

# Tackling Wasteful Spending on Health

Highlights

## **Wasteful spending on health in numbers**

- *One in ten patients in OECD countries is unnecessarily harmed at the point of care.*
- *More than 10% of hospital expenditure goes to correcting preventable medical mistakes or infections that people catch in hospitals across a range of OECD countries.*
- *One in three babies in OECD countries is delivered by caesarean section, whereas medical indications suggest that C-section rates should be 15% at most. They are above 35% in seven OECD countries and close to 15% only in Iceland, the Netherlands, Finland and Israel.*
- *The market penetration of generic pharmaceuticals ranges between 10-80% across OECD countries.*
- *Australia, Belgium, Canada, France, Italy and Portugal report at least one in five emergency department visits as inappropriate.*
- *The costs of administering health systems represents on average 3% of health spending but varies in a ratio of one to seven across OECD countries, with no obvious correlation with health system performance.*
- *On average, the loss to fraud and error is more than 6% of health expenditure and one third of OECD citizens consider the health sector to be corrupt or extremely corrupt (45% globally).*

# A significant share of health spending in OECD countries is at best ineffective and at worst, wasteful. Solutions exist.

Health care systems in OECD countries continue to improve health and increase life expectancy. Yet the financial cost is high, and countries struggle to meet the demands for more spending. New treatments are often expensive, and ageing populations have ever greater needs.

A significant share of health spending in OECD countries is at best ineffective and at worst, wasteful.

## Wasteful health care spending is common

Overall, evidence suggests that up to one-fifth of health spending could be channelled towards better use. Numbers show that:

- Many patients are unnecessarily harmed at the point of care or receive unnecessary or low-value care that makes no difference to their health outcomes.
- The same benefits could often be provided using fewer resources. For instance some health systems are poor at using generic drugs; others provide care in expensive places such as hospitals, rather than in more cost-effective settings.
- A number of administrative processes add no value, and money is lost to fraud and corruption.

With over 9% of GDP spent on health care systems across the OECD, three-quarters of which is paid for by governments, such waste undermines the financial sustainability of our health systems.

## Wasteful spending on health relates to:

- 1/ Services and processes that are either harmful or do not deliver benefits; and
- 2/ Excess costs that could be avoided by replacing them with cheaper alternatives with identical or better benefits.

## Substantial cuts in ineffective spending are necessary

Acknowledging the existence of ineffective spending and waste is never easy – be it for health workers, managers, patients, and even for decision makers. But opportunities exist to release resources within health care systems to deliver better value care.

Cutting ineffective spending and waste will produce significant savings. For policy makers struggling to cope with ever-growing health care expenditure, all opportunities to move towards a more value-based health care system must be pursued.

## Wasteful spending can be tackled

Actions to tackle wasteful spending are needed in the delivery of care, the management and organisation of health services, and in the governance of health care systems.

Strategies to curb wasteful spending must reflect two principles:

- **Stop** spending on things that do not improve health – for example, unnecessary surgeries and clinical procedures.
- **Swap** inputs and change approaches when less pricy alternatives of equal value exist – for example, by encouraging the use of generic drugs, developing advanced roles for nurses for chronic patient management, or ensuring that patients who do not require hospital care are treated in less resource-consuming settings such as primary care.

## Tackling wasteful spending requires to acknowledge, inform, persuade and pay.

In other words, recognizing the existence of the problem, developing tools to assess its scale, convincing and incentivizing stakeholders to change their behaviour are all part of the solution.

# 1. Wasteful clinical care: The problem

## Too often, patients do not receive the right care

Wasteful clinical care comes in different forms:

