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**THE
IMPACT
PROGRAMME**

IMPACT MEASUREMENT

IN THE HEALTHCARE SECTOR

**GIIN NETWORK
INSIGHTS**



About the GIIN

The Global Impact Investing Network (GIIN) is a nonprofit organization dedicated to increasing the scale and effectiveness of impact investing around the world. The GIIN builds critical infrastructure and supports activities, education, and research that help accelerate the development of a coherent impact investing industry.

GIIN NETWORK INSIGHTS



Network Insights is part of a larger GIIN effort to capture and share key perspectives and insights from the GIIN member network — the world's largest community of impact investors, practitioners, and experts. The GIIN offers many opportunities for our members to connect and exchange views about important developments in impact investing and ways to overcome significant barriers to growing the market. We believe that impact investing's potential will only be achieved through collaboration and partnerships among the many stakeholders involved in the industry, and we play an active role in convening these leaders to share their views.

Leveraging the diverse experiences of GIIN members, the *Network Insights* series highlights current issues and key perspectives from the market. Each publication serves as a window into the current investor experience and provides leaders with practical information on which to inform their practice.

To view the GIIN's complete list of publications, please visit our website at www.thegiin.org.

Views expressed by investors in this publication are theirs alone.

ACKNOWLEDGEMENTS

This report was funded with UK aid from the UK Government through the Department for International Development's Impact Programme. The Impact Programme aims to catalyse the market for impact investments in sub-Saharan Africa and South Asia.



www.theimpactprogramme.org.uk.

PARTICIPATING GIIN MEMBER ORGANIZATIONS

The GIIN would like to thank the following individuals from GIIN member organizations who contributed their perspectives and experience on impact measurement for the creation of this report:

The Abraaj Group: Bobby Prasad

Aga Khan Development Network (AKDN):
Rohail Premjee and Gijis Walraven

AXA Investment Managers: Shade Duffy

Bamboo Capital Partners (BCP):
Ximena Escobar de Nogales

Calvert Foundation: Beth Bafford

Cordaid Investments: Gaston Mazimpaka,
Juvénal Ndayishimiye, and Sascha Noé

Deutsche Bank: Ben Midberry

Investisseurs et Partenaires (I&P): Elodie Nocquet

Kois Invest: Pierre-Louis Christiane

LGT Impact Ventures: Tom Kagerer

Lok Capital: Aditya Sharma

Medical Credit Fund: Dorien Mulder

Overseas Private Investment Corporation (OPIC):
Lori Leonard and Mitchell Strauss

Skopos Impact Fund: Margot Quaegebeur

TVM HealthCare Partners: Hoda Abou-Jamra
and Diana Masri

Vital Capital: Tamar Pashtan, Dan Schonfeld,
and Renana Shvartzvald

ADVISORY COMMITTEE TO THE BOP BASIC SERVICES TRACK

We would also like to recognize the Advisory Committee to the BoP Basic Services Track for the valuable guidance and input provided for this undertaking. This group comprises GIIN Investors' Council members who finance access to basic services in emerging markets. Current Advisory Committee members include: Acumen, Bill & Melinda Gates Foundation, CDC Group PLC, Inter-American Development Bank Group (IDB), Lok Advisory Services, Omidyar Network, and responsAbility Investments AG.

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ABOUT THE GIIN MEMBERSHIP AND BOP BASIC SERVICES TRACK

The [GIIN's Network Membership](#) provides a platform for like-minded investors to meet and take part in activities that build the impact investing industry from a practitioner's perspective. With over 230 participating organizations, the GIIN Membership represents the largest global community of impact investors (asset owners and asset managers) and service providers engaged in impact investing.

Within the GIIN Membership, the [BoP Basic Services Track](#) supports the critical work of impact investors active or interested in financing access to basic services for underserved populations in emerging markets. Funded by the UK Government through the Department for International Development's Impact Programme, the BoP Basic Services Track engages GIIN members to exchange learnings, tackle shared challenges, and collaborate on emerging opportunities related to investing in BoP basic services.

ABOUT IRIS

IRIS is the catalog of generally-accepted performance metrics. Managed by the GIIN, IRIS is offered as a free public good to support transparency, credibility, and accountability in impact measurement and management practices across the impact investing industry. For more information, visit iris.thegiin.org.

Table of Contents

INTRODUCTION	3
IMPACT MEASUREMENT PRACTICE IN THE HEALTHCARE SECTOR	5
Metric Use in the Healthcare Sector	6
Measurement Challenges and Limitations in the Healthcare Sector	6
Looking Ahead	8
TECHNICAL NOTES: METRICS AND APPROACHES FOR MEASURING IMPACT IN THE HEALTHCARE SECTOR	9
Commonly Used Impact Objectives and Metrics for Healthcare Investments	9
TABLE 1: Investment focus in the healthcare sector	10
TABLE 2: Impact objectives for healthcare investments	10
TABLE 3: Commonly used metrics for healthcare investments	11
TABLE 4: User guide to the technical notes	12
Measurement Approaches for Commonly Used Impact Metrics in the Healthcare Sector	12
ACCESS TO HEALTHCARE	13-16
JOB CREATION	17-18
UTILIZATION OF MEDICAL FACILITIES	19
IMPROVED QUALITY OF HEALTHCARE	20-23
HEALTHCARE AWARENESS RAISING / PREVENTIVE CARE	24-25
AFFORDABILITY OF HEALTHCARE	26-29
ACCESS TO FINANCE	30
APPENDIX: GUIDANCE ON IRIS METRIC ALIGNMENT	31

Introduction

Impact investors financing access to healthcare in emerging markets are measuring the social and environmental performance of their investments with greater levels of sophistication. Yet, very little information on common measurement practices and challenges is actually shared among the healthcare impact investment community. To this end, in 2016, the Global Impact Investing Network (GIIN) launched a project under its [BoP Basic Services Track](#) to better understand how impact investors measure the social and environmental performance (henceforth referred to as ‘impact’) of investments in the healthcare sector in emerging markets — in particular, investments made directly into healthcare delivery companies targeting low- and middle-income consumers.¹ In doing so, we aim to bring greater transparency to the diversity and limitations of impact measurement approaches in the healthcare sector, facilitate shared learning, and provide a tangible resource for those who are new to the sector or seeking to improve practice.

Drawing on insights from the GIIN Membership and IRIS initiative, this report aggregates the practices of 13 impact investors who make direct investments into healthcare companies in emerging markets.² It identifies four common impact objectives and 14 commonly used output and outcome level metrics, as well as a range of assumptions, challenges, and limitations that should be considered when measuring impact in this sector.³ Commentary from fund investors (i.e., limited partners, or LPs) is also included to share perspectives from upstream players who generate demand for and also consume impact data.

This report is useful as a sense check and to expose important challenges and limitations involved in measuring impact in the healthcare sector.

This report is the second in a series of *Network Insights* publications that aggregate common practices and perspectives from impact investors in the GIIN Membership. The first publication, [Network Insights: Impact Measurement in the Clean Energy Sector](#), highlights common approaches to measuring the impact of investments into solar, clean cooking, and other renewable energy product and service companies. Both reports are useful for impact investors active in these sectors — as a sense check and to expose important challenges and limitations involved in measuring impact — but should also resonate with investors and entrepreneurs operating in tangential basic service sectors.

The body of this report is organized in two parts: the first summarizes key trends related to impact measurement and management in the healthcare sector. The second part provides detailed technical information on commonly used impact objectives, metrics, and measurement approaches, and also outlines related assumptions, challenges, and limitations. An Appendix offers guidance on how the metrics featured in this report can be used in tandem with metrics in the GIIN’s IRIS catalog.

We encourage readers to leverage this report’s findings to drive improvements, efficiency, and greater collaboration when measuring impact in the healthcare sector and beyond.

1 For this report, any reference to ‘healthcare sector’ denotes this more specific definition.

2 The direct investors interviewed for this report represent a range of institution types — including development finance institutions (DFIs), fund managers, banks, and foundations. Thirteen direct investors contributed insights to this report, out of 36 who were invited by the GIIN to participate on the basis of direct investment activity in the healthcare sector in emerging markets. Given the small sample size, the metrics and approaches presented in this report should not be viewed as representative of all impact investors operating in this sector; rather, they offer a survey of practice and a sense of what is common in terms of metrics, assumptions, challenges, and limitations.

3 This set of metrics is meant to be comprehensive though not universally applied by impact investors in the healthcare sector. Metric selection often depends on the business model of the investee company and the impact objectives of the investee and its investors. Impact investors tend to use a subset of the metrics featured here based on relevance to specific transactions.

Impact Investing in the Healthcare Sector

Impact investing in the healthcare sector covers a range of different business models, products, and services, from healthcare delivery to health insurance and pharmaceuticals. For the purposes of this report, we focus our analysis on impact measurement approaches for investments in healthcare delivery, which includes primary and specialized care as well as emergency medical services. Many investors interviewed for this report are also making investments in other areas of the healthcare sector, and these are noted in Table 1.

Why Do Impact Investors Finance Access to Healthcare in Emerging Markets?

