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RESULTS U.S.

Cost Effectiveness Assessment

December 2012

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This draft does not represent Giving What We Can's final view. It will be updated over time to improve the analysis and correct any errors identified. Rather, it is an opportunity to release our preliminary thinking and solicit further information. We appreciate feedback being sent to research@givingwhatwecan.org.

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1 Executive Summary

1 EXECUTIVE SUMMARY

RESULTS is a charity that advocates for improvements to public policy to reduce poverty. This report focuses on ACTION USA, a project of RESULTS, which has appeared to achieve significant policy successes in the past, through a campaign for increased spending on the treatment of tuberculosis (TB). We believe that RESULTS' past cost effectiveness in terms of years of healthy life for each dollar spent has been high, possibly higher than our current top recommended charities. It continues to advocate for greater spending on TB, and also now vaccination, both areas which feature some very effective projects in terms of the number of years of healthy life (QALYs) they generate per dollar spent.

Unfortunately, the evaluation of advocacy charities is very difficult. It is not usually possible to confidently attribute the passage of a piece of legislation to a particular organization. The addition of further links to the chain between your donation and the ultimate outcome you want (e.g. additional people being cured of TB), creates the opportunity to generate 'leverage' as you potentially influence the way billions of dollars are spent. On the other hand, it means you cede some control over how that money is spent. It also exposes you to the risk that the impact of your donation will be nothing, either because the legislation you desire fails to pass, or one of the bodies you ended up funding chose not to, or could not, make effective use of the additional funding you generated. Finally, politics is a strategic and rapidly changing activity which can make it hard for outsiders such us Giving What We Can to properly understand what is occurring.

While we may recommend RESULTS, or a similar charity, in the future, we currently lack some of the information that would be required to confidently do so. We are releasing this draft in order to solicit information which can help us answer the remaining questions, which are critical to our estimate of future cost effectiveness. In the meantime, we see ACTION is a highly promising option for those who seek to help people in developing countries through political advocacy.

Most Important Questions

- How large was ACTION's role in achieving observed policy successes?
- What are additional appropriations in the US being spent on by the time funding is passed through to health providers? How effective are those activities at improving health?
- How valuable is the government or private spending crowded out by the resulting appropriations?

Important Questions

- What is the marginal effectiveness of RESULTS' advocacy in the USA in the event of an expansion of operations?
- Are there strategic considerations (for instance, re-categorisation of spending, or misleading attributions of credit) that could be causing us to misunderstand what is going on?

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2 Introduction

2 INTRODUCTION

RESULTS is a grassroots advocacy organization that works to create the political will to end hunger and poverty (RESULTS, 2012). Our initial investigation into RESULTS was prompted by Gordon Irlam's (now outdated) cost-effectiveness estimate on www.beguide.org, which concluded that RESULTS' past work was extremely cost effective.
This document summarises where we have got to in our investigation so far. The first half of this report focuses on the past cost-effectiveness of RESULTS/ACTION. The second half of this report discusses the likely future cost-effectiveness of ACTION and identifies our key areas of concern and uncertainty that are currently preventing us from recommending ACTION outright. We will note which of these areas we expect to be able to collect information on and which we think are unlikely to be resolved in the near future.

2.1 Results and Action

RESULTS and the RESULTS Educational Fund (REF) are sister organizations that aim to end poverty in the USA and around the world (RESULTS, 2012). [1]RESULTS has a network of affiliated bodies in a variety of high income countries.

ACTION (Advocacy to Control Tuberculosis Internationally), formed in 2004, is an international partnership of advocates working to mobilize resources to fight TB. ACTION was one of two major international projects initiated by RESULTS, the second being the Microcredit Summit Campaign. ACTION has partners in seven donor countries (United States, Canada, France, Belgium, Japan, Australia and the United Kingdom) and three 'high burden' countries (India, Zambia and Kenya) (ACTION, 2012a). It has been funded in part by the Bill and Melinda Gates Foundation.

It has since expanded its mission to tackle diseases other than TB, and now aims to "influence policy and mobilize resources to fight diseases of poverty and improve equitable access to health services."

2.2 Why we are Interested in RESULTS

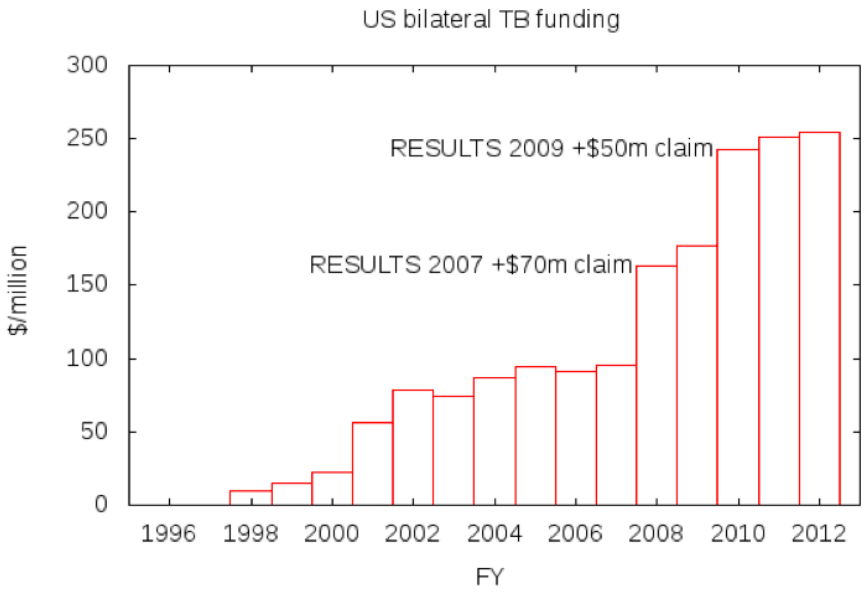
RESULTS appears to be an effective advocacy charity with significant past achievements while their ACTION project is concerned with on the cost effectiveness of the programs they promote. The achievements that we are most interested in are the increases in US government funding for TB treatment (see Figure 1), which seem to be, at least in part, a direct consequence of their advocacy.