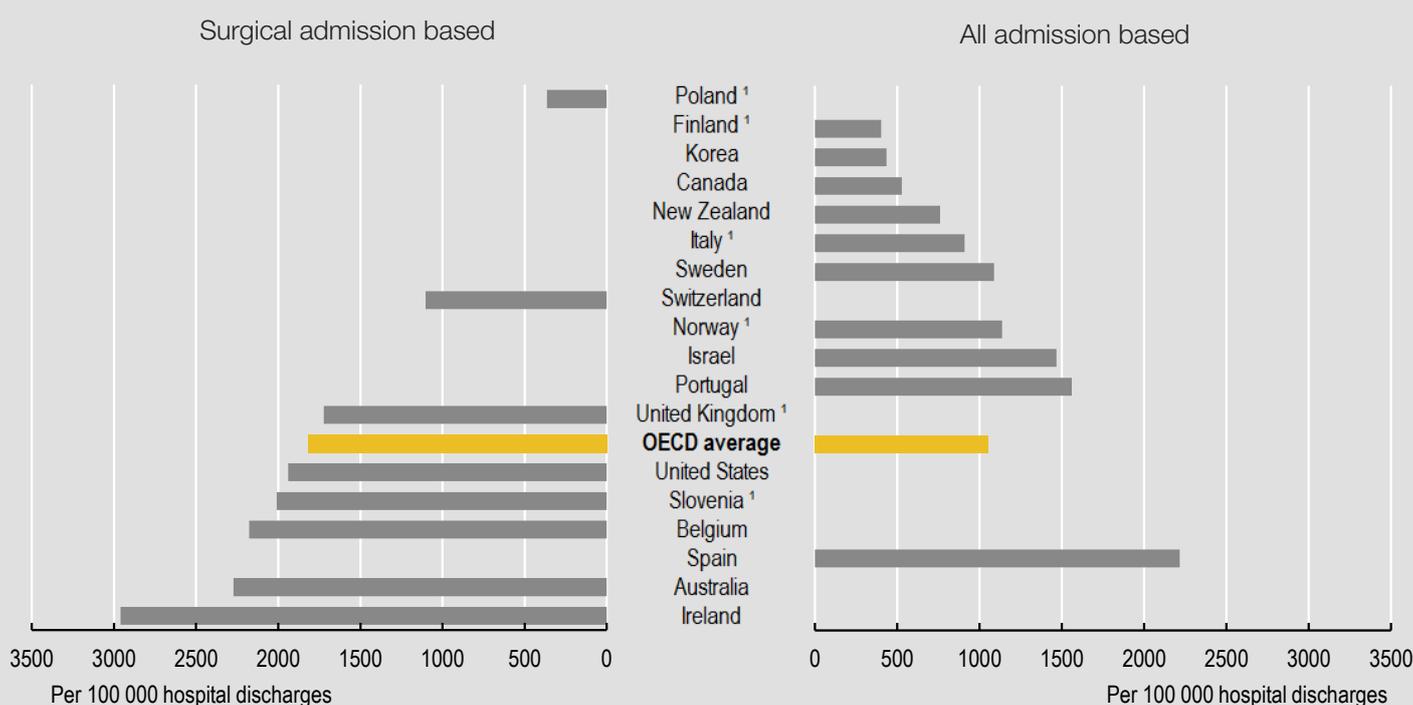
- Some patients receive **repeated diagnostic tests or services**, simply because information is not shared across providers.
- Patients also receive “**low-value care**”: care that is ineffective, or that works for only some groups of patients. In other instances, people receive interventions that they do not want or would not have wanted where they appropriately informed about the likely effects of the care.
- Worse, patients sometimes receive care that causes **serious complications that could have been avoided**. Large differences are reported in patient safety across countries (see below). Some variations almost certainly reflect differences in the culture of reporting clinical errors, with higher levels in part denoting increased transparency rather than poorer safety, but whether reported or not, such cases add hugely to costs.

## Common instances of overdiagnosis or overtreatment

- Imaging for low back pain or headaches
- Antibiotics for upper respiratory tract infection
- Dual energy X-ray absorptiometry (used to measure bone mineral density)
- Preoperative testing in low-risk patients (electrocardiography, stress electrocardiography, chest radiography)
- Antipsychotics in older patients
- Artificial nutrition in patients with advanced dementia or advanced cancer
- Proton pump inhibitors in gastro-oesophageal reflux disease
- Urinary catheter placement
- Cardiac imaging in low-risk patients
- Cancer screening (cervical smear test, CA-125 antigen for ovarian cancer, prostate-specific antigen screening, mammography)
- Use of caesarean section without of medical indication

Source: Adapted from Hurley, R. (2014). *Can Doctors Reduce Harmful Medical Overuse Worldwide?*, BMJ;349.

