

Leading indicators for safety, health and wellbeing at work in construction – focus on people



COSH2023, Nicosia Cyprus, 26-05-2023



‘Vision Zero’ companies in Europe - 2015



EU study – ‘Vision Zero’ companies in 2016

- 7 EU countries, 27 companies
- Interview, questionnaires and national workshops
- 8819 questionnaire respondents
- 66 % workers, 30 % leaders/managers/supervisors
- 13 manufacturing companies (51 % respondents)
- **7 construction companies (28 %)**
- 7 other companies (21 %)



Traditional safety approach vs. Vision Zero

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Safety is a goal	Safety is a journey, a process
Preventing accidents	Creating safety

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Risk management	Business leadership
Safety management systems	Safety culture and learning

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Safety is a cost	Safety is an investment
Workers are part of the problem	Workers contribute to solutions

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Safety is a cost	Safety is an investment
Workers are part of the problem	Workers contribute to solutions
Incidents are failures	Incidents are opportunities for learning
Benchmark on injuries	Benchmark on good-practice and leading indicators

Measuring safety and health at work

Traditional goals measured by reduction in:

- Accidents and injuries
- Sickness absence
- Disease
- Insurance and compensation costs
- Early retirement



Leading indicators and actions

- Proactive
- Preventive
- Predictive



Aim – develop a set of leading indicators

- Request from industries
- Benchmarking and KPIs'
- Supplement to 'lagging' and 'reactive' indicators
- Relevant for all three themes: safety, health and wellbeing
- Relevant for small, medium and large enterprises
- Easy to use (on paper or PC) 😊

Methods – international collaboration

- Literature **review**
- **Companies** from around the world – small, medium and large, cross-sectoral
- International **sector organisations**: mining, construction, energy, trade and transportation
- Safety and health **educators** and **trainers**
- Safety, health and wellbeing **researchers**



Inputs from literature and industries

No.	Safety, health and wellbeing themes	Leading indicators		Success factors (indicators)	
		Literature	Industry	Literature	Industry
1	Leadership commitment	12	6	6	17
2	Identify and control hazards and risks	7	10	3	10
3	Targets and programmes	14	8	6	12
4	Ensure SHW system	10	24	8	18
5	Well-designed equipment and workplaces	1	5	2	9
6	Qualifications, competences	10	8	2	12
7	Investing in people and participation	10	11	12	16
Totals		64	72	39	94

Evidence from the London Olympics 2012

100 million working hours - low accident rates - no fatalities

Five success factors

- Visible impactful leadership
- **Daily activity briefings**
- Following-up near misses
- Taking action on reports
- Recognition and reward



Leading indicators – work briefings

What do we count? How do we count it?

✓ Policy: SHW integrated

✓ Education

✓ Training

✓ Briefings (number, frequency)

