Health and Social Protection
Action Research & Knowledge Sharing (SPARKS)
Network

Rationale, Objectives and Work Plan

Report from the first SPARKS consultation
Karolinska Institutet, 15-16 December, 2016
Executive Summary

The Health and Social Protection Action Research & Knowledge Sharing network (SPARKS) is a global network created to facilitate action-oriented research on the public health impact of social protection, with a main focus on low- and middle-income countries. SPARKS will facilitate networking between prominent research institutions, public health practitioners, international organizations and civil society in order to catalyse and coordinate interdisciplinary action, research and knowledge sharing, develop a common priority research agenda, generate evidence and mobilise financial resources.

Initially, the network will have two hubs operating in close collaboration with the Global TB Programme at World Health Organization (WHO): one at the Department of Public Health Sciences, Karolinska Institutet (KI) and one at the London School of Hygiene and Tropical Medicine (LSHTM). KI and LSHTM will jointly manage the SPARKS secretariat. Additional hubs will be added, with priority for institutions in low- and middle-income countries.

At different stages of development, SPARKS will promote and carry out rigorous baseline, process and impact evaluations to assess need, design and impact of social protection schemes and to understand the main barriers and opportunities to the integration of these schemes with public health programmes and health care delivery. SPARKS will help to coordinate research, undertake research, and facilitate the creation and consolidation of research platforms and collaborations across the TB and social protection sector. Finally, the SPARKS network aims to contribute to the synthesis and dissemination of the evidence and lessons generated and propel their rapid translation into effective policy response at national and international level.

SPARKS will initially focus on tuberculosis (TB), an archetypal disease of poverty and a leading cause of morbidity and mortality in low- and middle-income countries. WHO's End TB Strategy has identified social protection as a critical element of the global response to TB, but acknowledges the lack of and operational and impact evidence to inform recommendation and guide countries through this policy development. Building on TB as tracer condition for poverty-related disorders with medium to long-term financial and social consequences, the work will then expand to look at other health conditions.

This document outlines the SPARKS rationale, objectives and a three-year work plan for the network, which were formulated at the first SPARKS consultation on December 15-16th 2016 at Karolinska Institutet, Stockholm, Sweden.

Financing for the consultation and participant participation came in part from the support of the Wellcome Trust, The Centre for Global Health at Karolinska Institutet, the Bill & Melinda Gates Foundation-supported TB Modelling and Analysis Consortium, and the World Health Organization, with a grant received from the Lilly MDR-TB Partnership.
1. Social protection to achieve health goals

It is firmly established that the poor have the highest health risks and face the highest risk of severe social and economic consequences of illness. Millions of people face aggravated poverty due to illness every year, through a combination of out-of-pocket (OOP) health expenditures, income loss and social marginalization. High costs of illness and health care hamper access to needed health care services. (1)

While the social determinants and consequences of disease have been extensively documented, there is urgent need to advance the discourse on health inequalities and move rapidly from a 'problem-focussed research' approach (in which inequalities are identified and quantified) to a 'solution-focussed research' one (in which health inequalities are understood and tackled).

Universal Health Coverage (UHC) is presently high on the global public health agenda and its achievement is a key target within the Sustainable Development Goals (SDG). Many countries are strengthening health care financing and pooled insurance functions in order to advance universal access to health services and protect against financial hardship from out-of-pocket health care expenditures. (2, 3) However, neither the mechanism to protect people against adverse socioeconomic consequences due to loss of income or livelihood in times of sickness, nor broader attention to the social determinants of health are clearly articulated within the UHC agenda.

Full social protection is complementary to UHC, and also essential for achieving public health goals. Thanks to their demonstrated financial and human capital impact, non-health social protection interventions are acknowledged as valuable public health tools with the capacity to remove or reduce people's exposure to important risk factors, strengthen their access to health services and mitigate the social and financial impact of poverty and ill health (4).

Social protection has been defined as a range of policies that enable people to cope with and recover from risks and adversities, with the objective of achieving poverty reduction and sustainable and inclusive economic growth. (4) There is a spectrum of social protection interventions that can prevent disease and mitigate its adverse social and economic effects, including needs-based transfers for the poor and vulnerable. There are also specific schemes for people with illness and disability, such as sickness insurance and other transfers in times of sickness, backed up by regulatory and human rights frameworks for workers' protection and reduction of stigma and discrimination. The SDGs call for progress in creating social protection floors and expanding coverage in all countries, with equity of prime importance.

Social protection interventions (beyond those focusing on extending universal access and equitable financing of health care services - sometimes labelled "social health protection") are often perceived of as being beyond the mandate of the health sector, and therefore rarely figure explicitly within health sector plans. An additional factor for slow progress on health and social protection linkages is that most low- and middle-income countries (LMIC) are struggling to finance and deliver even basic health care services. Adding roles for social protection is often perceived as unfeasible, or as an added burden that will risk compromising core (i.e. clinical or public health) functions.

Since general social protection opportunities may be underdeveloped, especially in low-income countries (LIC), there may be limited clarity on social protection sector counterparts to enter into dialogue with and establish an appropriate role division. However, many countries are now establishing and/or strengthening general social protection policies and systems, and this process is bound to be reinvigorated when national strategies are being developed to achieve the SDGs. There are some pathfinders already in creating some linkages.

Several high-income countries (HIC) with universal welfare systems have strong experiences of building integrated health and social policies, including how to define the appropriate contributions from the health care sector for the delivery of social care, and how to help patients/affected households navigate existing social safety-net systems. Several
experiences have been scientifically assessed and published. Other knowledge is tacit and may exist only as institutional memories. However, little work has been done to translate this knowledge into practical lessons that can inform policy and practice in other countries, especially LMICs.

2. Why is the SPARKS network needed?

The SDG Agenda offers a unique mandate and framework to advocate for a holistic approach to public health able to account for the multidimensional determinants of health and drivers of illness. There is a need to build upon the SDG framework and generate the necessary bulk of impact and operational evidence to turn this interdisciplinary vision into a truly interdisciplinary approach able to grant effective and sustainable solutions to major global health challenges.

