



Diagnosing Corruption in Healthcare



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The Pharmaceuticals & Healthcare Programme is a new global initiative based in Transparency International UK. Applying Transparency International's strengths and expertise, the Programme's overall goal is to improve global health and healthcare outcomes for the benefit of all people of all ages. It aims to achieve this by reducing corruption and promoting transparency, integrity and accountability within the pharmaceutical and healthcare sectors

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Foreword

Corruption is pervasive within healthcare to the extent it has become normalised. From the politician to the patient, corruption is part of doing business in the healthcare sector all over the world.

Research conducted by **Transparency International's Pharmaceuticals & Healthcare Programme (PHP)** has shown that individuals in the healthcare sector do not always understand what corruption is and how it may undermine their work. Conversely, anti-corruption specialists do not always understand and appreciate the complexity of the health care system. This map – a project that will be kept updated – attempts to bridge that gap by providing for the first time, a comprehensive and accessible guide to a health system and the types of corruption that may occur.

Information collected from a literature review, key informant interviews, and a survey with healthcare professionals was used to identify the main corruption types in the healthcare sector and provide contextual information on the profile for each type. The result is **37 corruption types** organised into **eight areas** of a health system.

This report offers an overview of the findings from the project. Further content including explanations for each corruption type, case studies, podcasts, and further reading can be found at our website ti-health.org.





Introduction

Every day, all around the world, people suffer and die due to corruption in the healthcare sector. It disproportionately affects vulnerable groups, who do not have the knowledge, money or connections to access the care or products they need. While **corruption can occur in every area of a health system**, corruption from the highest levels will trickle down to effect healthcare received by patients at local health care facilities.

There are several broad effects of corruption in healthcare. Distorted policy, legislative and clinical priorities; a loss of money from health systems; denied or delayed access to health care services and treatment; and a loss of trust in national health facilities, personnel and to a wider extent national governance as a whole.

However, the specific cost of corruption is almost impossible to measure. Like other forms of white-collar crime corruption is inherently hidden from sight and even when some forms of corruption are discovered it is hard to quantify their impact.

In order to meet Sustainable Development Goal 3 that aims to ensure healthy lives and promote the wellbeing of all people of all ages, all groups in healthcare must collectively tackle corruption.

Health systems are particularly vulnerable to corruption for several reasons. Information asymmetry between individuals and groups, susceptibility of the patient, the complexity of the products, and the large sums of money cascading through the health system all play a part. Nor are factors that influence health outcomes limited to changes in health policy and legislation. Trade policies, education systems and nutrition practices all impact directly or indirectly on health.

Some of the experts interviewed have gone so far as to argue that the whole system is broken, as multiple individuals, companies and groups involved in healthcare are placing their private self-interests over wider public health goals. But applying the definition of corruption – **the abuse of entrusted power for private gain** – is not always straightforward. In health, it may be fair to say that all individuals, companies and groups are entrusted to provide or support the delivery of products or services that healthcare depends on.

Who is ultimately responsible for the health of the global population? When does market failure and waste become corruption? When does criminal activity committed by those who are not “entrusted” become corruption? And when does something that is considered unethical become outright abuse of entrusted power for private gain?

While forms of corruption such as bribery, conflicts of interest and fraud can occur throughout a health system, this map identifies how they specifically occur in different parts of a health system. The **37 identified types of corruption are clustered into eight categories**, shown on the next page, that represent different areas of the healthcare sector. Though these corruption types do not occur in an isolated part of a system - their effects often lead to other types of corruption occurring. For example, a doctor that is encouraged to pay for a promotion may try to offset the cost by demanding bribes from patients. Some corruption types are easy to identify, while others are implicit and more complex.

However, all 37 corruption types have one thing in common – they negatively impact health systems and health outcomes.



Health System Governance

Distorted policies and legislation will negatively affect public health goals and have a cascading effect throughout the health system.



Health System Regulation

Regulation implemented to protect patients from the dangers of healthcare services and treatments can be exploited by individuals, companies and groups.



