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INTERNATIONAL
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SOCIAL METHODOLOGY 2

Occupational Health & Safety Topic Methodology

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This publication has been produced by the International Foundation for Valuing Impacts (IFVI) in partnership with the Value Balancing Alliance (VBA) as part of the impact accounting system (the Methodology). The Methodology is a globally applicable and comprehensive methodology for the public good for valuing organizational social and environmental impact that is designed for incorporation into financial analysis and organizational planning and decision–making.

The Methodology is governed by the Valuation Technical & Practitioner Committee (VTPC), an independent committee comprising 18 members, established by IFVI and authorized by its **Terms of Reference** to direct, validate, and approve impact accounting research and methodology produced by the cooperation of the IFVI and VBA.

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Methodology development aims to follow a rigorous and credible due process balanced with the urgent and dynamic needs of stakeholders in the face of great social and environmental challenges. The development process is outlined in the Due Process Protocol and designed to be impact–focused, stakeholder–informed, collaborative, and transparent. As detailed in the **Due Process Protocol**, formal methodology statements undergo public exposure prior to final approval by the VTPC.

The IFVI Board of Directors provides oversight to the Due Process Protocol through its Due Process Oversight Committee. More information about the VTPC and Due Process Protocol are available in the VTPC Terms of Reference and Due Process Protocol.

Table of Contents

Executive Summary

The Occupational Health and Safety (OHS) Topic Methodology can be used by preparers of impact accounts to measure and value the impact of occupational injuries, illnesses, and fatalities on people. This Topic Methodology can also be applied by users of impact information to manage the sustainability–related risks, opportunities, and impacts of an entity and inform decision–making regarding an entity's contribution to sustainability.

To use this Topic Methodology in its entirety, preparers should:

- collect, and estimate where necessary, a full accounting of occupational injury, illness, and fatality data for the entity's workers, and for the workers in its value chain – organized separately by country and by level of severity;

- utilize the impact pathway and value factors developed in this Topic Methodology to convert data on occupational injuries, illnesses, and fatalities into impact accounts;

- present any related impact information with supplemental notes and qualitative commentary necessary to meet the qualitative characteristics of impact information.[1]

Section 1 introduces the purpose of the document, outlines key concepts and definitions, and defines the scope for the Topic Methodology. This includes defining OHS as the promotion and maintenance of the highest degree of physical, mental, and social well–being of workers in all occupations, in alignment with the International Labour Organization.

Section 2 develops the impact pathway for the Topic Methodology, consisting of inputs, outputs, outcomes, and impacts. The primary input to an entity's activities is labor provided by workers for the entity's operations. The entity's activity is the provision of a workplace for workers where they may experience OHS hazards, and the resulting output is occupational injuries, illnesses, and fatalities.

The outcomes of the impact pathway are changes in human capital considering effects on human health experienced by workers. Resulting impacts of these change in capitals include:

- human health loss;

- lost wages; and

- healthcare costs.

Section 3 establishes the data required from the entity to implement the Topic Methodology, including:

- number of lost workdays due to temporary injuries and illnesses;

- number of long–term incapacity cases and fatalities; and

- percentage of workers covered by workers' insurance.

Additional data inputs derived from secondary sources include:

- number of cumulative workdays lost to long–term injuries and illnesses and fatalities; and

- percentage of total workers' insurance funds contributed by employers.

Data inputs differ for workers in the entity's own workforce and workers in its value chain, recognizing data feasibility constraints in the value chain.

The data requirements are aligned with and expand upon disclosure requirements established by relevant standard setters including European Sustainability Reporting Standards (ESRS) S1–11: Social Protection and S1–14: Health and Safety Metrics[2], and Global Reporting Initiative (GRI) 403: Occupational Health and Safety.

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[1] The International Foundation for Valuing Impacts, & The Value Balancing Alliance. (2024). *General Methodology 1: Conceptual Framework for Impact Accounting.*

[2] European Commission (2023): Annex 1 to the Commission Delegated Regulation (EU) supplementing Directive 2013/34/EU of the European Parliament and of the Council as regards sustainability reporting stundards.

Executive Summary

Section 4 outlines the approach of the Topic Methodology for measuring and valuing the impacts of occupational injuries, illnesses, and fatalities, leading to value factors that capture human health loss, healthcare costs, and lost wages.

- Human Health and Lost Wages: Measurement is done using value of a statistical life (VSL) multipliers, and the VSL is used for valuation; and

- Healthcare Cost: Measurement and valuation are done using average healthcare costs for occupational injuries/illnesses, adjusted for each country.

Two equations are used in the Topic Methodology to measure and value these three impacts of occupational injuries, illnesses, and fatalities. Once calculated, the three impacts may be added together for an estimate of total OHS impact.

Section 5 articulates potential opportunities for further development of the Topic Methodology, including higher quality and more granular incident data from entities, growth in research on the additional impacts of recordable OHS incidents.

This Topic Methodology builds on frameworks and protocols published by leading organizations in the impact management ecosystem and sustainability–related disclosures required by governing jurisdictions and international standard setters, including:

- European Sustainability Reporting Standards (ESRS)[3];

- Global Reporting Initiative (GRI)[4];

- International Labour Organization (ILO)[5];

- U.K. Health and Safety Executive[6];

- Safe Work Australia[7];

- Capitals Coalition[8];

- European Agency for Safety and Health at Work (EU–OSHA)[9]; and

- WifOR Institute.[10]

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[3] ESRS S1–11: Social Protection, ESRS S1–14: *Health and safety metrics*

[4] GRI 403: *Occupational health and safety.*

[5] International Labour Organization. (n.d.). *Occupational Safety and Health Statistics (OSH database).*

[6] Health and Safety Executive. (2011). *The costs to Britain of workplace injuries and work–related ill health in 2006/07.*

[7] Safe Work Australia. (2015). *The Cost of Work–related Injury and Illness for Australian Employers, Workers and the Community: 2012–2013.*

[8] *Capitals Coalition. (2025a). Capitals Protocol – Part of the Integrated Decision–Making Framework; Capitals Coalition. (2025b). Governance for Valuation – Part of the Integrated Decision–Making Framework.*

[9] Research, & Valdani Vicari & Associates. (2019). *The value of occupational safety and health and the societal costs of work–related injuries and diseases. European Agency for Safety and Health at Work.*

[10] Scholz, R., Albu, N., Croner, D., Kalamov, Z., Mai, L., Forin, S., Tesch, J., & Dorndorf, T. (2023). *Methodological Report: WifOR Impact Valuation. WifOR.*

1. Introduction

1 Introduction

1.1 DOCUMENT PURPOSE

1. The purpose of this document is to outline the Topic Methodology for Occupational Health and Safety (henceforth, OHS Methodology) as part of the impact accounting methodology being developed by the International Foundation for Valuing Impacts and the Value Balancing Alliance.

2. The impact accounting methodology measures and values the impacts of corporate entities (entities or an entity) in monetary terms for the purposes of preparing impact accounts and generating impact information. The OHS Methodology can be used to inform internal decision–making and investment decisions, and to understand the significance of non–fatal and fatal occupational injury and illness (hereafter referred to as "occupational injuries, illnesses, and fatalities") impacts of an entity.

3. Preparers of impact accounts should adhere to the entirety of the Methodology to the fullest extent possible and should disclose any deviations from it when shared with users of impact information.

1.2 TOPIC DESCRIPTION

4. Occupational health and safety (OHS) is "the promotion and maintenance of the highest degree of physical, mental, and social well–being of workers in all occupations; the prevention amongst workers of departures from health caused by their working conditions; the protection of workers in their employment from risks resulting from factors adverse to health; the placing and maintenance of the worker in an occupational environment adapted to his physiological and psychological capabilities and, to summarize, the adaptation of work to man and of each man to his job."[11]

5. The global magnitude of health impacts arising from OHS hazards in the workplace is significant. For example, estimates indicate that over 395 million workers globally sustained a non–fatal occupational injury, 2.6 million workers died from occupational illnesses, and 330,000 workers died from occupational injuries in 2019.[12] The World Health Organisation (WHO) and the International Labour Organization (ILO) estimate that 5–7% of all global fatalities annually are attributable to occupational causes.[13] Furthermore, medical expenses and lost wages while workers are incapacitated, among other costs, amount to 4% of annual global GDP on average.[14]

6. A 'safe and healthy working environment' is included in the ILO's framework of fundamental principles and rights.[15] More generally, Article 23 of the Universal Declaration of Human Rights, adopted by the United Nations (UN) in 1948, states that everyone has the right to "just and favourable conditions of work."[16]

7. While the impact accounting methodology embraces the ILO/WHO's comprehensive definition of OHS, prevailing regulations, standards, practices, and data on OHS have historically had a narrower focus, specifically on the occurrence of occupational injuries, illnesses, and fatalities.

8. Recent efforts, however, have begun to conceive of OHS more expansively, looking beyond actualized injuries, illnesses, and fatalities and toward multi–dimensional workplace determinants of health and safety. These efforts aim to improve worker well–being holistically through comprehensive approaches that integrate not only health and safety but wellness strategies as well.[17] As it builds on the most widely available data currently, the OHS Methodology focuses on capturing the impacts of actualized incidents, but acknowledges the evolving trend towards more sophisticated impact driver metrics that could capture other dimensions of health and safety, likely involving distinct impact pathways. These metrics may be incorporated in future Topic Methodologies to address other elements of workplace well–being.

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[11] International Labour Organization. (n.d.). *Occupational Health (Occupational Safety and Health).*

[12] International Labour Organization. (2023). *A call for safer and healthier working environments.*

[13] Rushton, L. (2017). *The Global Burden of Occupational Disease.*

[14] Takala, J. et al. (2014). *Global Estimates of the Burden of Injury and Illness at Work in 2012.*

[15] International Labour Organization. (2023). *A Call for Safer and Healthier Working Environments.*

[16] United Nations (1948): Declaration of Human Rights.

[17] National Institute of Occupational Safety and Health, Centers for Disease Control and Prevention. (2023). *What is Total Worker Health?.*; OECD. (2017). *OECD Guidelines on Measuring the Quality of the Working Environment.*; Siegerink, V. et al. (2022). *Measuring the non–financial performance of firms through the lens of the OECD Well–being Framework: A common measurement framework for "Scope 1" Social performance.*; Sustainability and Health Initiative for NetPositive Enterprise (SHINE). (2019). *Well–being Through Work.*

1 Introduction

9. The OHS Methodology as presented covers an entity's own operations as well as its upstream and downstream value chain. The extent to which all value chain levels presented should be included in impact accounts is dependent upon the relevance of the impacts at each value chain level from an impact materiality perspective.

10. While the OHS Methodology measures the impacts of the entity on stakeholders, understanding and managing OHS impacts may also help an entity improve productivity, avoid absenteeism, improve employee retention, and reduce the risk of costs related to regulatory non–compliance, insurance, and legal action.

1.3 KEY CONCEPTS AND DEFINITIONS

11. The following key concepts and definitions apply to the OHS Methodology:

a) **OHS hazard:** Hazardous physical safety, chemical, biological, and psychosocial workplace conditions (such as stress and incivility), as well as ergonomic and work–organization related risk factors (such as excessive workload demands and long hours) experienced by workers in the workplace that can lead to well–being damages.[18] Hazards can occur over a short period of time or can be experienced by workers over longer periods.

b) **OHS incident:** A workplace exposure to hazards or an unexpected workplace occurrence that could or does result in injuries, illnesses, or fatalities for one or more workers.[19]

c) **Recordable OHS incident:** Recordable incidents are a subset of all OHS incidents. Whereas incidents *may or may not* result in injury, illness, or fatality, and therefore also include "near misses,"[20] recordable incidents are those that do result in worker injury, illness, or fatality. More specifically, according to ESRS and GRI, an incident

is recordable if it results in any of the following: "death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, or loss of consciousness;[21] or significant injury or illness diagnosed by a physician or other licensed healthcare professional, even if it does not result in death, days away from work, restricted work or job transfer, medical treatment beyond first aid, or loss of consciousness." Recordable OHS incidents are categorized in the OHS Methodology into six combinations of *Type* and *Severity* (see definitions below): temporary injury, temporary illness, long–term incapacity injury, long–term incapacity illness, fatal injury, and fatal illness.

i. Type of recordable OHS incident:

- **Occupational injury:** An injury that a worker incurs resulting from a recordable incident. Types of work–related injuries can include "amputation of a limb, laceration, fracture, hernia, burns, loss of consciousness, and paralysis, among others."[22] Occupational injuries can either be temporary, with workers able to return to the workforce following recovery, or permanent.

- **Occupational illness:** An illness, disease, or disorder that a worker incurs resulting from a recordable incident or one that is further aggravated by hazardous workplace conditions. Distinct from occupational injuries, types of occupational illnesses can include acute, recurring, and chronic health problems such as "musculoskeletal disorders, skin and respiratory diseases, malignant cancers, diseases caused by physical agents (for example, noise induced hearing loss, vibration–caused diseases), and mental illnesses (for example, anxiety, posttraumatic stress disorder)."[23] Occupational illnesses can either be

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[18] Definition adapted from Global Reporting Initiative. (2018). *GRI 403: Occupational Health and Safety.*; European Commission. (2023). *Annex 2 to the Commission Delegated Regulation (EU) supplementing Directive 2013/34/EU of the European Parliament and of the Council as regards sustainability reporting standards.*

[19] Definition adapted from Global Reporting Initiative. (2018). *GRI 403: Occupational Health and Safety.*; European Commission. (2023). *Annex 2 to the Commission Delegated Regulation (EU) supplementing Directive 2013/34/EU of the European Parliament and of the Council as regards sustainability reporting standards.*

[20] A "near–miss" can also be referred to as a "close call" or a "near–hit" as defined in Global Reporting Initiative. (2018). *GRI 403: Occupational Health and Safety.*; European Commission. (2023). *Annex 2 to the Commission Delegated Regulation (EU) supplementing Directive 2013/34/EU of the European Parliament and of the Council as regards sustainability reporting standards.*

[21] Global Reporting Initiative. (2018). *GRI 403: Occupational Health and Safety.*; European Financial Reporting Advisory Group. (2023). *ESRS S1: Own Workforce.*

[22] Global Reporting Initiative. (2018). *GRI 403: Occupational Health and Safety.*

[23] European Financial Reporting Advisory Group. (2023). *ESRS S1: Own Workforce.*; Global Reporting Initiative. (2018). *GRI 403: Occupational Health and Safety.*

1 Introduction

temporary, with workers able to return to the workforce following recovery, or permanent.

ii. Severity of recordable OHS incident:

- **Temporary:** Occupational injuries and illnesses from which a worker is able to recover and return to the workforce within one year from the date of injury or illness.