Social protection is at the intersection of the development and health agenda. Nonetheless, the research into the public health potential of social protection schemes is still fragmented, especially in LMIC. For example, although cash transfer schemes are already an element of the response to health challenges in many countries, their impact on health-related outcomes has been only partially demonstrated and poorly understood: several large reviews(5-7) concluded that conditional cash transfers have an impact on improving beneficiaries health behaviours, the magnitude of which seems to vary across countries and initiatives. The impact on health outcomes is less consistent, with evidence suggesting some effect on improving nutritional status, child growth and adult morbidity status, but not on maternal health, malaria and diarrhoea.(5) These results are consistent with what is also known for HIV/AIDS: while there seems to be a positive impact on sexual behaviours,(8) the impact on actual HIV outcome has been documented only in one study.(9)

Not only is impact evidence limited and fragmented, but also the mechanism through which the impact of social protection strategies operate remains unclear. Achieving a sufficient level of understanding is crucial to design and implement public-health relevant social protection strategies, but also to understand why some interventions do not achieve the expected impact. Finally, it remains unknown how the scope of these schemes can be effectively and cost-effectively broadened to encompass public health objectives, while preserving their primary objective to protect people from poverty.

Given the broad scope and complexity of such agenda it is unlikely that one single research group will successfully fill the knowledge gaps. A network approach based on the share of knowledge and expertise as well as of existing platforms and opportunities may represent a far more efficient way to optimise financial and intellectual resources available. The SPARKS network was created with this rationale and with the aim of efficiently moving towards a more action-oriented type of research to ultimately tackle health inequalities.

3. Creating SPARKS

The concept for SPARKS emerged from an identified urgent need to stimulate more research on social protection and TB. In May 2014 the World Health Assembly approved the End TB Strategy, including its target to eliminate catastrophic costs for TB-affected households and its related focus on universal health coverage and social protection. Research, including health systems and social sciences, is one of the pillars of the End TB Strategy. In November 2014, WHO, Karolinska Institutet and the Government of Sweden organised a global consultation on TB research, which highlighted the urgent need for further research into social protection for people at risk of TB or already suffering from TB.(10) That consultation resulted in a WHO Global Action Framework for the implementation of the research pillar of the End TB Strategy, which called for the creation of international interdisciplinary research networks.(11) A WHO Global TB Research Task Force was established in 2016, which again has highlighted interdisciplinary research on social protection as a priority area (Report of the First Meeting of
The WHO Global TB Research Task Force, 8-9 December 2016. Geneva: WHO, 2017). SPARKS is intended to be such an international interdisciplinary research network, and also a network that moves beyond TB, using TB as a tracer for poverty-related diseases with prominent social determinants and consequences.

The planning and design phase 2015-2016

During the SPARKS planning and design phase in 2015 and 2016, a number of activities were undertaken, including:

- A literature-based mapping of existing social protection activities – both at research and programmatic level – already linked to national TB prevention, care and control efforts, building on ongoing work undertaken by the WHO Global TB Programme, national TB programmes and partners.
- Identification of institutions, research groups, in-country partners to involve, and existing social protection research projects to build up on (see the work plan and Annex 6 and 7).
- Listing of potential candidate projects to undertake during the first three years of operation.
- Fund-raising for the first SPARKS consultation and the SPARKS secretariat; and
- Organization of the first SPARKS consultation, December 2016 (see Annex 6).

In the first SPARKS consultation, the mission, objectives, areas of work, and 3-year work plan were further elaborated and agreed upon, as summarised below.

4. Mission

SPARKS will promote effective and sustainable partnerships between social protection and health care to: a) strengthen prevention and reduce populations vulnerability towards poverty-related diseases; b) enhance better and more equitable access to diagnosis, treatment and care; and c) mitigate the negative financial and societal consequences of illness.

5. Aim and objectives

The SPARKS research network aims to:

1. Generate evidence on the impact, feasibility, acceptability, cost-effectiveness and sustainability of different social protection schemes on poverty-related disease prevention, health care access and mitigation of financial and social consequences of disease.
2. Develop metrics, methods and generic protocols for needs assessment, intervention research and monitoring.
3. Document socioeconomic barriers to health care, as well as socioeconomic consequences of ill health and related health care use, for patients and households.
4. Map social protection platforms and their existing links to the health care sector in order to identify promising intervention entry points.
5. Collate and synthesise scientific evidence and tacit knowledge to help drive policy changes.

6. Structure and management of SPARKS

SPARKS will initially be comprised of an advisory board, two research hubs at Karolinska Institutet (KI) and the London School of Hygiene and Tropical Medicine (LSHTM) that will function as a joint secretariat, and an open network of partners. The presently funded staff that
will allocate time to running the secretariat include two senior research (one at KI and one at LSHTM), two part-time post docs and one or two full-time PhD students.

The secretariat will be responsible for day-to-day management of the network and communicate closely with the advisory board, made up of representatives of WHO and partner institutions. This advisory board will: a) enable communication between the programme partners in order to share lessons and knowledge and foster collaborations across the thematic areas of interest; and b) will guide the directions and expansion of the network, as well as help to stimulate its promotion and advancement.

Research projects conducted within the SPARKS networks will be owned by the respective partners involved in each specific research project. The SPARKS network, and its secretariat, will function as catalysing platform for collaboration, but will not in a by itself manage research projects.

Figure 1. SPARKS structure.

7. SPARKS network members

Institutions and individuals that participated in the first SPARKS consultation are members of the network (see annex 7 for list of participants). The network is open for anyone who is interested. An email listserv will be created in order to communicate updates through newsletters and ad hoc information on important events and achievements.

8. The TB and social protection conceptual framework

SPARKS will focus initially on tuberculosis (TB), which is today the leading infectious disease killer, surpassing HIV/AIDS in number of deaths globally since 2014. This choice can be justified both from an epidemiological, development and equity perspective: historically, TB has been considered the archetypal disease of poverty and, because of the obvious and well-established links between TB and development, TB can serve as a useful model to test the
impact and implications of a more holistic approach to public health based on the combination of biomedical tools and poverty reduction strategies. (12)

The End TB Strategy targets are also embedded within 2016-2030 Sustainable Development Agenda (13, 14), under which health and development are considered to be profoundly interlinked. No sustainable health or development goal can be achieved without a truly multisectoral approach. The alignment between the End TB Strategy and the SDGs is reflected in this underlying philosophy, the mortality, incidence and catastrophic cost elimination targets, but also the strategies proposed, with human rights and social protection promotion (15-17). These foundations offer unique entry points to explore the impact of a stronger partnership between TB and social protection programmes and fora. Lessons are also being learned from work done in linking HIV and child health aims to social protection in recent years as well.