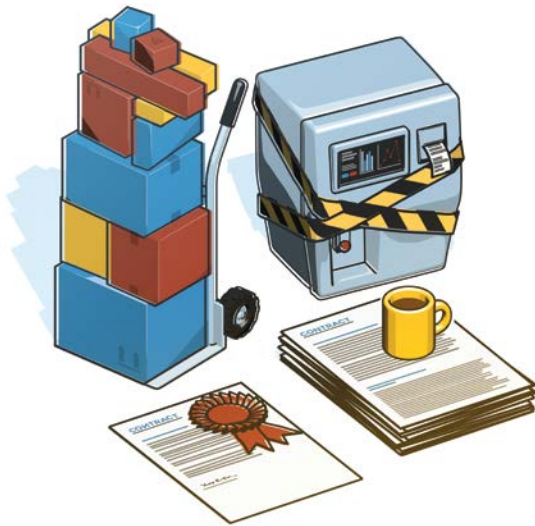
Research & Development

Corruption in research and development can lead to unsafe or ineffective products entering the health system and medical knowledge being compromised.



Marketing

The improper marketing of products in the healthcare sector can lead to the use of inappropriate products and unnecessary treatments.



Procurement

Corruption in procurement can lead to the purchase of obsolete, dangerous, ineffective, or undelivered products, facilities and services.



Product Distribution & Storage

During distribution and storage genuine products may be stolen and falsified, substandard and re-packaged products can enter the health system.



Financial & Workforce Management

The theft of healthcare funds and corruption in the management of healthcare providers will limit the quality of healthcare services delivered to patients.



Delivery of Healthcare Services

Any type of corruption during the delivery of a healthcare service will directly impact on the quality and level of care offered to patients by healthcare providers.

Health system governance

Health system governance determines the primary objectives of a health system and the direction of policy and legislation needed to achieve these. Political institutions are responsible for seeking a compromise between the different groups in the healthcare sector, while ensuring public health needs and goals are met. This governance process of policy and legislation setting is required at all levels of the health system, from the international to the local. **Corruption in governance at the higher levels of the health system will have serious and wide-ranging impacts**, affecting the services and treatments delivered to patients.

Lobbying itself is an accepted part of policy making, acting as a legitimate avenue for groups to share their opinions and expertise with policy makers. However, when it is conducted without integrity and transparency, powerful groups are able to have a disproportionate influence.

Some individuals, companies and groups have disproportionate resources in comparison to others in the sector. This may allow them to push for their own interests to be met at the expense of public health goals. **Those in powerful positions are able to unduly influence politicians and policy makers through intense lobbying, donations or support for political campaigns**, or by offering employment after service. In cases where interests align powerful groups may cooperate to influence the policy making process to further their own interests.

Alternatively, politicians may have conflicts of interest such as personal connections or financial interests with specific suppliers or health facilities, which they may help by developing favourable policy.

In some countries, corrupt governance is overt and easy to identify. Where there's systemic corruption, bribes, favouritism and the revolving door may be viewed as an integral part of politics. In other parts of the world corrupt governance can be obscure and be conducted in sophisticated ways to subvert the system. Rather than outright bribes, powerful groups will use less obvious methods to gain influence such as undue lobbying. In both cases increased transparency and accountability of decision-making processes can make the identification of corruption easier to identify and tackle.

The effect of powerful groups unduly influencing policy has been gaining attention in certain areas of healthcare. On a global level, the Report of the United Nations Secretary-General's High-Level Panel on Access to Medicine highlighted the difficulty in holding governments and suppliers accountable for the impact of their policies and actions on access to health technologies, due to a lack of transparency in trade and investment agreements.

Types of Corruption

Capture of health policy

Powerful individuals, companies or groups use corruption to influence policies to benefit their own private interests.

Health system regulation

The healthcare sector is one of the most heavily regulated sectors in many countries. Following a number of major scandals in the twentieth century such as the thalidomide disaster in the 1960s, wide-ranging regulation has been implemented in health systems to ensure that medicines are safe to use, healthcare professionals are adequately trained, and health facilities meet certain standards. For this reason, corruption in healthcare regulation is a serious issue and recognised as such – failures or breaches of regulation put patients in danger.