Furthermore, there are general reasons why we could expect political advocacy to be potentially very valuable. First, a large number of profit-motivated businesses engage in advocacy and lobbying, and presumably find it to be a lucrative activity.[2] In part they are able to benefit from politics because voters and the public is not paying so much attention to the details of legislation, allowing them to alter the outcome. This may also be the case for charities hoping to do good in the world. Secondly, the general public interest is probably

[1] REF, and by extension ACTION, are tax-deductible advocacy charities. RESULTS itself engages in political lobbying to encourage the passage of specific legislation, which disqualifies it from this status.
[2] http://www.givingwhatwecan.org/where-to-give/charity-evaluation/political-change

underrepresented in Washington because costly political activity is a form of 'public good'. This would be even more the case for the world's poorest people, who do not vote in the United States or have the ability to mount their own campaigns. Indeed, there do not appear to be many organisations engaging in national political advocacy on the topic of global poverty. This suggests that RESULTS and its funders, if willing to provide this 'public good', could encounter untapped potential for influence among legislators who care about the issue and are willing to vote for effective legislation, given the necessary information and coordination.

Figure 2-1 U.S. bilateral TB Funding, FY 1998 – 2012



Source: Congressional Research Service (2012)

2.3 The Global Fund

Some of RESULTS' main policy successes (listed below) are for increased funding from the US government for The Global Fund to Fight AIDS, Tuberculosis and Malaria (The Global Fund). The Global Fund was created to dramatically increase resources to fight three of the world's most devastating diseases, and to direct those resources to areas of greatest need (Global Fund, 2012).

In 2010, GiveWell concluded that:
'The Global Fund's commitment to transparency is outstanding, and its activities are mostly proven and cost-effective. We do not have a clear enough sense of its project-by-project (or aggregate) outcomes to be fully confident in its impact or to give a cost-effectiveness estimate.' (GiveWell, 2010)

The Global Fund is extremely transparent, and we use some of their publicly available information to inform our analysis on the likely cost effectiveness of increased funding to TB treatments, and to estimate the trends in TB program spending.

2.4 Communication with RESULTS so far

We have been in contact with RESULTS by e-mail and by phone since late 2011. RESULTS shared some independent monitoring and evaluations reports with us and openly answered our questions, which mostly focused on use of marginal resources and clarifying exactly how additional funds could be used to increase spending on TB. They have also shared information about their future plans.

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3 Past Cost Effectiveness Estimates

3 PAST COST EFFECTIVENESS ESTIMATES

This section gives an overview of RESULTS' previous work, and estimates how cost effective this is likely to have been. We discuss our methodology and note the areas of uncertainty, and how we might overcome them, in our estimates.

3.1 Policy Achievements in Last 5 Years

We give a brief overview of the most significant achievements and failures in the last 5 years and discuss how significant these are likely to be in improving the lives of the world's poor.

3.1.1 The Path of U.S. Appropriations

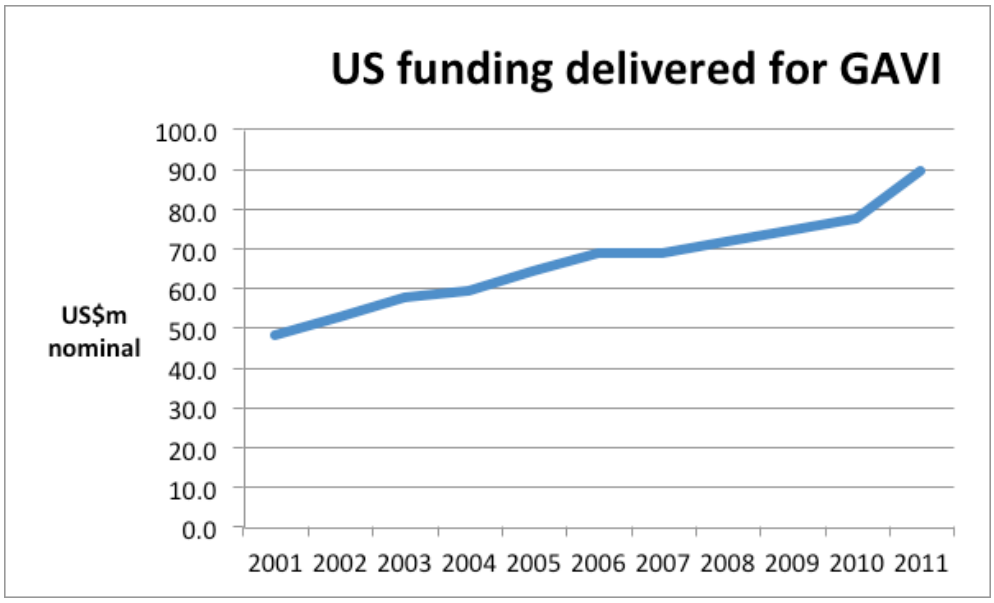
To understand the impact RESULTS is having, we need to know something about the budgetary process in the US Congress. Most spending starts in the form of a *Presidential Budget Request*, which is sent to Congress, which comprises two chambers[3] - the House and Senate. Spending requests for each area are then discussed in the relevant committee, which for ACTION would be the House Committee on Foreign Affairs. To have a realistic chance of success the spending has to pass through these committees in both chambers. This is known as '*authorization*', but despite the name, it is no guarantee that the spending will actually occur. For that, it must be approved by the House and Senate Appropriations Committees and then be passed in the full Congress and Senate. Spending for many programs which are authorized is never actually appropriated.

3.1.2 Policy Achievements in 2011

In 2011, the US pledged $450m in funding for the GAVI Alliance to be delivered over the next three years. This vaccination spending has the potential to be highly cost effective. Due to the risk of pledges not being fulfilled, and our desire to be conservative in our estimates, we will count this funding as redeemed in subsequent years once it has been delivered. We would consider increases in funding above trend growth (Figure 2).

