Institution: Queen Margaret University, Edinburgh

Unit of Assessment: UoA 2, Public Health, Health Services and Primary Care

Title of case study: Strengthening global and national policies on performance-based and innovative health financing in low-income and fragile settings

Period when the underpinning research was undertaken: 2012-ongoing

Details of staff conducting the underpinning research from the submitting unit:

Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Sophie Witter	Reader, then Professor	2011 – present
Maria Bertone	Research Fellow, then Lecturer,	2017 – present
Karin Diaconu	Research Fellow	2016 - present

Period when the claimed impact occurred: August 2013-present

Is this case study continued from a case study submitted in 2014? N

1. Summary of the impact

Research by Professor Witter and team at the Institute for Global Health and Development (IGHD) drove global debates on innovative health financing mechanisms for low-income and fragile settings. Work on performance-based financing reframed this strategy as a health systems intervention and prompted multidisciplinary evaluation of its impacts, alongside redesign. Research findings have influenced policies and practices of the World Bank, World Health Organisation (WHO), Global Fund and Department for International Development, and directly shaped policy in at least three countries to ensure more effective health financing. By shaping policies and practices, this work has had significant impact on population health, particularly in fragile and conflict-affected states.

2. Underpinning research

Largely driven by donor interest in innovative financing models, the implementation of performance based financing (PBF) has grown rapidly from 3 schemes in 2006 to over 31 in 2016. It is now one of the main channels for financing front-line providers in many low income settings. However, there remained a dearth of evidence on PBF's impact on health service delivery or population health outcomes.

In 2012, **Witter** and colleagues produced the first systematic review of PBF in low and middle-income countries for the Cochrane Collaboration (1). This paper marked a turning-point in the understanding and practice of PBF, highlighting the limited and weak evidence on the effectiveness of PBF and the need to examine PBF as a health system intervention. Consequently, **Witter** developed a theoretical framework which proposed reframing and assessing PBF as a systemic intervention (2), arguing for more careful analysis of when and how to use PBF as a health system reform. This study was carried out in collaboration with global PBF experts, including from the leading PBF funder: the World Bank.

This work (1,2) prompted further research from the global research community into the effectiveness of PBF, the design of PBF schemes and their impacts on health systems, health workers and health financing. In an update of the Cochrane review (3), **Diaconu** notes that 28 of 59 included quantitative impact evaluations cite the work of **Witter** (1, 2) as a reason for carrying out impact evaluations.

Based on this initial seminal work, the group has become a source of expertise for research on innovative health financing and PBF in low-income and fragile settings, for researchers, funders and policy-makes alike. **Witter** has produced evidence syntheses on effectiveness of PBF for reproductive, maternal and child health and on sustainability of PBF programmes (both commissioned by the World Bank) and on PBF and family planning (commissioned by the WHO).

Since 2016, under the DfID-funded ReBUILD consortium, the group focused studies on fragile and conflict-affected settings. **Witter** and **Bertone** developed a body of work exploring adoption and adaptation of PBF in fragile contexts (4), PBF implementation in humanitarian settings including DR Congo, Central African Republic and Nigeria (5), the political economy of PBF in Zimbabwe and Sierra Leone, and PBF as a strategic purchasing mechanism in Uganda, DR Congo and Zimbabwe, In response to global demands for evidence by the WHO, **Bertone** and **Witter** further produced a review of health financing in fragile settings (6). Supported by funding from the UK's Joint Health Systems Research Initiative, **Witter** and **Diaconu** have contributed to the design and implementation of a PBF policy in Georgia and are adding to the limited RCT evidence base of PBF on health outcomes by conducting a cluster-RCT examining PBF impacts on tuberculosis treatment success. In 2020, **Diaconu** and **Witter** further completed an update of the Cochrane review of PBF (3), which will provide the go-to resource for funders/implementers seeking guidance on the current evidence base and highlights the importance of different scheme designs, as well as context.