- **Long-term incapacity:** Occupational injuries and illnesses that result in either a worker's permanent withdrawal from the workforce, a return to the workforce more than one year after the date of injury or illness, or a return to the workforce more than one year from the date of injury or illness but in a reduced capacity.

- **Fatal:** Occupational injuries and illnesses that result in a death.

d) **Workers:** Refers to an entity's own workforce, including "both people who are in an employment relationship with the undertaking ('employees') and non-employees who are either people with contracts with the undertaking to supply labour ('self-employed people') or people provided by undertakings primarily engaged in 'employment activities.'"[24]

e) **Workers' insurance:** Compensation paid to workers when occupational injuries, illnesses, and fatalities arise, typically consisting of medical and allied care for workers and earnings-related periodic cash benefits to incapacitated workers or to survivors of deceased workers.[25] Workers' insurance is known by different names around the world, including employment injury insurance, work injury insurance, employer's liability insurance, work accident compensation, and occupational accident insurance.[26]

f) **Workplace:** A place under the control of the entity where a worker needs to be or to go for work purposes.[27] This definition applies directly for an entity's own workforce, but OHS impacts on value chain workers in workplaces controlled by value chain companies are also captured by the OHS Methodology, as stated in paragraph 9.

12. A complete set of defined terms is included in the Glossary in Appendix A.

1.4 SCOPE AND ASSUMPTIONS

13. The OHS Methodology includes the impacts of occupational injuries, illnesses, and fatalities. Other aspects of work conditions that also affect worker health, safety, and well-being but do not manifest in the occurrence of injuries, illnesses, or fatalities are outside the scope of the OHS Methodology but may be subject to future development under distinct Topic Methodologies. These include:

a) **Work and job quality:** This constitutes all aspects of workplace culture, both positive and negative, that do not specifically contribute to the occurrence of injuries, illnesses, or fatalities. Examples include harassment, degree of worker autonomy and flexibility, and quality of workplace interactions.

b) **Work-life balance:** This encompasses the aspects of work, both positive and negative, that affect the balance between an individual's work and private life.[28] This may include working hours, family-related leave, and childcare access.

c) **Employee wellness programs:** These may include preventive healthcare, mindfulness education, healthy food options, and exercise clubs.

14. Broader societal impacts of occupational injuries, illnesses, and fatalities are also not captured by the OHS Methodology, recognizing a greater degree of separation between the entity and affected societal

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[24] European Commission (2023): Annex 1 to the Commission Delegated Regulation (EU) supplementing Directive 2013/34/EU of the European Parliament and of the Council as regards sustainability reporting standards.

[25] International Labour Organization. (2021). *World Social Protection Report 2020–22: Social protection at the crossroads – in pursuit of a better future.*

[26] Though many countries have workers' insurance systems to help workers recoup the cost of recordable OHS incidents, only 35% of the labor force worldwide is effectively insured, according to the ILO's *World Social Protection Report 2020–22.*

[27] Definition adapted from International Organization for Standardization. (n.d.). ISO 45001:2018(en), *Occupational health and safety management systems — Requirements with guidance for use.*

[28] European Commission. (2023). *Annex 2 to the Commission Delegated Regulation (EU) supplementing Directive 2013/34/EU of the European Parliament and of the Council as regards sustainability reporting standards.*

1 Introduction

stakeholders. Societal impacts include the market multiplier consequences of workers who are unable to work, earn, and therefore spend their earnings in the economy, as well as higher burdens on social security systems if the cost of injuries, illnesses, and fatalities exceeds employers' capacity to fulfill contributions into those systems.[29] Occupational injuries, illnesses, and fatalities can also have profound ripple effects on the affected worker's family, community, and coworkers, including grief, shock, trauma, guilt, and decreased morale.[30] The Methodology accounts for the economic loss to society resulting from healthcare costs. These costs are valued from a societal perspective as the opportunity cost of funds – representing resources diverted to medical services that could otherwise have been used for other productive purposes.

15. Entities might implement programs or make investments geared at reducing OHS hazards in the workplace, such as conducting safety trainings for workers, purchasing ergonomic equipment, or installing high–quality ventilation systems. The OHS Methodology accounts for the impacts of these programs insofar as they reduce the occurrence of injuries, illnesses, and fatalities. In other words, these programs or investments may reduce the scale of the negative impacts of recordable incidents, but are not themselves considered positive impacts in the OHS Methodology.

16. The OHS Methodology applies not only to workers in the entity's own workforce but also workers in its value chain.

a) Workers in the entity's own workforce include "both people who are in an employment relationship with the undertaking ('employees') and non–employees who are either people with contracts with the undertaking to supply labor ('self–employed people') or people provided by undertakings primarily engaged in 'employment activities.'"[31]

b) The consideration of upstream and downstream value chain workers is consistent with international norms established by civil society, intergovernmental organizations, and reporting standards.[32] Nonetheless, it is acknowledged that obtaining detailed data on occupational injuries, illnesses, and fatalities from other entities in the value chain can be challenging. Models and estimates may be used where data are unavailable. Guidance is provided in section 3.

17. The Methodology focuses on valuing the impacts caused by an entity to it employees. While the definition of incidents and illnesses may vary depending on local legal and regulatory frameworks, preparers should apply the definitions in this Methodology for consistency but may also consider available data based on local definitions if no other data is available or reliable. Preparers should document any deviations from the definitions of incidents and illnesses in this Methodology in collected data and provide transparent explanations to ensure comparability and clarity.

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[29] International Labour Organization. (2021). *World Social Protection Report 2020–22: Social protection at the crossroads – in pursuit of a better future.*; Tompa, E. et al. (2021). *Development and implementation of a framework for estimating the economic benefits of an accessible and inclusive society.*

[30] The Methodology limits its scope to the most direct and reliably measurable impacts, recognizing that more diffuse impacts introduce both conceptual and practical challenges. These include the feasibility of data requirements, the risk of double counting, and greater uncertainty in valuation. Keeping the scope focused enhances usability and ensures methodological consistency, while still acknowledging that other impacts may exist beyond those included here. For further discussion on diffuse impacts and degree of separation, see Section 3.6 of GM2.

[31] European Commission (2023): Annex 1 to the Commission Delegated Regulation (EU) supplementing Directive 2013/34/EU of the European Parliament and of the Council as regards sustainability reporting standards.

[32] Ibid.

2. Impact Pathway

2 Impact Pathway

2.1 SUMMARY

18. The OHS impact pathway serves as the foundation of the OHS Methodology. The OHS impact pathway is the series of consecutive, causal relationships, ultimately starting with labor provided by workers as the input for an entity's activities and linking occupational injuries, illnesses, and fatalities with related changes in the well–being of workers and society.

19. Detailed components of the impact pathway are outlined in subsequent sections, leading to the measurement and valuation of an entity's OHS impacts in section 4: Outcomes, Impacts, and Valuation.

20. The impact pathway for the OHS Methodology is as follows:[33]

2.2 DESCRIPTION AND NOTES

21. The input to the OHS *impact pathway* is labor provided by workers for the entity's operations.

22. The *output* caused by the entity's activity is occupational injuries, illnesses, and fatalities, resulting from recordable OHS incidents.[34]

23. The *outcomes* of the impact pathway are changes in human capital, considering human health experienced by workers.

24. The *impacts* in the impact pathway are the changes in health and in income and wealth caused by recordable incidents.

a) Impacts on Health encompass:

   i. **Human health:** Workers experience not only the pain and suffering caused by an injury, illness, as well as a loss of life, due the inability to take part in greater society, play meaningful roles in one's family, and feelings of isolation.[35] In the case of a fatality, the loss is experienced by surviving family members, and broader society.

b) Impacts on Income and Wealth encompass:

   i. **Lost wages:** Workers (or their survivors[36]) may also lose wages and certain fringe benefits over the period they are unable to work due to injuries and illnesses. For fatalities, lost wages are considered as forgone earnings and productivity, which reflects the economic value that otherwise would have been generated by the worker.
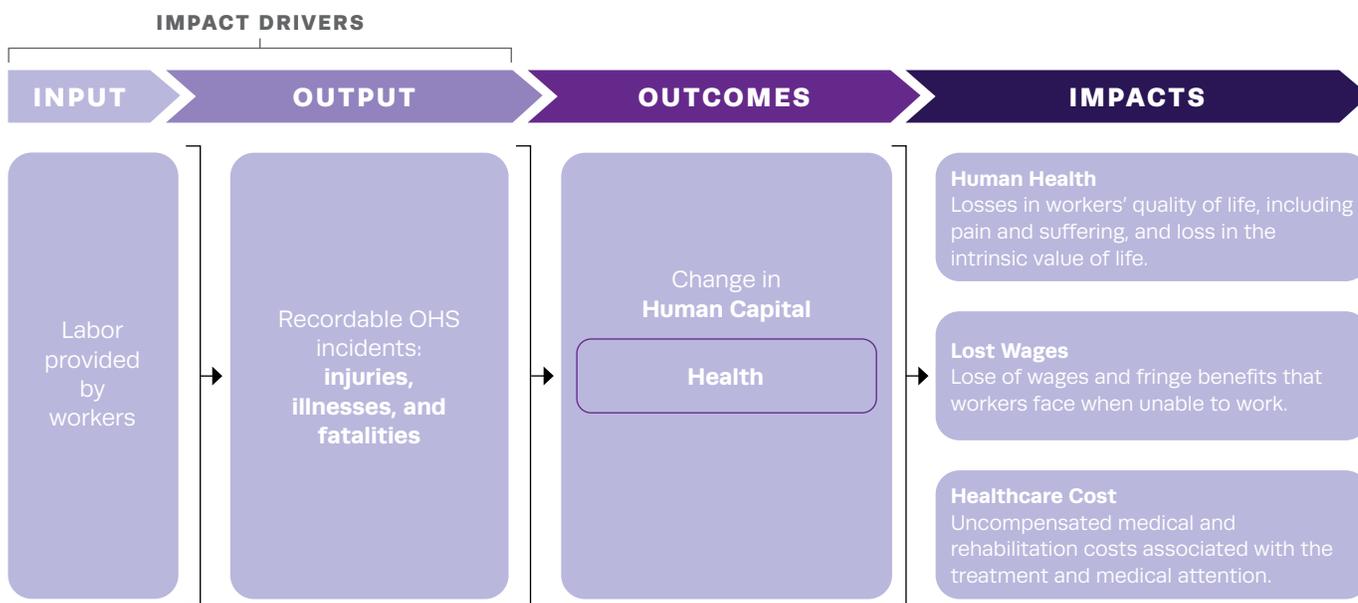

Figure 1. OHS Impact Pathway

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[33] The OHS impact pathway should be applied to each entity in an entity's value chain, at all levels of the value chain. This includes each entity's own workforce and upstream and downstream workers.

[34] European Commission. (2023). *Annex 2 to the Commission Delegated Regulation (EU) supplementing Directive 2013/34/EU of the European Parliament and of the Council as regards sustainability reporting standards.*

[35] Tompa, E. et al. (2019). *The value of occupational safety and health and the societal costs of work–related injuries and diseases.*

[36] For the purposes of the Methodology, survivors are individuals (such as family members or dependents) who experience financial loss or reduced support due to the death of a worker.

2 Impact Pathway

ii. **Healthcare cost:** Workers and society must also pay for medical treatment and rehabilitation, to the extent those costs are not compensated for by employers through a workers' insurance system. Money spent on such costs can now no longer be put to other uses that are valuable to workers and society.

c) Impacts are estimated assuming workers would not have otherwise experienced occupational injuries, illnesses, or fatalities in the absence of the entity, consistent with the default reference scenario described in *General Methodology 1: Conceptual Framework for Impact Accounting.* This assumption highlights the responsibility that entities have to ensure the health and safety of their workers.

d) While several other impacts of recordable OHS incidents are known, present research is not yet sufficiently developed to capture these impacts. These include: informal caregiver costs; out–of–pocket costs like transportation to care facilities; losses in home production such as cooking, cleaning, and caring activities; and damages from the breach of a worker's right to health and safety at work, which can be considered a "moral cost." The current OHS Methodology does not measure these impacts but acknowledges them as an area of future development in section 5.

3. Impact Driver Measurements

3 Impact Driver Measurements

25. *Impact drivers* consider inputs and outputs and reflect the data needs expected of a preparer to provide an impact account for recordable OHS incidents, which are the impact drivers of the OHS Methodology.

26. Data requirements for the OHS Methodology are aligned with and expand upon those of existing OHS

3.1 DATA REQUIREMENTS

27. The OHS Methodology requires the following impact driver data from the entity and from other sources for workers in its own workforce.[37]

28. The impact driver data required of the entity

OWN WORKFORCE

Data Required	Country 1	Country 2	Country 3
Data from the entity			
Occupational Injuries			
Total workdays lost due to temporary injuries ($Incidents_{T,Inj}$)			
Number of long–term incapacity cases ($Incidents_{L,Inj}$)			
Number of fatalities ($Incidents_{F,Inj}$)			
Occupational Illnesses			
Total workdays lost due to temporary illnesses ($Incidents_{T,Ill}$)			
Number of long–term incapacity cases ($Incidents_{L,Ill}$)			
Number of fatalities ($Incidents_{F,Ill}$)			
Data from other sources			
% total insurance fund contributions paid by employers in each country ($\%EmployerFunded_{Country}$)	Data from ILO World Social Protection Database; see Appendix B and C		
% of workers covered by workers' insurance, in each country ($\%Insured_{Country}$)	Data from ILO World Social Protection Database; see Appendix B and D		

Table 1. Data required from the entity and from other sources, disaggregated by country, for workers in the entity's own workforce

regulators and sustainability reporting standards, which primarily capture counts of recordable incidents and, as an indicator of severity, the resulting number of days a worker loses from work. While 'lost workdays' is not a perfect measure of the severity of workers' health outcomes, it can be used alongside other data specified in section 3.1 to measure and value the health and financial impacts on workers and society.

are defined by the type and severity of recordable incidents. Recordable OHS incidents result in either injuries or illnesses and the severity of each is defined in terms of fatal and non–fatal cases, with non–fatal cases further broken out into those that result in temporary incapacity and those that result in long–term incapacity.