## Postoperative sepsis in abdominal surgeries, 2013 (or nearest year)



Note: Rates have not been adjusted by the average number of secondary diagnoses. The OECD average includes eight countries (left panel) and ten countries (right panel). 1. The average number of secondary diagnoses is < 1.5.  
Source: OECD Health Statistics (2016).

# 1. Wasteful clinical care: The solution

## Five ways to tackle wasteful care

1. **Robust information systems** are required to identify low-value care. At least ten countries produce atlases to identify variations in health care activities that may not be medically justified.

2. **Reporting systems of adverse events** need to be more transparent and oriented towards learning. New Zealand stands out: in addition to hospitals, ambulance services, hospices, elderly residential care organisations, and other non-hospital providers have such systems.

3. **Information and behaviour change campaigns** that target both clinicians and patients have a key role to play. The Choosing Wisely® campaign is a clinician-led initiative aiming to reduce low-value care by

encouraging patient-provider conversations about whether specific services truly add value. It is now active in at least a third of OECD countries.

4. **Clinical guidelines** can improve the process and outcomes of care, reduce the use of unnecessary interventions and save costs. In the United States, an evidence-based programme for patients with non-small cell lung cancer found outpatient costs were reduced by 35%.

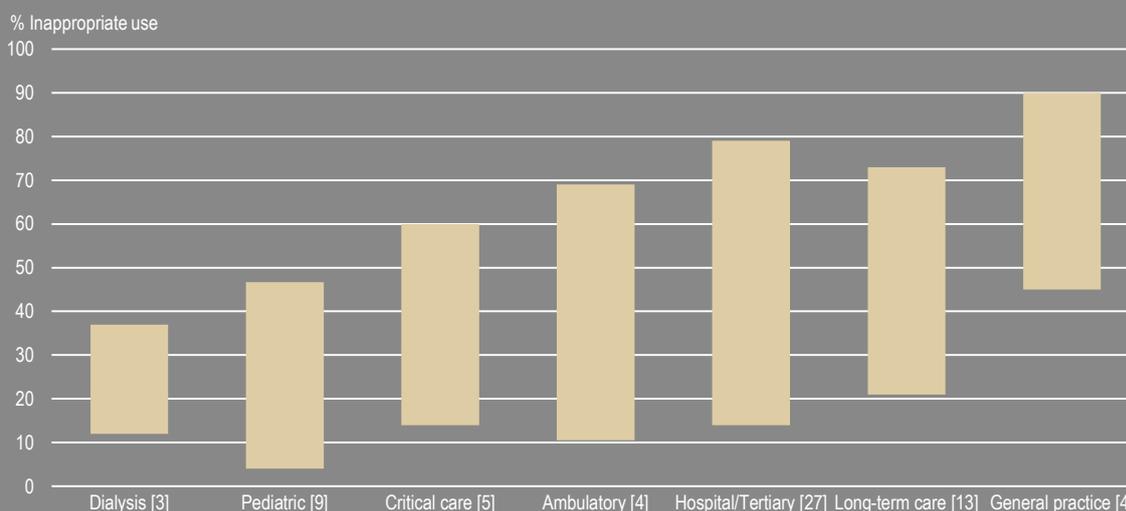
5. **Financial incentives** and nudges create behaviour change. In the Australian state of Queensland, health authorities withhold payments to hospitals for six “never events”. Nineteen OECD countries use Health Technology Assessment to help determine the value of some new treatment options.

## Spotlight on the inappropriate use of antimicrobials

The inappropriate use of antimicrobials is perhaps one of the most threatening forms of wasteful clinical care because it encourages the development of antimicrobial resistance. Inappropriate use represents about 50% of all antimicrobial consumption by humans, but may be as high as 90% in general practice as shown below.

More rational antimicrobial consumption can be achieved with behavioural change interventions, notably antimicrobial stewardship programmes which combine multidisciplinary activities to steer both prescribers and the public towards appropriate use of antimicrobials. Mandating the use of rapid diagnostic testing can help clinicians target their antibiotic use. Economic incentives for providers and care seekers can also encourage appropriate antimicrobial consumption.