For the purpose of the TB and social protection research agenda, SPARKS will adopt the conceptual framework shown in Figure 1. The framework assumes that social protection interventions can act on TB prevention, care and support either indirectly by influencing the social determinants of the epidemic (such as household / individual living conditions or food security), or directly on cost mitigation and health-seeking behaviours relevant for TB (i.e. TB testing and preventive therapy among household TB contacts, TB treatment access, successful treatment outcomes with prolonged cure, BCG vaccination in children). The distal social determinants can act on a number of proximal mediators (including crowding, malnutrition, HIV, smoking, alcohol/drug abuse, etc) which ultimately will result in the impact on TB prevention, TB treatment or TB costs mitigation depending on which specific stage of the disease or population is targeted by the intervention.

It is envisaged that the evidence generated through SPARKS will increase our understanding of the causal pathways through which social protection measures affect TB prevention, care and control. Therefore, it is expected that as SPARKS moves ahead the framework above will be enriched with additional pathways or even replaced with a better, more epidemiologically validated, version.

**Figure 2:** the SPARKS initial conceptual framework for TB and social protection
9. Moving beyond TB

Building on TB as tracer condition for poverty-related disorders with medium to long-term financial and social consequences, the work will then expand to look at other conditions, such as chronic non-communicable diseases and mental illness, which represent a growing part of the burden of disease in LMIC. Since TB is associated with a range of comorbidities, such as HIV/AIDS, diabetes, COPD, alcohol and drug abuse, undernutrition and mental illness, the TB case study will also provide opportunities to start analysis of these conditions and combined analysis of total costs of all comorbidities.

10. Streams of work and specific objectives

The SPARKS aims will be achieved through three main streams of work:

A) Evidence generation and methodological innovation

The SPARKS network will generate high quality impact and operational evidence. The specific objectives under this stream of work are:

- To facilitate the identification of priority research questions of both national and international relevance, through dialogue with stakeholders on country, regional and global levels.
- To perform baseline assessment of the social and economic consequences of illness and health care use for affected patients and household.
- To measure the extent of impoverishment resulting from ill health and identify health care and social protection intervention entry points to reduce or mitigate socioeconomic consequences of illness and disease.
- To evaluate the impact of specific social protection approaches on disease prevention, access to care, health outcomes and mitigation of socioeconomic consequences.
- To evaluate specific models for integrating health care and social protection interventions.
- To assess the effectiveness and cost-effectiveness of alternative delivery and implementation strategies of social protection.
- To propose quality standards in the design, implementation and evaluation of social protection interventions aiming to improve, directly or indirectly, disease prevention, health outcomes and mitigation of adverse social and economic consequences.
- To promote learning support in countries to ensure that methodological standards are adopted in the design, implementation and evaluation of social protection interventions.

B) Use of existing platform and creation of new ones

SPARKS will capitalise on existing financial and scientific resources to deliver its research portfolio. Efforts will be made to create new platforms but also leverage existing ones that can support at least partially the work plan for the implementation phase. Specific objectives include:

- To recognise and discuss potential for research activities (i.e. systematic reviews, observational studies, randomised controlled trials, impact evaluation, mathematical modelling) that can be nested within or built upon existing structures and networks in ways that can be mutually advantageous for SPARKS and the identified counterpart.
- To create a repository of social determinants and social protection data that can inform secondary data analysis, highlight data gaps and inform strategies to address them (i.e. health and administrative data linkage).
• To interact with relevant national and international research networks.

C) Results dissemination and policy translation

SPARKS will collate and synthesise scientific evidence and tacit knowledge to help drive policy change. This will be achieved through an intense dissemination effort based on a communication strategy designed to raise awareness of the initiative and keep stakeholders updated on progress, key achievements and major obstacles. The specific objectives of this stream of work are:

• To develop an effective communication strategy.
• To inform policy makers about evidence and assist the production of targeted policy briefs.
• To plan targeted training, communication and dissemination events to promote and strengthen professional relationships between governmental bodies, evaluation experts, epidemiologists, mathematical modellers, and policy makers

The global policy translation will be facilitated by active involvement of national policy makers, WHO, the Social Health Protection Network (P4H), the International Labour Office (ILO), UNICEF, the World Bank, regional development banks, and other international and bilateral organizations, and nongovernmental organizations.

11. Work plan for the first three years

The table below (Table 1) summarises identified candidate projects for the first three-years (with major focus on the first year) These projects could be strategically grouped into the following categories, which best reflect the priorities identified during the consultation, including: a) methods development; b) mapping and formative research; and c) impact evaluation.

All these projects fall under the first SPARKS stream of work. Projects related to the second work stream (Use of existing platform and creation of new ones) and the third work stream (Results dissemination and policy translation) will be integrated to each project, as appropriate.

For each of these projects we have tentatively provided the time line for the next 12-36 months. Some of the candidate projects, at more advanced stage of development, are described in more detail in the annexes.

The identified partners to be involved in each of the activities is indicative at this point, and SPARKS welcome additional partners to join and complement with additional activities. To this effect, SPARKS secretariat will continue to map existing research institutions, platforms, and planned/ongoing projects. This will include other research platforms and initiatives beyond TB, such as social protection platforms where additional patient data can be collected, or health policy analyses that can be expanded to include aspects of social protection policy and intersection between health and social protection policy. This will ensure efficient use of resources and create opportunities for synergistic multidisciplinary research.

The expected outputs and deliverables include published and disseminated results as well as annual SPARKS reports and periodic newsletters. The second SPARK consultation is tentatively planned for Q2 2018.

