

Making Every Move Count

New “win-win” options for nutrition and health

Stuart Gillespie

International Food Policy Research Institute,
Brighton, UK

Key messages

- > Inactivity is an increasing problem in the UK: 23% of adults and 81% of adolescents do not do enough regular physical activity.
- > One in three people worldwide are either overweight or obese, including nearly two-thirds of adults in the UK.
- > Conversely, over 150 million children worldwide are undernourished, with multiple serious consequences.
- > Global nutrition targets currently identify a shortfall of US\$4 billion, which needs to be financed using creative and innovative means.
- > A new initiative, *Pivotal Movement*, aims to contribute to addressing these challenges simultaneously in a collaborative and innovative solution which incentivizes both citizens and investors toward the same goal.

Introduction

The world is becoming increasingly connected. Agenda 2030 and the Sustainable Development Goals reflect this connectivity, with action plans citing co-benefits for several goals and targets, in a way that did not happen with their predecessors, the Millennium Development Goals.^a

Working in the multisectoral arena of nutrition, we naturally understand this. Improving nutrition sustainably requires a range of actions from different sectors, while the outcome – improved nutrition – has the potential to generate multiple benefits to populations, societies and economies.

There is significant untapped potential for identifying and implementing “win-win” options that exploit such latent synergies. This applies to the design and implementation of interventions, and it can also apply to their financing.

“Improving nutrition sustainably requires a range of actions – financing them requires creativity and experimentation”

Innovative financing has become a key issue in the current scaling-up drive, given the need to go beyond traditional channels to meet the cost of attaining agreed goals.¹ A recent *Sight and Life* paper reviewed new financing mechanisms, including development and social impact bonds, bridge funds, ticket levies, and impact investment.² One new initiative – The Power of Nutrition – for example, uses an innovative matched-funding approach that effectively quadruples the level of initial funding.

Finding the “win-win” or the “double duty action” needs creativity and experimentation – something that’s not associated with desk-based work – and often not associated with work at all! As a nutritionist, I think of calories (and other nutrients) as inputs. As a cyclist, I gaze at the Garmin tracker on my handlebars and see calories being burnt, as the miles roll by.

Which set me thinking ... How can we put these calories to better use?

Global challenges

First, some key facts about four major challenges:

01. Inactivity. Globally, 23% of adults, and a massive 81% of adolescents (aged 11–17 years), do not do enough regular physical activity^b to meet global recommendations.³ In the UK, walking and cycling as the main modes of commuting are reported respectively by only 11% and 3% of adults.⁴ Insufficient physical activity is one of the leading risk factors for death worldwide,³ accounting for 6–10% of ischemic heart disease, stroke, diabetes, and breast and colon cancer,⁵ as well as being a modifiable risk factor for dementia.⁶ Globally, physical inactivity is estimated to cost \$54 billion in direct health care.⁷ A mere 5% increase in bicycle trips of less than 7 km could save around \$1.7 billion on health expenditure in Australia.⁸



Cycling to work can help generate funds for non-profit organizations.



Pivotal aims to improve the health of individuals and to leverage finance for nutrition and health projects in the UK and globally

Beyond the health benefits, being active is associated with improved cognition and academic achievement among children,^{9,10,11} along with numerous other social, environmental and economic benefits.¹²

02. Overweight and obesity. Excess body weight affects one in three people on this planet. In 2015, a total of 107.7 million children and 603.7 million adults were obese worldwide.¹³ Since 1980, the prevalence of obesity has doubled in more than 70 countries and has continuously increased in most other countries, with the rate of increase among children twice that of adults. Nearly two-thirds of all men and women in the UK are overweight or obese. No country has yet succeeded in reversing this trend. High BMI raises the risk of premature death (accounting for four million deaths globally in 2015),¹³ and for various non-communicable diseases (including diabetes, heart disease and cancer). Drivers of this spiraling epidemic include poor diet and a sedentary lifestyle.

03. Undernutrition. Over 150 million children globally are undernourished and three million die every year as a result of undernutrition.¹⁴ The multiple consequences are well known to this readership, and not reiterated here.

04. Financing. To reach global nutrition targets, \$11 billion per year is needed. Of this, estimates suggest \$4 billion will be needed from innovative financing and household contributions.¹

Can we contribute to addressing all these challenges in ways that are as simple as riding a bike, or walking to work? Is it possible to envision an approach to fundraising that *in itself* generates benefits to nutrition and health?

We think it is, and the rest of this short paper outlines one such approach that is currently being explored in the UK: *Pivotal Movement*.

What is Pivotal Movement?

