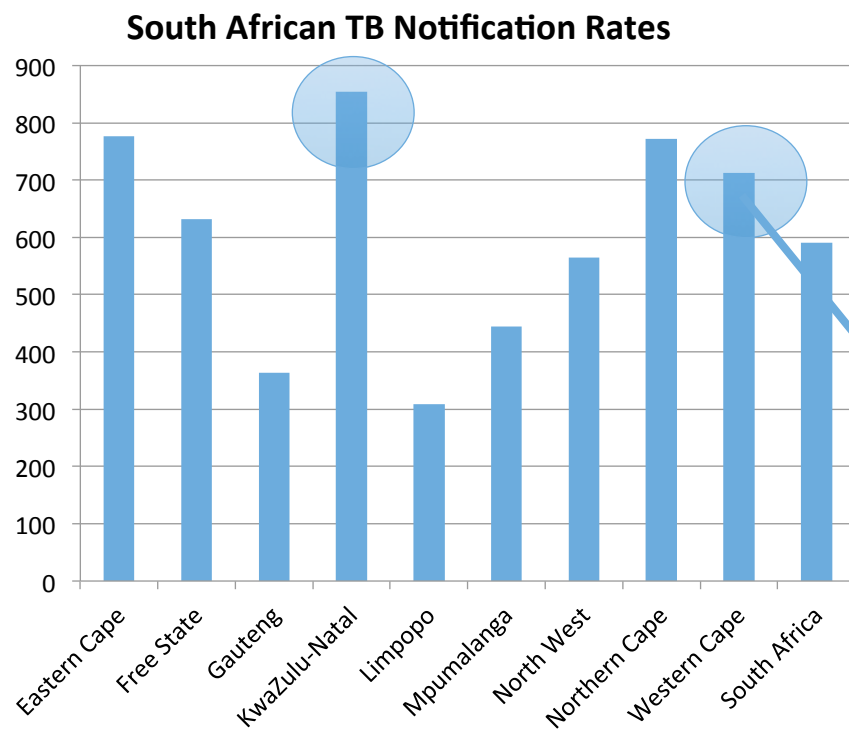


Capacity building

- Aim: Build independent capacity in South Africa to provide modelling support for TB policy questions
- Training – National and provincial level
 - National: Intensive training --> independent user
 - Provincial: Become informed consumer of TIME modeling results
- Current outcomes
 - National expert leading TB modelling of TB/HIV investment case
 - Provincial TB programmes receive local TIME support

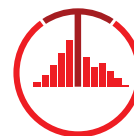


Provincial-level modelling



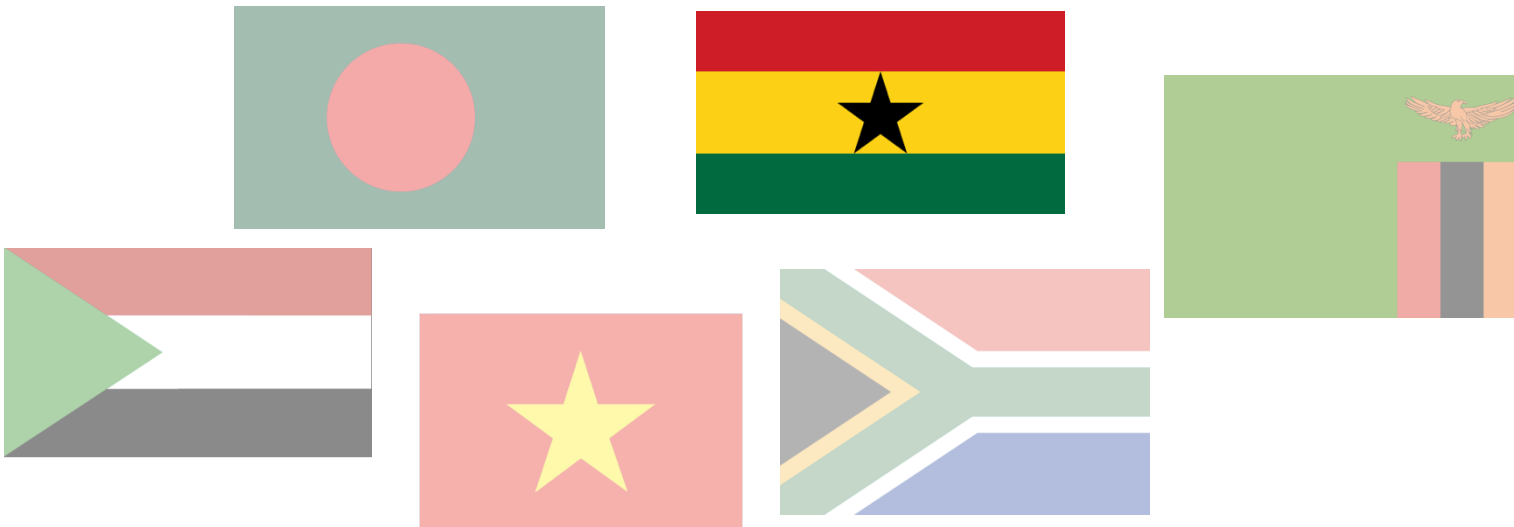
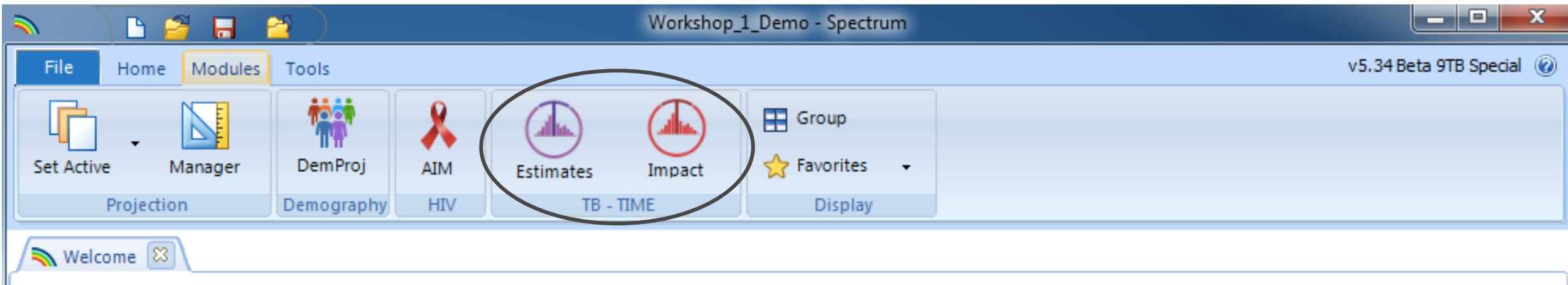
Western Cape