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[37] General Methodology 2: Impact Measurement and Valuation Techniques describes modeling techniques to estimate impact drivers for the own operations and value chain of an entity when data gaps exist, or data are not of sufficient quality. In cases where primary data on OHS outcomes from the value chain is unavailable, preparers may use input–output (IO) modelling to estimate impacts. This approach can provide a reasonable proxy for upstream OHS impacts, while acknowledging the inherent uncertainty and aggregation in such estimates. Preparers should clearly disclose any assumptions, data sources and limitations when applying this method.

3 Impact Driver Measurements

		Type	
		Injury (Inj)	**Illness (Ill)**
Severity	**Temporary (T)**	$Incidents_{T,Inj}$	$Incidents_{T,Ill}$
	Long–term incapacity (L)	$Incidents_{L,Inj}$	$Incidents_{L,Ill}$
	Fatal (F)	$Incidents_{F,Inj}$	$Incidents_{F,Ill}$

Table 2. Six Severity–Type combinations of recordable OHS incidents

29. Preparers should use *%Insured$_{Country}$* provided by the ILO World Social Protection Database (WSPDB) and available at Data Appendix B, but may replace them for entity–specific values. In calculating the percent of workers in an entity's own workforce who are covered by a workers' insurance policy, preparers should consider all workers, as described in section 1.4, paragraph 16.

30. Preparers should use *%EmployerFunded$_{Country}$* provided by the ILO World Social Protection Database (WSPDB) and available at Data Appendix B, but may replace them with entity–specific values in the exceptional cases described below.

a) *%EmployerFunded$_{Country}$* refers to the percent of total workers' insurance funds that is funded by employers as opposed to workers. For example, employers and workers in Samoa each contribute 1% of a worker's wage to the insurance funds, so *%EmployerFunded$_{Samoa}$* =

50%.[38] However, *%EmployerFunded$_{Country}$* is often 100% because most countries raise funds only from employers through premiums, payroll taxes, or ex post direct compensation.[39] If an entity provides private workers' insurance at no cost to workers, the preparer may use a value of 100% for *%EmployerFunded$_{Country}$* even if the entity is operating in a country where workers do contribute to workers' insurance funds. Detailed instructions for preparers to identify *%EmployerFunded$_{Country}$* using the ILO World Social Protection Data Dashboard are provided in Appendix C.

31. When possible, the same impact driver data for an entity's own workforce should be applied to its value chain workers. However, recognizing likely limitations in obtaining such data from upstream and downstream partners, entities may use the following adapted impact driver data requirements for value chain workers.[40]

[38] International Labour Organization. (n.d.). *World Social Protection Data Dashboards.*

[39] International Social Security Association, & U.S. Social Security Administration. (2018). *Social Security Programs Throughout the World, 2018.*

[40] Entities with no further downstream partners (i.e., entities that sell goods and services directly to consumers) need only consider upstream partners.

3 Impact Driver Measurements

WORKERS IN THE VALUE CHAIN

Data required	Country 1	Country 2	Country 3
Data from the entity			
Preferred option			
Number of non–fatal occupational injuries and Illnesses ($Incidents_{T,Inj}$, $Incidents_{T,Ill}$, $Incidents_{L,Inj}$, and $Incidents_{L,Ill}$)			
Number of fatalities ($Incidents_{F,Inj}$, and $Incidents_{F,Ill}$)			
Minimum option			
Total number of occupational injuries, illnesses, and fatalities ($Incidents_{T,Inj}$, $Incidents_{T,Ill}$, $Incidents_{L,Inj}$, $Incidents_{L,Ill}$, $Incidents_{F,Inj}$, and $Incidents_{F,Ill}$)			
Data from other sources			
Total workdays lost due to temporary injuries and illnesses	Data from ILOSTAT; see Appendix C and D		
Fatal injuries and illnesses			
OHS incident severity distributions for each country			
Country estimates of % of workers covered by workers' insurance ($\%Insured_{Country}$)			
% total insurance fund contributions paid by employers in each country ($\%EmployerFunded_{Country}$)			

Table 3. Data required from the entity and from other sources, disaggregated by country, for workers in the entity's value chain

32. As a preferred option, preparers should use the number of occupational injuries and illnesses among value chain workers, disaggregated into those that are fatal and non–fatal. However, if the preferred option cannot be met, preparers may use the minimum option: the total number of occupational injuries, illnesses, and fatalities, with no disaggregation. For both options, ILO Department of Statistics (ILOSTAT) data on incident severity distributions by country are needed to transform the number of incidents into the appropriate impact drivers for valuation. Preparers should use the ILOSTAT data provided in Appendix B for all countries for which there is complete and recent data. Detailed instructions for applying the ILOSTAT data are provided in Appendix D.[41]

33. Preparers should use country–specific $\%Insured_{Country}$ rates for value chain workers when rates of insurance coverage are unavailable from value chain companies firsthand. Country–specific $\%Insured_{Country}$ rates come from the ILO's World Social Protection Database and are provided in Appendix B.[42,43]

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[41] The final revised European Sustainability Reporting Standards (ESRS) are still under development. However, VBA has published a tool to map ESRS data points. The mapping tool can be accessed via the VBA website using the following link: **https://www.value balancing.com/_Resources/Persistent/d/8/0/e/d80e2245886472224b0ca43119aef284ad16d422/20250804_Mapping%20ESRS%20datapoints%20to%20impact%20accounting.pdf**

[42] International Labour Organization. (n.d.). *World Social Protection Data Dashboards.*

[43] This dataset was obtained from the ILO *World Social Protection Database*. Databases and datasets, together with the accompanying referential metadata, produced prior to 3 May 2023 do not automatically benefit from a **Creative Commons license**. The source of the data used by the ILO is the **ISSA Country Profiles**. Short excerpts from the ISSA Country Profiles website may be reproduced without authorization for non profit purposes provided that the source is indicated. For for–profit purposes, rights of reproduction or translation must be requested from the ISSA Secretariat at ISSAISD@ilo.org

3 Impact Driver Measurements

34. The data requirements of the OHS Methodology are aligned with and expand upon disclosure requirements established by relevant standard setters[44] including ESRS S1–11: *Social Protection,* ESRS S1–14: *Health and safety metrics*, and GRI 403: *Occupational health and safety*. The International Sustainability Standards Board (ISSB) has not yet developed standards related to OHS. Additional alignment may exist with other regional or topic specific reporting standards as well. Further details are presented in Table 4 and Appendix F.

3.2 DATA SOURCES, GAPS, AND UNCERTAINTY

35. Preparers should strive to measure OHS impacts in a manner that is complete, neutral, and free from error. This includes faithfully representing recordable OHS incidents from all parts of an entity's value chain, including own operations, upstream, and downstream.

36. Lost workdays are an imperfect measure of the severity of recordable incidents. For example, injuries that take two workers out of work for the same number of days each could vary significantly in terms

OHS Methodology impact driver data requirements	ESRS[45]	GRI
Total days lost due to temporary occupational injuries and illnesses – own workforce (*Incidents$_{T,Inj}$ and Incidents$_{T,Ill}$*)	Expands upon S1–14, p. 88 (e), 89	Expands upon 403–9
# of long–term incapacity cases due to occupational injuries and illnesses – own workforce (*Incidents$_{L,Inj}$ and Incidents$_{L,Ill}$*)	Independent	Expands upon 403–9 (a)(ii) & (b)(ii)
# of fatalities due to occupational injuries and illnesses – own workforce (*Incidents$_{F,Inj}$ and Incidents$_{F,Ill}$*)	Fully aligned with S1–14, p. 88(b)	Fully aligned with 403–9 (a)(i) & (b)(i), 403–10 (a)(i) & (b)(i)
# of occupational injuries, illnesses, and fatalities – value chain workers (*Incidents$_{T,Inj}$, Incidents$_{T,Ill}$, Incidents$_{L,Inj}$, Incidents$_{L,Ill}$, Incidents$_{F,Inj}$, and Incidents$_{F,Ill}$*)	Expands upon S1–14, p. 88	Expands upon 403–7 (a)
OHS incident severity distributions for each country – value chain workers	Independent	Independent
%Insured$_{Country}$	Expands upon S1–11, p. 74(c), 76	Independent
%EmployerFunded$_{Country}$	Independent	Independent

Table 4. Alignment with reporting standards[46]

[44] This dataset was obtained from the ILO *World Social Protection Database.* Databases and datasets, together with the accompanying referential metadata, produced prior to 3 May 2023 do not automatically benefit from a Creative Commons license. The source of the data used by the ILO is the *ISSA Country Profiles*. Short excerpts from the ISSA Country Profiles website may be reproduced without authorization for non profit purposes provided that the source is indicated. For for–profit purposes, rights of reproduction or translation must be requested from the ISSA Secretariat at ISSAISD@ilo.org

[45] Mapping with ESRS datapoints is based on the EU Commission's Delegated Regulation 2023/2772 of 31 July 2023. For a mapping with the latest consultation draft released by EFRAG in July 2025, please check VBA's ESRS mapping tool, available via following link: https://www.value–balancing.com/_Resources/Persistent/d/8/0/e/d80e2245886472224b0ca43119aef284ad16d422/20250804_Mapping%20ESRS%20datapoints%20to%20impact%20accounting.pdf

[46] Categories of alignment include (1) fully aligned: data from reporting can be used as is for preparation of impact accounts; (2) expands upon: data from reporting conceptually aligns with the impact accounting methodology, but additional detail, context, or presentation is necessary for an accurate accounting of impact; or (3) independent: data needed for the preparation of impact accounts are not covered by the reporting standards and would require separate data collection and analysis.

3 Impact Driver Measurements

Box 1: Gaps in value chain.
Obtaining comprehensive value chain data can be challenging, especially in specific regions and the informal sector. To address this challenge, secondary data published by the ILO may be substituted for value chain data, as described in section 3.1. Preparers may also use methods like extended input–output modeling to estimate recordable incidents in place of value chain data Such estimation enables a complete accounting of OHS impacts across a value chain but can also increase uncertainty in the results.[47]

of their impact on each worker's overall well–being. While measures of actual health outcomes or actual recovery times would provide more precise impact estimates, data limitations necessitate the use of lost workdays. It is also acknowledged that entities sometimes cap their counts of lost workdays at 180 days, in line with national regulatory guidance. While the OHS Methodology does not cap lost workdays at 180 days, this data practice among entities may result in underestimation of OHS impacts. The impact drivers used in the OHS Methodology do not fully align with standard measures commonly applied in health economics. This divergence reflects the realities of corporate data availability, which is shaped by regulatory reporting requirements and existing practices in tracking workplace injury.

37. The OHS Methodology focuses on the impacts of recordable incidents that rise to the level of lost workdays, long–term incapacity, or fatality, but does not capture the impacts of less severe incidents that result in only job transfer or only restricted work. Furthermore, some cases can result in both lost workdays and subsequently job transfer, or both lost workdays and subsequently restricted work. The OHS Methodology includes those cases insofar as they result in lost workdays but likely underestimates their impact. This focus is maintained due to limitations in the research literature linking incidents to human health effects and healthcare costs (see section 4.2).

38. The research literature also lacks data on the impacts of injuries and illnesses that result in absence from work for more than one year but less than one's remaining working life. The OHS Methodology conservatively groups all such cases under the broad category "long–term incapacity," which effectively assigns them the same impact as cases with no return to work (see Appendix G for more).

39. Systemic underreporting of occupational injuries, illnesses, and fatalities is widely recognized as a significant data challenge in all countries. For example, some studies estimate that in the U.S. between 33% and 69% of all occupational injuries and illnesses are missed in official recordkeeping.[48] Underreporting can occur if workers do not report incidents to their employers, if employers record inaccurate data internally, or if employers report inaccurate data externally. The exact extent of underreporting can vary widely based on both country– and entity–specific factors. If underreporting is present, the OHS Methodology may underestimate actual OHS impacts. To complement the OHS Methodology, preparers may wish to conduct additional analyses incorporating an optional standard underreporting adjustment derived from the research literature. Recommendations for how to do so are provided in Appendix E.[49]

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[47] Scholz et al. (2022): Impact Measurement Using the Value Balancing Alliance (VBA) Method.

[48] Leigh, J. P. (2011). *Economic Burden of Occupational Injury and Illness in the United States.*

[49] The underreporting adjustment is provided as an optional, complementary analysis rather than a required step in the OHS Methodology. This is because the extent of underreporting varies widely across countries, industries, and organizational contexts, and reliable adjustment factors are not consistently available.

4. Outcomes, Impacts, and Valuation

4 Outcomes, Impacts, and Valuation

40. The outcomes in the OHS Methodology are the changes linked to human capital. The valuation techniques used are specific to each outcome and related impact and are described below.

41. The impact pathway in this statement has been developed using both an aggregated approach to impact measurement and valuation (for Human Health and Lost Wages) as well as a separate approach to impact measurement and valuation (for Healthcare Cost).

42. While Human Health and Lost Wages are treated as distinct impacts in the impact pathway, both are valued using the Value of Statistical Life (VSL). VSL is frequently used in the monetary valuation of human mortality risk, and has been applied in many government, multilateral, academic, and corporate impact contexts. It captures individuals' willingness to pay (WTP) to avoid health effects such as pain and suffering, as well as the pecuniary effects of avoiding out–of–pocket medical expenses and losses in future earnings.[50] Therefore, the VSL acts as a comprehensive measure for valuing both Human Health and Lost Wages impacts.

4.1 HOW TO CALCULATE THE IMPACTS IN MONETARY TERMS

43. The OHS Methodology requires the following equations to measure and value the impacts of occupational injuries, illnesses, and fatalities. The first equation calculates Human Health and Lost Wages, the second equation Healthcare Cost, and the final equation serves to sum up all three impacts.