Pivotal is a new initiative that aims to achieve two mutually reinforcing goals – to improve the health of individuals (“calorie-burners”) and to leverage finance for nutrition and health projects in the UK and globally.

“*Pivotal Movement* uses fitness tracking technology to turn calories burnt into increased funding for nutrition and health projects”

At the same time as the adverse trends, previously discussed, play out, we have seen a ramp-up in the use of fitness tracking technology and in gym membership in the UK and around the world. Many more people are joining gyms, riding bikes, and using fitness devices and platforms such as Strava, Garmin and Fitbit. In the UK, there was a 44% increase in gym membership in 2015 alone. According to Parks Associates data, wearable fitness trackers are predicted to be worth \$5 billion by 2019 (up from \$2bn in 2014). In 2020, unit sales of connected fitness trackers will reach 24.5 million, and sales of smart watches will exceed 20 million.¹⁵

There are a growing number of new initiatives aimed at getting people “off the couch” – Couch to 5K, parkrun, Good Gym, Can Too, Re-Cycle and Zwift are just a few great examples. These are hugely important, and they should be supported. But we think these ideas can be taken further. Currently most sponsorship money comes from specific events. *Pivotal* is aiming to capture the energy expended in everyday activity – and to leverage that for extra funding.^c

How does Pivotal work?

Pivotal uses fitness tracking technology to turn calories burnt in cycle rides, evening jogs, weekend swims, gym workouts, and walks into increased funding for nutrition and health projects. It revolves around the strength and links among three core communities:

01. The first community comprises individuals who become **calorie-burners**. While wearing a tracker, they

FIGURE 1: The *Pivotal* model

Photo credits for images in figure: Image 'run' BOWDEN IMAGES_IStockPHOTO | Image 'walk' ONE INCH PUNCH_IStockPHOTO | Image 'swim' SOLIS IMAGES_IStockPHOTO | Image 'bike' YAN LEV_IStockPHOTO | Image 'local' AHPHOTOSWPG_IStockPHOTO | Image 'global' dbphotographer_IStockPHOTO

burn calories (by walking, running, cycling or working out) which are measured. As well as improving their own health, their “calorie logs” can also generate funds for nutrition and health projects.

02. This is where the second community comes in: the **investors** – organizations (or individuals) who seek to improve the nutrition and health of populations within and beyond the UK. Individual calorie-burners can “donate” their calorie logs to a pool and/or directly raise funds by seeking sponsorship (from friends and relatives) for calories burnt. Calorie pools are the drivers of an innovative funding scheme. Selected investors agree to “match-fund” these pooled calories according to pre-determined ratios (e.g., every 100,000 calories burnt may generate a donation of GB£100 [approx. \$135]). The ratios can be agreed with the investor.

03. The third community comprises **non-profit organizations** who will put these funds to use in order to further improve the nutrition and health of the wider population through projects they support.

These links are what sets *Pivotal* apart. We aim to leverage movement, and to multiply its effects for the greater good, as illustrated in **Figure 1**.

Why sign up to *Pivotal*?

Any individual or organization can become involved by moving

or investing – or both. In fact, any *Pivotal* member is a dual investor, investing in personal health as well as in global change for good. Here are some illustrations of incentives for engagement in these three communities:

Why move?

- > Beyond the obvious health benefits (described above), a calorie-burner will become a member of a growing movement that is driving change in the UK and globally.
- > Calorie-burners may seek sponsorship for one-off events (bike rides, sportives, marathons, fun runs etc.), but *Pivotal* will allow them to also generate benefits from their day-to-day activities, simply by strapping on a Fitbit, or switching on a Garmin, and uploading their stats from their routine exercise.
- > Physical activity is of course influenced by multiple factors beyond personal characteristics and preferences (including family and the cultural, economic and physical environments that shape the availability, access and provision of safe opportunities for walking, cycling, active recreation, sports and play).

Why invest?

- > Investors who normally donate to/invest in nutrition and health projects can generate greater value for money by channeling their funding through *Pivotal* – because the *very process of raising these funds* (via exercise) is intrinsically beneficial to the nutrition and health of many individuals.
- > Investors can choose the type of projects or organizations they fund, as they would normally, and they can choose the



Pivotal uses technology such as smart watches to help people get off the couch

terms under which they donate (e.g., through agreeing on the £/kcal or \$/kcal ratio), and agreeing on percentage allocations to different types of project.