Corruption in regulation can involve **officials demanding or accepting gifts and favours in return for providing approval or accreditation of a product, healthcare professional, health facility or college.**

Alternatively, a conflict of interest may result in the official unduly awarding certification. For example, those being regulated may have to pay for the regulatory processes that apply to their product.

In Europe, medical device manufacturers have to pay one of dozens of companies, called notified bodies, to assess scientific information that shows a product is safe and in some instances effective. If the notified body deems the product to be safe then they will grant them a CE certificate to allow the company to sell their product.

However, there are risks of corruption with this process. Manufacturers can 'shop around' to find a notified body who will approve the device, with notified bodies competing with each other to provide the service. Since many notified bodies are 'for profit' they rely on manufacturers for custom, both then and in the future. Moreover, notified bodies have to conduct regular audits of the product once it's on the market. These again are paid for by the manufacturer and there is a risk that a notified body will fail to act on concerns about a product.

These types of corruption are not constrained to individual cases. Entire sections of healthcare regulation can be captured by select groups, termed regulatory capture, and as a result serve their personal interests. In these situations powerful individuals and companies will ensure that they benefit most from the regulatory process and can dominate the healthcare sector.

To ensure regulation is successful and corruption risks minimised, **regulatory agencies must be sufficiently resourced, independent from outside influence and have policies that ensure transparency and accountability** for key procedures.

For example, guidelines outlining the criteria for inspecting a manufacturing site may necessitate inspectors with rotating schedules to ensure no close relationships develop with manufacturers. Adequate resources and independence for regulatory authorities depends on sufficient political support.

Types of Corruption

Inappropriate approval of products

Officials approve or expedite the approval process due to personal or political connections with the supplier or the receipt of improper inducements.

Improper product quality inspection and GMP certification

Officials approve the quality of the manufacturing process or of the product itself due to personal or political connections with the manufacturer or the receipt of inducements.

Inappropriate product selection

Individuals or groups select a product for a national product list due to personal or political connections with an official or the receipt of improper inducements.

Improper healthcare professional accreditation

Individuals or groups approve a healthcare professional's qualifications due to personal or political connections with the professional or the receipt of improper inducements.

Inappropriate health facility certification

Officials provide unwarranted certification to a health facility due to personal or political connections with the facility operators or the receipt of improper inducements.

Inappropriate health college certification

Officials provide unwarranted certification to a health college due to personal or political connections with the college owners or the receipt of improper inducements.

Research and development

Research and development is the first stage in getting a product to a patient. Public, private or a mixture of public and private investment supports the development of medicines, medical devices and other healthcare technologies. Regulations vary around the world about what kind of evidence is required to get a product onto the market. Medicines, for example, must undergo studies and trials to determine their benefits and harms to ensure that they are safe to use. Other health care products, such as medical devices, require a less robust standard of evidence to allow them onto the market.

The main interaction at this stage is between companies manufacturing or marketing the product, researchers, contract research organisations (CROs) and of course, study or trial participants. Companies may fund academic researchers at universities and CROs to design, run and then report the study or trial results.

However, this interaction is at risk of conflicts of interest that can encourage actors to abuse their positions. **Both researchers and CROs receive funding from companies that have an interest in the randomised controlled trials and other studies showing the benefits of their products.**

CROs may want to get further work, and therefore funding, from the companies. Researchers, as well as wanting further work from the companies, may have an academic interest in the results being positive – particularly if they have dedicated their careers to studying a particular area.

These particular conflicts may lead researchers, CROs or companies to under-report the negative findings of trials/studies or select a study design that will show the product in the best possible light, thereby abusing their entrusted power as research investigators. This has serious repercussions as medical knowledge that forms the basis of diagnosis and treatment in healthcare will be compromised by biased studies. Healthcare providers rely on this knowledge to offer patients the best treatments, while patients depend on this information to make choices about the type of care they want.