$Human\ Health\ \&\ Lost\ Wages_C =$
$\sum_{S,Ty}(Incidents_{S,Ty} * VSLMultiplier_{S,Ty} * VSL)$ (Eq. 1)

$Healthcare\ Cost_C = \sum_{S,Ty}(Incidents_{S,Ty,C} * HealthcareCost_{S,Ty,C}) * (100\% - \%Insured_C * \%EmployerFunded_C)$ (Eq. 2)

$Total\ OHS\ Impact_C = Human\ Health\ \&\ Lost\ Wages_C + Healthcare\ Cost_C$ (Eq. 3)

44. The variables in equations 1–3 are specified as follows:

Abbreviated subscripts S, Ty, and C	S refers to severity, Ty refers to type, and C refers to an entity's country of operation. Severity and type are defined in section 1.3.
$Incidents_{Severity,Type}$	$Incidents_{Severity,Type}$ takes different values depending on the severity and type of recordable incidents, which may be:

		Type	
		Injury (Inj)	**Illness (Ill)**
Severity	**Temporary (T)**	$Incidents_{T,Inj}$	$Incidents_{T,Ill}$
	Long–term incapacity (L)	$Incidents_{L,Inj}$	$Incidents_{L,Ill}$
	Fatal (F)	$Incidents_{F,Inj}$	$Incidents_{F,Ill}$

$Incidents_{T,Inj}$ and $Incidents_{T,Ill}$ are equal to the cumulative number of workdays lost to temporary injuries and illnesses, respectively, over the impact accounting period (normally, one year) among an entity's workers. In contrast, $Incidents_{L,Inj}$, $Incidents_{L,Ill}$, $Incidents_{F,Inj}$, and $Incidents_{F,Ill}$ are the respective number of such incidents among an entity's workers over the impact accounting period. This variable varies by country for the calculation of Healthcare Cost (eq. 2).

[50] Robinson, L. et al (2019). *Reference Case Guidelines for Benefit–Cost Analysis in Global Health and Development*

4 Outcomes, Impacts, and Valuation

VSLMultiplier$_{Severity,Type}$	*VSLMultiplier$_{Severity,Type}$* takes different values depending on the severity and type of recordable incidents. *VSLMultiplier$_{Severity,Type}$* translates Incidents into fractions of a standard health outcome, in order to apply the VSL to value health outcomes in monetary terms. See section 4.2 for further explanation.
VSL	The VSL represents the value a given population places on avoiding the death of an unidentified individual. The VSL is the amount individuals would be willing to pay or to accept to experience small changes in mortality risk, which is then aggregated to estimate the monetary value of a reduction in mortality risk of 100%.[51] The VSL used to value human health and mortality risk is derived from empirical studies of willingness–to–pay (or accept) for small changes in mortality risk, aggregated across a population to represent the social value of preventing one statistical fatality. The VSL does not represent the value of an identifiable life. See section 4.3 for further explanation.
HealthcareCost$_{Severity,Type,Country}$	*HealthcareCost$_{Severity,Type,Country}$* is the average cost of healthcare for recordable incidents of different severity and type. *HealthcareCost$_{Severity,Type,Country}$* varies by country. See section 4.2 for further explanation.
%Insured$_{Country}$	The percent of an entity's workers who are covered by workers' insurance, disaggregated by each country where an entity operates. In many countries, insurance coverage is legally required for employees but not non–employees like contractors, and so *%Insured$_{Country}$* often corresponds to the percent of an entity's workers who are employees.[52]
%EmployerFunded$_{Country}$	% of wage that employers pay into workers' insurance funds relative to the percent workers pay, disaggregated by each country where an entity operates.

Table 5. Definitions of variables in OHS equations

45. Human Health & Lost Wages (eq. 1) is calculated as follows:

*Human Health & Lost Wages$_C$ = $\sum_{S,Ty}$ (Incidents$_{S,Ty}$ * VSLMultiplier$_{S,Ty}$ * VSL)*   (Eq. 1)

a)   *Incidents$_{Severity,Type}$* is multiplied by *VSLMultiplier$_{Severity,Type}$* and VSL for each of six combinations of Severity and Type, then summed up.

46. Healthcare Cost (eq. 2) is calculated as follows:

*Healthcare Cost$_C$ = $\sum_{S,Ty}$(Incidents$_{S,Ty,C}$ * HealthcareCost$_{S,Ty,C}$) * (100% – %Insured$_C$ * %EmployerFunded$_C$)*   (Eq. 2)

a)   For each country where an entity operates, *Incidents$_{Severity,Type,Country}$* is multiplied by *HealthcareCost$_{Severity,Type,Country}$* for each of six combinations of Severity and Type, then summed up.

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[51] Department of Transportation. *Departmental Guidance: Treatment of the Value of Preventing Fatalities and Injuries in Preparing Economic Analyses.*; US EPA, O. (2014). Mortality Risk Valuation.

[52] International Labour Organization. (2021). *World Social Protection Report 2020–22*: *Social protection at the crossroads – in pursuit of a better future.*; International Social Security Association. (n.d.). *Social Security Around the World: Country Profiles.*; International Social Security Association, & U.S. Social Security Administration. (2018). *Social Security Programs Throughout the World, 2018.*

4 Outcomes, Impacts, and Valuation

b) The result from 46.a) is then adjusted by *(100% – %Insured_C * %EmployerFunded_C)*. The first part of the adjustment accounts for workers who are uninsured by workers' insurance; the second for insured workers. For uninsured workers, 100% of healthcare costs are assumed to be borne by the worker. For insured workers, all healthcare costs are assumed to be covered by workers' insurance and therefore subtracted *(%Insured_C)*. This assumption is based on the findings of the International Social Security Association's 2018 analysis of workers' insurance worldwide, which characterizes medical and rehabilitation services as nearly always free and available until the worker recovers.[53] However, workers in some countries are required to contribute to insurance funds ex ante through taxes, for instance. Therefore, only the amount of insurance funds funded by employers is subtracted *(%EmployerFunded_C)*.

c) Equation 2 should be calculated separately for each country where an entity operates. The results may then be summed across countries. considering the local and global valuation perspectives discussed in Section 4.3 and Appendix H.[54]

47. Human Health and Lost Wages (eq. 1), and Healthcare Cost (eq. 2) may be aggregated into an estimate of Total OHS Impact (eq. 3). Preparers should keep estimates of Total OHS Impact separate for each level of the value chain: own operations, upstream, and downstream.

4.2 OUTCOMES AND IMPACTS

48. Section 4.2 further explains the two variables — *VSLMultiplier_{Severity,Type}* , *HealthcareCost_{Severity,Type,Country}* — that serve to translate impact driver measurements to outcomes in equations 1 (Human Health and Lost Wages) and 2 (Healthcare Cost), respectively.

49. *VSLMultiplier_{Severity,Type}* standardizes Incidents into fractions of a whole life. For example, the human health loss associated with a long–term occupational injury ("L,Inj") is equivalent to an estimated 19% of one statistical life lost. The human health loss associated with each additional lost workday from a temporary injury ("T,Inj") is an estimated 0.03% of one statistical life lost. This standardization into fractions of a whole life enables multiplication by the VSL, explained in section 4.3.

VSLMultiplier_{T,Inj}	0.0334% (per lost workday from T injuries)
VSLMultiplier_{T,Ill}	0.0093% (per lost workday from T illnesses)
VSLMultiplier_{L,Inj}	19% (per L injury)
VSLMultiplier_{L,Ill}	19% (per L illness)
VSLMultiplier_{F,Inj}	100% (per F injury)
VSLMultiplier_{F,Ill}	100% (per F illness)

Table 6. VSLMultiplier_{Severity,Type} by Severity,Type combination

a) The values of *VSLMultiplier_{Severity,Type}* are based on research by the U.K. Health and Safety Executive, which cites an empirical study on stated relativities between different non–fatal health states and death.[55] See Appendix G for details.

50. *HealthcareCost_{Severity,Type,Country}* is the average healthcare cost per injury or illness, which varies by six Severity,Type combinations as well as by country.

a) *HealthcareCost_{Severity,Type,Country}* is the total cost of any medical treatment and associated rehabilitation, regardless of payor. The deduction of employer–borne costs is performed through the *%Insured_{Country}* and *%EmployerFunded_{Country}* parameters.

b) The value of *HealthcareCost_{Severity,Type,Base}* is from a comprehensive study by Safe Work Australia that estimates the total economic cost of occupational injuries, illnesses, and fatalities borne by employers, workers, and the community in Australia.[56] *HealthcareCost_{Severity,Type,Base}* isolates the portion of total economic costs composed of healthcare

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4 Outcomes, Impacts, and Valuation

costs, with Australia serving as the base country. Like $VSLMultiplier_{Severity,Type}$, $HealthcareCost_{Severity,Type,Country}$ scales by lost workdays for temporary injuries and illnesses and scales by number of incidents for long–term and fatal injuries and illnesses. See Appendix G for details.

$HealthcareCost_{T,Inj}$	$24 (per lost workday from T injuries)
$HealthcareCost_{T,Ill}$	$12 (per lost workday from T illnesses)
$HealthcareCost_{L,Inj}$	$6,637 (per L injury)
$HealthcareCost_{L,Ill}$	$4,534 (per L illness)
$HealthcareCost_{F,Inj}$	$1,289 (per F injury)
$HealthcareCost_{F,Ill}$	$180 (per F illness)

Table 7. HealthcareCost$_{Severity,Type,Base}$ (global perspective) by severity category in 2024 USD

4.3 MONETARY VALUATION

51. The measurement and valuation stages are disaggregated for equation 1 (Human Health and Lost Wages), where measurement is performed by $VSLMultiplier_{Severity,Type}$ (explained in section 4.2) and valuation is performed by the VSL as the value factor (explained in section 4.3, below). The measurement and valuation stages are collapsed into the value factor $HealthcareCost_{Severity,Type,Country}$ in equation 2 (Healthcare Cost).

52. The VSL is frequently used in the monetary valuation of human mortality risk, and has been applied in many government, multilateral, academic, and corporate impact contexts.[57] The VSL is the amount individuals would be willing to pay or to accept to experience small changes in mortality risk, which is then aggregated to estimate the monetary value of a reduction in mortality risk of 100%.[58] Presumably, individual willingness to pay accounts for both pain and suffering effects –human health– and pecuniary costs such as lost wages and out of pocket medical expenses.[59] Therefore, its use as monetary valuation technique accounts for both impacts in the impact pathway. The VSL is not an estimate of any individual's willingness to pay to prevent (or willingness to accept to endure) certain death and does not place a monetary value on individual lives.

53. The valuation perspective shall be either local, reflecting each country's conditions and benchmarks, or global, anchoring impacts to the global median wage and removing income bias using purchasing power parity (PPP) and global parameters. In that process, the variables presented in the calculations should be adapted accordingly:

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[57] Biausque, V. (2012). *The Value of Statistical Life: A Meta–Analysis*.; Galgani, P. et al. (2022). *Occupational Health and Safety: True pricing method for agri–food products*.; Health and Safety Executive. (2020). *A Scoping Study on the Valuation of Risks to Life and Health: The Monetary Value of a Life Year (VOLY) Final Report*.; (2015). *Valuing corporate environmental impacts: PwC methodology document*.; Robinson, L. A. et al. (2019). *Reference Case Guidelines for Benefit–Cost Analysis in Global Health and Development*.; Tompa, E. et al. (2019). *The value of occupational safety and health and the societal costs of work–related injuries and diseases*.; US EPA, O. (2014). *Mortality Risk Valuation*.; Value Balancing Alliance. (2022). *VBA Methodology Vo. 2 – Topic–Specific Method Paper: Social and Economic*.

[58] Department of Transportation. (2021). *Departmental Guidance: Treatment of the Value of Preventing Fatalities and Injuries in Preparing Economic Analyses*.; US EPA, O. (2014). *Mortality Risk Valuation*.

[59] Robinson, L. et al (2019). *Reference Case Guidelines for Benefit–Cost Analysis in Global Health and Development*.

4 Outcomes, Impacts, and Valuation

Variable	Local perspective	Global perspective
VSL	*VSL$_{local}$* The global value of a statistical life year (VSLY) is scaled to local levels based on local willingness–to–pay using the standard extrapolation formula adopted by the OECD and leading VSL experts.[60] Estimates of the VSL do vary empirically by subpopulation, reflecting both income differences (i.e., willingness to pay is constrained by ability to pay) as well as genuine differences in attitudes toward health risk.[61] National and local VSLs may therefore be valuable for the monetary valuation.	*VSL$_{global}$* The OHS Methodology uses one global VSL, taking a human rights approach that values each person's life equally, irrespective of their race, color, sex, language, religion, political or other opinion, national or social origin, property, birth or other status[62], consistent with other relevant Topic Methodologies (such as *Environmental Methodology 2: Water Consumption*). A single VSL is intended to avoid distortionary results that unintentionally favor one population over another when decisions based on impact information cross country and other demographic lines. The single globally representative VSL is valued at $2,895,021 USD[63], which is based on the comprehensive meta–analysis in the latest OECD report.[64]
HealthcareCost$_{S,T,C}$	*HealthcareCost$_{S,T,C,local}$* The value of *HealthcareCost$_{Severity,Type,Base}$* from Australia is then scaled to other countries using the Health Price Level Index dataset by the World Bank International Comparison Program.[65] Country–specific values of *HealthcareCost$_{Severity,Type,Country}$* are available in Appendix B.[66]	*HealthcareCost$_{S,T,C,global}$* A single global *HealthcareCost$_{S,T,C}$* value is used to remove the differences in healthcare costs associated with income disparities. PPP adjustments are applied to *HealthcareCost$_{S,T,C,local}$* to express local costs in international dollars, and a population–weighted average is performed to quantify global mean costs by type of injury.

54. Along with local and global perspectives, some users might want to consider an additional layered perspective that includes additional equity considerations.[67] When preparers of impact accounts want to emphasize these additional equity considerations in a business decision, applying utility weights to the global dimension can be justified to reflect how low–income populations are more sensible to income–related impacts than high income groups. See more information on the choice of the valuation perspective in Appendix H.

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[60] OECD. (2018). *Cost–Benefit Analysis and the Environment: Further Developments and Policy Use*.; Robinson, L. A. et al. (2019). *Reference Case Guidelines for Benefit–Cost Analysis in Global Health and Development*. OECD. (2025). *Mortality Risk Valuation in Policy Assessment: A Global Meta–Analysis of Value of Statistical Life Studies.*

[61] Biausque, V. (2012). *The Value of Statistical Life: A Meta–Analysis*.; Health and Safety Executive. (2020). *A Scoping Study on the Valuation of Risks to Life and Health: The Monetary Value of a Life Year (VOLY) Final Report*.

[62] United Nations. (1948). *Universal Declaration of Human Rights.*

[63] The OECD's Value of a statical life (VSL) is 2,700,000 USD. When adjusted for inflation from 2022 to 2024, this amounts to USD 2, 895,021.