Estimated proportion of inappropriate antimicrobial use by type of health care service



## 2. Tackling operational waste: Pharmaceuticals

Operational waste occurs (1) in case of overpricing; (2) when less expensive but equally effective alternatives are not used (3) when purchased inputs are not used at all.

Pharmaceuticals and hospital care are two areas in which operational waste is of particular concern.

### Wasteful spending on pharmaceuticals

Pharmaceuticals account for 20% of overall health care expenditures across OECD countries, but they do not always add value for patients.

Large amounts of unused medicines and other medical supplies are unnecessarily discarded due to redundant prescriptions, patients' non-adherence to the prescribed course of treatment, and shortcomings in hospitals' management of stocks. For example, in Australia, an audit of the contents of "Return of Unwanted Medicines" bins revealed discarded medicines worth AUD 2 million, of which nearly 70% were prescription medicines.

The potential to free up financial resources through the use of generic drugs is also often not fully exploited. Large potential similarly exists in the market for biosimilars – near-identical copies of large molecule medicines which are expected to have properties similar to those of the initially patented one. Estimates for five European countries and the United States suggest that savings via the use of generics and biosimilars could reach EUR 50 billion by 2020.

### Three main strategies to reduce wasteful pharmaceutical spending

#### 1) Using information to change behaviour

Controlled clinical trials in the United Kingdom and Sweden reveal that waste of medicines can be reduced by up to 30% if patients starting a new treatment are given an option to discuss their medication-related concerns on top of the one-time standard instruction. A telephone line dedicated to such concerns, where patients can reach trained pharmacists, was proven to cost-effectively reduce instances of patients' suboptimal decisions.

#### 2) Changing payment incentives

France and Hungary introduced incentives for GPs to prescribe generics through a pay-for-performance (P4P) scheme. In Japan, an increase in the value of bonuses associated with target share of generics in total prescribing lead to an increase in generic drug prescriptions. In Greece, public hospitals are required to reach a 50% share of generics in the total volume of administered pharmaceuticals.

#### 3) Improving procurement systems

In Norway, the Drug Procurement Co-operation (LIS) included all 80 public hospitals as of 2016. The range of medicines purchased by LIS includes a number of high-cost oncology drugs, hepatitis C drugs, growth hormones, and immunostimulants. In 2015, the total value of the purchased hospital medicines exceeded EUR 800 000 million, with an average volume-related discount of 30.4% compared to list prices in neighbouring countries.



## 2. Tackling operational waste: Hospital care

### The use of hospital care can be better targeted

On average, OECD countries spend 28% of total health spending on hospital inpatient care. However, hospital resources are used more than is clinically necessary through: 1) unnecessary hospital attendances, 2) inefficient processes within hospitals such as inpatient admission for surgeries that could be performed on an outpatient basis – and 3) longer than necessary hospital stays, including for delayed discharges due to the lack of follow-on care.

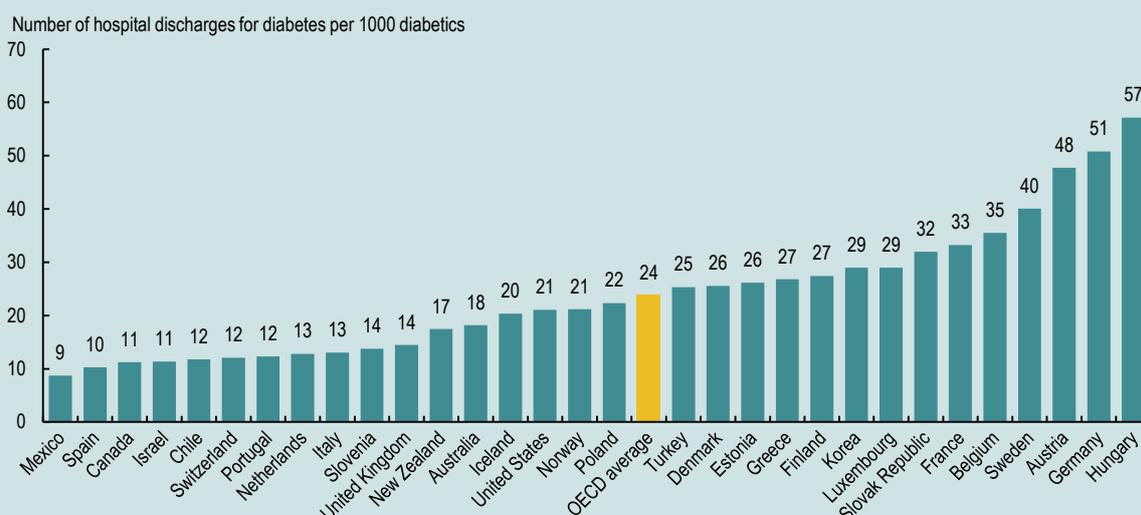
- Emergency department visits increased over time in 14 of 19 OECD countries, reaching an average of 31 visits per 100 population in 2011, many of which are inappropriate.