KwaZulu-Natal



TIME Impact

TIME – development and use



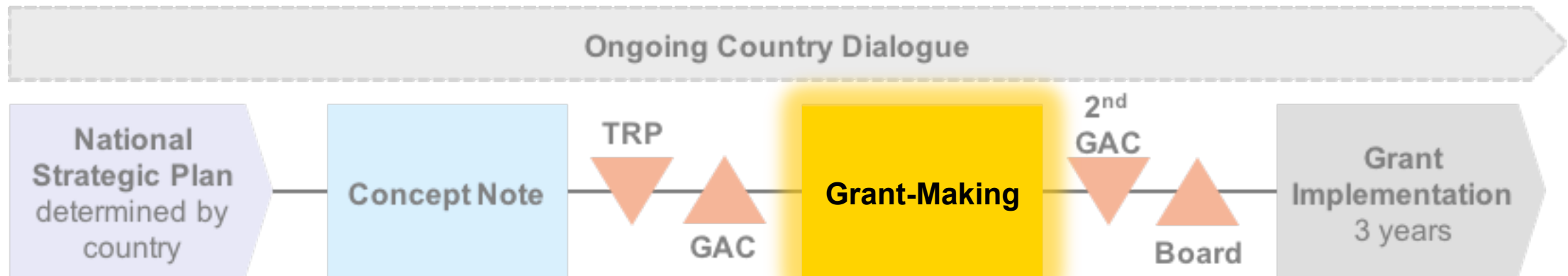
Modelling to reprogram response



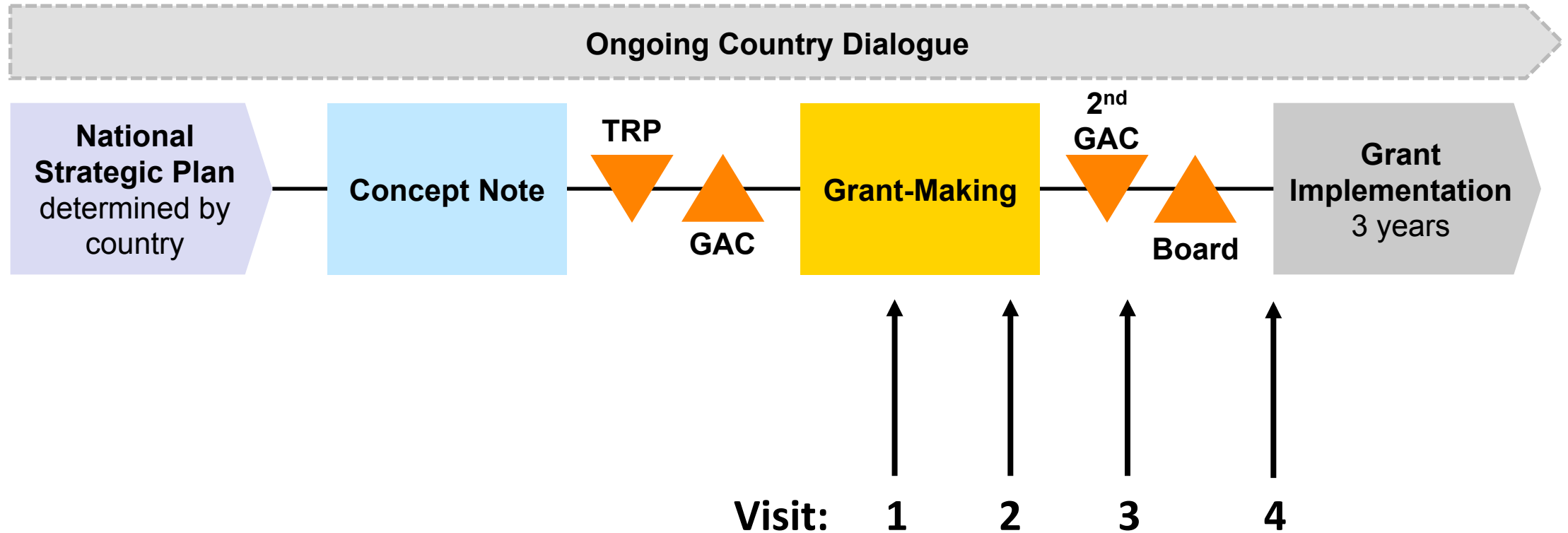
Ghana (2015 – current)



- In collaboration with NTP, USAID and Global Fund
- TIME Team was requested to model current epidemic and implementation of interventions.



Timeline



Tuberculosis in Ghana



- Prevalence survey results showed burden 4x higher than previously thought.
- Suggestion of large (undiagnosed) burden throughout country

WHO estimates for Ghana (2013)	Prevalence survey findings (2013)
WHO estimated prevalence for all TB in the population per 100,000	Adjusted prevalence of all TB in the population per 100,000 population
71 (30 – 129)	290 (196 – 384)
WHO estimated incidence 2013	Estimated incidence based on prevalence survey results
66 (63 – 74)	168 (81 – 286)
Proportion of prevalent cases notified based on WHO estimates	Proportion of prevalence cases notified based on prevalence survey results
approx. 85%	< 20%

Outcomes so far

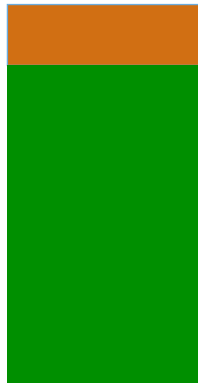


Resources

Before



Current

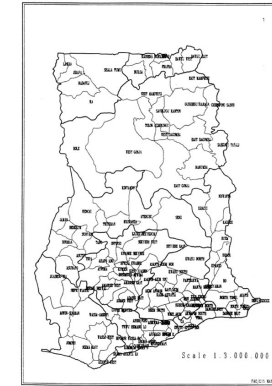


Clinic based screening

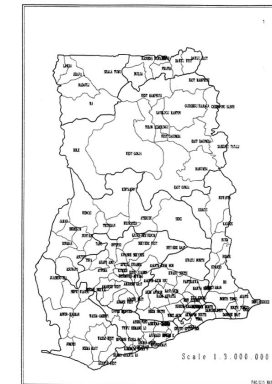


Active case finding

Geographical



90/216
districts



216/216
districts

Summary