[3]While a project could be inserted at a later stage of the process, in practice this is highly unlikely for the programs ACTION supports.

Figure 3-1 U.S. funding for the GAVI Alliance



RESULTS has also claimed that they successfully defended the Global Fund to Fight AIDS, Tuberculosis and Malaria from receiving a possible $300m budget cut. The likelihood of such a cut in the absence of RESULTS is hard to assess. However, we hope to be able to investigate this claim in more detail in future.
RESULTS also noted a $20m pledge to the Global Partnership for Education. We expect this to have a small impact relative to other achievements and so will not investigate it further.

3.1.3 Policy Achievements in 2010

In 2010, the largest policy success we have listed for RESULTS is the commitment of $750m in interest free loans from the World Bank for the Education for All program (primary education investment). The loan is repaid with "little or no interest and repayments are stretched over 25-40 years including a 5 to 10 year grace period" (Correspondence). Whilst this is a considerable amount of money moved - and appears to be very significant leverage for an organisation with an annual budget of under $5m - we believe that this policy success will not have a significant human impact for a number of reasons:

The money will have to be paid back by developing country governments, reducing their spending at some future time. In some cases the loan will substitute for borrowing on bond markets, in which case it should be treated as a transfer equivalent to the present value of the interest the recipient would have had to pay on a commercial loan. In instances where this loan is relaxing a liquidity constraint, expenditure on education could increase as a result.

- The increased spending on education could be significantly less than one-for-one due to the 'fungibility' of funds (explained in more detail in 5.1.5).
- Primary education as an intervention has a relatively low cost-effectiveness estimate and requires complementary investments to be effective. As noted by charity evaluator GiveWell, "improving education in the developing world is not a matter of getting proven programs to those who can't afford them. Little is known about what programs are effective, and logical/well-intentioned programs can fail to produce results."[4]

[4] http://www.givewell.org/international/education

- It is not clear that World Bank spending on the Education for All program is more cost effective than the counterfactual World Bank spending that it is displacing.

We could be persuaded that this program is more effective than this, but do not consider it a priority at this point. Nonetheless, this spending provides some evidence of RESULTS' political influence.

3.1.4 Policy Achievements in 2009

The largest policy success for RESULTS in 2009 was a $50m increase in TB appropriations in the USA. We believe this is likely to be a highly effective policy success for the following reasons:
Where they have room for more funding, front line Direct Observed Treatment Short (DOTS) TB treatment programs is among the most cost effective health interventions available. The DCP2 estimates the cost-effectiveness at $5-50/DALY and the cost per death averted at between $150 and $750 depending on the circumstances (Jamison et al., 2006) (GiveWell, 2011).[5]

- Budget appropriations in the USA are likely to be 'sticky', and so the present value of present and future increases in TB appropriations is likely to be significantly higher than the stated $50m. This stickiness appears to be demonstrated in Figure 1 – total TB related appropriations have been about $400m higher 2008 through 2012, relative to a baseline of $100m each year.
- These figures are large relative to RESULTS and ACTION budgets. RESULTS international advocacy had an annual budget of $2.2m in that year, while ACTION spent $450,000. RESULTS' entire budget from 2007-2011 was under $15m, while ACTION's entire budget from 2007-2011 comes under $2.5m.[6]
- In all, we think this policy success appears to be highly cost-effective, and decided to investigate it further. As a result we give an overview of this investigation in this report.

N.B. We are also looking into claims that this spending represented a re-categorisation of existing spending on TB, and hope to offer an update on this soon.

3.1.5 Policy Achievements in 2008

There were large spending increases for TB and HIV authorized in this year under the *Global Leadership Against HIV/AIDS, Tuberculosis and Malaria Reauthorization Act*. This is an intermediate step towards greater spending on these treatments, but the funding is yet to be appropriated. Again, this could be evidence of RESULTS' influence, but is not yet a successful outcome, and so we will not yet count it until funding is appropriated – something RESULTS continues to advocate for.

3.1.6 Policy Achievements in 2007

There were two major policy successes for RESULTS in 2007, both relating to increased funding from the US government for TB treatment. First, there was a $120m increase in US contributions to The Global Fund to Fight AIDS, TB and Malaria, although this was not specifically earmarked for TB treatment. The Global Fund also funds programs such as insecticide treated bed-nets and prevention of mother to child transmission of HIV, which are believed to be highly cost effective at improving health.

Second, the US increased funding for its bilateral TB treatment program by $70m as shown in Figure 1 above and discussed as a policy achievement in 2009. We believe that RESULTS played a significant role in both of these policies, although in our analysis of past cost-effectiveness, we focus on the second of these, as we believe the RESULTS' role was more significant.

[5] http://www.givewell.org/international/technical/programs/DOTS
[6] Note these figures may be revised in future, as we are not sure which of REF's costs to include as relevant for TB advocacy.

3.2. Explicit Expected Value Estimate

As part of our evaluation of RESULTS, we have come up with an estimate of the past cost-effectiveness of RESULTS. While not the only consideration, this is a useful guide to the future cost-effectiveness of the organisation. The following sub-sections set out the theoretical framework with which we have tried to evaluate RESULTS, our current 'best estimates', and the remaining areas of uncertainty.

3.2.1. Overview of our Methodology

In our estimates of past cost-effectiveness, we focus exclusively on the impact of RESULTS' achievements in increasing funding to treat TB, in 2007 and 2009. We have tried to be conservative in our estimate of the past-cost-effectiveness of RESULTS and so omit the impact of policy successes that we consider to be significantly less cost effective for reasons outlined in Section 3.1.

In essence, we are trying to estimate the human impact of the increases in spending achieved (at least in part) through RESULTS' advocacy, and we estimate this in terms of DALYs averted. We know the increase in funding as a result of the policy, and we estimate how many TB treatments this will pay for, how many lives this will save as a result, and how many DALYs averted this is equivalent to.