Lack of access to affordable and quality healthcare products and services is an acute problem among the bottom-of-the-pyramid (BoP) population in emerging markets, the majority of which are disproportionately affected by increasing rates of chronic disease, high mortality rates from infectious disease, traffic accidents, and maternal and child deaths, among other medical conditions. At the same time, demand for healthcare products and services (and customer willingness and ability to pay for them) has increased as a result of a growing middle class and better awareness of health and healthcare.

Impact investors report that they finance access to healthcare because they see significant opportunities to support innovative, low-cost models that make healthcare more accessible and affordable while also benefitting from widening gaps between healthcare demand and supply in emerging markets. Outcomes sought include improved health and quality of life among low-to-middle income populations or the underserved, greater awareness about health and healthy living among target populations, job creation and a stronger local pipeline of trained medical professionals, and the strengthening of healthcare infrastructure and delivery systems.

Main Focus of Investment Activity

To date, impact investors targeting BoP or underserved populations tend to make investments in three main areas of the healthcare sector in emerging markets:

- a. **Healthcare delivery services**, including primary care, specialized care (e.g., maternal, vision), and/or emergency medical services provided at a brick-and-mortar location (e.g., hospital or clinic) and/or through other distribution channels like healthcare camps, mobile outreach units, or via mobile phone.
- b. **Healthcare product manufacturing and/or distribution**, including the production and distribution of pharmaceuticals as well as the manufacturing and distribution of other medical equipment and supplies.
- c. **Health insurance and other financing mechanisms**, including private health insurance products for consumers as well as small business loans and other financing for healthcare companies.

Impact Measurement Practice in the Healthcare Sector

Impact measurement practice in the healthcare sector currently focuses on capturing output-level data related to access and affordability. Some investors are also capturing outcome-level data related to healthcare quality improvements, though such practices are highly specific to the type of product or service provided. Regardless of what is being measured, access to quality data is by far the biggest challenge for impact measurement in the healthcare sector, as it is for other basic services sectors.

These and other insights from our review of impact measurement practice in the healthcare sector are summarized below. We highlight trends in metric use as well as the challenges and limitations of current approaches to measuring and reporting on impact. Further details on commonly used metrics and measurement approaches are provided in the technical section which follows. The insights and observations presented here, based on interviews with 13 healthcare investors participating in this report, should be viewed as a frame of reference, or starting point, for measuring the impact of healthcare investments, rather than representative of practice across the sector.

AT A GLANCE

Key Insights into Impact Measurement Practice in the Healthcare Sector

Impact Objectives and Metrics

- Metric selection and use is nuanced and not universal; healthcare investors choose what metrics to track based on their impact objectives and those of their investees.
- Access to healthcare and job creation are the primary areas of impact tracked by featured investors.
- All featured investors aim to improve the affordability and quality of healthcare services, but not all track progress towards these goals.
- Output-level metrics dominate the measurement practices of featured investors, while outcome-level metrics are less commonly used and tend to be highly specific to the type of medical intervention under review.

Measurement Challenges and Limitations

- Access to the right data and data quality are significant challenges in the healthcare sector, as they are in other basic service sectors.
- Overestimation of impact is a common issue when counting number of (patient) beneficiaries.
- Assessing the quality of medical services can be difficult, and many investors use customer demand indicators as proxies for the quality of service provided.
- Measuring the affordability of healthcare services is largely based on assumptions about the patient's ability and/or willingness to pay instead of actual income-level data.
- Measuring affordability and quality becomes more nuanced when dealing with mixed-income business models, which are common in the healthcare sector in emerging markets.

METRIC USE IN THE HEALTHCARE SECTOR

- **Metric selection and use is nuanced and not universal; healthcare investors choose what metrics to track based on their impact objectives and those of their investees.** Healthcare investors featured in this report commonly use 14 metrics, but do not use all 14 metrics all the time. Instead, they “measure what matters”, selecting metrics that are relevant to the investee company and/or to the investor’s healthcare investment portfolio (i.e., metrics which are aggregated at the portfolio level). On average, investors featured in this report track 8 of the 14 commonly used metrics for individual transactions, and even fewer aggregate at the portfolio level.
- **All featured investors aim to improve the affordability and quality of healthcare services, but not all track progress towards these goals.** Ten of the 13 investors featured in this report actively collect data on healthcare service affordability using metrics that track the socioeconomic status of beneficiaries or the number and/or percentage of subsidized procedures. Similarly, 9 of the 13 investors featured in this report track quality outcomes, often based on the relative success or failure of specific medical interventions like vision correction or management of chronic disease. Affordability and quality indicators can be difficult to measure as a result of poor data and the frequent use of assumptions, among other issues. This could potentially explain why some investors are not actively tracking performance in these areas despite explicitly citing them as impact objectives.

Access to healthcare and job creation are the primary areas of impact tracked by featured investors.

- **Access to healthcare and job creation are the primary areas of impact tracked by featured investors.** All investors interviewed track access to healthcare using one of three proxy metrics: a) number of beneficiaries, b) number of patient visits and/or consultations, or c) number of healthcare facilities under management. Most investors also track number of people employed to quantify job creation. Secondary metrics (tracked by fewer investors) include those related to utilization of medical facilities, healthcare quality improvements, affordability, and preventive care.
- **Output-level metrics dominate the measurement practices of featured investors.** Ten of the 14 common metrics identified by this report are output-level metrics, which capture the tangible and immediate practices, products, and services resulting from investment activity — for example, number of surgeries conducted, number of people employed, or percentage of subsidized procedures. Outcome-level metrics (which capture changes or effects on individuals or the environment that follow from the delivery of products or services) are tracked by some in a more nuanced manner using a combination of quantitative and qualitative measurement techniques, and are less commonly used among investors interviewed for this report. They tend to focus on improvements in the quality of healthcare provided and include metrics that capture the results of medical interventions as well as patient satisfaction.

MEASUREMENT CHALLENGES AND LIMITATIONS IN THE HEALTHCARE SECTOR

This report uncovers challenges and limitations of measuring impact in the healthcare sector that are rarely discussed among impact investors. Here we summarize some of the key issues that emerged during the investor interviews, many of which are also relevant to investments in other basic services sectors.

- **Data quality is a challenge in the healthcare sector, as in other basic services sectors.** Many healthcare facilities in emerging markets have poor record-keeping systems in place (or no system at all), and accurate medical records are rare — particularly those which indicate poor performance

by medical personnel. Errors in data collection are further driven by poor understanding of indicator definitions by the investee, particularly when aggregating data across multiple facilities. Some interviewees believe that investments in IT systems to enable computerized medical records would go a long way to increasing access to the right data, though the costs of such improvements are prohibitive for many smaller enterprises.

Fund investors noted that tracking outcome data may not be realistic despite collective ambitions to know more about the end users of healthcare investments.

- **Overestimation of impact is a common issue when counting number of (patient) beneficiaries.** Most investors use the number of patient beneficiaries as a simple proxy for measuring access to healthcare. However, this metric is not always simple to track, and the result is often an overestimation of the investor's reach in terms of number of beneficiaries. For many healthcare facilities, tracking the number of patients receiving care over a period of time is difficult as treatment episodes are often not registered or may spread over multiple years. Patients returning for multiple treatments can be double- or multi-counted as unique individuals, which results in an artificial inflation of the number of beneficiaries and misrepresents the scale of impact in terms of new or improved access to healthcare.
- **Assessing the quality of medical services can be difficult, and many investors use customer demand indicators as proxies for the quality of service provided – for example, bed occupancy rate or patient retention rate.** This can be problematic, as high demand for medical services may actually indicate poor quality of services if patients are required to return to the health facility following an unsuccessful intervention. A high bed occupancy rate may indicate high demand for medical services, but could also be a sign of inefficiency and/or poor quality of services. In contrast, a low patient retention rate (i.e., number of repeat patients) may indicate a highly successful intervention if the patient no longer requires medical care. Investors noted that citing the type of healthcare service provided and/or benchmarking can help to put this data into context.

- **Affordability of healthcare services is largely based on assumptions about the patient's ability and/or willingness to pay instead of actual income level data.** At most healthcare facilities, asking for information on a customer's income level is against policy due to privacy laws; thus, to estimate affordability of medical services, investors use proxies such as the type or level of service chosen or the proportion of patients covered by public health insurance. These proxies are often based on assumptions about a customer's ability or willingness to pay that are not always correlated to actual income levels. For example, it is assumed that a patient who chooses the general ward of a health facility (with limited comfort) over a more expensive offering cannot afford the latter; but this may in fact be the result of willingness to pay and perceived quality of services. Conversely, a patient may take out a loan to finance healthcare services and as a result be inaccurately classified at a higher income level.
- **Measuring affordability and quality becomes more nuanced when dealing with mixed-income business models.** Many healthcare facilities in emerging markets provide products and services to both higher- and lower-income consumers in order to make it more sustainable to serve lower-income populations. Mixed-income models cross-subsidize or offset the costs of serving customers at the bottom of the pyramid by employing tiered pricing schemes and/or by offering differentiated products to specific customer segments. This can create a trade-off between price and quality that necessitates a more nuanced and context-driven approach to measuring affordability and access at the bottom of the pyramid. To navigate this issue, many investors set targets for the proportion of customers in specific income segments and also compare the price of certain healthcare services to other available options, to ensure that they are affordable.