- Hospitalisations for Ambulatory Care Sensitive Conditions (ACSCs) can generally be prevented by effective and accessible primary care. Yet they are high in many countries. Emergency admissions for ACSCs could be reduced by between 8% and 18% in England, producing savings of up to GBP 238 million per year.

- For cataracts, same-day surgery in 2014 was higher than in 2000 for 22 of the 23 countries with data, but same-day surgery rates remain relatively low in Poland, Hungary and Turkey.

- The average length of stay varies significantly across OECD countries. Patients admitted to hospitals in Japan or Korea can expect to stay for more than 15 days, while those in Denmark, Turkey and Mexico stay on average fewer than five days. Only three countries collect data on delayed discharges.

**Diabetes-related admissions per 1 000 patients with diabetes, 2011 (or nearest year)**



Source: OECD (2015), *Cardiovascular Disease and Diabetes: Policies for Better Health and Quality of Care*.

### Examples of countries using different policy levers to better target hospital care use

**Organisational change.** In **Norway**, larger primary care centres act as intermediate care facilities, and deliver non-urgent care and a mix of post-acute, rehabilitation and nursing care on a 24-hour, 7-day a week basis. The centres to strengthen primary care and reduce unnecessary hospital admissions.

**Financial incentives.** **Sweden** introduced bundle payments for spine surgery to improve care co-ordination between providers across different care settings. Tariffs reflect clinical guidelines and can also include follow-up, warranty payment and outcome information. Evidence shows a positive impact on reduced average length of stay, cost per patient and complication rates.

**Behaviour change via information and telemedicine.** A three-year randomized controlled trial in **England** found that telehealth could reduce emergency admissions by 20% and emergency attendance by 15% for patients with long-term conditions, including diabetes, chronic obstructive pulmonary disease, and heart failure.

### 3. Governance-related waste: Administrative costs

Fraud, abuse, corruption, and high administrative costs can all be signs that the health system is not being managed as well as it could be.

#### Large cross-country variations in administrative costs show that cuts are possible

The level of administrative expenditure depends, to some extent, on countries' health financing schemes.

- Single-payer systems (whether the payer is a social health insurance fund or a government entity) tend to have comparable levels of administrative spending, lower than those of multiple-payer systems;
- Multi-payer systems with free choice of insurer tend to have higher administrative costs than multi-payer systems with automatic affiliation;
- Private insurance schemes have much higher administrative costs than any public schemes.

#### Best practices: Lessening the administrative burden

**Australia:** A functional and efficiency review of the Commonwealth Department of Health assessed the efficiency and effectiveness of the Department's operations, programmes and administrations, leading to initiatives to improve efficiency.