Progress tracking of the work plan will be done continually by the secretariat, and revision and extended work planning will be done in the second SPARKS consultation. A communication plan will be developed by Q2 2017.
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<th>Objectives</th>
<th>Approach</th>
<th>Delivery</th>
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<tr>
<td><strong>Methods development</strong></td>
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<td>1. To refine the methodology used to measure total costs (direct and indirect) of illness and health care for patients and households in order to identify cost-drivers and enable monitoring of the incidence of catastrophic total costs.</td>
<td>During the first phase, this project will focus on TB. Analytical approaches will be refined as part of the ongoing process to develop a final WHO recommended generic protocol and a WHO Handbook for TB Patient Cost Surveys. In the future, the methodology could also be adapted for other relevant tracer conditions. WHO is leading on the ongoing work, in collaboration with, countries, academic partners and other institutions that worked on methodology, have conducted patient cost surveys and are helping utilize the results (see Annex 1).</td>
<td>Q1 2017</td>
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<td>2. A) To pursue the assessment of priority research needs based on mapping existing social protection schemes, explore opportunities for making existing schemes more TB-sensitive, and;</td>
<td>Countries have very different baseline situations with regards to health care insurance systems, care delivery models, social protection schemes, and data availability. Intervention options as well as the suitability of different research designs will vary accordingly. It is essential to pursue further mapping of TB-specific and potentially TB-sensitive social protection schemes, and related policy and institutional environment, building on WHO tools, case studies, programme reviews and other partner efforts. This should be complemented by a research assessment tool to support countries with understanding their research needs and capacities. A draft framework and check-list has been developed (see Annex 2), which will be further elaborated and tested on selected countries (see objective 8 under impact assessment below). The work will be led by WHO TB policy and research team in collaboration with KI, LSHTM and other SPARKS partners, including UN and multilateral agencies (i.e. ILO, UNICEF, World Bank), and tested in selected countries alongside ongoing operational work.</td>
<td>Q4 2017</td>
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<td>B) To develop a check list/guide for the identification of promising interventions and appropriate research design for baseline, impact and process evaluation research</td>
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<td>3. To further develop methods for mathematical modelling of the potential impact of social protection on TB burden and TB-related impoverishment.</td>
<td>The S-PROTECT project has developed a tentative framework and a first iteration of a mathematical model for assessment of social protection impact on TB burden, which has been tested on data from Brazil. This work will continue in 2017 with refinement of the framework and model, and further test cases (see Annex 3).</td>
<td>Q4 2017</td>
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### Mapping and formative research

4. To support more countries to do national TB patient cost surveys using the WHO TB Patient Costs Tool.  
   National TB patient costs surveys will have been completed in at least four countries by early 2017, and several additional countries will start in 2017. Technical support for survey planning and implementation can be facilitated by SPARKS partners with previous experience of such surveys, using the Handbook that will be developed by WHO Q2 2017.  

5. To perform pooled and comparative cross-country analyses of national TB patient cost surveys in order to identify global patterns of cost drivers and determinants of both TB and costs.  
   Thanks to the creation of the WHO global database on cost surveys based on the use of the generic protocol, cross-country pooled and comparative analyses can be performed on the types of costs faced and the individual and structural determinants of costs (see Annex 1). While such analyses can be useful for global policy development they will also help gain insight into the utility of the different metrics used in the patient cost surveys. By 3rd quarter 2017, there will be data from at least 7 countries. WHO and KI will take the lead, in collaboration with countries and institutions that have conducted patient cost surveys.  

### Impact assessment

6. To evaluate policy changes or pilot interventions designed to reduce patient costs and improve access in selected countries that have performed a situation assessment.  
   Several countries that have performed patient cost surveys (e.g. in Vietnam, Ghana, Myanmar and East Timor) or have other baseline information (e.g. Malawi, Kenya) are now planning policy dialogue where surveys data and social protection mapping will set the stage for discussion about possible policy changes or pilot/demonstration projects. These need to be evaluated and/or prospective design of interventions planned, and the check list under objective 3 (see Annex 2) can help the design. High TB burden country partners (national programmes and research institutions) will take the lead, with support from other SPARKS partners.  

7. To model the extent to which catastrophic costs / impoverishment can be mitigated by social protection.  
   Through secondary analysis of data on existing social protection schemes in countries where such data is available it will be possible to model the potential cost mitigation effects. Data from national TB patient cost surveys can be used to estimate the required amount of cost mitigation or the potential of enhancements in models of
care to reduce costs. Such an analysis is already planned in Ghana by LSHTM, and it can potentially be expanded to other countries. An alternative approach is to look at the capacity of social protection to smooth consumption of TB-affected households (e.g. those enrolled in the Bolsa Familia Programme in Brazil compared to TB-affected households that are not covered by this scheme). This is being planned by Brazilian partners and LSHTM.

8. To generate policy-relevant impact and operational evidence in Brazil and India. Brazilian partners plan to create a comprehensive research programme, building upon work previously done, with the aim of generating further impact evidence of social protection on TB treatment adherence and TB prevention. It will also include operational research to understand access barriers for TB-affected households to the Bolsa Familia Programme and explore how to make this scheme more inclusive for TB-affected households through a single-window/fast track-like approach (see Annex 4). This research programme could become a model relevant for adaptation in other countries’ research and programmatic needs (such as India, where several major new interventions are planned to address patient costs and social support needs, as well as potential work in using national TB and social protection programme national databases and the national unique identifier system.

Other

9. To determine the impact of social protection on the expression of biomarkers of TB immunity. Part of this project would be undertaken in South Africa with the specific aim of understanding the extent to which the efficacy of BCG vaccine could be boosted by combining vaccination with social protection interventions targeted to mothers and children and how this can influence the risk of disease progression in adulthood (see Annex 5). A second component is to include screening for depression and access to social protections into the Common Protocol of the RePORT International Consortium in order to explore the potential pathways for how socioeconomic hardship influences immunity via depression and stress.
References


ANNEX 1
Further analysis of TB patient cost survey data: Outline

Reference person for discussion: Andrew Siroka

Background
Several countries have conducted or are in the process of conducting national TB patient cost surveys using the WHO generic protocol. In 2017 there will be some 7-10 countries with a complete survey data set. Each country will estimate the proportion experiencing catastrophic costs and analyse cost drivers in order to inform policies to reduce costs and improve access. The data sets can also be used to perform cross-country comparisons, pooled analyses and validation of some proposed new metrics to describe and monitor social and economic consequences of TB. WHO will develop a TB patient cost survey Handbook by Q2 2017, and a survey review meeting will take place in April 2017.

Scope of analysis
Method development and validation of current measures:
- Measuring the cost of patient time
- Threshold assessment for catastrophic costs
- Development of an “impoverishment indicator”
- Validation of “dissaving” as a potential proxy indicator for catastrophic costs
- Validation of different approaches for income assessment and estimation of indirect costs

Cross-country and pooled analysis
- Cross-country variations in costs in relation to health system and social protection schemes
- Patient-level determinants of costs.
- Association between costs and treatment outcomes

Data sources
- Access to data from countries / institutions involved
- Setting up a multi-country database

People/institutions involved
- PIs from the completed/ongoing surveys
- WHO
- Academic institutions involved in SPARKS, especially those that have conducted/supported national surveys already.