— — — — —
✓ Follow-up

✓ Action

✓ Evaluation

✓ Learning

Objective



Subjective



The 14 Proactive Leading Indicators

1.1 Visible leadership commitment

1.2 Competent leadership

2.1 Evaluating risk management

2.2 Learning from unplanned events

3.1 Workplace and job induction

3.2 Evaluating targeted programmes

4.1 **Pre-work briefings**

4.2 Planning and organization of work

5.1 Innovation and change

5.2 Procurement

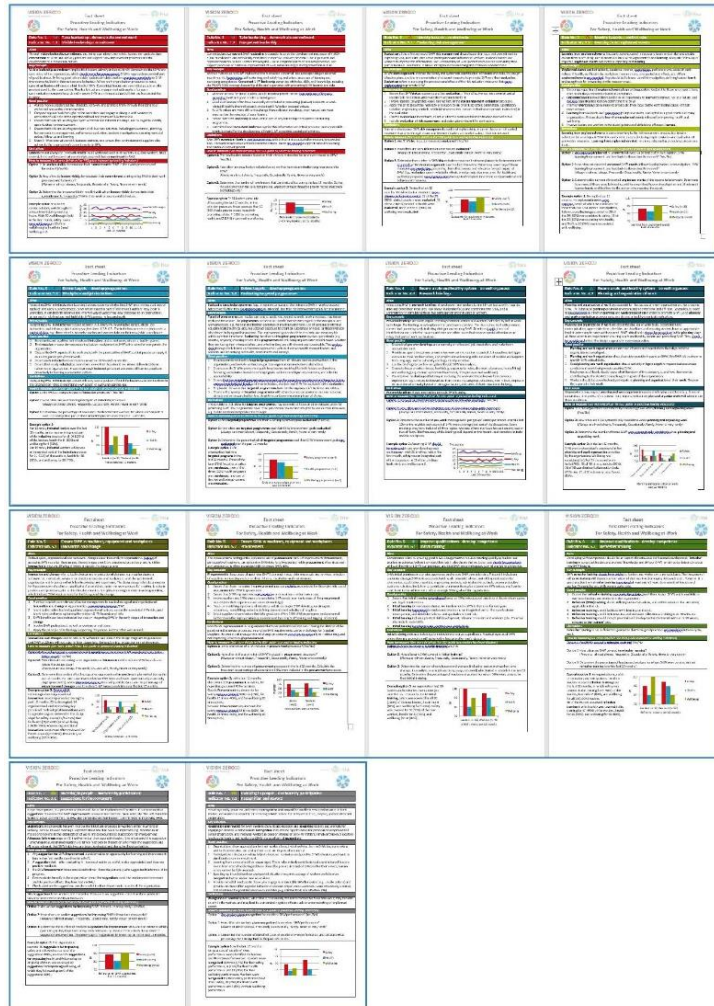
6.1 Initial training

6.2 Refresher training

7.1 Suggestions for improvement

7.2 Recognition and reward

14 Fact sheets



Indicator No. 4.1	Pre-work briefings
Rule No. 4	Define targets – develop programmes

Aims
Integrating SHW in pre-work briefings allows leaders and workers to identify context specific hazards, risks and prevention measures. This shows leadership focus and commitment to SHW, and a commitment to stimulating the active participation and influence of workers.

Key concepts
Pre-work briefings are short, regular meetings between leaders and workers held directly before work tasks begin. The briefings may be planned or spontaneous/ad-hoc. The discussions deal with previous, current and upcoming work, including dialogue on ensuring SHW. Attention is paid to mutual identification and control of hazards and risks and other issues that deserve special attention as an integrated part of work and business.

Good practices

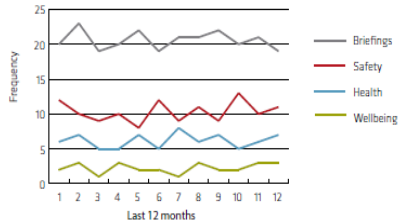
1. Ensure that pre-work briefings are a normal part of leaders' job description, and make them accountable for it.
2. Provide an open atmosphere, wherein two-way communication is central. Ask questions to trigger workers to think for themselves, and employ active listening skills. Be aware of positive and negative body language, and be culturally and linguistically sensitive.
3. Use the briefings to confirm or update the job SHW risk analysis.
4. Ensure to focus on safety issues, health (such as exposure to noise, chemical substances, heavy lifting) and wellbeing (for example mutual support and teamwork, time pressure and work load).
5. Pay attention to challenges that may arise during the work and those known from previous experiences: including unexpected deviations from the norm, dangerous situations, near misses, exposure to hazardous chemical, physical or biological factors, and cases of discrimination or bullying.

Limitations
Pre-work briefings should not replace periodic SHW training.

How to measure (See more details in the ISSA guide to proactive leading indicators)

Option 1: Are SHW an integrated part of discussions in pre-work meetings? (Yes/No)
Option 2: How often are SHW an integrated part of discussions in pre-work meetings? (Always or almost always, Frequently, Occasionally, Rarely, Never or very rarely)
Option 3: Determine the number of pre-work meetings held (per group/ leader) per month over the last 12 months in which each aspect of SHW was an integrated part of the discussions. Some meetings may have included all three topics, whereas others may have focused on only one or two of them. The frequency of the briefings will depend on the hazards and variations in tasks and the workplace.