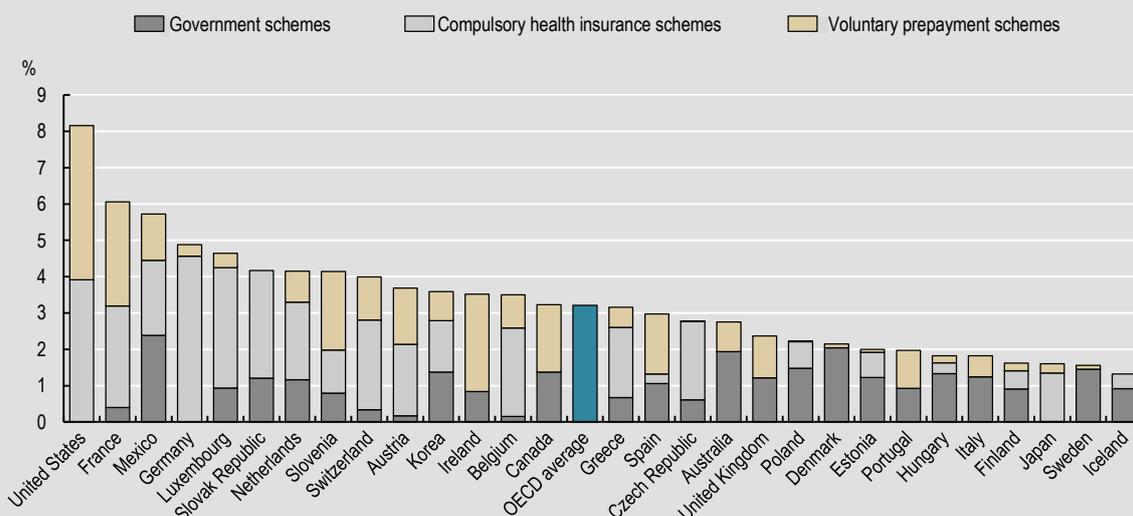
**Estonia:** Paperless e-prescription, reduced time spent on issuing prescriptions and medication and on verification by provider and insurers.

**Germany, the Netherlands:** Collaborative efforts across all stakeholders led to the reduction of unnecessary administrative reporting requirements.

**United States:** the Affordable Care Act requires insurers to spend at least 80-85% of premiums on medical claims and quality improvement.

**Israel:** the move towards digitalised procedures for medical graduates to receive their medical licenses and to apply for compulsory clinical internships sped up these processes considerably.

Administration as a share of current health expenditure by financing scheme, 2014 (or nearest year)

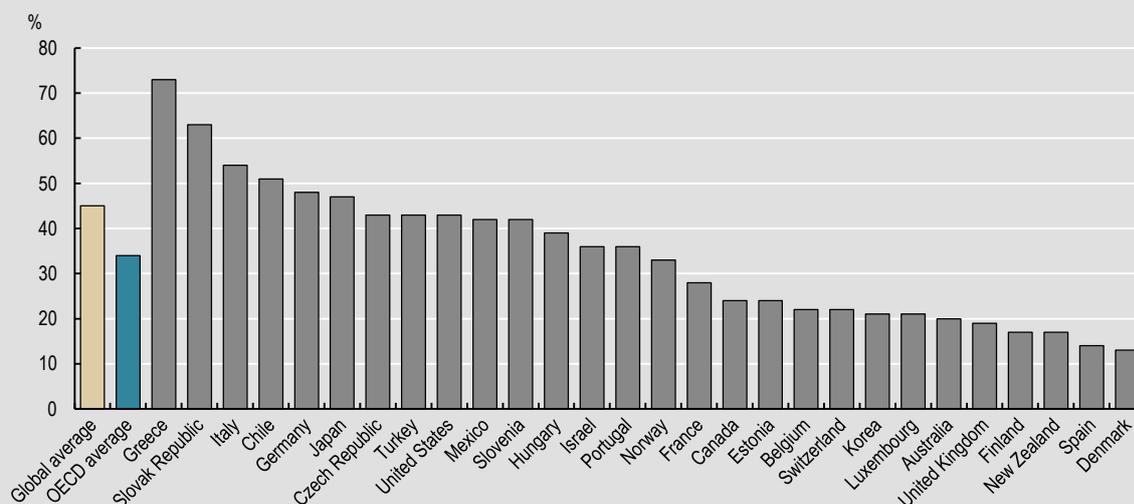


Notes: Administrative costs refer to the costs associated with the governance and administration of the health system and the collection and pooling of financial resources by different health financing schemes. Administrative costs of health providers (e.g. hospitals) are not included. Compulsory health insurance predominantly refers to social health insurance funds but also include compulsory insurance provided by private insurers.

Source: OECD Health Statistics (2016).

### 3. Governance-related waste: Fraud, abuse, corruption and other integrity violations

Percentage of the population that considers the health sector corrupt or very corrupt in OECD countries



Source: Transparency International (2013), *Global Corruption Barometer Report and Data*.