LOOKING AHEAD

Impact measurement in the healthcare sector has made significant advancements in recent years, thanks in part to the pioneering work of the investors contributing to this report. At the same time, access to quality data remains a key barrier to understanding investor impact at both the output and outcome level, and more needs to be done to support investee capacity

for data collection and management. Investing in impact data should be coupled with better alignment of impact goals and metrics between investors and investees, and the integration of impact data into investment and business decision-making processes, to ensure that impact measurement in the healthcare sector is useful, practical, and cost-effective.

AT A GLANCE

Fund Investor Perspectives

In addition to interviewing direct investors for this report, we also asked a few fund investors to share perspectives on how they think about impact measurement and management in the healthcare sector. Key insights from our conversations are summarized below.

- **Aligning impact goals between the fund investor and fund manager is essential, and needs to occur before the fund closes.** Fund investors cited the importance of working together with fund managers to create a framework with explicit metrics and targets. The framework often specifies one to three core metrics which every investee company reports on, plus a handful of secondary metrics selected from a wholesale list that are transaction specific, in order to convey the full impact story. The framework, along with reporting requirements, is usually included in investment documentation or in a side letter, and serves as a basis for conversations and learnings between fund investor and fund manager.
- **Tracking outcome data may not be realistic despite collective ambitions to know more about the end users of healthcare investments.** Fund investors agreed that obtaining outcome-level data on patients and healthcare interventions is desirable but not always practical due to prohibitive costs and poor data quality, among other factors. One fund investor suggested that limited partners could share the costs of conducting research on outcomes, while others preferred to focus efforts on measuring outputs because investors, they claim, have more control over these results.
- **Fund investors are interested in seeing more impact data related to the type of care provided as well as system-level change.** Beyond the metrics featured in this report, fund investors are keen to explore a few additional areas of impact that are less commonly tracked by investees. For example, many would like to see more data on beneficiaries broken down by demographic, specifically by gender or income level. Others are interested in seeing a breakdown of the types of conditions treated or services provided, to better understand how much of the underlying activity in the investment portfolio is related to preventive measures versus critical primary care. And still others have unanswered questions about system-level impact: Are we creating stronger healthcare infrastructure through better quality clinics and delivery systems? Are we promoting better health, or better healthcare?

Technical Notes: Metrics and Approaches for Measuring Impact in the Healthcare Sector

COMMONLY USED IMPACT OBJECTIVES AND METRICS FOR HEALTHCARE INVESTMENTS

What types of impacts are investors tracking in the healthcare sector, and which metrics are commonly used? This section provides important insights into these frequently asked questions.

The tables below show 1) the types of healthcare businesses being financed by investors interviewed for this report; 2) the corresponding impact objectives of such investment activity; and 3) the social and environmental performance metrics that are used to measure and report on impact. Together, the three tables provide the foundation for building an impact

measurement framework for healthcare investments (with a particular focus on healthcare delivery) — highlighting the impact objectives and metrics which are commonly used by investors financing access to healthcare in emerging markets.

It is important to note that the full set of 14 metrics featured in this report is not universally applied by impact investors financing access to healthcare; rather, most metrics are used selectively on a per-transaction basis depending on their relevance to the investee company, sub-sector, business model, customer, or type of product or service provided.

AT A GLANCE

Important Notes about the Metrics Featured in this Report

- **Metrics were selected based on frequency of use.** Metrics were selected for inclusion in this report because they are commonly used by the investors interviewed (i.e., three or more instances observed across investors). The investors interviewed may track additional metrics not featured in this report.
- **Metrics are measured using both quantitative and qualitative approaches.** Investors use a variety of methods to measure and report on the metrics featured in this report, many of which are outlined in the following section. When investors are cited as using a given metric in this report, it means that they actively attempt to track and report on it using quantitative and/or qualitative methods.
- **Metrics are not always tracked systematically across all companies in an investor's portfolio.** Many investors use metrics passively, whereby a metric is tracked if the portfolio company provides the actual data or estimates, but is otherwise not required (and often not verified) by the investor.
- **Most of the metrics featured in this report align with IRIS metrics.** These are identified by the IRIS logo, with further guidance on IRIS alignment provided in the Appendix. A few metrics do not align with IRIS metrics, because they are outcome-level metrics (and the IRIS catalog skews towards output-level metrics), or because they have not yet been added to the catalog as part of the bi-annual update process.

TABLE 1: INVESTMENT FOCUS IN THE HEALTHCARE SECTOR

TYPES OF HEALTHCARE INVESTMENTS / BUSINESS MODELS												
a. Delivery – Primary care (e.g., healthcare centers, hospitals, clinics)	●	●	●	●	●	●	●	●	●	●	●	●
b. Delivery – Specialized care (e.g., eye care clinics, maternal care)	●			●	●	●	●	●	●	●	●	●
c. Manufacturing or distribution – Pharmaceuticals (including pharmacies)	●	●	●			●	●	●		●	●	●
d. Diagnostic services and analytics	●	●	●	●				●	●	●	●	●
e. Manufacturing or distribution – Medical equipment and supplies	●			●			●		●	●	●	●
f. Delivery – Emergency medical services	●	●		●	●				●	●	●	
g. Health insurance and other financing mechanisms	●	●					●	●	●		●	
h. Digital health or technology (e.g., IT systems, remote monitoring, mobile apps)	●		●					●	●	●		

TABLE 2: IMPACT OBJECTIVES FOR HEALTHCARE INVESTMENTS

PRIMARY IMPACT OBJECTIVES FOR HEALTH INVESTMENTS												
a. Expand access to quality, affordable healthcare for low-to-middle income or underserved populations	●	●	●	●	●	●	●	●	●	●	●	●
b. Improve the quality and delivery of healthcare by building local capacity or human capital	●	●		●	●	●	●	●	●	●		●
c. Support healthcare facilities and enterprises through access to finance; increase available capital to the health sector	●	●		●	●		●	●	●	●	●	●
d. Create jobs and job opportunities for local employees in the healthcare sector	●	●				●					●	●

Abraaj Group
 Aga Khan Development Network (AKDN)
 Bamboo Capital Partners
 Cordaid Investments
 Deutsche Bank
 Investisseurs et Partenaires (I&P)
 Kois Invest
 LGT Impact Ventures (LGT IV)
 Lok Capital
 Medical Credit Fund
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 Bamboo Capital Partners
 Cordaid Investments
 Deutsche Bank
 Investisseurs et Partenaires (I&P)
 Kois Invest
 LGT Impact Ventures (LGT IV)
 Lok Capital
 Medical Credit Fund
 OPIC
 TVM Healthcare
 Vital Capital

TABLE 3: COMMONLY USED METRICS FOR HEALTHCARE INVESTMENTS

Abraaj Group
 Aga Khan Development Network (AKDN)
 Bamboo Capital Partners
 Cordaid Investments
 Deutsche Bank
 Investisseurs et Partenaires (I&P)
 Kois Invest
 LGT Impact Ventures (LGT IV)
 Lok Capital
 Medical Credit Fund
 OPIC
 TVM Healthcare
 Vital Capital

IMPACT AREAS AND METRICS														
ACCESS TO HEALTHCARE (pp. 13-16)														
1. Number of beneficiaries	IRIS	●	●	●	●		●	●	●	●			●	●
2. Number of patient visits and/or consultations	IRIS	●	●		●	●			●	●	●	●		●
3. Number of healthcare facilities under management	IRIS	●	●	●		●			●	●	●		●	●
4. Number of procedures and/or surgeries conducted	IRIS	●	●		●	●			●	●	●			●
JOB CREATION (pp. 17-18)														
5. Number of people employed	IRIS	●	●	●			●	●		●	●	●	●	●
UTILIZATION OF MEDICAL FACILITIES (p. 19)														
6. Bed occupancy rate	IRIS	●	●	●	●						●	●		●
IMPROVED QUALITY OF HEALTHCARE (pp. 20-23)														
7. Results of medical intervention		●	●			●	●	●	●		●			
8. Patient satisfaction	IRIS	●	●		●				●					●
HEALTHCARE AWARENESS RAISING / PREVENTIVE CARE (pp. 24-25)														
9. Number of preventive visits and/or screenings		●	●		●					●	●	●		●
10. Healthcare awareness campaigns and/or educational activities	IRIS	●	●	●			●			●		●		●
AFFORDABILITY OF HEALTHCARE (pp. 26-29)														
11. Beneficiaries broken down by socioeconomic status	IRIS	●		●			●		●		●	●		●
12. Number and/or percentage of subsidized procedures	IRIS	●	●			●			●	●				●
13. Price benchmarking against competition	IRIS	●	●							●				●
ACCESS TO FINANCE (pp. 30)														
14. Number of healthcare facilities financed	IRIS		●		●						●	●	●	●

MEASUREMENT APPROACHES FOR COMMONLY USED IMPACT METRICS IN THE HEALTHCARE SECTOR

The following technical notes cite the most commonly used methodology to measure and report on each metric in the previous section, as well as usage guidance on data sources, assumptions, challenges, and limitations where relevant.