This is in contrast to the *Declaration of Helsinki*, first adopted in 1964 and having undergone seven revisions since, a widely recognised source of ethical guidance for biomedical research. The Declaration states the need to disseminate research results, including negative and inconclusive studies, and for all studies to be publicly registered, to make it harder for negative and unethical studies to go unnoticed and unchallenged.

Other companies and groups involved in the research process such as universities and journals, gatekeepers of medical knowledge, are also at risk of conflicts of interests and bribery. This also applies to journalists and other commentators on the research findings, for example experts, professional and patient groups, who may subvert the interpretation of the evidence to the public.

There is a particular risk that funders may exploit patients involved in clinical trials in low-and middle-income countries, abusing their positions as providers of safe, ethical trials to produce effective products. **One key issue is that trial participants may not be able to give fully informed consent.** In countries where there are issues with access to healthcare, some experts say that patients are unable to give genuine consent as turning down clinical trial participation is the equivalent of turning down treatment. Other issues include companies not obtaining fully informed consent, as the patients they target sign up to trials without fully understanding the described risks, and that patients are offered inadequate post trial access to treatment.

Types of Corruption

Abuse of research funding systems

Researchers deceive funders by deliberately misusing allocated funds.

Improper trial/study design

Researchers design a trial/study to produce misleading findings that will support the production and use of a product.

Improper trial/study conduct

Researchers conduct a trial/study to produce misleading findings that will support the production and use of a product.

Misleading dissemination of trials/studies

Individuals, companies and groups involved in the dissemination of trial/study results suppressing negative findings or facilitating an incorrect presentation that deceives.

Marketing

Suppliers regularly interact with a range of individuals and groups to share information about their products and promote their use. In an effort to expand the use of these products to increase their profits and expand their market share, suppliers may use corrupt marketing practices, while unethical healthcare providers may see these interactions as an opportunity to solicit payments.

From explicit gifts and implicit research grants, to suppliers distorting the presentation of evidence relating to the benefits and harms of products, suppliers can influence healthcare providers so they use and prescribe their products rather than those of their competitors.

Suppliers may also encourage healthcare professionals to act as spokespeople for specific products, which is a particularly effective way for suppliers to market their products. A healthcare professional can effectively promote a product if they are respected in the healthcare community and appear as impartial to their peers, particularly if a conflict of interest is not declared.

Across the world, **marketing interactions between suppliers and healthcare providers are controlled by a mixture of government regulation and self-regulation**. A range of industry association codes have set the marketing practices expected of suppliers, while initiatives can be introduced that encourage members to disclose online the gifts and hospitality they have provided to healthcare professionals. For example, the European Federation of Pharmaceutical Industries and Associations (EFPIA) introduced a Disclosure Code in 2014, with reporting commencing in 2016. In the US, the *Physician Payments Sunshine Act* requires healthcare suppliers to disclose financial relationships with doctors. However, in most of the world this is not mandatory, and penalties are minimal.

A driving force for marketing malpractice are the incentives offered to sales representatives by suppliers. Bonuses can encourage or pressure sales representatives to increase their sales in any way possible, disregarding codes of conduct and policies that mandate ethical marketing. This becomes a greater risk if a sales representative's salary is driven largely by bonuses.

Suppliers can improperly market their products using more implicit means such as by setting the curriculum of continuing education programmes, using post-marketing studies to actually promote their products, or widening the diagnostic boundaries of illnesses. It is arguably harder to tackle these practices as they are often well hidden and involve the production and dissemination of medical knowledge.

Types of Corruption

Improper inducements to healthcare professionals

Healthcare professionals demand or accept gifts and favours from a supplier in return for prescribing or advocating for the inclusion of a product on a product list.

Improper inducements to health facilities and health officials

Health facilities or health officials demand or accept gifts and favours from a supplier in return for purchasing or placing a product on a product list.

Improper inducements to patient organisations or professional associations

Patient organisations or professional associations demand or accept gifts and favours from a supplier in return for an advantage.

Distortive funding of continuing education

Powerful companies shape the content of continuing professional development programmes for healthcare professionals to promote their products.

