Dawa paced in front of Pemba’s door, trying to hide his concern. He had run out of his medication, and Pemba had been kind enough to share his. Both men had been told to never stop taking their medications because HIV was a virus that could quickly develop resistance, and then the drugs would no longer work. Now Pemba was beginning to run out of his supply as well.

Dawa and Pemba were running low on medicine because a bandh, or strike, was making it impossible to get to the pharmacy. In Nepal, during a bandh, it was wise to avoid going out in a car, because if you did, you could get your tires slashed, your windows broken, or your vehicle set on fire. The bandh was in its second week, and the men had nowhere to turn once their medications ran out.

Crises stimulate action. In dire straits, we become innovative and entrepreneurial. Which is what happened in this case. The Saath-Saath Project, a local HIV program, partnered with a hospital and some community health workers to create a pharmacy-on-a-bicycle brigade. If the patients couldn’t go to the pharmacy, then the pharmacy would go to them.

It was a risky proposition. Would the bandh enforcers respect
the riders’ mission? Nobody knew. But lives were at stake. That is why Suraj, a community health worker and person living with HIV himself, was one of the first to volunteer. Suraj set out early in the morning after loading his satchel with medications. By midday his pharmacy on a bicycle reached Dawa and Pemba—right before their pills ran out. Because of quick thinking, a partnership, and a bicycle, Dawa and Pemba didn’t miss a single dose. This simple solution may have saved their lives.

If all we had to worry about was the occasional strike, most of our problems in global health would be solved. But a bandh that lasted thirty-two days only exacerbated Nepal’s problems of deep poverty and a population living in hard-to-reach areas. Such problems are found in many developing countries, and regardless of whether they are caused by instability, conflict, geography or cost, they make it difficult to bridge the “final mile” in global health.

Over the last few decades the authors have examined health care in remote rural and dense urban settings across a variety of low- and middle-income countries in Africa, Asia, and Latin America. Some countries were stable, others were in civil war. We have spoken with presidents and health ministers, tribal leaders and CEOs, and patients and their families. We have worked alongside dedicated and compassionate clinicians—doctors, nurses, community workers, and traditional healers—and we have consulted with governments, businesses, NGOs, and donors. We have examined health care from a variety of perspectives, and we always reach the same conclusion:

**Millions are dying of diseases we can easily and inexpensively prevent, diagnose, and treat.**

*Pharmacy on a Bicycle* is a bold yet practical approach to alleviating problems in global health and poverty. Fortunately, we are not starting from scratch. There are many examples of successful programs that are already saving lives. We need to leverage these innovative and entrepreneurial solutions and create even more
to save lives by increasing access, use, and quality of care, while reducing costs.

In *Pharmacy on a Bicycle*, we show how we can save lives while saving money through a seven-point approach we call IMPACTS (Figure 1). Here are the key components:

**Figure 1 The IMPACTS Approach**

- **I** Stimulating *Innovation and Entrepreneurship* to develop new solutions and reach populations in need in sustainable ways.
- **M** *Maximizing Efficiency and Effectiveness* to deliver quality products and services at reduced costs.
- **P** *Partner Coordination* to stimulate cross-sector collaboration and coordinate complementary roles.
- **A** *Accountability* that encompasses defining goals and targets and monitoring success.
- **C** *Creating Demand* for products and services.
- **T** *Task Shifting* to lower-level providers and to new settings to reach and serve more people at lower cost.
- **S** *Scaling* up programs to save even more lives.

Implementing the IMPACTS approach will help bring care to those who need it most.
How to Use This Book

This is a book about taking health care the last mile—sometimes quite literally—to a place that’s accessible, in a way that’s acceptable, and at a cost that’s affordable.

In other words, this book is about solutions.

There are people and organizations already doing many things that work. Now we need to scale those models to reach the masses of people who deserve quality health care. What works may come from governments, NGOs, businesses, or donors. All are part of the solution to the problems we face, and all have a role to play.

- **Government.** Governments can help create an environment, supported by sound policies, regulations, and resources, where basic, high-quality health care is expected. Ministries of health are the backbones of strong national health systems upon which services are built. Local and national government leadership and commitment are essential for success and financial sustainability.

- **Nongovernmental Organizations.** NGOs, including faith-based organizations, have long provided essential health care, social services, and advocacy in developing countries throughout the world. They are critical to providing quality care in diverse and hard-to-reach communities.

- **Businesses.** For-profit businesses offer not just resources but models of efficiency, innovation, entrepreneurship, and distribution: ways to create demand and reduce costs. In addition, local businesses, along with microenterprises, are often created and based within communities, and owners understand the local culture and needs. Microenterprises in health care, which include small clinics and pharmacies, can help distribute services and products to those in need. So too can traditional healers and traditional birth attendants, particularly in rural areas. For a variety of reasons, these smaller providers and traditional sectors may not be integrated into formal health care systems. But when given
appropriate training, support, and oversight, they can help us complete the final mile.