Funding
- No additional costs for data collection are anticipated
- Use of already funded staff time for researchers in the network, research students etc.
- Additional funding needed for expanded analyses, e.g. from: Economic and Social Research Council (UK), British Academy, Commonwealth Society, Swedish Research Council, Sida, Australian Respiratory Association (for Asian surveys)

Timeline
1. Interim reporting for the WHO patient cost survey review meeting in end April 2017, with focus on methods development required for the revision of the generic protocol and development of a handbook for patient cost surveys.
2. Final analysis of additional data through 2017, perhaps 8-10 countries in total (Q1 2018?).
3. Report to WHO and scientific publication (Q2 2018?).
ANNEX 2
Draft framework and check-list for the evaluations of policy changes or pilot projects to reduce patient costs and improved access to care.

Reference person for discussion: Knut Lønnroth

Background
Intervention options, as well as the suitability of different research designs for evaluation depend on country context. Mapping of existing social protection schemes and health systems context already done in selected countries has identified potential entry points for interventions that can improve access/adherence to TB diagnosis and treatment and reduce or mitigate costs due to TB. Patient costs surveys and other research has established baseline cost situation in some countries and identified which types of costs are most important to address. Dissemination and policy dialogue meetings are being planned in countries that have performed mapping and cost surveys. Intervention research can either be “natural experiments” with a rigorous monitoring and evaluation component built into planned policy changes, or controlled or uncontrolled trials designed as operational research studies. Two broad research objectives should be considered:

- To determine the effectiveness and cost-effectiveness of interventions designed to (a) improve access/adherence to TB diagnosis and treatment, and (b) reduce and mitigate costs due to TB.
- To assess acceptability, implementation challenges/solution and sustainability through mixed methods approaches.

Draft framework and check list for research planning
The figure below depicts a simple framework for the identification of intervention options based on a situation assessment, and summarises menus for objectives/outcomes of interest and research design. Broadly, interventions can focus on the health sector (fee structure, technology used, delivery models) or the social protection sector (sickness insurance, other cash transfers, etc), or both. Intersectoral collaboration, improved referral chains, and better defined role division should be considered and could be an intervention in its own right. SPARKS will develop this into a more comprehensive framework with more detailed guidance and tools.

1. Situation assessment
- Documentation of patient costs
- Mapping of UHC and SP environment
- Lessons from previous efforts

2. Intervention menu
- Health care sector
  - Appropriate technology
  - Patient fee reduction
  - Delivery models
- Social sector
  - TB-Specific social protection
  - TB-sensitive general social protection

3. Objectives & Outcomes menu

Access / adherence and/or socioeconomic consequences of disease.
- Disaggregated by socioeconomic position, sex, age, type of TB, etc
- Cost, cost-effectiveness, cost-benefit

4. Design menu
- Post-intervention (benchmarked); before-after; time-series; controlled; RCT; qualitative; mixed methods; modelling
1. Situation assessment / formative research to identify needs, challenges and opportunities

Information may be available from previous assessment or research. If not, further mapping and formative research need to be undertaken. Situation analysis should address the following questions:

a) What are the TB related costs for patients/households, what factors are driving costs, and what are the cost implications?

   Types of costs:
   - Direct medical vs. direct non-medical vs. indirect/income loss
   - Incurred before/during/after TB treatment
   - Type of medical expenditures (tests, medicines, etc)
   - Types of direct non-medical expenditures (transport, food, etc)
   - Types of indirect costs (income loss, interests on loan, etc)

   Care seeking and diagnostic pathway to assess:
   - Before health seeking
   - Healthcare facility presentation, including costs during the entire process of “shopping” to multiple providers
   - Diagnostic process
   - TB treatment initiation
   - Treatment
   - Post-TB (including costs related to disability, sequelae and death)

   Cost measures:
   - Absolute costs
   - Costs relative to economic capacity (e.g. proportion of household income)
   - Proportion experiencing catastrophic costs

   Cost implications:
   - Care seeking, diagnostic delays, and treatment outcomes
   - Socioeconomic consequences of TB

   Disaggregation by patient characteristics:
   - Socioeconomic position
   - Type of TB, (MDR, etc)
   - Age
   - Sex
   - Health insurance status
   - Geographical location
   - Etc

   Data sources and investigation approach (available data, or through original data collection):
   - TB patient cost surveys
   - TB prevalence surveys
   - TB specific or general healthcare seeking surveys
   - General (health) expenditure surveys
   - Qualitative studies on health seeking, costs, and cost implications
a) **What are challenges and opportunities for the health care sector and social protection systems to reduce costs and improve access/adherence?**

**Health care sector:**
- Health care fees/co-payments; health insurance models and coverage
- TB diagnostic and treatment tools used, including the simplicity (or complexity) of standard or usual algorithms
- Distance and cost to reach facilities with diagnostic capabilities, number of visits required for a diagnosis
- Health care and TB service delivery models, including use (or not) of community-based service delivery, active case finding, use (or not) of hospitalization, etc

**Social protection systems (TB sensitive or TB specific):**
- Legislation (workers’ protection, social welfare, etc)
- Sickness insurance / disability grant schemes and coverage
- Cash transfer (e.g., for poor and vulnerable in general (but potentially TB sensitive) or for TB patients (TB specific))
- Travel or food support for patients
- Funeral support

**Linkages between health and social sectors:**
- Joint planning, budgeting/financing and monitoring across health and social sectors
- Use of social protection platforms to identify health care needs and refer (“Cash plus”)  
- Identification of patients’ social protection needs by health sector staff and linkage to social protection schemes (“UHC plus”)  
- Multidisciplinary health & social care teams
- Ongoing dialogue between stakeholders
- National UHC and social protection vision

**Data sources and investigation approach:**
- WHO social protection mapping (can be done using existing ToR/protocol, if not done already), including document review, key informant interviews, rapid assessment
- Previous descriptive research and intervention research / evaluations

2. **Intervention menu**

Based on the situation assessment, knowledge gaps and intervention options should be identified. Interventions may include interventions designed as part of a research studies, or “natural experiments” with evaluation of policy changes or demonstration projects.

a) **Health care sector**
- Appropriate technology
- Fee structure / co-payment, health insurance, etc
- Delivery models

b) **Social sector: social protection schemes**
- Legislation
- Sickness insurance / disability grants
- Cash transfers
- Food and transport support
- Funeral support
- Etc.

c) **Linkages between health and social sectors**
• Joint planning, budgeting/financing and monitoring across health and social sectors
• Use of social protection platforms to identify health care needs and refer (“Cash plus”)
• Identification of patients’ social protection needs by health sector staff
• Multidisciplinary health & social care teams

Considerations:
• TB-specific or TB-sensitive general
• Targeted at specific groups of patients/households?
• Targeted at individuals or families?
• Conditionality