[64] OECD. (2025). *Mortality Risk Valuation in Policy Assessment: A Global Meta–Analysis of Value of Statistical Life Studies*. The OECD includes a median VSL value of $2.2 million and a 95% confidence interval ($1.9–$3.6 million), shown in Table 6. Statistically, this means there is a 95% probability that the true VSL lies within this range. These figures may be used to further support the assessment. The included global value equals the reported mean value.

[65] World Bank. (n.d.) *Measuring the Real Size of the World Economy: The Framework, Methodology, and Results of the International Comparison Program—ICP.*

[66] In practice, the differences in treatment and medical attention between countries vary beyond mere differences in prices of goods. While this approach partly reflects that by considering actual household, institutional and government expenditures, local healthcare costs associated with injuries, illnesses or fatalities may be affected by other aspects not covered by the methodology, such as cultural, technical and differences in interventions.

[67] Additional valuation perspectives are out of scope of the official OHS methodology.

5. Future Development

5 Future Development

5 FUTURE DEVELOPMENT

55. The OHS Methodology reflects experts' latest understanding of the impacts of recordable OHS incidents and is based on the best publicly available data from leading institutions and researchers in the OHS field. Nonetheless, opportunities for improvement exist, described below.

56. Section 3.1 highlights the disconnect between OHS reporting requirements for entities and more granular data that would allow for more accurate estimates of impact.[68] As reporting requirements continue to develop, the improvement in data quality and granularity will enable the refinement of the OHS Methodology.

57. The OHS Methodology captures the human health, lost wage, and healthcare cost impacts of OHS incidents but does not currently include the damages from a worker's breach of right to health and safety at work, which can be considered a "moral cost." Most studies of OHS impacts to date have not attempted to quantify moral costs, but recent efforts, such as by Impact Institute, could provide possible avenues

to do so.[69] The OHS Methodology also does not currently capture workers' informal caregiver costs, non–medical out–of–pocket costs like transport costs, or lost home production, and does not completely capture the impacts on family members and other dependent adults and children. Growth in research on how these costs can be quantified, particularly on a global scale, will enable their incorporation into the OHS Methodology.

58. To date, the research literature on the healthcare costs of recordable OHS incidents covers only a limited number of countries, and none of these are low–income or middle–income. Therefore, the OHS Methodology applies the most robust evidence available from Australia to all other countries, adjusted using the World Bank's Health Price Level Index. As more country–specific cost estimates become available, they may be incorporated into the OHS Methodology in the future. This will improve accuracy by better capturing cross–country differences in medical treatment practices and associated healthcare costs.

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[68] Global Reporting Initiative. (2018). *GRI 403: Occupational Health and Safety.*

[69] Galgani, P. et al. (2022). *Occupational Health and Safety: True pricing method for agri–food products.*

Appendix A: Glossary

Appendix A: Glossary

TERM	DEFINITION	BASED ON[70]
Activities	Everything that an entity does, including operations, the procurement of inputs, the sale and provision of products and/or services, as well as any supporting activities. Activities span a large number of different actions that altogether contribute to outputs and ultimately, outcomes and impact.	Impact Management Platform
Employment insurance	Social insurance scheme that provides financial protection and benefits to workers in cases of occupational accidents, injuries, illnesses, or fatalities. It typically covers medical costs, income replacement, and other forms of compensation, while pooling risks among employers.	International Labour Organization
Fatal injury or illness	An occupational injury or illness that results in a death.	N/A
Human rights	Rights inherent to all human beings, which include, at a minimum, the rights set out in the United Nations (UN) International Bill of Human Rights and the principles concerning fundamental rights set out in the International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work	Global Reporting Initiative (GRI)
Impact	A positive or negative change in one or more dimensions of people's well–being directly or through a change in the natural environment. In impact accounting, this is expressed in monetary terms.	Impact Management Platform / Capitals Coalition
Impact accounting	A system for measuring and valuing the impacts of corporate entities and generating impact information to inform decisions related to an entity's effects on sustainability.	N/A
Impact accounts	A set of accounts that contain the material positive and negative impacts of an entity valued in monetary terms.	N/A
Impact drivers	Refer to the sequence of an entity's inputs and outputs that lead to outcomes and cause or contribute to impacts.	Impact Management Platform / Capitals Coalition

[70] Some definitions are adapted from the original source.

Appendix A: Glossary

TERM	DEFINITION	BASED ON
Impact information	Impact information is derived from impact accounts and informs decision–making related to an entity's effects on sustainability. Impact information includes, but is not limited to, impacts that have been classified and aggregated for the purpose of presentation, supplemental notes that describe the assumptions, data, or methods used to measure and value impacts, and qualitative commentary that contextualizes impacts.	N/A
Impact pathway	The series of consecutive, causal relationships, ultimately starting at an input for an entity's activities and linking its actions with related changes in people's well–being.	ISO 14008:2019
Input	The resources and business relationships that the entity draws upon for its activities.	Impact Management Platform / Capitals Coalition
Long–term incapacity injury or illness	An occupational injury or illness that results in either a worker's permanent withdrawal from the workforce, a return to the workforce more than one year after the date of injury or illness, or a return to the workforce more than one year from the date of injury or illness but in a reduced capacity	N/A
Occupational illness	An illness, disease, or disorder that a worker incurs resulting from a recordable incident or one that is further aggravated by hazardous workplace conditions. An occupational injury can either be temporary, with the worker able to return to the workforce following recovery, or permanent.	GRI European Sustainability Reporting Standards (ESRS)
Occupational injury	An injury that a worker incurs resulting from a recordable incident. An occupational injury can either be temporary, with the worker able to return to the workforce following recovery, or permanent.	GRI
OHS hazard	Hazardous physical safety, chemical, biological, and psychosocial workplace conditions (such as stress and incivility), as well as ergonomic and work–organization related risk factors (such as excessive workload demands and long hours) experienced by workers in the workplace that can lead to well–being damages.	GRI ESRS
OHS incident	A workplace exposure to hazards or an unexpected workplace occurrence that could or does result in injuries, illnesses, or fatalities for one or more workers.	GRI ESRS

Appendix A: Glossary

TERM	DEFINITION	BASED ON
Outcome	The change in the state or condition of capital(s), in physical, biological, psychological, human rights, or equity terms that results from an entity's activities.	Capitals Coalition
Output	The direct result of an entity's activities, including an entity's products, services, and any by–products.	Impact Management Platform
Own workforce	"Own workforce" includes workers who are in an employment relationship with the undertaking ("employees") and non–employee workers who are either individual contractors supplying labor to the undertaking ('self–employed workers") or workers provided by undertakings primarily engaged in "employment activities" (NACE Code N78).	ESRS
Recordable OHS incident	Recordable incidents are a subset of all OHS incidents. Whereas incidents may or may not result in injury, illness, or fatality, and therefore also include "near misses," recordable incidents are those that do result in worker injury, illness, or fatality.	GRI ESRS
Reference scenario	The set of activities and related outcomes that is assumed to happen in the absence of the entity's activities.	Impact Economy Foundation
Temporary injury or illness	An occupational injury or illness from which a worker is able to recover and return to the workforce within one year from the date of injury or illness.	N/A
Value chain	The value chain of an entity is the full range of activities and business relationships related to the entity's business model(s) and the external environment in which it operates. A value chain encompasses the activities and business relationships the entity uses and relies on to create its products or services from conception to delivery, consumption, and end–of–life.	ESRS
Value of a statistical life	The amount individuals would be willing to pay or to accept to experience small changes in mortality risk, which is then aggregated to estimate the monetary value of a reduction in mortality risk of 100%.	U.S. Environmental Protection Agency U.S. Department of Transportation
Value factor	An expression of the relative importance, worth, or usefulness of changes in the capitals to people.	Capitals Coalition

Appendix A: Glossary

TERM	DEFINITION	BASED ON
Wage	Wage refers to remuneration or earnings, however designated or calculated, capable of being expressed in terms of money and fixed by mutual agreement or by national laws or regulations, which are payable in virtue of a written or unwritten contract of employment by an employer to an employed person for work done or to be done or for services rendered or to be rendered.	Protection of Wages Convention, 1949 Anker Methodology, Global Living Wage Coalition, Living Wage for US, and B Lab
Well–being	Well–being is the state of being or doing well in life; happy, healthy, or prosperous condition; moral or physical welfare.	Impact Management Platform
Workers	Refers to an entity's own workforce, including both people who are in an employment relationship with the undertaking ("employees") and non–employees who are either people with contracts with the undertaking to supply labor ("self–employed people") or people provided by undertakings primarily engaged in "employment activities."	ESRS
Workplace	A place under the control of the entity where a worker needs to be or to go for work purposes.	ISO 45001:2018

Appendix B:
Data Appendix

Appendix B: Data Appendix

Spreadsheet available here.

Appendix B provides country–specific values for the VSLMultiplier, HealthcareCost, LostWorkdays, and %Insured variables as well as data on severity distributions. Appendix B also contains all supporting calculations in the development of these values, citing data from ILOSTAT, ILO World Social Protection Database, U.K. Health and Safety Executive, World Bank, Safe Work Australia, OECD, Bank of England, UN, and WHO.

Appendix C: Secondary Sources for %EmployerFunded

Appendix C: Secondary Sources for %EmployerFunded

Appendix C provides guidance on how to obtain *%EmployerFunded$_{Country}$* as outlined in section 3.1. The variable is required to apply the OHS Methodology to both workers in an entity's own workforce and workers in the value chain. The source for the values is the ILO World Social Protection Database. The guidance below is meant to assist preparers of OHS impact accounts. The guidance does not serve as a definitive resource on obtaining these values and is subject to change based on any ILO updates to the data. Appendix C also provides guidance on the data required to calculate the *LostWorkdays$_{L,Country}$* and *LostWorkdays$_{F,Country}$* variables as outlined in section 3.1, for cases where the country–specific lost workdays values are not provided in Appendix B.

%EMPLOYERFUNDED$_{COUNTRY}$

C1. As explained in section 3.1, *%EmployerFunded$_{Country}$* refers to the percent of total workers' insurance funds that is funded by employers as opposed to workers. *%EmployerFunded$_{Country}$* is used to subtract the portion of insured medical costs borne by employers ex ante through their insurance contributions. The calculation of *%EmployerFunded$_{Country}$* is the same in countries where workers do not contribute solely to workers' insurance funds but rather to broader social protection funds, which in turn include workers' insurance funds.

C2. Begin by navigating to the ILO World Social Protection Data Dashboards and selecting "Tables" under "Select report type" on the left panel.

C3. Next, also on the left panel, filter by country of interest and select "Key features of programmes" under "Select Indicator."

C4. Under the newly populated list of programmes on the left panel, select "Work injury."

C5. The values provided under the "Employer" and "Insured person" columns for "Contribution rates / Sources of funds" are the percent that employers and workers contribute to workers' insurance funds, respectively. If "None" is listed under "Insured person" for a country, then *%EmployerFunded$_{Country}$* = 100%.

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[71] https://www.social–protection.org/gimi/WSPDB.action?id=40

Appendix D: Secondary Sources for Incident Severity Distributions and %Insured (Applicable to Value Chain Only)

Appendix D: Secondary Sources for Incident Severity Distributions and %Insured (Applicable to Value Chain Only)

Appendix D describes the two variables required to apply the OHS Methodology to value chain workers – incident severity distributions and *%Insured$_{Country}$*, provides details on their underlying data sources, and includes instructions for preparers to apply the severity distribution data provided in Appendix B to entity data.

SEVERITY DISTRIBUTIONS BY COUNTRY AND INDUSTRY

D1. As mentioned in section 3.1, preparers estimating OHS impacts for workers in an entity's value chain may encounter challenges obtaining the severity distribution data described in section 3, table 1. In such circumstances, preparers should use the standard severity distribution data provided in Appendix B.

D2. The standard severity distributions should be multiplied by the total number of recordable incidents in the value chain to estimate the number of recordable incidents that are fatal, non–fatal resulting in long–term incapacity, or non–fatal resulting in a given average number of lost workdays. Preparers should use the standard severity distributions corresponding to the country and industry most relevant to the affected value chain workers.

a) For example, suppose 1,000 recordable incidents occurred in one year among an entity's value chain workers in the construction industry in Argentina. Using the standard severity distribution for construction in Argentina, out of a total of 1,000 recordable incidents, an estimated 1.4 are fatalities, 160 are non–fatal resulting in long–term incapacity, and 838 are non–fatal resulting in lost workdays. The 838 incidents are each estimated to have resulted in 42 lost workdays, for a total of 68,716 lost workdays.

b) Once the standard severity distribution is applied to the number of recordable incidents in the value chain, equation 1 should be applied to estimate Human Health impact and Lost Wages in the value chain. When applying the value factor for Human Health and Lost Wages described in section 4.2, preparers need only use three *VSLMultiplier$_{Severity,Type}$* variables: *VSLMultiplier$_F$* (100%) for fatalities; *VSLMultiplier$_L$* (19%) for long–term incapacity cases; and *VSLMultiplier$_{T,III}$* (0.0093%) for non–fatal cases resulting in lost workdays for the present example of construction workers in Argentina. For non–fatal incidents resulting in lost workdays, preparers should use the illness VSL Multiplier, which tends to be higher, rather than the injury VSL Multiplier so as to maintain the qualitative characteristic of faithful representation described in *General Methodology 1: Conceptual Framework for Impact Accounting.*

c) Equation 2 should be applied similarly to estimate the Healthcare Cost impact in the value chain. When applying the value factor for Healthcare Cost as described in section 4.2, preparers need only use three *HealthcareCost$_{Severity,Type,Country}$* variables: *HealthcareCost$_{F,Inj,Country}$* for fatalities; *HealthcareCost$_{L,Inj,Country}$* for long–term incapacity cases; and *HealthcareCost$_{F,Inj,Country}$* for non–fatal cases resulting in lost workdays for the present example of construction workers in Argentina. Preparers should use the injury Healthcare Costs, which tend to be higher, rather than the illness Healthcare Costs so as to maintain the qualitative characteristic of faithful representation described in *General Methodology 1: Conceptual Framework for Impact Accounting.* Country–specific Healthcare Costs by severity are provided in Appendix B.