Once we have an estimate for the number of DALYs averted by the increase in funding for a given year, we then make three adjustments. First, we estimate how effectively this money would have otherwise been spent (how many DALYs would have been averted) in the absence of the policy change, and subtract this from our original estimate to leave an estimate of the annual increase in DALYs averted as a result of the policy. We take the average effectiveness of USAID health expenditure as our counterfactual expenditure. Second, we apply a 'stickiness multiplier' to our estimate to reflect that changes to the budget allocation achieved by RESULTS seem to remain for a number of years after the policy success is achieved. This multiplier is (conservatively) estimated using the number of years the budget has remained at the increased level of funding. Third, we acknowledge that RESULTS are unlikely to be solely responsible for the change in policy and so multiply our estimate by a 'RESULTS role' multiplier between zero and one to give an estimate of RESULTS' share of the impact. The uncertainty of this multiplier is remains high, although we believe that RESULTS played a significant role in the two policy successes under consideration.

The spreadsheet document accompanying this report (forthcoming) gives details of our estimates of past cost-effectiveness. Three estimates are presented - although these each have slightly different methodologies, the underlying logic is the same and the estimates come out in broad support of each other, with varying ranges between our upper and lower bound estimate. The first methodology follows that set out by Gordon Irlam, and is perhaps the most intuitive as it treats all of the increase in TB funding uniformly, estimating an 'average cost effectiveness' of overall TB expenditure. We adjust this methodology slightly to look at the cost effectiveness of four different types of TB program expenditure in the second and third methodologies – this allows us to analyse which type of expenditure is 'driving' our estimates of past cost effectiveness. This is particularly informative for our estimates of future cost effectiveness, as we are able to look at trends in different types of expenditure and estimate what type of expenditure marginal increases of funding would contribute towards, and how effective this expenditure is. The estimates from our three methodologies are summarised in Table 1.

Table 3-2 Summary of Three Different Methodologies

METHOD	1	2	3
Method Description	- Estimates average cost of treatment (total disbursements/total number of treatments) - Estimates increased number of treatments by policy change - Estimates number of lives saved as a result - Estimates number of DALYs saved using DALYs per life saved multiplier of 22.4	- Splits increased funding into expenditure in four key areas (see below) according to breakdown by the Global Fund - Uses estimates of cost per death avoided[7] for each type of expenditure and cost per treatment to estimate lives saved - Estimates DALYs averted using multiplier of 22.4	- Splits increased funding into expenditure in four key areas (see below) according to breakdown by the Global Fund - Uses cost per DALY averted from DCP2 and other sources for each type of expenditure to get overall estimate of DALYs averted. - Uses counterfactual government spending developed by comparing spending from 'Qwids' with categories from DCP2. [8]
Current best overall estimate of RESULTS' cost-effectiveness	This method obtains results of >1000 DALYs/$1000 but is not presented a it should not be taken literally.	Discontinued for now due to lack of relevant data.	0 – 500 DALYs/$1000
Cost per DALY averted for different types of expenditure	N/A	· First line TB $7 – $33 · Diagnostics $3 - $223 · MDR-TB $34 - 306 TB/HIV $155 - 388	· First line TB $5 - $50 · Diagnostics $2000 - $5000 · MDR-TB $150 - $1000 TB/HIV $200 - $1000

3.2.2 Details of TB Spending

We take our four different categories of spending in TB programs from the Global Fund's breakdown of their own TB spending, as given in The Global Fund (2011), *Making a Difference, Global Fund Results Report 2011*. The four types of expenditure are summarised below:

- **First line TB treatment (DOTS)** has been proven to be highly cost effective by a number of independent sources.[9] It made up 31% of the Global Fund's TB expenditure in 2009. By 2007, 99% of all cases of TB reported to WHO were being treated in DOTS programs. In 2009, DOTS had a treatment success rate of 87%.[10] Such a high rate of treatment may suggest little room for additional funding for DOTS.

- **Diagnostics**
  Diagnostics accounted for 36% of the Global Fund's expenditure on TB in 2009. This is presumably a prerequisite for detecting and curing TB. Unfortunately it is not clear whether the DCP2 estimate of the cost effectiveness of treating TB includes or excludes diagnostics. WHO has noted the value added by new diagnostic testing to find new cases:

[7] Estimates taken from Jamison et al. (2006)
[8] More details on this method will be explained in a forthcoming blog post.
[9] See, for example, GiveWell's write up at givewell.org/international/technical/programs/DOTS#footnote33_ddo1lyo for a good overview.
[10] WHO, Global Tuberculosis Control, 2011, p. 40.

> *"Cost-effectiveness modelling indicated that the use of Xpert MTB/RIF significantly increased TB case-finding (by roughly 30%) when used as a replacement or add-on test to microscopy. Use of Xpert MTB/RIF as a replacement for conventional culture and DST also significantly increased MDR case-finding (roughly three-fold)."*[11]

Diagnostic spending may therefore increase detection of TB that can be treated with DOTS.

One recent paper looking at TB screening for AIDS patients initiating antiretroviral treatment notes that:

> *"Compared with no screening, life expectancy in TB-infected patients increased by 1.6 months using smear in symptomatic patients and by 6.6 months with two Xpert samples in all patients. At 22% TB prevalence, the ICER of smear for all patients was* ***$2800 per year of life saved*** *(YLS), and of Xpert (two samples) for all patients was* ***$5100/YLS****."*[12]

Spending in this circumstance is therefore likely to be around a tenth as effective as DOTS. Another recent paper noted

> *"Cost-effectiveness studies are difficult to perform and few have been completed. Existing data suggest cost-effectiveness in some, but not all, settings."*

This is an area for further investigation.

Multidrug Resistant TB (MDR-TB)

The cost effectiveness of MDR-TB treatment, accounting for only the direct benefits to the patient, is low relative to DOTS due to the high cost of treatment and the lower rate of success. A recent systematic review found costs ranging from 1-4 DALYs per $1000, compared to 5-200 for DOTS.