The notes provide a more granular understanding of how specific metrics are tracked and measured, but do not offer analysis of the relative advantages or disadvantages of any one metric or measurement approach.⁴

TABLE 4: USER GUIDE TO THE TECHNICAL NOTES
HOW TO READ THE DETAILED METRIC NOTES

NAME OF METRIC, LEVEL OF MEASUREMENT, AND IRIS ALIGNMENT	
DESCRIPTION	Provides a brief description of the metric and its intended use
COMMONLY USED METHODOLOGY	Provides a brief description of the most commonly used methodology to calculate or report on the metric, and where useful, an example calculation
USAGE NOTES (WHERE AVAILABLE)	
OTHER APPROACHES OBSERVED	Other approaches to track, measure, or report on the metric that vary slightly from the commonly used methodology
NATURE OF USE	How the metric is used by the investor, e.g., selectively for specific types of investments, or broadly across the (healthcare) portfolio
IMPETUS FOR TRACKING	The reason for tracking this metric beyond the investor’s own impact objectives, e.g., requested by LPs or provided automatically by the investee
DATA SOURCES	Examples of data sources to supply the information needed for measurement
ASSUMPTIONS	Assumptions made during measurement and reporting that are specific to the metric
CHALLENGES & LIMITATIONS	Brief commentary on challenges and limitations, based on insights from investor interviews
CURRENT USERS	Indicates which of the investors participating in this report currently use the metric — including those who actively measure it and those who are exploring approaches to measuring or tracking it

⁴ Information in the technical notes highlights a representative approach to measuring each metric, drawn from the interviews. The investors who are cited as using the approach may have made their own refinements and may measure with different levels of sophistication. All information presented in the technical notes is self-reported by investors interviewed for this report.



ACCESS TO HEALTHCARE

1. NUMBER OF BENEFICIARIES (OUTPUT)



DESCRIPTION	Number of unique clients or patients with (new or improved) access to healthcare services during the reporting period, disaggregated by gender, age, and/or inpatient/outpatient status where relevant. Gives an indication of reach and scale of healthcare provision, and is often used as a proxy for quality of life.
COMMONLY USED METHODOLOGY	For a given reporting period, add the total number of medical files for new patients plus transferred patients plus patients who stopped using the service as of the end of the reporting period to get the total number of beneficiaries. This metric is often used as an input for other output metrics, for example the ratio of patients to medical professionals or caregivers.
USAGE NOTES	
NATURE OF USE	Typically considered a core metric for healthcare investments, thus tracked across an entire healthcare portfolio. Core metrics are often aggregated to track performance at the portfolio level.
IMPETUS FOR TRACKING	<ul style="list-style-type: none"> • Investee automatically provides data on this metric • In response to request from investors (LPs) • To understand if the products and services are reaching the intended beneficiaries
DATA SOURCES	<ul style="list-style-type: none"> • Administrative data and operating metrics provided by the investee • ESG and impact reports completed by the investee and submitted to the fund manager • National Health Authority statistics
ASSUMPTIONS	<ul style="list-style-type: none"> • Assumes that the patient is actively receiving care. The use of medical files as a proxy does not prove that the patient is actively receiving healthcare services, as a facility can receive medical files or patient transfers without providing treatment. One solution is to track the number of active client individuals, in addition to the total number of beneficiaries.
CHALLENGES & LIMITATIONS	<ul style="list-style-type: none"> • It is generally very difficult to estimate the number of patients receiving care in a certain period, as patients' treatment episodes are often not properly registered and may overlap or spread over many years. • Errors often occur due to double- or multi-counting of patients receiving certain treatments; for example, dialysis patients are often counted at each visit, which artificially inflates the total number of beneficiaries. • This metric is limited as a proxy for access, as it does not require the reporting organization to confirm that the beneficiary is provided new or improved access, but rather merely counts the total number of people served. • Interpretation of data may differ from one country to another due to different priorities and tracking methods. • Reliability of data is a challenge, especially related to assumptions that may need re-vetting to reflect changing market conditions.
CURRENT USERS	Abraaj Group, AKDN, Bamboo Capital Partners, Cordaid Investments, I&P, Kois Invest, LGT IV, Lok Capital, TVM Healthcare, Vital Capital



ACCESS TO HEALTHCARE

2. NUMBER OF PATIENT VISITS AND/OR CONSULTATIONS (OUTPUT)



DESCRIPTION	Number of patient visits and/or consultations at the health facility during the reporting period. Often disaggregated by purpose or scope of visit — for example, curative primary care, antenatal care, outpatient consultation, etc. Used as a proxy for access to improved, modern healthcare as well as business growth.
COMMONLY USED METHODOLOGY	Count the total number of patient visits and/or consultations conducted at the end of the reporting period to get the total number of patient visits and/or consultations.
USAGE NOTES	
NATURE OF USE	Used for specific healthcare delivery companies and/or across the healthcare investment portfolio.
IMPETUS FOR TRACKING	<ul style="list-style-type: none"> Investee automatically provides data on this metric. Metric offers a useful, high-level perspective on the performance of individual facilities and investments as well as the overall portfolio. This helps to understand the growth of the business by service type and also supports management decisions.
DATA SOURCES	<ul style="list-style-type: none"> Administrative data and operating metrics provided by the investee ESG and impact reports filled out by the investee and submitted to the fund manager National Health Management Information System (HMIS) Bi-annual survey conducted on healthcare facilities to gather data on business and clinical performance indicators
CHALLENGES & LIMITATIONS	<ul style="list-style-type: none"> The number of patient visits does not represent unique individual visits (i.e., the same individual may have come for several visits). Information systems often capture only the number of consultations or services provided, rather than the number of patients; this makes it difficult to know how many people have benefitted from these services. The number of patient visits is used as a proxy for the number of patients receiving care. It might, however, also be a function of inefficiency or poor quality of care (e.g., too many repeat visits). Aggregate counts mask wide variations in cost, medical specialty, complexity, value, etc., which make it difficult to know how many different people have benefitted from these services. Data quality can be a challenge. For example, some healthcare facilities have poor record-keeping systems in place (or no system at all), resulting in unreliable data, potentially inaccurate financial statements, and errors in data collection driven by poor understanding of indicator definitions. For Bi-Annual Surveys: Since data is self-reported, there is a tendency to report higher numbers in the initial survey; data seems to be more reliable and realistic in subsequent surveys. Moreover, certain healthcare facilities drop out of the SafeCare program before a follow-up survey can be conducted; thus there is no follow-up data available to compare against.
CURRENT USERS	Abraaj Group, AKDN, Cordaid Investments, Deutsche Bank, LGT IV, Lok Capital, Medical Credit Fund, OPIC, Vital Capital



ACCESS TO HEALTHCARE

3. NUMBER OF HEALTHCARE FACILITIES UNDER MANAGEMENT (OUTPUT)



DESCRIPTION	Number of healthcare facilities (hospitals, clinics, health centers, etc.) under the company's management at the end of the reporting period.
COMMONLY USED METHODOLOGY	Add the number of healthcare facilities under management (in each region) at the end of the reporting period. This metric is often used as an input to calculate a facility's utilization rate (see metric 6).
USAGE NOTES	
OTHER APPROACHES OBSERVED	<ul style="list-style-type: none"> • Medical equipment: Number of diagnostic or life support medical equipment machines. Used as a proxy for advanced local technological offerings. • Operating and medical consultation rooms: Number of operation rooms and/or active medical consultation rooms. Used as a proxy for access to improved and modern health care technologies and procedures. • Patient beds: Number of patient beds. Used as a proxy for access to healthcare services.
NATURE OF USE	Used for specific healthcare delivery companies and/or across the healthcare investment portfolio
IMPETUS FOR TRACKING	To understand an investor's own impact, including at an aggregate portfolio level.
DATA SOURCES	<ul style="list-style-type: none"> • Administrative data and operating metrics provided by the investee • ESG and impact reports completed by the investee and submitted to the fund manager
ASSUMPTIONS	<ul style="list-style-type: none"> • Assumes facilities or equipment are being used. One possible solution here is to assess the proximity of the facility to the target population. The closer the facility to the target area, the higher the chance that it is accessible to that population. While only a proxy, this indicator has proven highly relevant. For example, Operation ASHA, a tuberculosis treatment and prevention organization, has centers located in slums and villages; hence, it is easier for people to combine everyday life with a visit to a care clinic.
CHALLENGES & LIMITATIONS	The metric may not be a meaningful indicator of performance if occupancy or utilization rate is not also reported. See metric 6.
CURRENT USERS	Abraaj Group, AKDN, Bamboo Capital Partners, Deutsche Bank, LGT IV, Lok Capital, Medical Credit Fund, TVM Healthcare, Vital Capital