Appendix D: Secondary Sources for Incident Severity Distributions and %Insured (Applicable to Value Chain Only)

D3. For entities that are able to capture disaggregated data on the number of fatal and non–fatal occupational injuries and illnesses among value chain workers (the preferred option provided in section 3.1, table 3), preparers should use entity data for the number of fatalities. The severity distribution data should only be used to determine the number of non–fatal long–term incapacity cases, the number of non–fatal cases resulting in lost workdays, and the average number of workdays lost per incident.

D4. The standard severity distribution data are from the ILO's Occupational Safety and Health Statistics database.[72] Three datasets, disaggregated by country, are used to produce the standard distribution data: Cases of fatal occupational injury by economic activity (annual), Cases of non–fatal occupational injury by type of incapacity and economic activity (annual), and Days lost due to cases of occupational injury with temporary incapacity for work by economic activity (annual). "Economic activity" refers to the International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4.

D5. Appendix B provides severity distribution data for the 41 countries for which there were complete and recent data, covering the years 2016–2022. If data for the industry most relevant to the affected value chain workers is unavailable, preparers should use the total values provided for the appropriate country. For all other countries for which data is not provided, preparers should access the ILO's Occupational Safety and Health Statistics database[73] directly, filter by the country and industry of interest, download and merge the three datasets listed above and identify the most relevant values to use. Alternatively, preparers could use the data of a proxy country based on similar cultural, geographical and economic characteristics. Data from other sources such as national statistical offices can also be used to supplement the ILO data.

%INSURED$_{COUNTRY}$

D6. Preparers should use the provided country–specific *%Insured$_{Country}$* rates in Appendix B for value chain workers when rates of insurance coverage are unavailable from value chain companies firsthand.

D7. The standard *%Insured$_{Country}$* rates in Appendix B are from the World Social Protection Data Dashboard's "SDG 1.3.1 Effective coverage" dataset. Effective coverage is defined as the percentage of the labor force aged 15 and above that is covered by workers' insurance.[74]

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[72] International Labour Organization. (n.d.) *Occupational Safety and Health Statistics (OSH database)*.

[73] https://ilostat.ilo.org/data/

[74] International Labour Organization. (2021). *World Social Protection Report 2020–22: Social protection at the crossroads – in pursuit of a better future*.

Appendix E: Complementary Analysis with Underreporting Adjustment

Appendix E: Complementary Analysis with Underreporting Adjustment

E1. As described in section 3.2 Data Sources, Gaps, and Uncertainty, the research literature finds evidence of systemic underreporting of OHS incidents. While underreporting can be especially prevalent for occupational illnesses, in the informal economy, and in low– and middle–income countries, evidence indicates underreporting exists across all countries and industries. However, while entities on average experience underreporting, the extent of underreporting for any given entity is difficult to estimate and adjust for. To complement the OHS Methodology, preparers may wish to conduct additional analyses incorporating a standard underreporting adjustment based on average rates of underreporting from the research literature. The central estimate drawn from several studies examining underreporting rates in the U.S. and the Netherlands is about 40%. If conducting complementary analyses, preparers may apply this standard 40% adjustment rate.

E2. GRI and ESRS require entities to disclose their processes and policies to protect the health and safety of their workers and identify and manage their OHS hazards and entities complying with ISO 45001 should follow strict occupational health and safety management procedures. Taken in their entirety, fulfilling these OHS management requirements indicates that an entity is likely actively prioritizing the health of its workers and promoting a positive safety culture. Alignment with these disclosures could suggest lower–than–average underreporting. For entities fulfilling either all of the below GRI disclosures or all of the below aligned ESRS disclosures, as well as the ISO 45001 requirements, preparers may lower the underreporting adjustment rate to 20% in their complementary analyses.

E3. To apply the underreporting adjustment to entity data for workers in an entity's own workforce, preparers should multiply 1+r% (where r% is the appropriate underreporting adjustment rate for the entity: 40% or 20% per paragraph E2) by the total number of days lost to temporary injuries and the total number of days lost to temporary illnesses. The underreporting adjustment is not applied to the number of long–term incapacity cases and fatalities for own workforce workers, as those cases are more likely to be accurately captured by the entity. To apply the underreporting adjustment to value chain workers, preparers should multiply 1+40% by the total number of occupational injuries, illnesses, and fatalities. Preparers should use these adjusted values in the calculation of OHS impact as described in section 4.

GRI	ESRS
403–1 (a)	S1–1 p. 23
403–2 (b)	S1–3 p. 32(b) and 33
403–3 (a)	S1–1 AR 17(d)
403–7 (a)	S2–4 p. 32(a)
403–8 (a), Guidance	S1–14 p. 88(a), 90, AR 81

Table E2. OHS Management Disclosures in GRI and ESRS

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[75] International Labour Organization. (n.d.) *Occupational Safety and Health Statistics (OSH database).*; (2023). *A call for safer and healthier working environments.*

[76] Leigh, J. P. (2011). *Economic Burden of Occupational Injury and Illness in the United States.*

[77] Mapping with ESRS datapoints is based on the EU Commission's Delegated Regulation 2023/2772 of 31 July 2023. For a mapping with the latest consultation draft released by EFRAG in July 2025, please check VBA's ESRS mapping tool, available via following link: https://www.value–balancing.com/_Resources/Persistent/d/8/0/e/d80e2245886472224b0ca43119aef284ad16d422/20250804_Mapping%20ESRS%20datapoints%20to%20impact%20accounting.pdf

Appendix F: Alignment with Reporting Standards

Appendix F: Alignment with Reporting Standards

F1. The data inputs required to prepare OHS impact accounts align with and expand upon the ESRS *S1–11: Social Protection*, ESRS *S1–14: Health and safety metrics*, and GRI *403: Occupational health and safety* disclosure requirements. The International Sustainability Standards Board (ISSB) has not yet developed standards related to OHS. Appendix F describes the linkages between data needed for these reporting standards and the OHS Methodology.

F2. ESRS Alignment[78]

a) Total days lost due to temporary occupational injuries and illnesses – own workforce

i. In ESRS S1, Disclosure Requirement S1–14 paragraph 88 states the undertaking shall disclose "with regard to the undertaking's employees, the number of days lost to work–related injuries and fatalities from work–related accidents, work–related ill health and fatalities from ill health." Paragraph 89 states this information may also be disclosed with regard to non–employees in the undertaking's workforce.

ii. The OHS Methodology expands upon this disclosure, requiring the number of days lost specifically to temporary work–related injuries and ill health for both employees and non–employees.

b) Number of fatalities due to occupational injuries and illnesses – own workforce

i. In ESRS S1, Disclosure Requirement S1–14 paragraph 88(b) states the undertaking shall disclose both for employees and non–employees in the undertaking's own workforce "the number of fatalities as a result of work–related injuries and work–related ill health."

ii. The OHS Methodology fully aligns with the data required for this disclosure.

c) Total number of occupational injuries, illnesses, and fatalities – value chain workers

i. In ESRS S1, Disclosure Requirement S1–14 paragraph 88 states the "number of fatalities as a result of work–related injuries and work–related ill health" shall also be reported for "other workers working on the undertaking's sites, such as value chain workers if they are working on the undertaking's sites."

ii. The OHS Methodology expands upon this disclosure, requiring an entity to disclose the total number of work–related injuries, ill health, and fatalities for all value chain workers, even if they are not working on the undertaking's sites.

d) Percent of workers covered by workers' insurance – own workforce

i. In ESRS S1, Disclosure Requirement S1–11 paragraph 74(c) states "the undertaking shall disclose whether all its employees are covered by social protection, through public programs or through benefits offered by the undertaking, against loss of income" due to "employment injury and acquired disability." Paragraph 76 states that this information may also be disclosed with regard to non–employees in the undertaking's workforce.

ii. The OHS Methodology expands upon this disclosure, requiring an entity to identify the percent of its workforce, including both employees and non–employees, that are insured for workers' insurance.

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[78] The final revised European Sustainability Reporting Standards (ESRS) are still under development. However, VBA has published a tool to map ESRS data points. The mapping tool can be accessed via the VBA website using the following link: https://www.value–balancing.com/_Resources/Persistent/d/8/0/e/d80e2245886472224b0ca43119aef284ad16d422/20250804_Mapping%20ESRS%20datapoints%20to%20impact%20accounting.pdf

Appendix F: Alignment with Reporting Standards

F3. GRI Alignment

a) Total days lost due to temporary occupational injuries and illnesses – own workforce

    i. In GRI 403, Disclosure Requirement 403–9 provides an option for the organization to report "the number and rate of work–related injuries that resulted in lost–workday cases, the average number of lost days per lost–workday case, the number of lost workdays, and the absentee rate."

    ii. The OHS Methodology expands upon this optional disclosure, requiring the number of lost workdays specifically to temporary work–related injuries and ill health for all employees and all workers who are not employees but whose work and/or workplace is controlled by the organization.

b) Number of long–term incapacity cases due to occupational injuries and illnesses – own workforce

    i. In GRI 403, Disclosure Requirements 403–9 (a)(ii) and (b)(ii) state the reporting organization shall report "the number and rate of high–consequence[79] work–related injuries (excluding fatalities)" for all employees and for all workers who are not employees but whose work and/or workplace is controlled by the organization.

    ii. The OHS Methodology expands upon these disclosures, requiring the number of both work–related injuries and ill health that result in either a worker's permanent withdrawal from the workforce or a recovery time of longer than one year, or a recovery time more than one year but with reduced capacity, for all employees and workers who are not employees but whose work and/or workplace is controlled by the organization.

c) Number of fatalities due to occupational injuries and illnesses – own workforce

    i. In GRI 403, Disclosure Requirements 403–9 (a)(i) and (b)(i) state the reporting organization shall report "the number and rate of fatalities as a result of work–related injury" for all employees and for all workers who are not employees but whose work and/or workplace is controlled by the organization. Disclosure Requirements 403–10 (a)(i) and (b)(i) state the reporting organization shall report "the number of fatalities as a result of work–related ill health" for all employees and for all workers who are not employees but whose work and/or workplace is controlled by the organization.

    ii. The OHS Methodology fully aligns with these disclosures.

d) Total number of occupational injuries, illnesses, and fatalities – value chain workers

    i. In GRI 403, Disclosure Requirement 403–7 (a) states the reporting organization shall report "a description of the organization's approach to preventing or mitigating significant negative occupational health and safety impacts that are directly linked to its operations, products or services by its business relationships, and the related hazards and risks." This guidance is relevant for cases where the organization does not have control over the work and the workplace.

    ii. The OHS Methodology expands upon this disclosure, requiring an entity to disclose the total number of work–related injuries, ill health, and fatalities for all upstream and downstream value chain workers.

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[79] A high–consequence work–related injury is defined as an injury "from which the worker cannot recover (e.g., amputation of a limb), or does not recover or is not expected to recover fully to pre–injury health status within 6 months (e.g. fracture with complications)."

Appendix G: Estimation of the VSLMultiplier and HealthcareCost variables

Appendix G: Estimation of the VSLMultiplier and HealthcareCost variables

ESTIMATION OF THE VSLMULTIPLIER VARIABLE

G1. The estimates of $VSLMultiplier_{Severity}$ for each severity category (T, L, F) are based on a 2011 report by the U.K. Health and Safety Executive (HSE).[80] The HSE report, prepared by Risk Solutions, estimated the value of human health loss associated with different ranges of lost workdays. To do so, the report builds on a standard gamble experiment by Jones–Lee et al. that estimated stated relativities between several defined injury types and death. Based on Jones–Lee et al.'s descriptions of each defined injury (e.g., injury type W involves 2–7 days in hospital), HSE mapped each defined injury to an estimated number of lost workdays. HSE then multiplied Jones–Lee et al.'s stated relativities by the willingness–to–pay component of its

Value of a Prevented Fatality (VPF). The result is the basis of $VSLMultiplier_{Severity}$ in the OHS Methodology.

G2. For temporary (T) injuries and illnesses, the value of $VSLMultiplier_{Severity}$ is the additional fraction of a whole life that is lost per workday lost. By contrast, for long–term (L) and fatal (F) injuries and illnesses, the value of $VSLMultiplier_{Severity}$ is the additional fraction of a whole life that is lost per incident resulting in long–term incapacity and fatality, respectively. This distinction allows preparers to aggregate rather than disaggregate all temporary injuries and illnesses among an entity's workers, while still calibrating Human Health impact to the degree of severity of those injuries and illnesses.

G3. $VSLMultiplier_{T,Inj}$ and $VSLMultiplier_{T,Ill}$ are estimated based on the results of HSE's report below:

HSE Lost Workday Categories	$VSLMultiplier_{Severity}$
Injury:	
≤3 days lost from work	0
4–14 days lost from work	0.002
15–90 days lost from work	0.01
90–180 days lost from work	0.03
180–365 days lost from work	0.1
Illness:	
≤3 days lost from work	0
4–30 days lost from work	0.002
30–90 days lost from work	0.01
>90 days lost from work	0.02