3. References to the research

1. **Witter S**, Fretheim A, Kessy F, Lindahl A. (2012) Paying for performance to improve the delivery of health interventions in low- and middle-income countries (Review). *Cochrane Collaboration*, 3. This rigorous, systematic review was commissioned and published by the internationally-recognised Cochrane collaboration. It is a seminal paper that started the debate on the evidence of PBF interventions in low and middle-income countries. It has been widely cited with 397 citations to December 2020.
2. **Witter S**, Toonen J, Meessen B, Kagubare J, Fritsche G, Vaughan K. (2013) Performance-based financing as a health system reform: mapping the key dimensions for monitoring and evaluation. *BMC Health Service Research,* 13: 367. Building on the previous paper, this theoretical piece is the outcome of a collaboration with researchers, international organisations and practitioners proposing a new systematic understanding of PBF and a conceptual framework. It has been highly influential of subsequent work on this topic and often cited as reason for carrying out further research.
3. **Diaconu K.,** Falconer J., Verbel-Facuseh A., Fretheim A., **Witter S** (2020) Paying for performance to improve the delivery of health interventions in low- and middle-income countries (Review Update). *Cochrane Collaboration.* https://eresearch.qmu.ac.uk/handle/20.500.12289/10903. This review has been again commissioned by the Cochrane Collaboration to our team, meeting the high standards for publication by Cochrane. It updates the earlier systematic review, now bringing in a more substantial body of evidence, and permitting examination of results by scheme design as well as different comparators and targeted/untargeted indicators.
4. **Bertone MP**, Benoit J-B., Russo G., **Witter S.** (2018) Context matters (but how and why?) A hypothesis-led literature review of performance based financing in fragile and conflict-affected health systems. *PLoS One*, 13(4): e0195301. This hypotheses-led review of the literature builds the base for the body of work on PBF in fragile settings carried out by our team, by reviewing the literature and discussing key hypotheses. 0B/01/02
5. **Bertone MP**, Jacobs E, Toonen J, Akwataghibe N, **Witter S** (2018) Performance-based financing in three humanitarian settings: principles and pragmatism. *Conflict and Health*, 12: 28. This is one of the empirical papers the IGHD team has prepared, reflecting on the implementation of PBF specifically in humanitarian settings affected by acute crises, with reference to the case of Nigeria, DRCongo and Central African Republic. Health systems research in such contexts is often overlooked because of the difficulties entailed in research

processes in those settings. Despite this, and building on a network of close collaborations in the countries, our research group produced a high-quality output that analyses PBF in complex situations and provides practical as well as theoretical guidance.

6. **Bertone M**, Jowell M, Dale E, **Witter S** (2019), Health financing in fragile and conflict-affected settings: What do we know, seven years on? *Social Science & Medicine*, 232: 209-219. Based on a collaboration with WHO which included the preparation of high-level reports and official WHO guidelines, this rigorous review advances the understanding of health financing in fragile contexts, revewing the literature seven years after a previous review by our team.

4. Details of the impact

Impact on the PBF community of practice: driving the debate

The 2012 Cochrane review was widely debated, including by the **PBF Community of Practice**, a group of 3,000 global PBF experts. Findings of our subsequent studies reached practitioners, policy-makers and donors through the "Health Financing" blog, HSG webinar (52 attendees) and satellite session (c. 100 attendees). This body of work improved the understanding of PBF, shaped the debate around the advantages and risks of PBF and established Witter and team as leading experts and advisers on innovative health financing and PBF (a).

Impact on policy and practice of key international actors and organisations

The research informed changes in the funding priorities, operational strategies and practices of major global organizations by identifying health financing areas with innovation potential and recommending an integrated and contextualized approach to PBF design and implementation.

Based on their expertise on innovative health financing, Witter and Bertone have been invited to expert meetings and worked in close collaboration with the **World Health Organisation,** the global health normative leader, to develop resource documents and guidelines on health financing in fragile settings and strategic purchasing (b, c). These documents are part of the WHO e-Learning Course on Health Financing Policy for universal health coverage which has trained teams from more than 40 countries. Training and guidance enable WHO to provide guidance on health financing reforms; e.g. 20 countries were supported with technical advice in 2018 (d).