ACCESS TO HEALTHCARE

4. NUMBER OF PROCEDURES AND/OR SURGERIES CONDUCTED (OUTPUT)



DESCRIPTION	Number of medical procedures or surgeries conducted during the reporting period. Often disaggregated by inpatient versus outpatient procedures and procedure type — for example, cataract surgery, angioplasty, antenatal care vaccine, immunization, diagnostic test, etc.
COMMONLY USED METHODOLOGY	Count the number of procedures and/or surgeries conducted at the end of the reporting period to get the total number of procedures and/or surgeries conducted.
USAGE NOTES	
NATURE OF USE	Used for specific healthcare delivery companies and/or across the healthcare investment portfolio
IMPETUS FOR TRACKING	<ul style="list-style-type: none"> Investee automatically provides data on this metric. Outpatient treatments are a key indicator of treatment volumes and lead to surgeries. Access to safe surgery is limited in certain markets but has a very high impact on preservation and quality of life. It is also the primary revenue source for hospitals. Count offers a useful high-level perspective on the performance of individual facilities and investments, as well as the overall portfolio.
DATA SOURCES	<ul style="list-style-type: none"> Company operating metrics ESG and impact reports completed by the investee and submitted to the fund manager National Health Management Information System (HMIS)
CHALLENGES & LIMITATIONS	<ul style="list-style-type: none"> The number of procedures or surgeries is a proxy for the number of patients receiving care. It might, however, also be a function of inefficiency or poor quality of care (e.g., too many repeat procedures). The number of procedures does not represent unique individual visits (i.e., the same individual may have undergone several procedures). Information systems often capture only the number of procedures or surgeries provided, rather than the number of patients — this makes it difficult to know how many people have benefitted from these services. It is generally very difficult to estimate the number of patients receiving care in a certain period, as patients’ treatment episodes are often not properly registered and may overlap or spread over many years. Aggregate counts mask wide variations in cost, medical specialty, complexity, value, etc., which makes it difficult to know how many different people have benefitted from these services. Adding up the different procedures to a total number of procedures is adding apples and oranges. For diagnostic tests: Need to define what counts as a ‘test’. Ideally, one would avoid double counting between tests performed as part of outpatient and inpatient services and those provided by others, but this is likely to be impossible.
CURRENT USERS	Abraaj Group, AKDN, Cordaid Investments, Deutsche Bank, LGT IV, Lok Capital, Medical Credit Fund, Vital Capital



JOB CREATION

5. NUMBER OF PEOPLE EMPLOYED (OUTPUT)



DESCRIPTION	Number of people employed by the organization as of the end of the reporting period. This includes paid full-time and/or part-time employees of the investee (enterprise level), and may be disaggregated by gender and/or by function e.g., trained medical professionals and caregivers versus administrative staff). The emphasis on number of caregivers employed is important for certain investors who use this as a proxy for quality of care and/or human capital in a given market.
COMMONLY USED METHODOLOGY	Add the number of people employed directly (full-time and part-time) by the investee as of the end of the reporting period to get the total number of people employed during the reporting period, disaggregated by gender and/or function where possible.
USAGE NOTES	
OTHER APPROACHES OBSERVED	<p>Some investors also or instead aim to capture contributions to improving human capital in the healthcare sector by tracking the number of employees who are professionally trained. For example:</p> <ul style="list-style-type: none"> • Number of medical professionals employed who graduated from medical training programs: Count the number of employees who graduated as doctors from accredited specialist training programs and/or the number of employees who graduated as nurses and other medical professionals from accredited four-year-equivalent training programs. These numbers can then be expressed as a percentage of the total number graduating at that level in a country. • Professional training for employees: Measures the total number of training hours provided for employees of investee organizations, as well as the types of training provided (e.g., core job, professional, English-language, etc.) and the number of employees receiving training.
NATURE OF USE	Typically considered a core metric for healthcare investments, thus tracked across an entire healthcare portfolio. Core metrics are often aggregated to track portfolio-level performance.
IMPETUS FOR TRACKING	Investee automatically provides data on this metric
DATA SOURCES	<ul style="list-style-type: none"> • Company or department operating metrics, including personnel data and salary records • (Self-monitoring) Questionnaire completed by the investee (with periodic audits) • Site visit by investor • ESG and impact reports completed by the investee and submitted to the fund manager.
ASSUMPTIONS	<ul style="list-style-type: none"> • This only accounts for permanent employees (excluding temporary or contract employees) • Assumes that 'caregiver' is defined in the same way across all healthcare facilities



JOB CREATION

5. NUMBER OF PEOPLE EMPLOYED (OUTPUT) [CONTINUED]



CHALLENGES & LIMITATIONS	<ul style="list-style-type: none">• Even with clear definitions about how to calculate this metric, mistakes can occur in reporting. For example, when asked for number of jobs over a three-month period, an investee added employees in month one to those in month two and then in month three to get total number of employees in the period, as opposed to taking the final number at the end of the reporting period. Investors should implement checking mechanisms to ensure the validity of reported data.• Self-reporting of employment figures can sometimes lead to overestimation of actual numbers of people employed.• There is often little indication of the quality of jobs, only the number created and sustained.• It is important to understand the underlying numbers of full-time and part-time employees, and also the number of hours that constitute a part-time position. However, this information is often difficult to obtain.• It is difficult to contextualize the significance of the number of jobs created for the local population and economy, unless function is disaggregated in the total direct employment figure (e.g., management level positions and/or trained medical staff). For example, management positions tend to overinflate average wage statistics, particularly for lower-income populations.
CURRENT USERS	Abraaj Group, AKDN, Bamboo Capital Partners, Deutsche Bank, I&P, LGT IV, Lok Capital, Medical Credit Fund, OPIC, TVM Healthcare, Vital Capital



UTILIZATION OF MEDICAL FACILITIES

6. BED OCCUPANCY RATE (OUTPUT)



DESCRIPTION	A calculation used to show the actual utilization of a medical facility for a given period of time. Used as a proxy for the efficiency of operations, or overall business success. In many countries, the occupancy rate is routinely calculated for hospitals and nursing homes and aggregated at the facility, county, and state level. This information is very useful for health planning purposes and is often required by healthcare regulatory bodies.
COMMONLY USED METHODOLOGY	<p>Calculate the occupancy rate for hospital or healthcare facility beds by dividing the number of inpatient days of care by the number of bed days available. Then multiply by 100 to express the rate as a percentage.</p> <ul style="list-style-type: none"> • Because there is no general number for bed days available (as it depends on the number of beds in a facility), some investors simplify the approach by calculating number of inpatient days divided by the number of beds in the facility multiplied by 365 (number of days in one year). • This metric becomes more useful if combined with average length of stay (ALOS), which is the average number of days that patients stay in the hospital. It can be calculated as number of inpatient days divided by number of patient admissions. • This metric might be generalized to include delivery models beyond inpatient services, by referring to “critical equipment or facilities” as opposed to patient beds only. In this variation, critical equipment or facilities are fixed assets that are necessary for the organization to provide its products and services. The calculation is: Number of days or hours the identified critical equipment (the bed) was utilized / Number of days or hours of installed capacity or availability for the identified critical equipment.
USAGE NOTES	
NATURE OF USE	Used for specific healthcare investments
IMPETUS FOR TRACKING	Often required by healthcare regulatory bodies
DATA SOURCES	Administrative data provided by the investee
ASSUMPTIONS	<ul style="list-style-type: none"> • Assumes that a high bed occupancy rate is equivalent to provision of highly demanded services.
CHALLENGES & LIMITATIONS	<ul style="list-style-type: none"> • There is no consensus on what the ideal occupancy rate should be. High bed occupancy can be a signal of the provision of highly demanded services, but it may also indicate the provision of poor quality services if the occupancy rate is too high. Benchmarking helps to put the data in context. • There is no common definition for total number of beds. Facilities often include different types of beds in the total count, including delivery beds, observation beds, short-stay beds, day-surgery beds, etc. • For the occupancy rate to be a true utilization indicator, bed days available must be calculated to correctly reflect changes in the number of beds available for use during the year. If “bed days available” is calculated incorrectly (for instance, the number of beds in service at the end of the year is multiplied by the number of days in the year even though the number of beds in service was considerably lower for several months), the resulting occupancy rate will be much lower than actual.⁵
CURRENT USERS	Abraaj Group, AKDN, Bamboo Capital Partners, Cordaid Investments, Lok Capital, Medical Credit Fund, Vital Capital

⁵ http://www.statistics.health.pa.gov/StatisticalResources/UnderstandingHealthStats/ToolsoftheTrade/Documents/Occupancy_Rates_in_Health_Facilities.pdf



IMPROVED QUALITY OF HEALTHCARE

7. RESULTS OF MEDICAL INTERVENTION (OUTCOME)

DESCRIPTION	<p>Describes the quality of the outcome(s) of medical interventions by calculating the number and/or proportion of interventions (procedures, surgeries, etc.) that have a high- or low-quality outcome, disaggregated by type of intervention. Examples of proxies for medical intervention outcomes include:</p> <ul style="list-style-type: none">• Best corrected vision: Number and/or proportion of eye care surgeries resulting in vision correction. For example, an eye care surgery to correct vision may result in a high-quality outcome (where the patient can see quite well), an acceptable outcome (where the patient is no longer visually impaired, but vision is still not great), or a low-quality outcome (where the patient is still visually impaired).• Post-surgical infections: Number and/or proportion of patients with an infection after surgery.• Successful rehabilitation: Number and/or proportion of individuals with a physical disability having (re)gained mobility following rehabilitation and treatment (e.g., with a prosthesis, orthosis, wheelchair, or other device).• Effective management of chronic conditions: Number and/or proportion of chronic care patients with conditions under control over the last six months.• Other examples of routine quality of care indicators include percentage of medication errors, patient falls, percentage of health facility 'induced' urinary tract infections (UTIs), number of needle stick injuries, and accreditations like ISO (International Organization for Standardization) and JCI (Joint Commission International).
COMMONLY USED METHODOLOGY	<p>The methodologies below are generally calculated and reported on a monthly or quarterly basis, with corrective measures to improve the quality of interventions taking place on a quarterly basis. In many instances, the metrics are tracked by the investee but validated by an independent evaluator or quality assessor.</p> <ul style="list-style-type: none">• For best corrected vision: Number of eye care surgeries with high-quality outcomes (e.g., corrected vision) divided by the total number of eye care surgeries = Proportion of eye care surgeries resulting in vision correction.<ul style="list-style-type: none">» Investees are often required to maintain a ratio of best corrected vision; for example, at least one-third of at least 85% of total surgeries (over time) result in corrected vision.• For post-surgical infections: Number of surgeries where an infection occurs divided by the total number of surgeries = Rate of post-surgical infection• For successful rehabilitation: Rehabilitation professionals in physical rehabilitation centers assess the level of mobility of beneficiaries in a given center over the measurement period, using a Physical Functionality Assessment (PFA) that measures the ability of beneficiaries to perform activities of daily living with their newly fitted devices.• For effective management of chronic conditions: Measure the proportion of patients whose condition is 'under control,' using data from the Health Management Information System (HMIS). The period must be specified, i.e., it is important to establish the number of patients that are under effective management for a certain number of consecutive months.