Table G1. $VSLMultiplier_{Severity}$ for each HSE Lost Workday Category

[80] Health and Safety Executive. (2011). *The costs to Britain of workplace injuries and work–related ill health in 2006/07.*
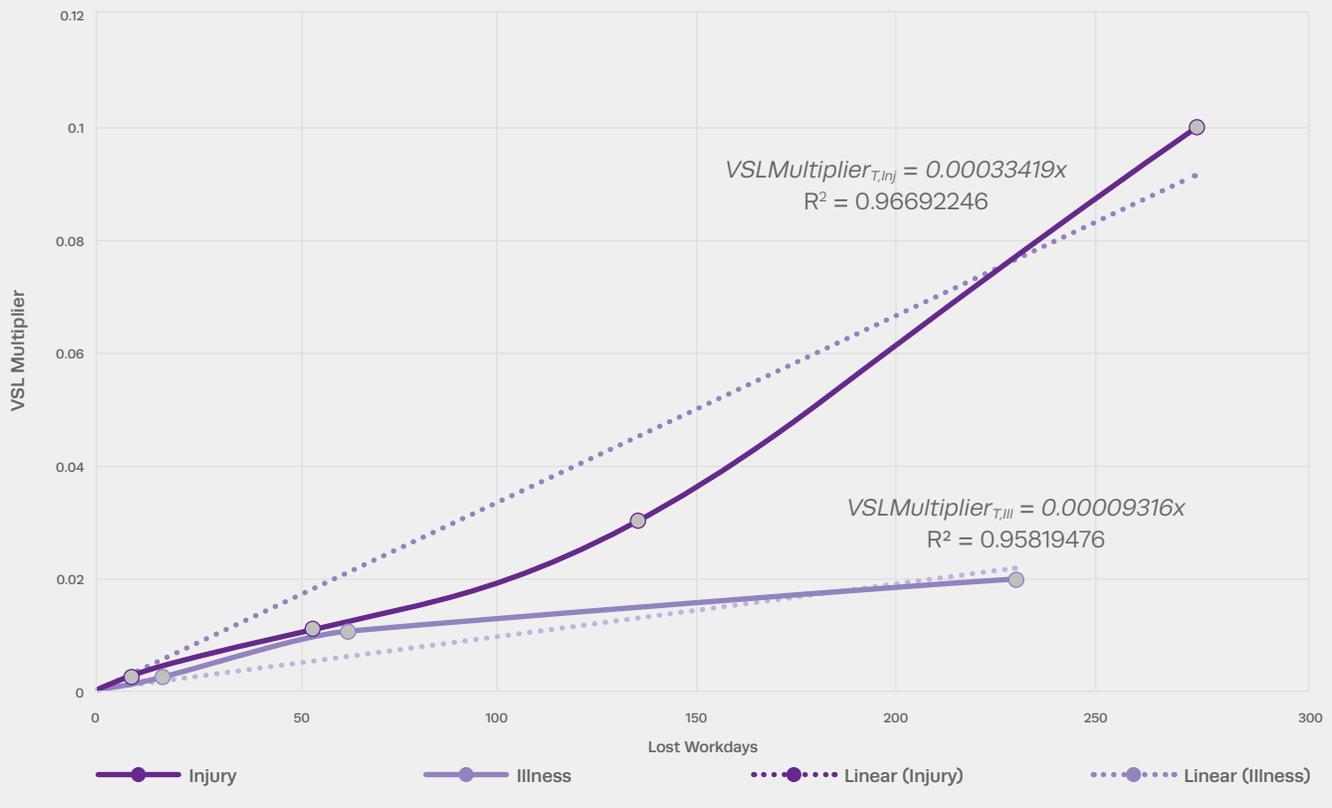
Appendix G: Estimation of the VSLMultiplier and HealthcareCost variables

$VSLMultiplier_{T,Inj}$ and $VSLMultiplier_{T,Ill}$ are estimated by regressing the values of $VSLMultiplier_{Severity}$ on the midpoints of each of the HSE lost workday categories, for injuries and illnesses separately. The graphs below illustrate the results of those linear regressions, including high correlations of determination (R2) that indicate the models fit the data well. Thus, the OHS Methodology estimates that for every workday lost by a worker due to temporary injury, she experiences a health loss equivalent to 0.0334% of a VSL. Likewise, for every workday lost due to temporary illness, workers experience a human health loss equivalent to 0.0093% of a VSL. If an entity's workers collectively lose 500 workdays from injuries (i.e., $Incidents_{T,Inj} = 500$) and 300 workdays from illnesses (i.e., $Incidents_{T,Ill} = 300$) the human health loss they experience is equivalent to 500*0.0334%*VSL and 300*0.0093%*VSL, respectively.

G4. For long–term incapacitation, $VSLMultiplier_{L,Inj}$ and $VSLMultiplier_{L,Ill}$ (both 19%) are taken from the HSE study by mapping its "Never return" category to the OHS Methodology's "Long–term incapacity" category. This mapping constitutes a conservative assumption that likely overestimates impact. A fatality is equivalent to 100% of a VSL.

GRAPH G1: *VSLMULTIPLIER* BY LOST WORKDAYS FOR TEMPORARY INJURIES AND ILLNESSES

$VSLMultiplier_{T,Inj} = 0.00033419x$
$R^2 = 0.96692246$

$VSLMultiplier_{T,Ill} = 0.00009316x$
$R^2 = 0.95819476$

Appendix G: Estimation of the VSLMultiplier and HealthcareCost variables

ESTIMATION OF THE HEALTHCARECOST VARIABLE

G5. For temporary injuries and illnesses, $HealthcareCost_{T,Inj}$ and $HealthcareCost_{T,Ill}$ are estimated based on the results of Safe Work Australia's report below:[81]

Likewise, each workday lost due to temporary illness is associated with approximately $20 in healthcare costs under the same perspective.
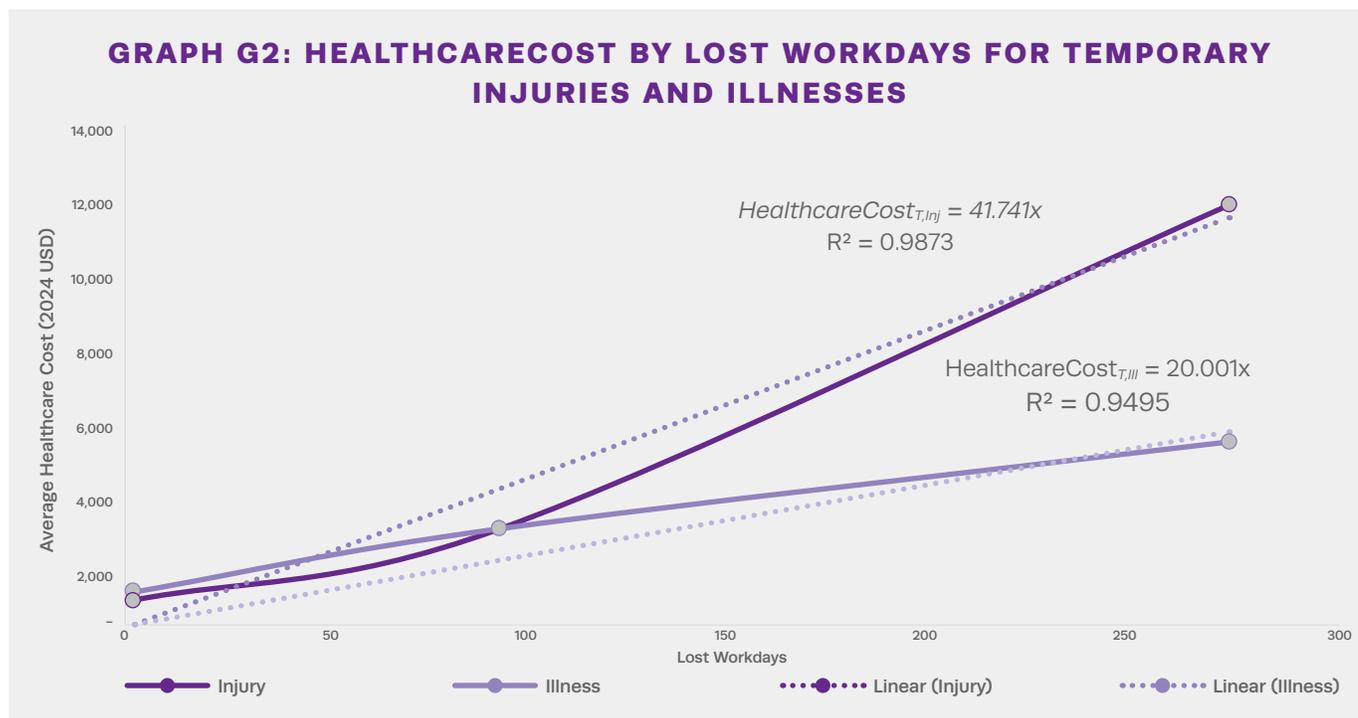
G6. For long–term incapacitation, $HealthcareCost_{L,Inj}$ ($6,637 in 2024 USD) and $HealthcareCost_{L,Ill}$ ($4,534 in 2024 USD) are taken from the Safe Work Australia study

Safe Work Australia Lost Workday Categories	HealthcareCost$_{Severity}$ for Injuries (2024 USD)	HealthcareCost$_{Severity}$ for Illnesses (2024 USD)
0–4 days lost from work	$744	$980
5–180 days lost from work	$2,730	$2,739
181–365 days lost from work	$11,774	$5,152

Table G2. HealthcareCost values from Safe Work Australia

$HealthcareCost_{T,Inj}$ and $HealthcareCost_{T,Ill}$ are estimated by regressing the values of $HealthcareCost_{Severity}$ on the midpoints of each of the Safe Work Australia lost workday categories, for injuries and illnesses separately. The graphs below illustrate the results of those linear regressions, including high correlations of determination (R2) that indicate the models fit the data well. Thus, the OHS Methodology estimates that each workday lost due to temporary injury is associated with approximately $24 in healthcare costs under the global perspective.

by mapping its "Full incapacity" category to the OHS Methodology's "Long–term incapacity" severity category and performing the transformation to the global perspective (see Appendix H). This mapping constitutes a conservative assumption that likely overestimates impact. For fatalities, $HealthcareCost_{F,Inj}$ ($1,289 in 2024 USD) and $HealthcareCost_{F,Ill}$ ($180 in 2024 USD) are taken directly from the Safe Work Australia study's "Fatality" category undergoing a similar process.

GRAPH G2: HEALTHCARECOST BY LOST WORKDAYS FOR TEMPORARY INJURIES AND ILLNESSES

$HealthcareCost_{T,Inj} = 41.741x$
$R^2 = 0.9873$

$HealthcareCost_{T,Ill} = 20.001x$
$R^2 = 0.9495$

[81] Safe Work Australia. (2015). *The Cost of Work–related Injury and Illness for Australian Employers, Workers and the Community: 2012–2013.*

Appendix H: Application of Local and Global Valuation Perspectives

Appendix H: Application of Local and Global Valuation Perspectives

VALUATION PERSPECTIVES IN HUMAN HEALTH AND LOST WAGES IMPACT

H1. In the local perspective (eq. H.1), Human Health and Lost Wages impacts are expressed in monetary terms using the standard extrapolation formula adopted by the OECD and leading VSL experts scaling the global VSL estimation (eq. H.2).[82] When local median income data are available, the approach can be applied to regional assessments with greater granularity.

$$Human\ Health\ \&\ Lost\ Wages_{C,local} = \sum (Incidents_{S,Ty} * VSLMultiplier_{S,Ty} * VSL_{local})$$ (Eq. H.1)

$$VSL_{target} = VSL_{reference} * (Income_{target} / Income_{reference})^{elasticity}$$ (Eq. H.2)

H2. Building on the OECD's global mean VSL estimation[83] F, a simplified scaling approach can be applied. This approach uses the global mean VSL expressed in international dollars (USD INT) and the Gross National Income (GNI) of the United States as reference points, together with an elasticity of 1, and adjusts for the GNI of the target country. The method provides flexibility to cover a wide range of jurisdictions, with over 200 jurisdictions included in the statistical appendix.

H3. Local VSL estimates may differ due to factors beyond purchasing power, such as cultural differences. As a result, this method can be replaced by more accurate local VSL estimates if they are available, such as local VSL estimates.

H4. The global perspective (eq. H.3) seeks to reduce income–related differences and to value life equally by applying a single VSL that assigns the same value to each person's life, irrespective of race, color, sex, language, religion, political or other opinion, national or social origin, property, birth, or other status. The

$$Human\ Health\ \&\ Lost\ Wages_{C,global} = \sum_{S,Ty} (Incidents_{S,Ty} * VSLMultiplier_{S,Ty} * VSL_{global})$$ (Eq. H.3)

VALUATION PERSPECTIVES IN HEALTHCARE COST

H5. In the local perspective (eq. H.4), the value of $HealthcareCost_{Severity,Type,Base}$ from Australia is scaled to other countries using the Health Price Level Index dataset by the World Bank International Comparison Program.[84] The Health Price Level Index dataset identifies a "basket" of standard health–related goods and services — including specific pharmaceutical products, outpatient services, and hospital services — and estimates how much this "basket" costs in each country based on actual household, institutional, and government expenditures, thereby producing health purchasing power parity (PPP) indices for over 200 countries. By multiplying the value of $HealthcareCost_{Severity,Type,Base}$ by the ratio of the health PPP in a given country to the health PPP of Australia, $HealthcareCost_{Severity,Type,Base}$ is adjusted to reflect what an injury, illness, or fatality would cost to treat in that country. Extrapolation using PPP indices and similar constructs has been used in other methodologies to handle the scarcity of country–specific OHS cost data.[85] Country–specific values of $HealthcareCost_{Severity,Type,Country}$ are available in Appendix B.[86]

$$Healthcare\ Cost_{C,local} = \sum_{S,Ty} (Incidents_{S,Ty,C} * HealthcareCost_{S,Ty,C,local}) * (100\% - Insured_C * EmployerFunded_C)$$ (Eq. H.4)

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[82] OECD. (2018). *Cost–Benefit Analysis and the Environment: Further Developments and Policy Use.*; Robinson, L. A. et al. (2019). *Reference Case Guidelines for Benefit–Cost Analysis in Global Health and Development.* Refer also to OECD. (2025). *Mortality Risk Valuation in Policy Assessment: A Global Meta–Analysis of Value of Statistical Life Studies* to consider additional alternatives to adjust the VSL to local contexts.

[83] OECD. (2025). *Mortality Risk Valuation in Policy Assessment: A Global Meta–Analysis of Value of Statistical Life Studies* to consider additional alternatives to adjust the VSL to local contexts. The OECD includes a mean VSL value of $2.7 million (default in the methodology), as well as a median VSL value of $2.2 million and a 95% confidence interval ($1.9–$3.6 million), shown in Table 6. Statistically, this means there is a 95% probability that the true VSL lies within this range. These figures may be used to further support the assessment.

[84] World Bank. (n.d.) Measuring the *Real Size of the World Economy: The Framework, Methodology, and Results of the International Comparison Program—ICP.*

[85] Galgani, P. et al. (2022). *Occupational Health and Safety: True pricing method for agri–food products.*; Tompa, E. et al. (2021). *Economic burden of work injuries and diseases: a framework and application in five European Union countries.*; Value Balancing Alliance. (2022). *VBA Methodology Vo. 2 – Topic–Specific Method Paper: Social and Economic.*

[86] In practice, the differences in treatment and medical attention between countries vary beyond mere differences in prices of goods. While this approach partly reflects that by considering actual household, institutional and government expenditures, local healthcare costs associated with injuries, illnesses or fatalities may be affected by other aspects not covered by the methodology, such as cultural, technical and differences in interventions.