Improper post-marketing trials/studies

Suppliers use trials/studies for determining the safety of products after use to actually market their products.

False or misleading product claims

Suppliers promote a product for unapproved uses or overstate the available evidence.

Disease mongering

Suppliers convince healthy patients they are sick, or people with mild conditions they are seriously ill.

Procurement

Procurement in health involves the purchase of products, supplies, equipment and related services, as well as the commissioning of the construction of health facilities. For medicines this comes after a product has been selected for inclusion on a national reimbursement list and/or a health facility list. This is **a considerable expense in most health budgets**, with drug procurement budgets being significantly high in low-and middle-income countries.

Effective procurement processes result in high-quality and cost-effective products being purchased in the correct volume, at the right time and that are aligned to health needs. In contrast, corruption in procurement wastes resources and potentially leads to dangerous products entering the health system. The high volume and value of contracts in the healthcare sector make this a high corruption risk.

Procurement is primarily an interaction between suppliers and healthcare providers. The process can be divided into three stages: pre-bid in which the purchase need is determined and the specifications for a contract are set; bid in which suppliers submit their proposals for assessment by procurement officials who will then choose the winner; and post-bid in which the contract is delivered by the supplier and monitored by officials.

Officials can use this as an opportunity to exploit suppliers by demanding bribes in return for giving the supplier a contract. Likewise, suppliers can offer bribes to officials, which may be more likely when they are under pressure or in a highly competitive environment where the need to win a contract is higher. The actual process of **giving a bribe to an official often occurs through the use of intermediaries** such as product distributors.

National procurement laws will influence the corruption risks and necessary anti-corruption measures in this area in public health systems, by providing requirements for how tenders are set and evaluated. Measures can be implemented to reduce the opportunities for corruption in procurement by increasing transparency and accountability. One such measure is open contracting which is the practice of publishing and using open and accessible information throughout the procurement process, beginning with publishing needs assessments and continuing through to quality assurance and contract completion. By increasing procurement transparency civil society can track purchases and hold officials to account.

Types of Corruption

Unnecessary or ineffective purchases

Procurement officials deliberately set requirements and purchase products, supplies, services and construction that are not needed.

Rigged contract requirements

Procurement officials fix the bidding process so to pre-determine the winner.

Preferential selection of contractor

Officials determine the winner of a tender due to inducements from a supplier or personal considerations between the two actors.

Collusion between bidders

A secret agreement between suppliers to conspire and commit actions to deceive a transparent and competitive tender process.

Unfulfilled contract delivery

Suppliers do not provide the services or goods as required in a contract or provide them to a lower quality than agreed.

Product distribution and storage

During the distribution of products from manufacturers to storage facilities the primary risk is the theft and diversion of products. As many individuals are involved in this process there are numerous opportunities for theft.

The loss of products increases the cost of healthcare for payers. If a significant number of medicines are stolen at medical stores this can lead to insufficient medicines reaching health facilities, leading to a medicine stock-out with no medicines available. As patients are unable to access the medicines they require they can either seek the medicine privately, probably at a higher cost, or they can simply forgo treatment.

To prevent theft and diversion, **distribution systems must be well designed with adequate resources for operation**. Secure containers in storage facilities, tracked deliveries and centralised record systems can all reduce loss. Similarly, improving working conditions and wages for individuals involved in the distribution and storage process may lessen the danger of theft and diversion.

Weak distribution and storage systems increase the risk of falsified and substandard products entering the health system. The proliferation of these products is also linked to ineffective regulatory processes for product approval and controlling manufacturing quality. Despite falsified and substandard medicines being an issue for all countries, the effects are disproportionately felt in low-and middle-income countries that lack the resources to identify them and the channels used for their distribution.

A challenge for regulatory agencies is that falsified and substandard products are often produced in other countries and they are therefore dependent on the actions of other regulatory agencies. Furthermore, **as patients increasingly turn to the internet to purchase products, regulatory authorities face new challenges in tackling the flow of these potentially dangerous medicines**. A number of technological measures can be applied to product packaging by regulatory authorities including specialised barcodes, holograms or scratch panels, to better allow users to identify genuine products.