- TIME can inform policy discussions, throughout policy cycle
- TIME provides opportunity for capacity building

Seen examples of:

- Capacity building and sub-national modelling
- Seen example of change in resource allocation

Going forward

- Additional capacity building workshops underway
- Continuing to add to model functionality to meet NTP needs

Acknowledgements

- **USAID**
- **Bill and Melinda Gates Foundation**
- **TB Modeling and Analysis Consortium (TB MAC)**
 - Ted Cohen, David Dowdy, Anna Vassall
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 - Carel Pretorius, Matt Hamilton, Rachel Sanders
- **WHO Global TB Program (GTB)**
 - Philippe Glaziou, Babis Sismanidis, Ines Garcia-Baena
- **UNAIDS Reference Group for HIV Estimates and Projection**
 - Tim Hallet, Geoff Garnett, Simon Gregson
- **Stop TB Partnership**
 - Lucica Ditiu, Suvanand Sahu
- **KNCV Tuberculosis Foundation**
- **LSHTM TB Modelling Group**
 - Tom Sumner, Gwen Knight, Debora Pedrazzoli, Emilia Vynnycky and others.
- **Many others**



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TB Modelling and
Analysis Consortium



**GLOBAL TB
PROGRAMME**



UNAIDS

Stop TB Partnership

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To eliminate TB



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Thank you – any questions?