Appendix H: Application of Local and Global Valuation Perspectives

H6. To obtain universal values under the global perspective, inspired by the OECD process to derive the global mean VSL[87], the value of $Healthcare_{CostS,T,C,local}$ are PPP adjusted for scaling the local estimations to comparable international dollars, a global average weighted by population is performed. This approach aims to apply a single global healthcare cost value across all countries to avoid that income disparities are reflected in the prices of goods and services or the nature of the treatments themselves.

EQUITY CONSIDERATIONS

H7. When users want to consider an additional layered perspective that includes additional equity considerations, utility weights can be applied to the global perspective following equation 3. Utility weights should be applied based on the wage level perceived by workers with respect to their position in the globally PPP–adjusted wage distribution. Utility weights shall be applied and calculated based on Equations H.5, H.6 and H.7, and its rationale is analogous to the approach described in paragraph H4 but considering a larger η factor that encompass equity considerations. In this case, the value of η is set at 1.26 following Layard et al. (2008)'s marginal utility of income estimation. For more information, see paragraph D1, the UK's Green Book (2022) section 11.A.3., the University of Leeds' TTWO0213: Audit of Distributional Weight Analysis (2023) Task 2 and 3, and the Department of Health's (2010) Quantifying health impacts of government policies for more information on the application of weights to impact assessments.

$Healthcare\ Cost_{C,UW} =$
$Healthcare\ Cost_{C,global} * UW_C$ 　　　　　　(Eq. H.5)

$Human\ Health\ \&\ Lost\ Wages_{C,UW} =$
$Human\ Health\ \&\ Lost\ Wages_{C,global} * UW_C$ 　(Eq. H.6)

$UW_C = (GNI_{C,PPP}\ /\ GN_{USD}\ )^{-\eta}$ 　　　　　(Eq. H.7)

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[87] OECD. (2025). *Mortality Risk Valuation in Policy Assessment: A Global Meta–Analysis of Value of Statistical Life Studies*

Appendix I: Data Schema of the OHS Methodology, as Applied to Own Workforce

Appendix I: Data Schema of the OHS Methodology, as Applied to Own Workforce

Impacts	Impact Driver Measurements (Section 3.1)			Outcomes and Impacts (Section 4.2)			Monetary Valuation (Section 4.3)		
	Variable	Unit	Data Source	Variable	Unit	Data Source	Variable	Unit	Data Source
Human Health and Lost Wages	$Incidents_{Tinj}$	Days	Entity	$VSLMultiplier_{Tinj}$	%of a life	OHS Methodology	VSL	$	OHS Methodology
	$Incidents_{TiIII}$	Days	Entity	$VSLMultiplier_{TiIII}$	%of a life	OHS Methodology			
	$Incidents_{Linj}$	Cases	Entity	$VSLMultiplier_{Linj}$	%of a life	OHS Methodology			
	$Incidents_{LiIII}$	Cases	Entity	$VSLMultiplier_{LiIII}$	%of a life	OHS Methodology			
	$Incidents_{Finj}$	Cases	Entity	$VSLMultiplier_{Finj}$	%of a life	OHS Methodology			
	$Incidents_{LiIII}$	Cases	Entity	$VSLMultiplier_{LiIII}$	%of a life	OHS Methodology			
Healthcare Cost	$Incidents_{Tinj}$	Days	Entity	$VSLMultiplier_{Tinj}$	%of a life	OHS Methodology	Measurement and valuation collapsed into summary values in Section 4.2	$	OHS Methodology
	$Incidents_{TiIII}$	Days	Entity	$VSLMultiplier_{TiIII}$	$	OHS Methodology			
	$Incidents_{Linj}$	Cases	Entity	$VSLMultiplier_{Linj}$	$	OHS Methodology			
	$Incidents_{LiIII}$	Cases	Entity	$VSLMultiplier_{LiIII}$	$	OHS Methodology			
	$Incidents_{Finj}$	Cases	Entity	$VSLMultiplier_{Finj}$	$	OHS Methodology			
	$Incidents_{LiIII}$	Cases	Entity	$VSLMultiplier_{LiIII}$	$	OHS Methodology			
	%Insured	%	Entitiy						
	%Employer Funded	%	OHS Methodology						

Appendix J: Value Commission Transparency Report – Value Factors

Appendix J: Value Commission Transparency Report – Value Factors

Appendix J presents the OHS Topic Methodology summarized in the form of the Transparency Report proposed by the Governance for Valuation document (Table B).[88] Minor adaptations have been made to the report structure to align with the impact accounting methodology.

TRANSPARENCY REPORT –(IMPACT) VALUE FACTORS
Title and version #: *Occupational Health and Safety Topic Methodology Value Factor, Version 1*
Developed by: *International Foundation for Valuing Impacts, in partnership with Value Balancing Alliance*
Governance: *Overseen by Valuation Technical & Practitioner Committee (VTPC), 18 independent experts; approved via Due Process Protocol (public consultation + VTPC vote); IFVI Board provides oversight*
Name of impact driver: *Recordable OHS incidents: occupational injuries, illnesses, fatalities.*
Published and updated date: *Feb. 2026*

VALUE FACTOR UNIT	
1. Unit	**1.1 Unit** The impact in dollars ($) of experiencing non–fatal and fatal occupational injuries and illnesses to calculate the total impact from recordable OHS incidents. Values used to capture financial impacts are based on geography, while values used in health valuation are universal. **1.2 Scaling** By severity level: · Temporary injuries/illness: lost workdays · Long–term injuries/illness: % of lost lifetime workdays · Fatal injuries/illness: lost lifetime workdays (retirement age – working age) PPP adjustment (Purchasing Power Parity):Used when applying the global perspective, to remove income bias across countries. This scales VSL and healthcare costs into international dollars. **1.3 Geographical specificity** Global methodology, applied by country. **1.4 Time Per annual reporting period.** Per annual reporting period
2. Linkages to other value factors	This value factor is part of the public good, independent, impact accounting methodology being developed by IFVI, in partnership with VBA and can be combined or complemented with value factors from other topic methodologies. See https://ifvi.org/methodology/environmental–topic–methodology/interim–methodologies/#GlobalValueFactorDatabase for more information.

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[88] Capitals Coalition (2025b). Governance for Valuation – Part of the Integrated Decision–Making Framework. https://capitalscoalition.org/capitals–approach/frameworkintegrated/

Appendix J: Value Commission Transparency Report – Value Factors

SCOPE OF VALUE FACTOR	
3. Scope	The scope of the value factor includes all recordable OHS incidents along the entire value chain.
	3.1 Impact pathway
	See Figure 1 in this document for an overview of the impact pathway and included impact end points. The value factor captures the following impacts: human health and lost wages, and healthcare cost. Future work will continue to explore the valuation of additional impacts.
	3.2 Materiality assessment
	Application of the methodology by an entity is based on a materiality assessment as outlined by General Methodology 1: Conceptual Framework for Impact Accounting.
	3.3 Stakeholder views
	Affected stakeholders were not directly consulted in developing the value factors. However, their perspectives are embedded indirectly through the valuation functions employed (e.g., willingness–to–pay studies), which are based on empirical evidence of the impacts. These studies aggregate stakeholder responses and behaviors across many contexts, effectively capturing their preferences in the valuation coefficients.
	Broader societal views not incorporated– such as ripple effects on the affected worker's family, community, and coworkers, including grief, shock, trauma, guilt, and decreased morale.
	3.4 Scope extent
	The value factor captures 3 impacts from recordable incidents: human health, lost wages, and healthcare costs.
	The scope does not capture the impacts of less severe incidents that result in only job transfer or only restricted work.
	More detail about the impact pathway scope can be found in 'Section 1.4: Scope and Assumptions.' Application of the Methodology by an entity is based on a materiality assessment as outlined by General Methodology 1: Conceptual Framework for Impact Accounting.

Appendix J: Value Commission Transparency Report – Value Factors

ESTIMATING CHANGES IN CAPITALS AND IMPACTS	
4. Approach and specificity – changes in capitals	**4.1– 4.2 Approach** The methodology identifies how recordable occupational health and safety (OHS) incidents affect human capital through loss of life, reduced health, and loss of productive capacity. Each recordable case (temporary, long–term incapacity, or fatal) is translated into lost workdays and health impairment, representing reductions in human capital. Country–specific incidence data, insurance coverage, wage and healthcare cost data; use of proxies where missing. Additional details about estimating changes in well–being can be found in 'Section 4.2: Outcomes and Impacts' and 'Appendix G: Estimation of the VSLMultiplier and HealthcareCost variables.' **4.3 Assumptions** · 260 workdays/year · Long–term incapacity = 35% of fatal workdays · VSL global average = $2,895,021 USD · Social discount rate = 2% **4.4 Data gaps** Lack of data on less severe incidents that result in only job transfer or only restricted work, and incidents that lead to an absence from work for more than one year but less than one's remaining working life. In addition, systemic underreporting of occupational injuries, illnesses, and fatalities is widely recognized as a significant data challenge in all countries. Therefore the calculated lost workdays in the methodology likely an underestimation of overall impact. For more information on data gaps in the OHS Methodology, see 'Section 3.2 Data sources, gaps and uncertainty'. **4.5 Data source** ILOSTAT, ILO Social Protection Database, World Bank, UN Population Division, WHO, Safe Work Australia, UK HSE, OECD

Appendix J: Value Commission Transparency Report – Value Factors

ESTIMATING CHANGES IN CAPITALS AND IMPACTS	
5. Approach and specificity – impacts	**5.1–5.3 Valuation approach** The human health impact and the lost wages are both captured by the Value of a Statistical Life (VSL) estimate. For human health and lost wages impact, changes in well–being are determined through a VSL Multiplier. The standardizes recordable OHS incidents into fractions of a whole life. As stated in the recent OECD study, "VSL is commonly computed through the willingness to pay (WTP) approach." (…) "Two primary approaches exist for eliciting an individual's WTP for changes in mortality risk, namely Stated Preference (SP) and Revealed Preference (RP) methods. SP methods rely on surveys, asking respondents to state their preferences for specific changes in mortality risks in a hypothetical scenario or situation." (…) "In contrast, RP methods observe actual behavior relative to risk in labor and consumer markets, with a focus on observing trade–offs between mortality risk and income and between willingness to WTP for a product and its expected impact on an individual's risk of dying." For healthcare cost impact, changes in well–being are determined through the average healthcare cost per occupational injury or illness, which varies by severity. This approach is considered nationally, reflecting global variation. For healthcare cost– value per incident scaled from Australia using World Bank Health Price Index. Present research has not yet captured all impacts of recordable OHS incidents on workers. Future work will continue to develop value factors for these impacts. Additional details about estimating monetary value can be found in 'Section 4.3: Monetary Valuation.' **5.4 Assumptions** For uninsured workers, 100% of healthcare costs are assumed to be borne by the worker. **5.5 Data gaps** See 4.4 above. **5.6 Data sources** ILOSTAT, ILO Social Protection Database, World Bank, UN Population Division, WHO, Safe Work Australia, UK HSE, OECD Additional details about estimating monetary value can be found in 'Section 4.3: Monetary Valuation' and 'Appendix B; C and D.'
6. Data inputs	Key data sources include ILOSTAT, the ILO World Social Protection Database, the U.K. Health and Safety Executive, the World Bank, Safe Work Australia, the UN Population Division, and the WHO. See 'Appendix C: Secondary Sources for %EmployerFunded, %WageReplaced, and LostWorkdays' and 'Appendix D: Secondary Sources for Incident Severity Distributions and %Insured (Applicable to Value Chain Only)' for further detail. For datasets, see 'Appendix B: Data Appendix' along with the primary sources cited for each.

Appendix J: Value Commission Transparency Report – Value Factors

VIEWS OF AFFECTED STAKEHOLDERS	
7. Representation of those affected	The impact accounting methodology is overseen by a Valuation and Technical Practitioner Committee (VTPC) and developed through due process designed to ensure stakeholder inputs and representation.
	This process includes independent research, expert engagement, piloting, and a public comment period prior to finalization by the VTPC.
	The application of certain value factors at the country level leads to better representation of global stakeholders.
	In addition, the models included data inputs and feedback from a globally diverse sample of countries leading to better representation of global stakeholders. The application of the value factor at a local level also increases stakeholder–specific representation of impacts.
ETHICAL DECISIONS	
8. Equity weightings and income adjustments	The valuation perspective shall be either local, reflecting each country's conditions and benchmarks, or global, anchoring impacts to the global median wage and removing income bias using purchasing power parity (PPP) and global parameters. In that process, the variables presented in the calculations should be adapted accordingly.
9. Accounting for future impacts	Following similar assumptions made by Safe Work Australia and EU–OSHA, the number of lost workdays per fatality is estimated as the difference between the average retirement age and working age in the country, discounted to present value using a social discount rate of 2% per year.
	See 'Section 3.1: Data Requirements' and 'Appendix C: Secondary Sources for %EmployerFunded, %WageReplaced, and LostWorkdays Methodological Details' for more information about discounting.
10. Other ethical considerations	There are no other ethical considerations.

Appendix J: Value Commission Transparency Report – Value Factors

SENSITIVITY	
11. Sensitivity to key variables	**11.1–11.2– Sensitivity analysis** The estimate of human health and lost wages impact is sensitive to the universal VSL estimate that is chosen. The estimate of human health and lost wages impact also rests on a number of assumptions. The U.K. Health and Safety Executive study72details the assumptions made in order to map occupational injuries and illnesses to categories of days lost from work to arrive at the VSL Multipliers. Additionally, a linear relationship is assumed between days lost from work and the VSL Multipliers for temporary occupational injuries and illnesses to allow for the calculation of a VSL Multiplier per day lost from work for this category of injuries and illnesses. The estimate of healthcare cost impact is sensitive to the choice of the base country for the extrapolation of healthcare costs to other countries. Australia was chosen because the study from Safe Work Australia provided the most granular data, but differences in healthcare systems between countries likely mean that healthcare costs for occupational injuries, illnesses, and fatalities vary beyond what is accounted for by using the Health Price Level Index. A linear relationship is also assumed between days lost from work and the healthcare cost for temporary occupational injuries and illnesses to allow for the calculation of the healthcare cost per day lost from work for this category of injuries and illnesses. For the estimate of lost wages impact, the median daily wage among all workers in the entity was chosen over the mean daily wage to avoid distortion caused by extreme outliers. In general, OHS impact is sensitive to the degree of underreporting of recordable incidents. While not required, a standard adjustment for underreporting is suggested to accompany the primary analysis. **11.3 Assurance** VTPC independent governance, Due Process Protocol.
ANNEX	
	N/A

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