IMPROVED QUALITY OF HEALTHCARE

7. RESULTS OF MEDICAL INTERVENTION (OUTCOME) [CONTINUED]

USAGE NOTES

OTHER APPROACHES OBSERVED

- SafeCare Methodology: One investor uses the [SafeCare methodology](#) for measuring quality improvement in healthcare facilities. SafeCare aims to support basic healthcare providers in resource-restricted settings to go through a structured quality improvement program, to deliver safe and quality-secured care to their patients, according to internationally recognized standards. By ensuring that the healthcare facilities maintain high quality processes and standards, the investor believes that the results of the medical interventions and services are likely to improve.
 - » As part of the SafeCare program, healthcare facilities undergo a baseline SafeCare assessment by independent assessors. The assessment results in a Quality Improvement Plan (QIP), which is designed to be implemented by the healthcare facility in order to upgrade its quality of services. When a substantial part of the QIP has been implemented a follow-up SafeCare assessment is performed. Each SafeCare assessment leads to an overall quality score associated with a SafeCare level (1-5). Healthcare facilities receive a certificate based on their SafeCare level.

Example: First assessment score of a healthcare facility is 20/100 and Follow-up assessment score is 40/100. Thus there has been a score improvement of 20 points.
- Outcome-based staff productivity: Another investor measures quality outcomes in terms of staff productivity by dividing the number of successful patient outcomes by the number of medical professionals working to achieve those outcomes during the reporting period. The metric is viewed on an aggregate level by considering the results of all facilities in the investment portfolio.

Example: If 450 beneficiaries have (re)gained mobility in one year as a result of the fitting of a device in a physical rehabilitation center and five rehabilitation professionals worked full time that year in that center, the outcome-based staff productivity would be 90.

NATURE OF USE

Used for specific healthcare delivery companies and/or across the healthcare investment portfolio

IMPETUS FOR TRACKING

- Tracks the outcome of the intervention, and also monitors quality of service, which impacts the company's reputation in the market—a key driver of financial success.
- For post-surgical infections: Infections put the patient's life at risk, and surgical infection rates tend to be high in emerging markets, particularly in government hospitals. Private providers can add social value and develop a competitive advantage by consistently delivering high-quality medical interventions with low infection rates.
- For successful rehabilitation: One investor uses this metric as the performance indicator to trigger repayment of investors with interest as part of a social impact bond.

DATA SOURCES

- Company operating metrics
- Staff data and beneficiary data from healthcare facilities
- For the SafeCare Methodology: Assessments and QIPs using the SafeCare standards and methodology



IMPROVED QUALITY OF HEALTHCARE

7. RESULTS OF MEDICAL INTERVENTION (OUTCOME) [CONTINUED]

ASSUMPTIONS	<ul style="list-style-type: none">• For successful rehabilitation: It is assumed that each beneficiary coming to the center and taking the Physical Functionality Assessment test has received one device.• For effective management of chronic conditions: 'Under control' is defined in an unambiguous way for each condition.• For the SafeCare Methodology: That the SafeCare standards are related to the quality of care provided. As the standards are mainly process oriented, they might not be directly related to the quality of care provided to patients.
CHALLENGES & LIMITATIONS	<ul style="list-style-type: none">• Accurate medical records can be rare in emerging markets, particularly those which indicate a doctor's poor performance. For enterprises that operate multiple hospitals or clinics, it can be difficult to get accurate results across all facilities if there are not strong systems and a culture of transparency in place.• Ideally, this metric would be tracked separately for higher-income patients versus low-income patients to ensure that lower income patients are not receiving a lower standard of service.• For best corrected vision: Results can be low due to more complex cases as a result of the higher frequency of co-morbidities in poor populations. Moreover, best corrected vision ideally requires follow-up after 30 or 60 days, since vision recovers slowly over time. This time lag creates challenges for consistent data collection, as it can be difficult for low-income patients to return to the hospital since travel is often expensive.• For successful rehabilitation: The metric does not measure quantitatively the socioeconomic impact of (re)gained mobility on a person's life, e.g., ability to find a job (for an adult), to attend school (for a child), and to (re)gain dignity within one's community.• For effective management of chronic conditions: In most settings, it is hard to know whether the patients take appropriate action based on the screening result. A risk is that this could encourage providers to turn away patients who seem less likely to adhere to case management protocols over time in order to maintain a high success rate, but this risk is minimized by also reporting on the number of chronic care patients. This would be a misleading measure of impact if the screening procedure were inaccurate, if the patient were not informed of the result, and if the patient did not take effective action based on the results. One way to resolve this is by conducting a brief annual survey among a small random sample of clients screened (perhaps using a call center) to find out whether they took appropriate action based on a sample size of sufficient statistical significance.• For the SafeCare Methodology: SafeCare standards are mainly process oriented. They give an indication of quality management in a facility, assuming this is related to the quality of care provided. The system does not measure the outcome of the care provided.
CURRENT USERS	Abraaj Group, AKDN, Deutsche Bank, I&P, Kois Invest, LGT IV, Medical Credit Fund



IMPROVED QUALITY OF HEALTHCARE



8. PATIENT SATISFACTION (OUTCOME)

DESCRIPTION	<p>Patient satisfaction as a proxy for (perceived) quality. Tracked and measured in a number of ways, including:</p> <ul style="list-style-type: none"> • Referrals received: Percentage of clients visiting the health facility due to referral by existing clients, or number of referrals received by the health facility during the reporting period. • Repeat patients: Percentage of clients that have used the service before. • Satisfied patients: Percentage of clients that provide a high satisfaction rating after their visit to the health facility.
COMMONLY USED METHODOLOGY	<ul style="list-style-type: none"> • Referrals received: Some investors use the Net Promoter Score methodology to capture willingness to refer the service to others. The Net Promoter Score is an index ranging from -100 to 100 that measures the willingness of customers to recommend a company's products or services to others. It is used as a proxy for gauging the customer's overall satisfaction with a company's product or service and the customer's loyalty to the brand. • Repeat patients: Use the client retention rate at the end of the reporting period to gauge number of repeat patients, as follows: $\text{Client retention rate} = \frac{\text{Total number of clients at the end of the reporting period}}{\text{Number of new clients during the reporting period} + \text{total number of clients at the beginning of the reporting period}}$. • Satisfied patients: Send clients an SMS survey after their consultation or service to follow up with their level of satisfaction. Or, conduct a satisfaction survey based on data recorded in the patient registrar at the level of the health facility. A survey is conducted with a random sample of patients selected from the patient registrar in a given period. Survey questions are asked in order to confirm the service received and gauge the patient's satisfaction with the quality of service. The interviewer is not informed about the purpose of the survey to avoid bias. The results from the survey are shared with the respective health facility.
USAGE NOTES	
NATURE OF USE	Used for specific healthcare delivery companies and/or across the healthcare investment portfolio
IMPETUS FOR TRACKING	Investee automatically provides data on this metric
DATA SOURCES	<ul style="list-style-type: none"> • Company operating data • Patient registrar • National Health Management Information System (HMIS)
ASSUMPTIONS	<ul style="list-style-type: none"> • For referrals received: If existing clients refer their friends and families, it indicates that they value the service • For repeat patients: If clients return to the health provider, they must value the service (especially if they are paying for it). • For satisfied patients: If clients provide a positive rating of their experience, they must value the service (especially if they are paying for it).
CHALLENGES & LIMITATIONS	<ul style="list-style-type: none"> • For repeat patients: Repeat patients, or retention rate, depends largely on the type of healthcare service provided. Low retention does not necessarily mean that the quality of the service was poor (e.g., if a person is generally healthy, she/he may not visit the doctor frequently, but still may be highly satisfied with the doctor). The effect may be magnified for diagnostic services like x-ray, which one would only use when a problem arises. In the latter case, repeat patients may not be a relevant proxy for quality, while for a general practitioner it may be more relevant. • For satisfied patients: It is important but challenging to survey patients immediately after the visit, as patients may change their mind regarding overall satisfaction after time passes, particularly if the health issue has not been resolved.
CURRENT USERS	Abraaj Group, AKDN, Cordaid Investments, LGT IV, Vital Capital