- > Some investors could generate higher visibility in the movement by agreeing to higher ratios of funding (e.g., becoming silver, gold or platinum level donors).
- > Again, there are win-wins to be exploited. WHO's new draft Global Action Plan on Physical Activity (GAPPA) recognizes this, for example, in recommending governments to *"advocate for a percentage of funds from taxing unhealthy foods and beverages, alcohol, tobacco and other traffic management schemes to be reinvested in physical activity promotion, emphasizing the co-benefits of investment in physical activity across social and development priorities."*

Calorie-burners and investors may have a degree of choice in what they support – they may choose to go *"a la carte"* and target a specific beneficiary organization, or they may choose to support an organization such as Sports Relief which itself donates to a variety of causes. Or again, they may do both, pre-allocating a set percentage to both options. They may also have a chance to rotate their support (e.g., every six months) to different target organizations (similar to an actively managed investment fund portfolio).

Incentives for beneficiary organizations

- > A steady stream of funding that may be additional to other funding streams.

- > Being part of a wider movement and a growing proportion of the population who are taking control of their own nutrition and health status.

Pivotal is open to all. Any individual with a fitness tracker or smart watch can sign up as a calorie-burner. Any investor/donor (from public or private sectors) that meets simple, transparent eligibility criteria that are aimed at avoiding conflicts of interest can become involved. Similarly, beneficiary organizations need to be focused broadly on *Pivotal's* core objectives. *Pivotal* is developing a menu of organizations, differentiated by their geographical focus (e.g., UK, global) and/or ultimate goal (e.g., school sports, cycling networks, healthy breakfast clubs in the UK, and community nutrition, water and sanitation, school feeding programs in low-income countries overseas).

How to grow *Pivotal*?

Pivotal's key coordination role will be to facilitate connectivity between the three communities – acting as the pivot and catalyst (as shown in **Figure 1**). This role will be delivered by the development and maintenance of a digital platform (website/application/community, etc.) allowing the mechanics of the transactions to be supported and enhanced.

In this, *Pivotal* will also work with facilitators and promoters. Partnerships with organizations who manage sportives and fun runs/marathons will be explored, for example. Such events could be periodically run to launch and further publicize the

initiative and to burn more calories *en masse*. Partnerships with gyms and fitness centers could also incentivize gym membership, while aggregating the calorie-burn of its clients. Investor organizations could encourage staff to join up, by discounting gym membership, new bikes and fitness trackers and/or reducing health insurance premiums. City bike hire companies could include sign-up sheets in which *Pivotal* “membership” is included as an “opt out” mechanism in agreements.

“*Pivotal* will facilitate connectivity between the calorie-burners, the investors, and the non-profit organizations”

In terms of promotion, a range of approaches can be adopted – including engaging with potential ambassadors of *Pivotal* (e.g., sports stars) who can inspire a wider population of potential calorie-burners. Periodic campaigns or challenges can be run.^d Finally, it will be important to provide regular feedback to calorie-burners on the use of funds, for example via “stories of change”, focusing on impact on the ground.

In sum ...

Pivotal is an “idea in motion” – an experiment and an example of a potential “win-win” whereby people’s energy transforms their own health while benefiting others. In its exploratory phase, we aim to start a conversation with potential members of *Pivotal*’s three communities to elicit their views on what could work and what may not. We need to understand where the tipping point lies for different individuals and organizations to get involved – either as calorie-burners, investors or implementers – and the key incentives and disincentives for engagement. We need to know what it would take for someone to strap on a fitness tracker, forget the short cut, and walk or cycle the long route to work.

Pivotal is just one approach to generating “win-win” options – using one “good” to generate another. We are still in the exploratory phase with this initiative, and want to hear from you. Please visit the website and send a message (www.pivotal-movement.org), and follow us on Twitter @PivotalOrg, or on Facebook www.facebook.com/pivotalorg/.

Acknowledgements

Pivotal Movement is being developed by a UK/Brighton-based group comprising Stuart Gillespie, Andrew Hodge, Nicholas Nisbett and Ben Harding, with inputs from a range of individuals. Andy prepared the graphic in **Figure 1** and reviewed the text. We

are grateful to all who have shared their views and ideas on this approach and on the wider issue of getting more people moving, while generating additional benefits along the way.

Correspondence: Stuart Gillespie,

Senior Research Fellow, International Food Policy Research Institute (IFPRI), c/o Institute of Development Studies (IDS), Library Road, Falmer, East Sussex BN1 9RE, UK.