> "The cost per patient for MDR-TB treatment in Estonia, Peru, the Philippines and Tomsk was $US10 880, $US2423, $US3613 and $US14 657, respectively. ***Best estimates of the cost per disability-adjusted life-year (DALY) averted were $US598 (I$960), $US163 (I$291), $US143 (I$255) and $US745 (I$1059), respectively.*** The main influences on costs were (i) the model of care chosen (the extent to which hospitalization or ambulatory care were relied upon) and (ii) the second-line drugs included in the treatment regimen."

On the other hand it seems likely that there may be significant 'spillover' benefits from preventing MDR-TB from spreading. WHO notes that "people ill with TB can infect up to 10-15 other people through close contact over the course of a year. Without proper treatment up to two thirds of people ill with TB will die."[13] So long as MDR-TB is at a low level of prevalence within the population, the rate of new infections could be high. However only 5-10% of people who are 'infected' will develop active TB immediately. Among the other 90-95% of people, TB will lie dormant, though 5-10% will have the infection activate at some point in the future. This suggests that someone with an infectious case of MDR-TB could expect to spread an active case of Tb to two other people each year. These two people would in turn spread the disease to two other people (each). If we assume each person dies a year after their TB progresses to the infectious stage (on average), and half of all MDR cases are treated before

[11] World Health Organization: Rapid Implementation of the Xpert MTB/RIF Diagnostic Test. 2011. Online: http://whqlibdoc.who.int/publications/2011/9789241501569_eng.pdf

[12] Rapid implementation of new TB diagnostic tests: is it too soon for a global roll-out of Xpert MTB/RIF? http://www.ncbi.nlm.nih.gov/pubmed/22855746

[13] http://www.who.int/mediacentre/factsheets/fs104/en/index.html

they ever become infectious, then each person cured prevents one other person from contracting TB every year in the future. This would be true of ordinary TB as well.

MDR-TB treatment accounted for 22% of The Global Fund's TB expenditure in 2009. However it represents a disproportionate amount of marginal spending - what additional income is spent on - which is the relevant issue. As such the effectiveness of this spending remains a key question we would like to resolve.

- **Combined TB/HIV services**
  We do not have a thorough understanding of how cost-effective this expenditure is. On the one hand, it is likely to be significantly lower than first line TB treatment due to anti-retroviral treatments usually having a lower cost-effectiveness as measured in DALYs/$.[14] Patients with HIV are also less infectious than other patients, though they are more likely to be exposed to immunosuppressed members of the population. While we could likely find out significantly more on the cost-effectiveness of this expenditure, combined TB/HIV services accounted for 11% of Global Fund TB expenditure in 2009. We do not think more information in this area is crucial to our estimate of RESULTS' cost-effectiveness.

Key remaining areas of uncertainty over past cost effectiveness:

- The cost effectiveness of counterfactual USAID health expenditure being displaced by increases in TB funding
- The degree to which RESULTS are individually responsible for the increases in funding
- The cost effectiveness of TB expenditure in areas other than first line TB treatment

Overall, we do not think these areas of uncertainty would be likely to make RESULTS' past activities look significantly less cost effective.

First, we think it is likely that TB treatment is sufficiently more cost effective than average USAID expenditure that the DALYs averted by the counterfactual expenditure are too few to significantly change our cost effectiveness estimate.

Second, we have evidence that RESULTS have played an important role in achieving the recent increases in funding for TB treatment. We do not know of any other organisations pushing for bilateral TB funding. There are only a few organisations advocating for funding for The Global Fund.

Third, although we do not have reliable estimates for the cost effectiveness of areas other than first line TB treatment, we are confident that the number of first line treatment achieved with the overall budget are sufficient to account for a past cost effectiveness estimate better than our currently recommended charities. However, the next section outlines how our lack of confidence in the cost-effectiveness of MDR-TB and diagnostics expenditure undermines our confidence in RESULTS' future cost effectiveness.

[14] givewell.org/international/technical/programs/ART

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4 Future Cost Effectiveness of RESULTS

4 FUTURE COST EFFECTIVENESS OF RESULTS

Our estimates of the past cost-effectiveness of RESULTS' work can be used to inform us of the likely future cost effectiveness of RESULTS. We are unable to confidently recommend RESULTS at this time due to remaining uncertainty about their future cost effectiveness for a few key reasons.

4.1 Marginal Effectiveness of Extra TB Money

It is not clear that the impact of additional funding for TB treatment is having an impact equivalent to the average impact of its past activities. As the expenditure on TB treatment programs increases year on year, more of the additional money is being spent on treatments other than first line TB drugs – in particular diagnostics and MDR-TB. Trying to account for this was our motivation for breaking down the effectiveness of different types of expenditure in methods 2 and 3 in the previous section.

Furthermore, it is not clear to which individual country programs additional funding would going to, and how cost effective each of these is. GiveWell have noted the difficulty in assessing the cost effectiveness of The Global Fund due to the significant heterogeneity of the programs that it funds.[15] Of particular concern is the possibility that marginal money made available to the Global Fund will primarily go to countries with less effective TB control programs than the average (presumably the most effective programs are funded first) and to programs with a high proportion of expenditure on MDR-TB, which is significantly more expensive to treat successfully.

4.1.1 How Effective are the Individual Programs that Receive Marginal Funding?

The cost effectiveness of expenditure on TB programs is likely to vary significantly according to which country and program is funded. For a DOTS campaign to be cost effective requires good management and a underlying health infrastructure. Indeed a poorly run DOTS campaign can result in increased numbers of MDR-TB cases.

It is currently not clear to us to which programs marginal increases in global funding for TB go to, and how effective these programs are. Forty-two percent (US$ 825 million) of all Global Fund TB disbursements in 2002–2010 were to the Asia Region, which in 2009 accounted for 8.5 million (61 percent) of the estimated 14 million TB cases around the world (Global Fund, 2011). It seems plausible that Asian country programs are run effectively and will receive a significant proportion of any increased global funding. However, we do not have firm evidence for this. Further, it is unclear whether additional money would 'reward' effective TB programs, or be allocated to less effective programs that initially received less funds.