HEALTHCARE AWARENESS RAISING / PREVENTIVE CARE

9. NUMBER OF PREVENTIVE VISITS AND/OR SCREENINGS (OUTPUT & OUTCOME)⁶

DESCRIPTION	The number of preventive or well visits by patients to healthcare facilities to proactively prevent a disease or medical condition rather than reacting to a condition or related symptoms. Used as a proxy for an investee or investor's contribution to healthcare awareness-raising. Often disaggregated by type of preventive visit, e.g., check-ups, screenings, immunizations, etc.
COMMONLY USED METHODOLOGY	Add the total number of preventive visits (check-ups, screenings, immunizations) during the given reporting period.
USAGE NOTES	
NATURE OF USE	Used for specific healthcare delivery companies and/or across the healthcare investment portfolio
IMPETUS FOR TRACKING	Investee automatically provides data on this metric
DATA SOURCES	<ul style="list-style-type: none">• Company operating metrics• ESG and impact reports completed by the investee and submitted to the fund manager
ASSUMPTIONS	<ul style="list-style-type: none">• Behavioral change towards preventive care will lead to a healthier society.• Change in number of preventive visits indicates societal change in attitude and increased education on health awareness.
CHALLENGES & LIMITATIONS	<ul style="list-style-type: none">• The number of well visits do not represent unique individual visits (i.e., the same individual may have come for several visits).• It is difficult to measure behavioral change. Despite people being informed about the benefits of preventive care, it is difficult to track whether that information has truly led to an increased awareness of 'good health and hygiene' and if clients are actually doing something differently as a result of that awareness (e.g., visiting the doctor more frequently).
CURRENT USERS	Abraaj Group, AKDN, Cordaid Investments, LGT IV, Lok Capital, Medical Credit Fund, Vital Capital

⁶ Whether a metric is an output- or outcome-level metric can be somewhat subjective. This particular metric was found to be measured at both output and outcome levels by different investors interviewed.



HEALTHCARE AWARENESS RAISING / PREVENTIVE CARE

10. HEALTHCARE AWARENESS CAMPAIGNS AND/OR EDUCATIONAL ACTIVITIES (OUTPUT)



DESCRIPTION	<p>Captures the reach and scale of outreach and educational activities meant to raise awareness of healthcare in rural and urban settings (e.g., community outreach, free services provided, health awareness campaigns, healthcare camps, etc.). Approaches to tracking this metric may include:</p> <ul style="list-style-type: none"> • Number of healthcare outreach programs and/or activities • Number of people attending healthcare outreach programs and/or activities • Value of money spent and/or charitable donations to finance healthcare outreach activities
COMMONLY USED METHODOLOGY	<p>The investee reports on outreach programs, describing educational impact objectives and activities (e.g., advertisements, events, etc.) and tracking reach, duration, and overall success.</p> <p><i>Example: In honor of breast cancer awareness month, a campaign was launched and the company reported on the various activities conducted (i.e., radio ads, etc.), the extent of the campaign, the duration, and the resulting increase in number of mammograms at the hospital.</i></p>
USAGE NOTES	
NATURE OF USE	Used for specific healthcare delivery companies and/or across the healthcare investment portfolio
IMPETUS FOR TRACKING	To understand an investor's own impact.
DATA SOURCES	<ul style="list-style-type: none"> • Administrative data provided by the investee • ESG and impact reports completed by the investee and submitted to the fund manager
ASSUMPTIONS	<ul style="list-style-type: none"> • With greater education and awareness about the benefits of preventative methods, health will improve because clients will make healthier choices and costs of healthcare for the client, the provider, and/or the insurer will be reduced (due to prevention).
CHALLENGES & LIMITATIONS	<ul style="list-style-type: none"> • For healthcare camps: Metric may not indicate anything if the quality of healthcare camps is not adequate. Also, it is difficult to distinguish between a healthcare camp and a marketing outreach exercise. • This descriptive metric is difficult to use for management purposes because it does not offer a clear indicator of business or impact performance on which to base decisions and improvements.
CURRENT USERS	Abraaj Group, AKDN, Bamboo Capital Partners, I&P, Lok Capital, OPIC, Vital Capital



AFFORDABILITY OF HEALTHCARE

11. BENEFICIARIES BROKEN DOWN BY SOCIOECONOMIC STATUS (OUTPUT OR OUTCOME)



DESCRIPTION	An indication of whether or not products or services are reaching the target market, based on the socioeconomic status (e.g., BoP or poor) or income level of clients and/or other end users. Serves as a proxy for affordability of healthcare.
COMMONLY USED METHODOLOGY	<p>Estimate the socioeconomic demographics of customers by:</p> <ul style="list-style-type: none"> Calculating or estimating the percentage of patients in lower income groups (e.g., less than \$3.10/day (US\$2011 PPP)) treated at healthcare facilities, using estimation approaches based on the type of service or treatment provided, the section of the hospital in which the client was treated (given that some care rooms cost more than others), or the number of individuals who received service and their bill was covered by a national insurance provider (which is used as an indicator for a customer's designation as primarily low-income).⁷ <p><i>For example, inpatients treated in the general ward are assumed to be low-income because of the cost and quality of service associated with the general ward.</i></p> <ul style="list-style-type: none"> Surveying a sample of customers via mobile phone or household survey, using poverty measurement tools like the Progress out of Poverty Index (PPI). <p><i>For example, one investor is conducting a project with the Grameen Foundation to integrate PPI into the client management system of Mydentist, India's largest chain of dental clinics in Mumbai. In doing so, they aim to get better insights as to the types of customers who frequent Mydentist. These customer insights will help Mydentist adapt its business model to better serve several customer segments.</i></p>
USAGE NOTES	
NATURE OF USE	Used for specific healthcare delivery companies and/or across the healthcare investment portfolio
IMPETUS FOR TRACKING	<p>Investee automatically provides data on this metric</p> <p>To understand if the investee reaches the intended target group</p>
DATA SOURCES	<ul style="list-style-type: none"> Mobile (via SMS) or household surveys Publically available socioeconomic or income data based on location Company operating metrics, or administrative data, obtained directly from the company ESG and impact reports completed by the investee and submitted to the fund manager Bi-annual survey conducted on healthcare facilities to gather data on business and clinical performance indicators
ASSUMPTIONS	<ul style="list-style-type: none"> Investee companies are able to estimate the income level of their customers. When it is not possible or convenient to ask the patient about her/his income level, a proxy may be used, such as assuming that if the patient goes to the general ward (which may have no air conditioning and limited comfort) it is because she/he cannot afford a more expensive service. If a significant proportion of the clients come from poor or low-income backgrounds, then it is assumed that the service in question is affordable. This is problematic and not always accurate; for example, the service could also be government-sponsored to extend access to poorer clients.

⁷ See IRIS glossary for additional guidance on socioeconomic designations: <https://iris.thegiin.org/metric/4.0/PD2541>



AFFORDABILITY OF HEALTHCARE

11. BENEFICIARIES BROKEN DOWN BY SOCIOECONOMIC STATUS (OUTPUT OR OUTCOME)



CHALLENGES & LIMITATIONS

- At many health facilities, it is against policy to ask customers about their income levels.
- There is no common standard used by investors to define poverty levels or what constitutes a BoP or low-income customer. As such, it is important for investors to include specific definitions and assumptions used when tracking beneficiaries by socioeconomic status to allow for transparency and comparability.
- Getting data on the income level of end beneficiaries is very inefficient at present. Customer segmentation requires investees to get into the field and develop different proxies for income level. Most progress has been seen in the mobile health (mHealth) space, where companies have the ability to access a different level of customer data via mobile phone. Others use insurance as a proxy, as mentioned above. Still others are exploring how to improve estimates of patient income levels, e.g., by using sample-based testing or generally available data on income levels in the area served by a healthcare facility.
- Not knowing if clients took out a loan to finance the health service may result in clients being inaccurately classified as higher income.
- For PPI: Some investors and investees find it challenging to identify and contact a representative sample of patients across inpatient and outpatient categories as well as physical locations of healthcare facilities.