Unauthorised re-packaged, non-sterile and expired products may also enter the health system at this stage. The more products move back and forth between wholesalers, distributors and providers, the greater the chance that products can be re-packaged and sold as new.

Types of Corruption

Theft and diversion of products

Officials, healthcare providers or other individuals and groups steal medicines, medical devices and supplies during the distribution and storage process.

Infiltration of falsified and substandard products

Officials, healthcare providers or other individuals and groups introduce fake and poor quality medicines and medical devices into the health system.

Re-packaged non-sterile and expired products

Officials, healthcare providers or other individuals or groups re-package products in order to sell them as new.

Financial and workforce management

A good health workforce requires well-trained staff that are productive. A well-functioning health financing system involves adequate funds that are delivered on time. Both are crucial to providing high quality healthcare services to patients. However, without good governance, transparency and accountability, corruption can thrive.

The public sector health workforce is often one of the biggest employers in a country. Management procedures that provide effective oversight must be implemented to ensure that jobs and promotions are given based on merit, workers do not skip work while still claiming a salary, and workers do not steal medicines, equipment and supplies. A strong culture of integrity is crucial to minimising these corruption risks, including a speak up policy for healthcare workers to inform management about colleagues involved in corrupt activities, without the fear of retaliation.

The theft of funds from health systems is a serious issue in many countries. **The loss of healthcare funds reduces the total amount available to provide services and treatments for patients.** This can force health facilities to charge fees to patients for services that should be free. The effects are most serious when politicians and prominent officials at the highest levels of a health system steal funds, as the size of the funds taken can endanger the entire system.

Minimising the risk of embezzlement requires good management processes, reliable record keeping, and regular audits. Donor funds are at a higher risk for theft and diversion as their use is harder to track and control, particularly in environments where cash payments are predominant.

Payers must also be aware of healthcare provider fraud. For example, **healthcare providers may provide false reimbursement claims for services that were unnecessary or that were actually not provided.** In health systems where this is a high risk, payers must devote sufficient resources to carry out effective checks on healthcare providers applying to provide reimbursed treatments, to adequately check claims and to investigate potential false claims.

Types of Corruption

Inappropriate selection for jobs, promotions and training

Employment opportunities are given to healthcare providers based on personal connections and inducements rather than merit.

Absenteeism

Healthcare providers purposefully do not attend work and do not fulfil their responsibilities despite claiming a salary.

False treatment reimbursement claims

Healthcare providers overcharge healthcare funders for services provided to patients or charge for services that were actually unnecessary or undelivered.

Embezzlement and misuse of national funds

Officials, healthcare providers or other individuals steal or deliberately divert national funds allocated for healthcare services.

Embezzlement and misuse of donor funds

Officials, healthcare providers or other individuals steal or deliberately divert donor funds allocated for healthcare services.

Delivery of healthcare services

Service delivery is the part of a health system where patients receive the treatment and supplies they are entitled to. All the other parts of the health system examined in this map support the delivery of healthcare services and, as a result, corruption in these other areas will indirectly impact on the quality of delivery. For example, unpublished harms data from clinical trials could lead to healthcare providers basing the treatments they give on unsound medical knowledge.

However, there are multiple forms that corruption can take specifically in the delivery of healthcare services. **Corruption here has a negative impact on access to services**, compromising the ability of governments to provide healthcare to citizens. Likewise the quality of care can be diminished as patients receive needless treatments. Vulnerable populations will be most affected as they struggle to meet unofficial or unnecessary payments and instead may choose to forgo treatment or seek treatment from unauthorised providers.

Some experts suggest that low wages and poor working conditions for healthcare workers are the causes of corruption in this part of the health system. For example, doctors may demand informal payments from patients and provide private practices using public resources, as they seek to subsidise their wages with other or higher payments. Others have suggested that **these corruption types should be seen as an effect of wider governance failures in the health systems** including limited oversight of worker performance and minimal sanctions for malpractice. However, in other instances it may simply be an abuse of power to satisfy greed.