- **Donors.** International agencies, foreign governments, and foundations provide essential financial and technical support to country-led health programs. Such donors are essential to enable governments and local implementers to provide needed services.

Innovative partnerships that bring these sectors together can help save more lives. In addition, the approaches used by these sectors overlap and complement each other as they grow and evolve. For example:

- Effective governments in many developing countries are now adopting sound internal business strategies and practices to manage public resources to deliver health services.
- Many NGOs in low- and middle-income countries operate like businesses to ensure that their resources are effectively used and have real impact. Some NGOs are even creating for-profit spinoffs to enhance their chances of creating financially sustainable programs.
- Businesses, large and small, seek not only to be financially profitable, but also to create social good in the countries where they work. This approach goes beyond corporate social responsibility—it is part of their business model.
- Donors are increasingly requiring recipients to reduce costs, demonstrate impact, and achieve greater financial sustainability once support ends.

These new, blended approaches are also helping to change the perceptions of target populations from beneficiaries to customers. This change in orientation recognizes that a patient is a customer and that the customer is in charge. All people, regardless of income, are customers of health products and services. When customers perceive little value in or encounter barriers to using a
health product or service, it is likely that they won’t use it—even if it’s free and potentially lifesaving. Our job, therefore, is to find innovative and entrepreneurial ways to motivate customers to use health products and services that can save their lives.

*Pharmacy on a Bicycle* is filled with practical examples of innovative and entrepreneurial solutions to health care delivery in a wide variety of settings in developing countries. While this book focuses on low- and middle-income countries, many elements are readily applicable to populations in higher-income countries as well. Innovation is much more than discovery; entrepreneurship is much more than maximizing profits. The innovator creates solutions. And the entrepreneur finds efficient, effective, and economical ways to get solutions to customers.

We encourage those readers who develop or manage health programs to read *Pharmacy on a Bicycle* with an entrepreneurial lens and find ways you and others can take some of these ideas to the next level to deliver health services. Regardless of your specialty, population, or setting, you may see a solution to a problem you’re working on, even if it was developed to combat a different disease, for a different population, under different circumstances, or in a different country.

If you see a model that might work for you, *try it*. If you see a model that, with some modifications, might serve your needs, then *change it*. If you see several models you think could work well together, then *combine them*. And as with any other model, new or old, monitor it regularly and evaluate it periodically to ensure that it’s producing the intended impact.

Regardless of your reason for reading this book, in presenting the IMPACTS approach and spotlighting successful real-world applications of its core points, we hope to activate your inner innovator and entrepreneur so that you can see existing solutions or create new solutions to the challenges you face.
We have divided the book into three sections:

**Part 1: The Prescription** includes four chapters that deal with the basics—the essential ingredients, the model, and the core elements of our approach.

- **Chapter 1** provides an overview of the issues, the IMPACTS approach, and the model that describes how to save millions of lives and billions of dollars in global health care.
- **Chapter 2** describes the roles innovation and entrepreneurship play in improving global health.
- **Chapter 3** describes how task shifting, maximizing efficiency and effectiveness, creating demand, and focusing on accountability can better deliver health services and products and improve outcomes.
- **Chapter 4** provides an overview of how to scale up interventions and the importance of coordinating the roles of partners to reach more people.

**Part 2: IMPACTS in Motion** provides three chapters of real-world applications of each point of the IMPACTS approach and how they are being used with different diseases and in different settings.

- **Chapter 5** focuses on applications in maternal and child health issues.
- **Chapter 6** reviews applications in some infectious diseases.
- **Chapter 7** discusses issues and applications to some non-communicable diseases.

**Part 3: Moving Forward** includes two chapters that show you how to move to the next steps in order to better deliver quality care to those who need it most.

- **Chapter 8** discusses the importance of priorities, planning, and monitoring progress to save lives.
- **Chapter 9** explains how organizations can influence their settings and environments to improve impact and provides recommendations for future steps.
Each chapter in Parts 1 and 2 is concluded by “Food for Thought” questions designed to help you discover ways to apply the concepts to your own setting. At the end of the book, you will find information on www.pharmacyonabicycle.com, a website where you can find and share additional innovative and entrepreneurial solutions for improving global health and alleviating poverty.

The organization of *Pharmacy on a Bicycle* will make it easy to find the important foundational components (Part 1: The Prescription), real-world applications (Part 2: IMPACTS in Motion), and recommendations for planning and next steps (Part 3: Moving Forward). How you choose to approach and combine them is up to you.

Now is the time. We can save lives by bringing low-cost, quality care to those who need it most, regardless of whether it is delivered by a community health worker on foot, by a doctor using telemedicine, by a nurse on a mobile phone, or by a pharmacy on a bicycle.