CURRENT USERS

Abraaj Group, Bamboo Capital Partners, I&P, LGT IV, Medical Credit Fund, OPIC, Vital Capital



AFFORDABILITY OF HEALTHCARE

12. NUMBER AND/OR PERCENTAGE OF SUBSIDIZED PROCEDURES (OUTPUT)



DESCRIPTION	Number and/or percentage of procedures or surgeries performed at below-market or subsidized rates (either below market or at no cost to the patient). Poor patients would either pay a below-market price for the procedure (compared to the price typically charged of higher-income consumers), or alternatively would benefit from public health insurance and incur no (or very-low) co-pay. The insurance provider is often used as an indicator for a customer’s designation as primarily low-income.
COMMONLY USED METHODOLOGY	<p>Add the total number of individuals who received service and their bill was covered by a national insurance provider, and then divide by the total number of medical treatments provided by the facility.</p> <p>Another approach is to count the number of people taking advantage of financing options offered by healthcare facilities. This is used as a proxy for affordability, assuming that customers who use the financing option may not have been able to pay for the service; hence the financing option increased access and affordability.</p>
USAGE NOTES	
NATURE OF USE	Used for specific healthcare delivery companies and/or across the healthcare investment portfolio
IMPETUS FOR TRACKING	<ul style="list-style-type: none"> • Proxy for tracking service to the poor • Public health insurance reimbursement rates are often very low, causing few private providers to accept public health insurance; thus, providers that do accept the insurance are providing a valuable social service.
DATA SOURCES	<ul style="list-style-type: none"> • Company operating metrics
ASSUMPTIONS	<ul style="list-style-type: none"> • Public health insurance is typically relied upon by lower-income patients, and most high-quality healthcare providers either do not accept insurance or access is very low due to shortages of facilities and professionals.
CHALLENGES & LIMITATIONS	<ul style="list-style-type: none"> • Identifying the proportion of individuals served who are covered under insurance will provide better estimations of the population segments which are served by the healthcare provider. See metric 11. • Market prices are relative and not comparable across markets. As such, the amount of subsidy for a procedure at one hospital may not be equally impactful as the equivalent amount of subsidy for the same procedure conducted elsewhere. • This metric may not be applicable in all countries; it may capture services provided only to the very-poor and is not easily compared or aggregated with data across countries. • For financing options (subsidies): Healthcare facilities do not track clients who would not have been able to pay for the service up-front if not for the financing option, which would be helpful towards assessing increase in access to health care. Currently, the metric helps assess only the impact area of affordability.
CURRENT USERS	Abraaj Group, AKDN, Deutsche Bank, LGT IV, Lok Capital, Vital Capital



AFFORDABILITY OF HEALTHCARE

13. PRICE BENCHMARKING AGAINST COMPETITION (OUTPUT)



DESCRIPTION	Price benchmarking against the competition, government, and/or the national medical inflation rate. Examines the affordability of medical services as compared to alternatives in order to assess improved accessibility. Used as a proxy for improved access to healthcare and affordability of healthcare.
COMMONLY USED METHODOLOGY	<p>Identify the scope of healthcare services and procedures, and their associated costs, provided locally or at regional or international destinations. Then conduct cost comparisons.</p> <p><i>For example, one could select a limited number of representative high-volume procedures or services and calculate a weighted average of the findings to produce a single metric. If there were an independent measure of medical cost inflation, it would be possible to observe whether prices have gone up by less than the industry as a whole over the investment period. In the absence of an independent measure of medical cost inflation, a potential option is to compare prices with those of specific competitors.</i></p>
USAGE NOTES	
OTHER APPROACHES OBSERVED	<ul style="list-style-type: none"> • Calculate a median price or a weighted average of prices charged to different payers. • Some investors conduct price benchmarking during the due diligence phase but do not report on the metric post-investment.
NATURE OF USE	Used across the healthcare investment portfolio
IMPETUS FOR TRACKING	To understand an investor's own impact
DATA SOURCES	<ul style="list-style-type: none"> • ESG and impact reports completed by the investee and submitted to the fund manager • National medical inflation rate
ASSUMPTIONS	<ul style="list-style-type: none"> • Service and local context of price being compared to is similar to the service and local context of the investee organization.
CHALLENGES & LIMITATIONS	<ul style="list-style-type: none"> • Prices are likely to increase over time as a result of inflation, which is often higher for medical care than for other goods and services because of changes in technology and quality. In India from 2004 to 2014, for example, hospitalization costs in urban areas increased by 10.7% CAGR, whereas the Consumer Price Index increased by 7.2% CAGR. This makes it difficult to interpret changes in median or average prices charged. The price charged for any procedure or service varies considerably, making price benchmarking challenging. Several reasons include that the insurance schemes set reimbursement rates, and that cash customers are charged different amounts according to the location and, to some extent, their perceived ability to pay. • The credibility of any market comparison data would depend on a clear exposition of survey methodology, including the choice of services, the way in which prices were determined, and sampling. • Neither investors nor market research consultants can be expected to have access to the same analysis for competitors.
CURRENT USERS	Abraaj Group, AKDN, Lok Capital, Vital Capital



ACCESS TO FINANCE

14. NUMBER OF HEALTH FACILITIES FINANCED (OUTPUT)



DESCRIPTION	Number of healthcare facilities or SMEs with (improved) access to finance during the reporting period. This can include healthcare facilities that receive financing directly from the investor (e.g., a loan) as well as facilities that use the original investment to catalyze or leverage additional funding from other investors (e.g., as first-loss capital or other form of credit enhancement, or through a pooled capital effect).
COMMONLY USED METHODOLOGY	<ul style="list-style-type: none"> • Access to finance: Count the number of healthcare facilities or SMEs that received at least one loan during the reporting period. • Investor leverage: Quantify the annual change in financing mobilized by adding the total amount of funding secured (committed and/or disbursed) plus the total amount of revenue (re)invested in the company per year. <i>Example: An investor provides USD 2 million in investment to a portfolio company, which unlocks an additional USD 10 million in debt from other investors.</i> • Risk participation: Calculate the current risk share of banks in relation to the total outstanding loan portfolio <i>Example: 100 - 55% investor risk share = 45% repayment risk taken by financial partners</i>
USAGE NOTES	
NATURE OF USE	Tracked broadly across health investment portfolios
IMPETUS FOR TRACKING	Investee automatically provides data on this metric
DATA SOURCES	<ul style="list-style-type: none"> • Shareholder reports • Company financial statements and other company-specific data • Self-reporting by investees • For risk participation: Automated monthly portfolio reports provided by partner banks
ASSUMPTIONS	<ul style="list-style-type: none"> • Borrowers would not have had access to financing without the investor's intervention. • Additional investment can be attributed to the original investment. Assumes a direct relationship between an investor's own capital and its impact on catalyzing or leveraging investment capital from other investors. Does not reflect the potential influence of other shareholders (e.g., co-investors) at the time of the transaction.
CHALLENGES & LIMITATIONS	<ul style="list-style-type: none"> • Attribution, which is implicit in the assumption that additional investment can be attributed to the original investment. In other words, it is difficult to demonstrate causation between one's own investment and follow-on capital.
CURRENT USERS	AKDN, Cordaid Investments, Lok Capital, Medical Credit Fund, OPIC, Vital Capital

Appendix: Guidance on IRIS Metric Alignment

Most of the metrics featured in this report align with or reference IRIS metrics. The table below provides guidance on how to align the metrics featured in this report with parallel metrics from the [IRIS catalog](#). Only a few metrics are not IRIS-aligned, either because they are outcome-level metrics (and the IRIS catalog skews towards output-level metrics), or because they have not yet been added to the catalog as part of the bi-annual update process.

IRIS ALIGNMENT WITH IRIS METRICS

METRICS PRESENTED IN THIS REPORT	RELATED IRIS METRICS
 ACCESS TO HEALTHCARE	
1. Number of beneficiaries	Client Individuals: Total (PI4060) <i>Visit the IRIS website to view additional variations of Client Individual Metrics, e.g., for gender, age, and other client types.</i>
2. Number of patient visits and/or consultations	Client Transactions (PI5184)
3. Number of healthcare facilities under management	Healthcare Facilities (PI1017)
4. Number of procedures and/or surgeries conducted	Units/Volume Sold: Total (PI1263)
 JOB CREATION	
5. Number of people employed	Permanent Employees: Total (OI8869) Full-time Employees: Total (OI3160) Part-time Employees: Total (OI8864) Caregivers Employed: Total (OI5323) Caregivers Employed: Professionals (OI4919) Operational Certifications (OI1120) Individuals Trained: Total (PI2998)
 UTILIZATION OF MEDICAL FACILITIES	
6. Bed occupancy rate	Critical Equipment/Facility Utilization Rate (PI5743)
 IMPROVED QUALITY OF HEALTHCARE	
7. Results of medical intervention	N/A
8. Patient satisfaction	Complaints Ratio (PI5216) Client Individuals: Referred (PI2185) Client Feedback System (OI5049)

Appendix: Guidance on IRIS Metric Alignment

IRIS ALIGNMENT WITH IRIS METRICS [CONTINUED]

METRICS PRESENTED IN THIS REPORT	RELATED IRIS METRICS
 HEALTHCARE AWARENESS RAISING / PREVENTIVE CARE	
9. Number of preventive visits and/or screenings	N/A
10. Healthcare awareness campaigns and/or educational activities	Community Engagement Strategy (OI2319) Charitable Donations (FP3774)
 AFFORDABILITY OF HEALTHCARE	
11. Beneficiaries broken down by socioeconomic status	Client Individuals: Poor (PI3193) Client Individuals: Very Poor (PI9835) Client Individuals: Low-income (PI7098) <i>Visit the IRIS website to view additional poverty-level focused metrics and guidance on “poor”, “very poor” and “low income” terminology.</i>
12. Number and/or percentage of subsidized procedures	Client Individuals: Receiving Free Products/Services (PI9622) Units/Volume Sold: Free (PI8329) Units/Volume Sold: No Direct Payment (PI8454) Units/Volume Sold: Total (PI1263)
13. Price benchmarking against competition	Client Savings Premium (PI1748)
 ACCESS TO FINANCE	
14. Number of healthcare facilities financed	Number of Community Facilities Financed (PI8007)



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