3. Menu of outcomes of interest
• Access (detection, delay)
• Adherence (initial loss to follow up, treatment outcomes)
• Socioeconomic consequences (costs, impoverishment, social exclusion)
• Epidemiological impact (transmission, incidence, death rates)

Disaggregation:
• Socioeconomic position
• Type of TB
• Sex
• Age
• Geographic location
• Etc

Cost considerations:
• Cost-effectiveness (access, adherence, transmission)
• Cost-benefit (savings/productivity gains for society)
• Cost-utility (quality of life, disability)
• Affordability

4. Design menu
• After intervention only: benchmarking e.g. treatment success >90% or 0% with catastrophic costs/ impoverishment.
• Before-after / time-series.
• Controlled: pragmatic selection of control areas.
• RCT; cluster or individual.
• Mixed methods to assess process, feasibility, acceptability and sustainability (qualitative/quantitative, policy analysis, economic perspectives)
• Modelling: transmission/epi impact, cost-mitigation

5. Planning, human resources, and funding

a) Using existing national policy change/intervention/research platforms
• Planned policy change/intervention/pilot in health or social sector
• Build into ongoing/planned research
• Programme based implementation research

b) Anchor to existing research networks (TB or general):
• Based on mapping of existing major health research institutions in the country, previous capacity building efforts on OR, and platforms for promoting operational research
collaboration and priority setting (check if there are existing country mapping exercises for OR or TB OR)

- National (National TB Research network/roadmap, existing research training)
- Regional (e.g. TDR West Africa network)
- International (e.g. SORT-IT, Transfer project, etc)

c) **Funding menu**

- National implementation/evaluation funds in health or social sector, government or NGO sector
- Global Fund, bilateral donors, international NGOs
- National or international research grant applications

d) **SPARKS facilitation of planning, networking and fund raising**

- Methods support
- Interdisciplinary teams across institutions
- Multi-country approaches
- Tracking funding opportunities
ANNEX 3

Modelling the impact of social protection on TB prevention, care and support: The S-PROTECT Modelling Consortium consolidation and expansion phase

Reference person for discussion: Delia Boccia and the S-PROTECT team

Background. The S-PROTECT Modelling Consortium was created in 2015 and funded by the Bill & Melinda Gates Foundation through a TB-MAC grants. The consortium, encompassing a multidisciplinary team of social epidemiologists, modellers, policy makers and implementers and thought leaders, was created to:

1. Develop a conceptual framework, that is a qualitative map or flowchart reflecting the pathway between social determinants, TB risk factors and TB outcomes (i.e. TB incidence and mortality) and where and how social protection interventions are expected to act in this complex web of interrelations, and link this explicitly to a mathematical model of TB control;
2. Create a publicly available data portal for the collection and collation of standardized data to inform mathematical models aiming to assess the impact of social protection on TB; and
3. Construct an innovative mathematical model able to capture the complex social protection processes that may influence TB epidemiology and control, using as a test case Bolsa Familia, the Brazilian national conditional cash transfer programme.

The objectives above were met during the first 12 months of work the S-PROTECT and will be presented during the first SPARKS consultation. S-PROTECT proved that the modelling of complex social phenomena is indeed possible; however important conceptual and methodological lessons emerged.

Lessons learnt during the first 12 months of work.

Methodological challenges:

a. Limited data availability despite the vast literature on social protection and TB
b. Data conversion: unclear strategies to convert unit of measurement across different levels of mechanistic pathways
c. Uncertain suitability of classical compartmental TB transmission models

2. Pathway approach:

a. The pathway approach may lead to some underestimation of true impact if the biggest impact happens at the bottom of the chain
b. Despite the efforts identified pathways are unlikely to capture the whole effect of social protection, especially because they reflect only a materialistic perspective. Other aetiological models need to be evaluated.
c. Priority pathways are likely to be setting-specific and therefore a closer collaboration with countries need to be put in place to make S-PROTECT modelling really useful for policy translation purposes.

3. Purpose of S-PROTECT:

a. Methodological lessons were key in the first phase; however, it is also essential to turn S-PROTECT into a pragmatic tool to serve policy-relevant questions, both in terms of TB control and of sustainable development (i.e. extent of poverty reduction and aversion achieved through the combination of biomedical activities with social protection efforts).
**Aim and specific objectives.** With this new phase we aim to further consolidate and expand current efforts in order to establish S-PROTECT Modelling Consortium as a leading entity in the measurement and understanding of the impact of social protection on the epidemiology and control of TB as well as poverty reduction. This will be achieved by addressing both methodological and pragmatic research questions. Specific objectives of this expansion and consolidation phase include:

1. To further generate impact and operational evidence to quantify and understand the impact of social protection interventions on TB indicators at local and global level (or high priority countries);
2. To estimate the extent of poverty aversion achieved by mitigating TB-related catastrophic costs (solely by improving biomedical efforts and by combining them with social protection activities).
3. To produce further methodological advances in the modelling of social determinants of health, using TB as a tracer conditions
4. To guide policy relevant decisions at local and global level and at the same time serve as advocacy and funding mobiliser tool.

**Methods.** In order to achieve the above objectives we propose a 18-24 months workplan organised in work-packages that may be led by independent groups under the coordination of the S-PROTECT core team. Each work package will have specific objectives and its own budget but they will all fit under the core funding available and under the coherent scope of the consolidation and expansion phase of S-PROTECT.

Consistent with these objectives, the work packages include:

1. **A methodological package** aiming to further invest in the data collection and data portal creation. This team will also work on the development of a generic mathematical modelling tool to be used by countries for their own impact evaluations. Finally, this team will be also responsible of investigating new modelling approaches and test them using the data generated and in the settings where it will be most appropriate.

2. **A country specific impact package** will focus on addressing country-specific research questions. This group will be in charge of engaging with countries at various level (i.e. academics, policy makers, policy implementers, social protection implementation agencies), agree on a country relevant research agenda on social protection and TB and to consolidate, replicate or adapt the work done so far for and with Brazil in other countries. Preliminary candidate countries for this further round of mathematical modelling analyses include Brazil (i.e. consolidation), South Africa, India and Vietnam (i.e. replication and adaptation). Each country will have its own team of modellers, encompassing S-PROTECT modellers and local ones.

3. **A life course package** aiming to explore the impact of social protection in early childhood in terms of TB disease risk during childhood and later on in adult life as well as BCG immune response. This work package, which will be run in collaboration with immunologists and also biomics experts, will aim to understand another mechanism through which social protection is likely to affect TB.