These corruption types can be **prevalent in both high-income and low-and middle-income countries**. Regulators in all health systems must implement measures to minimise the risks of prevalent types of corruption in healthcare service delivery.

Types of Corruption

Informal payments from patients

Unofficial, under-the-table payments from patients to healthcare providers in return for receiving healthcare services.

Unnecessary referrals and procedures

Healthcare workers encourage patients to have services or treatments they do not require, in return for receiving a benefit from the party performing the service.

Private use of public products, equipment, facilities or time

Healthcare providers divert patients to private care and use publicly paid for supplies, facilities and time.

Favouritism

Healthcare professionals offer preferential service or better treatment to friends, family members or specific groups at the expense of the wider population.

Overcharging for services or providing inferior services

Patients are overcharged by a healthcare provider or health facility for the services they receive, or patients do not receive the level or quality of service they should receive.

Manipulation of outcome data

Health facilities or healthcare providers exaggerate, distort or suppress data on the standard of care received by patients.

How we did it

This project aims to increase the awareness and understanding of corruption in the healthcare sector. Information collected from a literature review, key informant interviews, and a survey with healthcare professionals was used to identify the main corruption types in the healthcare sector and provide contextual information on the profile for each type.

The map of corruption in the healthcare sector identifies 37 types of corruption that are present in health systems worldwide. These corruption types are organised into eight categories that represent different areas of the healthcare sector. A corruption type is placed in the category in which it is most likely to appear, though some corruption types may be applicable to other categories. For example, the corruption type improper inducements to healthcare professionals is placed in the marketing category, but can apply to purchasing decisions that are covered in the procurement category.

Each corruption type has a definition and explanatory text. For each category, explanatory text, a podcast, and case studies offer an overview of corruption and topical issues in that area. Additional resources are referenced to enable users to explore each category in more detail.

The process for identifying and exploring corruption types consisted of the following phases:

- An initial study conducted in 2015 provided the basis of the research. The pharmaceuticals & healthcare sector value chain was mapped to provide a framework of corruption categories, which was supported by key pieces of literature. Corruption types were then organised into the corruption categories based on an analysis of 228 media reports using desk based research.
- A detailed literature review of existing research on corruption in healthcare. This included books, journal articles, papers published by international organisations and NGOs, as well as media articles. The literature review yielded an overview of the research and practitioner literature on corruption types in the healthcare sector. This was used to identify key corruption types and add to the explanatory text of each type.
- Thirty interviews were conducted July – September 2016 with healthcare experts. Experts were selected from each world region to ensure responses provided a broad global perspective. They included compliance directors at pharmaceutical companies, national investigators of healthcare fraud and corruption, and specialist doctors. All discussed their personal and professional experiences of corruption and commented on the structure of the corruption map. Interviews were conducted either face-to-face or by phone. Experts were offered the opportunity to participate anonymously. The interviews provided: information for use in the corruption types' explanatory text; feedback on the structure and utility of the map; and information and specific case studies for use in the podcasts.
- An online, anonymous survey was made available to healthcare professionals worldwide. It asked healthcare professionals about their experiences of corruption in the healthcare sector and was distributed through email exchange networks, social media, and the Guardian Healthcare Professionals Network. The survey was online from 1/08/16 to 01/10/16. Responses from 138 individuals were received from 37 countries, from all world regions. Doctors were by far the most common respondent type and comprised nearly half of the responses received. The survey provided general findings to support the inclusion of corruption types in the project.

The intention is to update this map and the constituent corruption types, following further research at the global and national levels.

A common question from experts interviewed for the project was how to apply the definition of corruption in the healthcare sector. Transparency International defines corruption as the abuse of entrusted power for private gain. In the healthcare sector, corruption negatively impacts health outcomes at both the individual and population levels. As most groups in the sector are responsible for conducting services or providing products that improve health outcomes, this definition can be applied broadly. Thus, a major task in this project has been to explore the application of corruption in the healthcare sector.

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