Via the Health Results Innovation Trust Fund, the **World Bank** has spent more than $380 million on PBF schemes, affecting health service delivery, access and utilization, and health outcomes of communities and people in 29 countries. In response to the 2012 Cochrane review, the World Bank funded a large set of impact evaluations on PBF, under the Health Results Innovation Trust Fund (e). Findings of our work on PBF in humanitarian settings were discussed at a World Bank meeting (November 2018) on health financing in fragile settings. In line with our research recommendations, the World Bank's Global Financing Facility (investing $602 million in 26 countries' health systems) has recognized that applying the conditionality of funding to implementation of PBF in a blanket fashion is inappropriate (f).

In recognition of our leading work on innovative health financing in fragile settings, in 2015 Witter was asked to join a consultation to review the **Global Fund to fight HIV/AIDS, TB and Malaria**'s strategies in Complex Operating Environments (COEs). This resulted in adoption of improved global strategies for tailored investments by the Board of the Global Fund (g). In 2016, Witter was asked to lead a consultation on health system strengthening in COEs. This led to new guidelines, which are now used by the Technical Review Panels for assessing proposals from COEs. The guidelines have been used to provide more flexible funding for COEs, where the Global Fund is the major investor in communicable disease control (h). In 2020, Witter and team also provided a tailored review for the Global Fund into how to support PBF and direct facility financing across its portfolio.

Our research on health financing and PBF has been incorporated into document reviews for the **UK's Department for International Development (DFID – now FCDO**), for example on payment and performance of health workers. We have developed trusted relations with DfID's health systems team, which can be confirmed by Jo Keatinge, Health System Strengthening advisor (corroborators list). The team consults us informally on what further research they should be commissioning on PBF and we have regularly presented our work at internal seminars and workshops and provided summary briefs and guidance.

Impact on policy and practice at national level

Our research is designed and carried out in ways that ensure relevance for national policy-makers. In 2016, Witter supported the Government of Zimbabwe in collaboration with European Union and World Bank to reshape the PBF model in **Zimbabwe** (i). Key recommendations made by the team were adopted by the PBF steering committee (corroborator: Chenjerai Sismayi). In 2017, in **Sierra Leone,** Witter and Bertone's research was cited in the updated Human Resources for Health (HRH) Profile and Strategy in the aftermath of the Ebola epidemic. Our findings on financial and non-financial incentives for health workers (including PBF) provided evidence for decision-making, in a context where data are extremely scarce (corroborator: Noemi Schramm). Witter and Diaconu have worked with a local research institution and the Ministry of Health in **Georgia** to provide evidence and guidance to policy-makers in developing, piloting and evaluating a PBF model for integrated tuberculosis care (j).

5. Sources to corroborate the impact

a. Statement by Dr Bruno Meessen, Lead Facilitator of the PBF CoP and of Collectivity
b. Kutzin J, **Witter S**, Jowett M, Bayarsaikhan D (2017) *Developing a national health financing strategy: a reference guide.* Geneva: World Health Organization. http://apps.who.int/iris/bitstream/10665/254757/1/9789241512107-eng.pdf. Downloaded more than 18,000 times up to November 2020 (available in English, Russian, French and Arabic).
c. Jowett M, Dale E, Griekspoor A, Kabaniha G, Mataria A, **Bertone MP, Witter S** (2019), *Health financing policy and implementation in fragile & conflict-affected settings: a synthesis of evidence and policy recommendations*. Geneva: World Health Organization. Available at: https://www.who.int/health_financing/topics/fragility-and-conflict/Health-Finance-FCAS.pdf?ua=1 Downloaded 1,520 times up to November 2020
d. Statement by Dr Matthew Jowett, Senior Health Financing Specialist, World Health Organization
e. NORAD (2012) *Evaluation of the Health Results Innovation Trust Fund*. Report 4/2012 Evaluation. Available at: https://www.norad.no/globalassets/import-2162015-80434-am/www.norad.no-ny/filarkiv/vedlegg-til-publikasjoner/hritf_lr3.pdf
f. Statement by Ellen Van de Poel, Health Financing Lead - Global Financing Facility, World Bank
g. GFATM (2015) *35th Board Meeting: The Challenging Operating Environments Policy.* Available from: https://www.theglobalfund.org/media/4220/bm35_03-challengingoperatingenvironments_policy_en.pdf