Whilst the proportion of money going to Asian programs remains high, an increasing proportion is going to countries with a high share of MDR-TB cases. For instance, the Global Fund has allocated 16 percent of its TB grant money to the Eastern Europe and Central Asia Region, although the region only accounts for around 5

[15] givewell.org/international/charities/gfatm#Whatdotheydo

percent of the global TB prevalence. While that may seem disproportionate, it reflects the high costs of controlling and treating multi-drug resistant TB in a region that includes 15 of the 27 countries with a high burden of these hard-to-treat strains (Global Fund, 2011).

4.1.2 What Type of Expenditure is Being Funded by Marginal Money and how Effective is it?

It is important to estimate what type of activity is being funded by additional global TB funds, and to estimate how cost effective these additional activities are. As noted in the previous section, the amount of funding going to countries with high levels of MDR-TB is increasing at a rate faster than the overall increase in TB funding. Figure 3 shows the funding from the Global Fund directed towards the four different categories of TB spending. It shows that money being spent on first line treatment has remained relatively stable since 2006, with most funding increases occurring in treating MDR-TB and diagnostics. This suggests that increases in overall TB funding is going disproportionately to MDR-TB treatment and diagnostics, as opposed to first line treatment. We therefore need to have a good understanding of how cost effective these types of expenditure are before we can recommend RESULTS. We currently do not have a good understanding of the effectiveness of these expenditures.

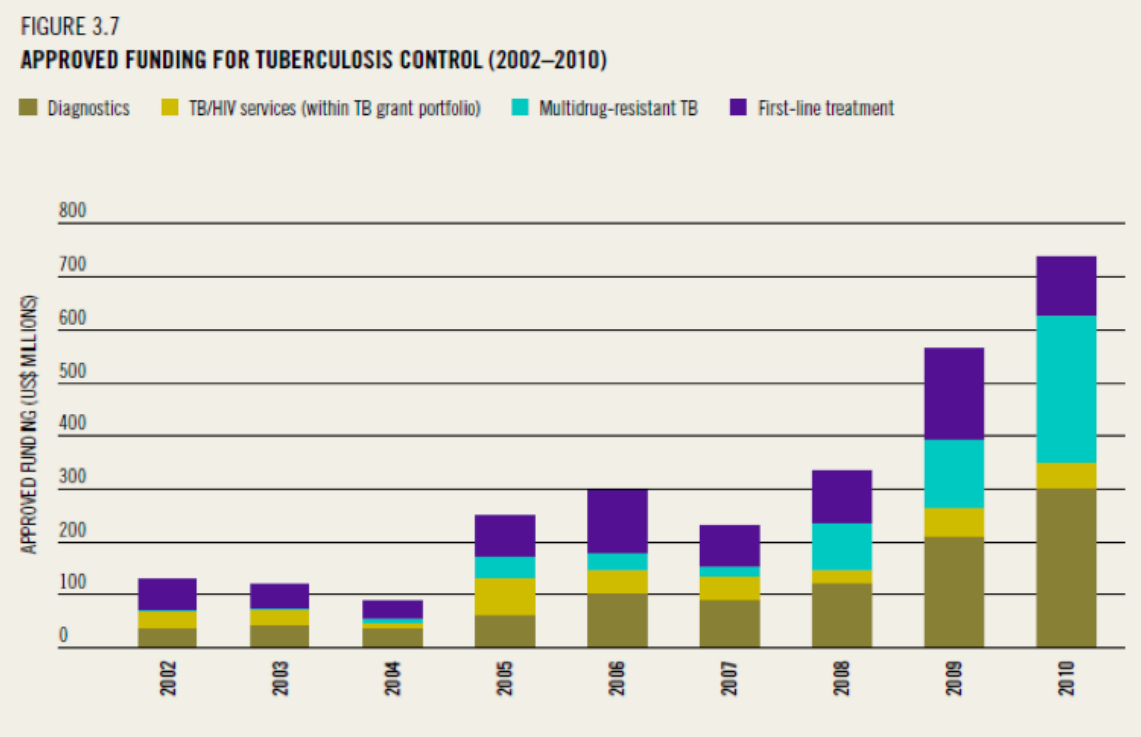
If it were the case that extra funding would go either to treating MDR-TB or incremental improvements in the quality of existing programs, this would do more to reduce our estimate of the cost effectiveness of RESULTS than any other area of uncertainty.

MDR-TB

As previously noted, it is significantly more expensive to treat MDR-TB, in terms of QALYs saved per $, than to treat conventional TB.[16]Therefore, accounting for only the direct benefits of MDR-TB treatment (those accruing to the treated individual), the treatment of MDR-TB is significantly less cost effective than first line DOTS treatment. However, each successful treatment of MDR-TB is probably more valuable than each successful treatment of ordinary TB, because it prevents the further spread of these particularly dangerous and costly strains. Unfortunately, we are not aware of any studies that estimate these benefits and doing so would be difficult. We currently working on the assumption that MDR-TB treatment is much less cost-ineffective than conventional DOTS. This is an area where we may be able to do further research to improve our understanding of RESULTS' overall cost effectiveness.

[16] Resch, S.C. et al plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.0030241

Figure 4-1 Global Fund TB funding, 2002-2010



Source: The Global Fund, 2011

It seems likely that increases in global funding for TB will be disproportionately directed towards funding MDR-TB treatment, reducing the overall cost-effectiveness of such funding:

- In 2009 there were an estimated 14 million TB cases globally, including 440,000 (new) cases of multidrug-resistant TB (The Global Fund, 2011).
- Between the end of 2009 and 2010, the number of patients treated for multidrug-resistant TB and the number of integrated TB/HIV services provided in Global Fund supported programs increased by 38 and 41 percent respectively (Global Fund, 2011).
- In 2010 the cumulative number of people treated for multidrug-resistant TB rose by 45 percent from the year before. Global Fund-supported programs treated 13,000 people in 2010 for these strains of the disease – bringing the cumulative total to 43,000 people.