4. **A costs mitigation package** aiming at estimating the mitigation impact of TB-related catastrophic costs from social protection and how this translates into poverty aversion both at household and country level. This could be also combined with the work of Verguet et al to look at what would be the added poverty aversion effect achieved by combining TB control activities with social protection.

5. **Sustainable Development Goals package** aiming to generate a quantitative estimate of how much progress towards Global TB Targets can be achieved by meeting key a conceptually driven list of Sustainable Development Goals targets.
ANNEX 4

Barriers, opportunities and impact of making conditional cash transfer schemes more TB-sensitive: the case of Brazil

Reference person for discussion: Delia Boccia/ Mauro Sanchez/Ethel Maciel

Background. An increasing number of studies seem to suggest that access to conditional cash transfers can improve TB cure rates, uptake of TB infection chemoprophylaxis and mitigate TB-related catastrophic costs. Nonetheless, it remains unclear how many TB-patients today benefit from these social protection schemes. In Brazil recent linkage data suggest that only 25% of TB patients are currently enrolled into Bolsa Familia Programme (BFP) and that among them about 20% do not receive cash transfers while on treatment and therefore do not truly benefit from the social protection efforts of the programme (both in terms of treatment support and financial protection). (Torrens at al, 2016)

Study hypothesis. By understanding barriers to access and facilitating access to BFP from TB patients we could significantly improve TB treatment adherence and outcomes.

Study aim. This study seeks to understand determinants of access to BFP among TB patients in Brazil, both at structural (i.e. programme’s characteristics) and TB-patient levels.

Specific objectives.
1. To undertake a descriptive analysis of socio-demographic characteristics of TB patients enrolled in BFP compared to those who are not;
2. To understand determinants of access to BFP other than the programme itself eligibility based on income;
3. To model how a better/faster access to BFP could translate into more effective and cost-effective TB treatment adherence and outcomes.

Methods.
We propose a package of activities based on primary and secondary data:
1. Profiling of TB patients having and not having access to BFP through:
   - Simple cross-sectional analysis of TB patients linked with CadUnico, but not having access to BFP with TB patients lined with CadUnico and appearing to receive access to BFP cash transfers
   - Propensity score matching to characterise and identify how many TB patients among those not receiving BFP “match” TB patients receiving BFP in terms of financial and social vulnerability (even if appearing to live below the income threshold imposed by BFP)
2. Understanding programme and patient’s side determinants of access to BFP through a qualitative-quantitative mixed approach based respectively on:
   - focus-group discussion about knowledge and attitude among TB patients towards BFP as well as a Delphi study involving TB control and BFP experts;
   - A retrospective case control study (possibly age-sex individually or frequency matched) involving a random sample of TB patients enrolled in BFP (i.e. the cases) and a random sample of TB patients not receiving BFP. A sub analysis among the case may allow to understand delays in receiving cash benefits?
3. Through mathematical modelling to evaluate the impact of a better access to BFP on a number of indicators including TB treatment adherence, outcomes and catastrophic TB-costs aversion

4. The evidence generated will be used to pilot a trial to test the effectiveness and cost-effectiveness of fast-tracking the access of TB patients to suitable social protection schemes following the single window approach suggested by ILO (http://www.social-protection.org/gimi/gess/ShowTheme.do?tid=3885).
Background. While TB disease is a classic example of a disease of poverty, it is ultimately the failure of the immune system to contain infection, which leads to active disease. How do social determinants influence those biological processes that can lead to disease at an epigenetic or immune system level? We argue that a stronger scientific understanding of the social determinants of immune system failure to contain M tuberculosis infection could have significant policy implications, enabling the development of a holistic approach which encompasses both social and biomedical interventions to end TB.

The understanding of the drivers of immune biomarkers expression can aid the development of vaccines and drugs for TB and we argue that this can also aid the design of studies to understanding the mechanism through which social protection interventions act upon TB epidemiology and control. In addition, the collaborations and the research framework established through this proposal will serve as a model to foster interdisciplinary research, bridging development and biomedical sciences.

Aim. We propose to establish a new interdisciplinary collaboration that for the first time will bring together immunologists, social epidemiologists and social scientists to examine the link between social determinants, social protection and expression of biomarkers of TB disease risk.

Methods. We aim to undertake a formative research work plan to meet the following objectives:

1. To draw a conceptual framework linking the social determinants of TB, psychosocial determinants of TB and TB biomarkers, building upon current knowledge in the literature.

2. To test the above conceptual framework with a systematic review using a realist approach where we populate our framework with empirical evidence discerning which social determinants are linked with which biomarkers, for which people, in what circumstances, and how these are linked to TB disease progression.

3. To undertake a cross-sectional study in infants and post-partum women to preliminarily describe the correlation between low socioeconomic position, psychosocial stress, exposure to social protection support, and the expression of TB biomarkers including T cell activation, Type I IFN and monocyte/lymphocyte ratio both in the general population and among the recipients of social protection interventions. Whole blood will be collected in RNA stabilization tubes (PAXgene blood RNA tubes) and full differential blood counts will be performed to determine monocyte/lymphocyte ratios. Trained, local field workers will collect information on socioeconomic position, enrolment in social protection schemes and psychosocial stress.

4. To develop a mathematical model encompassing a life-course approach to understand the impact on TB immunity and likelihood of developing TB as an adult of providing children with social protection.
Creating SPARKS

The first Health and Social Protection Action Research & Knowledge Sharing network consultation

Karolinska Institutet
15-16 December 2016

Background

A large body of evidence has been produced on the role of social and structural determinants of health, as well as on the social and economic consequences of ill health. It is critical to continue to produce solution-focused research, especially to inform how social protection interventions best can help tackle these social determinants and consequences, and thereby contribute to reducing health inequities.

Research into the public health and social impact of social protection and the operational aspects of linking social protection schemes to health services is growing but still limited, especially in low- and middle-income countries. While important lessons can be drawn from high income countries with strong welfare systems and a long tradition of linking health and social sectors, much further research is needed.

The Social Protection Action Research & Knowledge Sharing (SPARKS) is intended to be a global research network that will facilitate action-oriented research with a main focus on low- and middle-income countries. SPARKS will facilitate networking between researchers, national health programmes, public health practitioners, social protection experts, multi- and bilateral aid agencies, international organizations, and civil society in order to catalyse and coordinate interdisciplinary research and knowledge sharing.