A third of OECD citizens believe the health sector is corrupt or very corrupt, with large variations across countries.

Strategies to detect, prevent and address **fraud in the delivery and financing of care** vary:

- Some countries assign the responsibility to health sector institutions (e.g. Australia, Belgium) or payers (France), others rely on general anti-fraud bodies (Austria, Slovenia).
- Fraud detection can rely on simple audits and/or the investigation of complaints. Hotlines can encourage the reporting of integrity violations (e.g. Australia, the United States). More advanced countries use analytical tools including data mining (France).

A stepwise, comprehensive and credibly enforceable approach to suspected fraud or abuse response works best. Efforts must go into engaging health professionals, recognising that errors can happen and that special circumstances can prompt deviations from good practices. Efforts can pay-off: For example in the United States, between 2013–15, USD 6.1 was returned for every USD 1.0 spent on fraud and error detection.

Tools to curb **inappropriate business practices in the health sector** include limits or bans on specific activities that are at too high a risk of generating inappropriate behaviours. This is the case for dispensing of medicines by physicians (Australia, France), self-interested referrals by and kickbacks to health providers (United States, Slovenia, Poland).

More transparency in the financial relationships between industries and health care providers is increasingly promoted by self-regulation (European Federation of Pharmaceutical Industries and Associations code of conduct) as well as Sunshine-type regulations (requirements that payments made by industries to stakeholders be systematically reported to authorities). In the United States, industries must report relationships with physicians and teaching hospitals. In France disclosure covers ties with all health professionals and associations representing them, scientific societies, patients' associations and the press.

Self-regulation by providers, professional associations, and business remains the norm but its effectiveness is not thoroughly assessed.

# Acknowledge, inform, persuade and pay



## Acknowledge:

A significant share of health spending makes only a modest contribution to improving patient outcomes, thus offering many avenues for savings and higher value investments in healthcare. The first step for the relevant stakeholders is to acknowledge that this problem exists. Though difficult, this is worthwhile as cutting waste in the health care system can: i) bring strategic savings; ii) support a transformative focus on value in health care systems; and iii) substantially contribute to enabling long-term structural reforms.

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## Inform:

Few countries are able to systematically report unnecessary or low-value care, the value of care from patients' perspective, the over-prescription of antibiotics, avoidable adverse events, delayed hospital discharges or fraud and abuse. Nevertheless, the generation and publication of indicators on waste are necessary to raise public awareness about the scale of the problem, set priorities and monitor progress towards results.

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## Persuade:

Sustainable change can be achieved if patients and clinicians are persuaded that the better option is the least wasteful one. Changing habits is often a necessary and key component of successful efforts to tackle waste – whether to improve adherence to clinical guidelines, increase the safety of care, or convince patients not to rush to the emergency department or not to request antibiotics unnecessarily.

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## Pay:

Incentives work. Policy makers should aim to create an environment that rewards the provision of the right services in the right setting. They may also need to invest in higher value, proven-effective alternatives to existing costly care options.



**For more information:**

OECD (2017), *Tackling Wasteful Spending on Health*, OECD Publishing, Paris.

URL: [oe.cd/tackling-wasteful-spending-on-health](https://oe.cd/tackling-wasteful-spending-on-health)

All sources and references within this document are detailed in the full report

The report was prepared by a team of authors from the OECD Health Division. The first chapter of the report describes the framework developed for the report and presents the main findings. Chapter 2 discusses wasteful clinical care in general and Chapter 3 the irrational use of antimicrobials. Chapter 4 reviews wasteful pharmaceutical spending while Chapter 5 focuses on unnecessary spending on hospital care. Chapter 6 discusses administrative waste and Chapter 7 integrity violations in health.

**Acknowledgements:**

This document was prepared by Agnès Couffinhal (co-ordinator of the report), Andrea Feigl, Alastair Wood, Francesca Colombo and Mark Pearson. Authors of the full report are Caroline Berchet, Michele Cecchini, Agnès Couffinhal, Ian Forde, Andrea Frankowski, Luc Hagens, Chris James, Sherry Lee, David Morgan, Michael Mueller, Tim Muir, Carol Nader and Karolina Socha-Dietrich.

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The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

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