Email: s.gillespie@cgiar.org

References

01. Shekar M, Kakietek J, D’Alimonte MR, Rogers HE, Eberwein JD, Akuoku JK, et al. Reaching the global target to reduce stunting: an investment framework. *Health Policy Plan* 2017;32(5):657–668.
02. Beesabathuni K. Innovative financing for nutrition. *Sight and Life* 2016;30(1):53–61.
03. World Health Organization. Global status report on noncommunicable diseases 2014. Geneva: World Health Organization, 2014.
04. Goodman A. Walking, cycling and driving to work in the English and Welsh 2011 census: Trends, socio-economic patterning and relevance to travel behaviour in general. *PLoS One* 2013;8(8):1–11.
05. Lee I, Shiroma EJ, Lobelo F, Puska P, Blair SN, Katzmarzyk PT. Effect of physical inactivity on major non-communicable diseases worldwide: an analysis of burden of disease and life expectancy. *Lancet* 2012;380:219–29.
06. Sallis J, Bull F, Guthold R, Heath GW, Inoue S, Kelly P, et al. Progress in physical activity over the Olympic quadrennium. *Lancet* 2016;388:1325–36.
07. Ding D, Lawson KD, Kolbe-Alexander TL, Finkelstein EA, Katzmarzyk, PT, van Mechelen W, et al. The economic burden of physical inactivity: a global analysis of major non-communicable diseases. *Lancet* 2016;388:1311–24.
08. Woodward A, Lindsay G. Changing modes of travel in New Zealand cities. In: Howden-Chapman P, Stuart K, Chapman R, eds. *Sizing up the city – Urban form and transport in New Zealand*. Wellington: New Zealand Centre for Sustainable Cities centered at University of Otago, 2010.
09. Donnelly JE, Hillman CH, Castelli D, Etnier JL, Tompowski P, Lambourne K, et al. Physical activity, fitness, cognitive function, and academic achievement in children: a systematic review. *Med Sci Sports Exerc* 2016;48(6):1197–1222.
10. Álvarez-Bueno C, Pesce C, Cervero-Redondo I, Sanchez-Lopez M, Martinez-Hortelano JA, Martinez-Vizcaino V. The effect of physical activity interventions on children’s cognition and metacognition: A systematic review and meta-analysis. *J Am Acad Child Adolesc Psychiatry* [Internet]. 2017 Sep [cited 2017 Sept 1];56(9):729–738. Available from: [www.jaacap.com/article/S0890-8567\(17\)30318-0](http://www.jaacap.com/article/S0890-8567(17)30318-0) doi: 10.1016/j.jaac.2017.06.012

11. Santana CCA, Azevedo LB, Cattuzzo MT, Hill JO, Andrade LP, Prado WL. Physical fitness and academic performance in youth: A systematic review. *Scand J Med Sci Sports* 2017;27(6):579–603.
12. Giles-Corti B, Foster S, Shilton T, Falconer R. The co-benefits for health of investing in active transportation. *NSW Public Health Bull* 2010;21(5–6):122–7.
13. Global Burden of Disease 2015 Obesity Collaborators. Health effects of overweight and obesity in 195 countries over 25 years. *N Engl J Med* 2017;377:13–27.
14. Black RE, Alderman H, Bhutta ZA, Gillespie S, Haddad L, Horton S, et al. Maternal and child nutrition: building momentum for impact. *Lancet* 2013;382(9890):372–375.
15. Park Associates. Western European consumers will buy 24.5 million connected fitness trackers and 20.8 million smart watches in 2020. Version current 15 March 2016. Internet: www.parksassociates.com/blog/article/pr-03152016-wearables (accessed 1 September 2017).

Notes on the text

- a. A recent example is WHO's draft Global Action Plan on Physical Activity (GAPPA), launched in August 2017, which aims to get 100 million people more active by 2030. Grounded in four strategic objectives (creating an active society, active environments, active lives and active systems), GAPPA states: *"harnessing synergies and building coherence between different but related policy agendas is critical for maximizing the opportunities for joint action and effective, efficient use of limited resources."*
- b. WHO recommends adults do at least 150 minutes of moderate-intensity physical activity per week.
- c. *Calorie Cloud*, started by the founders of MANA Nutrition, is a similar initiative in the US that seeks to raise funds for scaling up the production and distribution of ready-to-use-therapeutic food.
- d. One example: Assuming one adult could burn 20,000 kcals per month in moderate activity, 50 can burn 1 million calories per month. Groups can self-organize (on Strava, for example) and go for the "Million Calorie Challenge" each month, or "Million Mile Months." One million burnt calories could trigger donations of £10,000 [\$13,500], for example (100 kcals = £1/\$1.35), and this could be taken further by showing what £10,000 can do (e.g., it will deliver 200 bikes to health workers in remote communities, or to young girls to help them get to school, etc.).