SPARKS will focus first on tuberculosis (TB), which is a leading cause of infectious disease mortality, surpassing HIV/AIDS in number of deaths globally since 2014. The World Health Organization (WHO) puts a strong focus on social determinants and social protection in the new global TB strategy - the End TB Strategy - which links the global TB agenda to the Sustainable Development Goals. The End TB Strategy aims to reduce TB incidence by 90% and TB mortality by 95% in the next 20 years. The strategy also aims to eliminate catastrophic costs due to TB for patients and affected households. WHO has called for more research to inform the development of global and national policies on social protection.

SPARKS aim and objectives

SPARKS aims to establish a high-quality, global and interdisciplinary research network to:

1. Develop metrics, methods and generic protocols for needs assessment, intervention research and monitoring.

2. Document socioeconomic barriers to health care, as well as socioeconomic consequences of ill health and related health care use, for patients and households.
3. Map social protection platforms and their existing links to the health care sector in order to identify promising intervention entry points.

4. Generate evidence on the impact of different social protection schemes on poverty-related disease prevention, health care access and mitigation of financial and social consequences of disease, as well as their feasibility, acceptability, cost and sustainability.

5. Collate and synthesise scientific evidence and tacit knowledge to help drive policy changes.

**SPARKS development plan**

The network will go through three different development stages, each characterised by an increasing level of ambition, duration, and human and financial resources required. These phases include:

1. The design phase (12 months), which is ongoing and will be concluded in December 2016;
2. The first implementation phase (3 years) starting from January 2017; and
3. The expansion phase as informed by the lessons learnt during the implementation phase.

**SPARKS proposed structure**

Initially, the network will have two hubs operating in close collaboration with the Global TB Programme at World Health Organization (WHO); one at the Department of Public Health Sciences, Karolinska Institutet (KI) and one at the London School of Hygiene and Tropical Medicine. Additional hubs will be added through the collaboration with other partner institutions. SPARKS will encompass streams of works as per the priorities identified in this consultation.

**Objectives of the first SPARKS consultation**

This first consultation will convene key partners to agree on SPARKS terms of references and develop the network work plan for the first implementation phase. Specific objectives include:

1. To review ongoing and planned research and identify future research needs.
2. To agree on the work plan for the first implementation phase and identify priority work streams, including specific research projects that can start rapidly with available resources and projects for which funding needs to be mobilized.
3. To agree on terms of reference for the network, its structure during the initial implementation phase and identify possible directions for the expansion phase.

**Deliverables of the consultation**

1. A draft 3-years SPARKS work plan with identified priority streams of work.
2. One or more draft outlines of grants applications.
### Day 1 - 15th December 2016

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>08:30 - 09:00</td>
<td><strong>Participants registration</strong></td>
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</table>
| 09:00 - 09:15 | Welcome by the head of the Department of Public Health Sciences, KI (*Lucie Laflamme*), the head of the Centre for Global Health, KI (*Vinod Diwan*), and the consultation organisers (*Diana Weil*)  
Introduction of participants |

**Session 1: Why do we need a social protection research network?**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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| 09:15 – 09:50 | Introduction: What is SPARKS and objectives of the consultation (*Knut Lönnroth/ Delia Boccia*)  
09:50 - 10:10  | WHO’s work on country mapping and support for social protection for TB (*Diana Weil*)  
10:10-10:40 | Coffee break  
10:40 - 11:40 | TB and Social protection research needs – country perspectives (*Enos Masini/Bin Hoa/Ana Ciobanu*)  
11:40 - 12:40 | TB and Social protection research entry points – perspectives from social protection experts: UNICEF and The Transfer project (*Tia Palermo*); Bolsa Familia (*Fabio Veras*), and the WHO/Word Bank Social Health Protection Network (*Dorjsuren Bayarsaikhan*)  
12:40 – 13:10 | Discussion  
13:10-14:00 | Lunch break  

**Session 2: Social protection and TB: the current research landscape**

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<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>14:00 – 14:40</td>
<td>Patient costs surveys: generic protocol, summary findings, next steps and spin off projects (<em>Andrew Siroka with comments from Kerri Viney and Debora Pedrazzoli</em>)</td>
</tr>
<tr>
<td>14:40 – 15:00</td>
<td>Research frontier on how to reduce financial barriers to TB diagnosis and care (<em>Bertie Squire</em>)</td>
</tr>
</tbody>
</table>
| 15:00 – 15:20 | Social protection and TB: research and programmatic priorities in Brazil (*Mauro Sanchez, Ethel Maciel*)  
15:20-15:50 | Coffee break  
15:50 – 16:10 | The S-PROTECT project: preliminary findings, lessons and next phase (*Sourya Shrestha*)  
16:10 – 16:30 | Community Randomized Evaluation of a Socioeconomic Intervention to Prevent TB (CRESIPT): lessons from a TB-specific intervention and way forward (*Tom Wingfield*)  
16:30 – 16:50 | Project ideas from India: 1. cash transfers for TB patients using AADHAR, Jan Dhan Yojana and NIKSHAY; 2. Evaluation of district level interventions y to mitigate the adverse socioeconomic consequences of TB (*Anurag Bhargava, Sreenivas Achuthan, RNTCP representative*)  
16:50 – 18:00 | Wrap up and discussion  

**19:00 – 21:00 Participants are all invited to dinner at Haga Forum**
# Day 2 - 16th December 2016

## Session 3: Summary of Day 1

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>09:00 – 09:20</td>
<td>The research landscape: emerging potentials, barriers and gaps (<em>Delia Boccia</em>)</td>
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</table>

## Session 4: Social protection and TB: the research roadmap

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>09:20 – 09:40</td>
<td>Building SPARKS three-year work plan: introduction to the group work (<em>Knut Lönroth</em>)</td>
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<tr>
<td>09:40 - 10:30</td>
<td>Identifying priority projects: from ideas to concrete proposals (group work)</td>
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<tr>
<td>10:30 – 10:45</td>
<td>Coffee break</td>
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<tr>
<td>10:45 – 12:00</td>
<td>Identifying priority projects: from ideas to concrete proposals (group work)</td>
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<tr>
<td>12:00 – 13:00</td>
<td>Lunch</td>
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<tr>
<td>13:00 – 15:00</td>
<td>Feedback from working groups and discussion</td>
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## Session 5: Wrapping up

<table>
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<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>15:00 - 16:00</td>
<td>Concluding remarks: action points, outputs and deliverables (<em>Knut Lönroth/Delia Boccia</em>)</td>
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</tbody>
</table>
ANNEX 7
List of participants in the first SPARKS consultation

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