In addition to estimating the cost-effectiveness of MDR-TB treatment, it may be useful for us to find out from RESULTS whether they are advocating directly for improved treatment of MDR-TB and what form this advocacy takes.

RESULTS are advocating for cheaper drugs to treat MDR-TB, and if this were successful would play an important role in reducing the incidence of MDR-TB. There is a precedent for this as there was a recent agreement to reduce the cost of Xpert diagnostic cartridges by 40% in high-burden countries.

Diagnostics

It is not currently clear to us how effective spending on diagnostics is, as we do not have a good understanding of exactly what this spending consists of. This is an area in which we should do more research, and it is likely that the relevant information is publicly available. It is possible that diagnostics spending is cost-ineffective relative to spending on first line treatment. But it is also possible that diagnostics spending is complementary with first line treatments, or raises spending on such treatment and is therefore high value.

4.2 Marginal Effectiveness of Advocacy

It is possible that the effectiveness of RESULTS' advocacy will decline as it receives more funds. It seems likely that the US states in which they currently have a presence are those in which they will find the most sympathetic public and politicians. In our communication with RESULTS they indicated that if they receive more funding they would likely aim to expand their grassroots network from 34 US states to the remaining 16 states in which they do not currently have a presence. Advocacy in these states would probably be less effective
Another way that the ongoing spending of RESULTS could be less effective than previous spending, would be if they had already built relationships with the key political decision-makers in Washington. In this case RESULTS, would not need to continue working as hard to have influence, and there would be fewer opportunities to spend money in highly influential ways. However, the turnover of the representatives and senators on the relevant house and senate committees is relatively high, and so RESULTS may need to maintain its spending in order to continue having an impact.

RESULTS contends that its expansion would remain highly effective, noting:

> "RESULTS has built congressional champions in diverse states (rural/urban; Democrat/Republican) and from both political parties. We believe that expanding into more states and districts will significantly increase our impact. We have created TB and Global Fund champions in states as diverse as New York and Texas, Alaska and California. Strategically, there is considerable power to expand into the remaining 16 states: advocates are more likely to have face-to-face meetings with senators from low population states such as North Dakota or Montana. There are many progressive activists in Maine, New Hampshire, and Vermont, but we do not have strong, active groups there yet. The 50 state goal is specifically designed to leverage the unrepresentative nature of the Senate for greater advocacy impact.
> …
> It is expected that the next Congress in 2013 will see changes in leadership of the House Foreign Affairs Committee, the Senate Foreign Relations Committee, and significant turnover in House and Senate Appropriations leadership."

RESULTS offers a range of testimonials from members of congress. For instance there is this quote from Congressman Adam Smith of Washington State:

> "This is the best grassroots organization I work with. I get the question all the time, 'What can we do to make what we care about happen politically?' And the answer is so simple. I always cite RESULTS as the example. Nobody does it better than you."[17]

Unfortunately, we do not yet have a representative sample of opinions on RESULTS, and comments like this are likely to be highly skewed.

[17] http://www.results.org/about/what_people_say/

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5 Other Considerations

5 OTHER CONSIDERATIONS

5.1 Future Plans and Scaling up ACTION

RESULTS' work on global health, in particular on TB, is the main achievement driving the relatively impressive past cost-effectiveness estimates, and we would feel most confident of RESULTS' future impact if they were to continue advocating with a strong focus in this area. There is demonstrated need for increased funding to fight TB - according to the Global Fund citing a lack of funding as a reason for only treating 71% of their target number of cases in 2010 – and we feel reasonably confident that RESULTS' advocacy would continue to be effective in the immediate future.

Based on our communication with RESULTS USA, we understand that they have two main focuses in the near term – continuing to advocate for increased funding to fight TB and advocating for increased funding for microfinance institutions. However, they also campaign to reduce poverty in the USA, and for other changes to global health policy and primary education provision.[18]

If they were to receive increased funding, for example as a result of a recommendation by GWWC, they have a clear idea of how they would scale up their current operation, and it seems likely that the marginal effectiveness of additional funding would be relatively stable.

5.1.1 Can RESULTS/ACTION Effectively use More Funding?

RESULTS' current advocacy operation is unlikely to become significantly less effective over time, largely due to the fact that there is a relatively high turnover rate of decision makers and annual budgeting procedures. Therefore, any funding that would allow RESULTS to continue advocating at their current level would likely continue to be effective in terms of policy outcomes.

However, it is unclear how effective additional funding that would allow RESULTS to expand their advocacy network to new states in the US would be. In particular, we are worried that RESULTS would expand their advocacy into states where decision makers are less receptive to their message and so the effectiveness of this additional expenditure would be relatively low. We currently do not have a good enough understanding of the political process in the USA, and how RESULTS is able to influence this, to be confident that RESULTS' marginal political influence would remain stable with an expanded program.

RESULTS' response was:

> "It is our experience that through grassroots advocacy we've been able to influence both conservative and more liberal members, and several of the states we would expand to are very progressive states where members of Congress could be moved to do more."

[18] http://www.results.org/issues/

5.1.2 Focus on Areas Other Than TB

As noted, RESULTS plan to focus primarily on advocating for increased expenditure on TB, microfinance, child survival and education in the immediate future, although they are also active in a number of other domestic and global policy areas. Whilst we are confident that additional expenditure on first line treatment of TB is an extremely cost-effective investment, we believe that additional funding for microfinance institutions and US poverty in general will have significantly less impact.[19]

5.1.3 Can we Directly Fund ACTION Only?

Given the uncertainties we have over the effectiveness of increased expenditure in areas other than global TB funding, we would be more confident that the donations of GWWC members were achieving their maximum impact if members were able to directly fund advocacy for increased expenditure on TB control programs. ACTION is an international partnership of advocates working to mobilize resources to fight TB. It may be preferable for our members to donate to ACTION specifically, rather than indirectly via RESULTS. It is possible to donate directly to ACTION, at https://donate.towercare.com/donate_to_action. However, we do not yet know exactly how this money is spent. ACTION is currently working on both TV and vaccine related advocacy. Additional donations to ACTION may also lead to the RESULTS Educational Fund passing on less untied money to this project.

5.1.4 Regression to the Mean

There is a well-established tendency for measurements that look extreme in some way, to turn out to need adjustment back to a more normal outcome on further examination.[20] This tendency is called 'regression to the mean'. Reasons for this effect are that an extreme result will often be generated by measurement error or temporary good or bad luck. The less precisely the past or future cost effectiveness of a charity can be measured, the more we ought to adjust down our belief about its likely future success to account or this. Given the uncertainty around many aspects of RESULTS' work, the appropriate regression to the mean may be significant. We are currently investigating how large this adjustment should be.

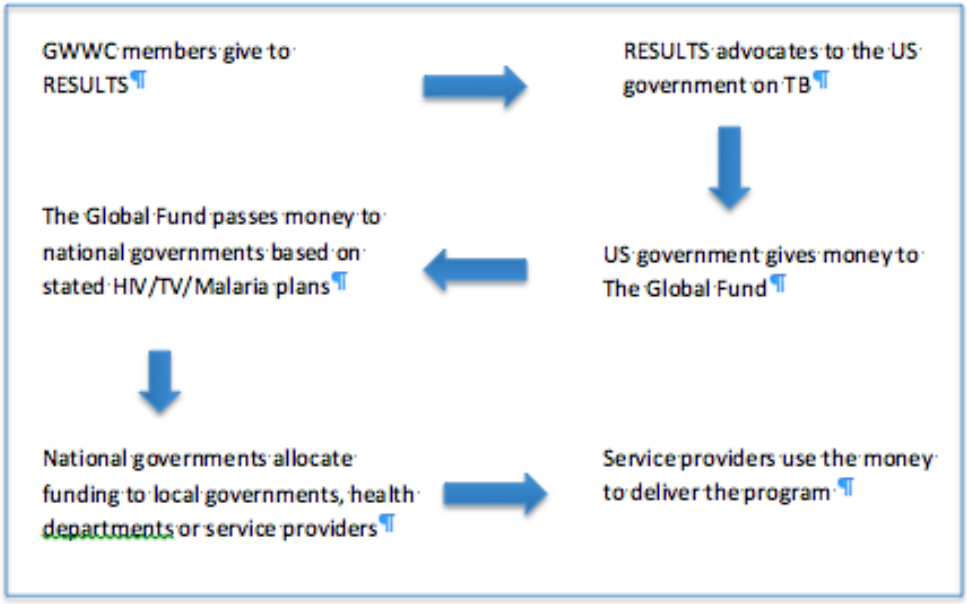
5.1.5 Fungibility and Room for More Funding

The problem of fungibility and 'room for more funding' is well known, but it is a greater concern in the case of political advocacy because more organisations are part of the chain of causation.

One possibility is that at some point in the causal chain between ACTION, the US Government, The Global Fund, the national governments who receive funding and the local service providers who deliver programs, one of the parties may claim to have spent more on the desired programs, when they actually would have spent money on that program anyway. The extra income is then used wholly, or partially, to fund a different program, whose value has not been studied. Alternatively, the organization may want to spend more money on the desired program, but have run out of room to do so. For instance, a country may already be treating all of the patients with TB they can find.

[19] givingwhatwecan.org/where-to-give/charity-evaluation/economic-empowerment
[20] givingwhatwecan.org/where-to-give/methodology/regression-to-the-mean

Figure 5-1 Many Things Have to go Right for our Donations to Have the Desired Efect



In the case of giving money to ACTION, the places where this seems most worrying is in money being passed to, and between, recipient governments. It will be hard to know precisely what these organisations would have spent money on in the absence of additional money through The Global Fund (or bilateral aid).

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6 Conclusions

6 CONCLUSIONS

Overall, we think there is a reasonable chance that RESULTS' past cost effectiveness was high, mostly because of their campaigns to increase funding for the treatment of TB. We estimate that their past cost effectiveness is under $20 per DALY averted – potentially significantly under. This would be better than our current top recommended charities, which achieve around $25-50 per DALY. However, we are currently unable to recommend RESULTS due to some remaining doubts concerning their future cost effectiveness.

Most important areas of uncertainty

- RESULTS' role in achieving policy successes. Whilst it is clear that RESULTS has taken a leading role in the campaign for increased TB funding in the USA, the complex nature of the political process means it is not clear what proportion of the impact of those policies should be attributed to RESULTS.
- The marginal effectiveness of increased global TB expenditure. The cost effectiveness of efficient first line treatment for TB is clear and well demonstrated. However, it seems likely that a large proportion of additional funding for TB is being allocated to diagnostics and the treatment of MDR-TB. We do not have a clear understanding of how effective this expenditure is and expect it to be significantly less cost effective than first line treatments. We also have a lesser concerns that additional funding may be allocated to country programs with a weaker existing health infrastructure that are unable to effectively use the funds.

Less important areas of uncertainty

Effectiveness of counterfactual use of public funds. There is considerable uncertainty surrounding how the public money allocated to programs supported by RESULTS would have been spent in the absence of RESULTS' advocacy. However, we believe that the effectiveness of expenditure on TB treatment is sufficiently more cost effective than most other areas of spending that it is unlikely to dramatically change the cost effectiveness estimates for RESULTS' work.

- Effectiveness of RESULTS' advocacy in areas other than TB control. This report has focussed primarily on RESULTS' campaign for increased TB funding, and we acknowledge that they have achieved significant other policy successes. Whilst we think that these are likely to be significantly less cost effective than their achievements in TB control funding, a more thorough understanding of their other past achievements may lead to a (relatively minor) revision of their past cost effectiveness. We would be particularly interested in evaluating their advocacy for increased funding of GAVI in more detail.
- Marginal effectiveness of RESULTS' advocacy in the USA in the event of a major expansion. It is unclear whether an expansion from 34 to 50 states in the USA, and to a greater number of Congressional districts, would decrease marginal effectiveness of RESULTS' advocacy.