Example option 3: Assuming SHW should be addressed in pre-work briefings each working day - with 20 briefings held in the first month, safety was an integrated part of the discussions in 12 of the briefings, health in 6, and wellbeing in 2.



← Aims

← Key concepts

← Good practice

← Limitations

← How to measure (3 options)

← Example of graphical results

Three options for using the indicators

Example indicator 4.1:

Are Safety, Health and Wellbeing an integrated part of discussions in pre-work meetings?



Option 1: YES / NO

Option 2: Frequency estimation - scale of 0 - 4, 'Never' to 'Always'

Option 3: Quantitative measurement – actual frequency or percentage

Option 1, the YES / NO checklist

	Safety		Health		Wellbeing		Total
	YES	NO	YES	NO	YES	NO	YES
1. Are SHW an integrated part of discussions in pre-work meetings?	√		√		√		3
2. Is the promotion of SHW included in procurement processes?	√		√			√	2
3. Are SHW covered in refresher training?	√			√	√		2
Etc. for all 14 indicators	...	...	...	...	...	...	...
“YES” total	12/14 (86%)		6/14 (43%)		4/14 (29%)		22/42 (52%)

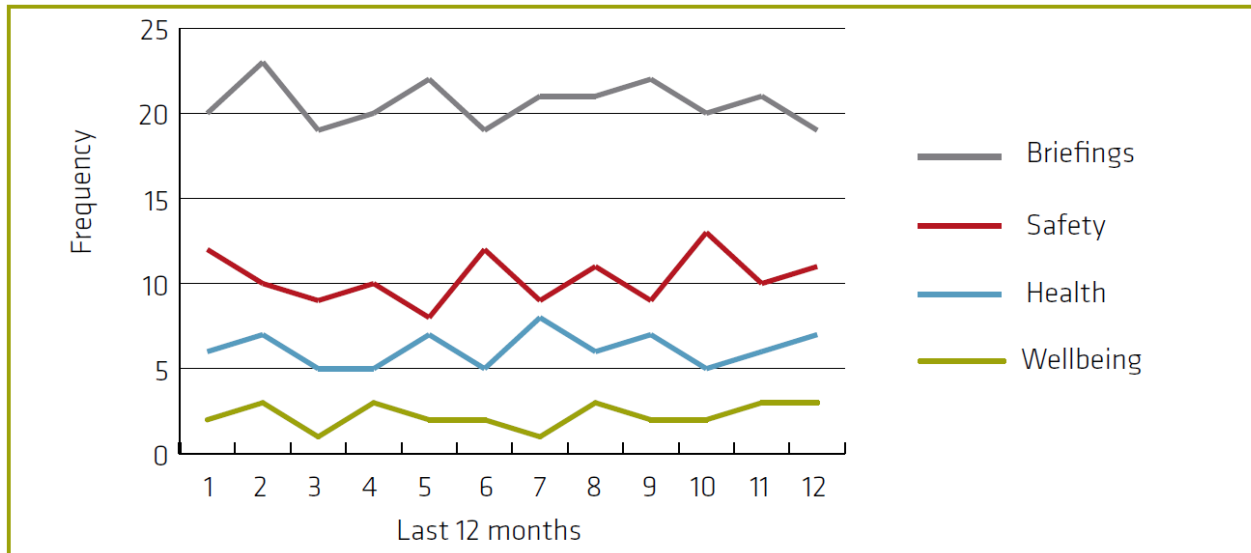
Option 2, Frequency estimation



To what degree are the following questions met? Use the following ratings: Always or almost always = 4; Frequently = 3; Occasionally = 2; Rarely = 1; Never or very rarely = 0	Safety	Health	Wellbeing	Total
1. How often are SHW an integrated part of discussions in pre-work meetings?	2	3	1	6
2. How often is the promotion of SHW included in procurement processes?	3	2	2	7
3. How often are SHW covered in refresher training?	4	3	3	10
Etc. for all 14 indicators	...	...	...	...
Total	46/56 (82%)	32/56 (57%)	34/56 (61%)	112/168 (67%)

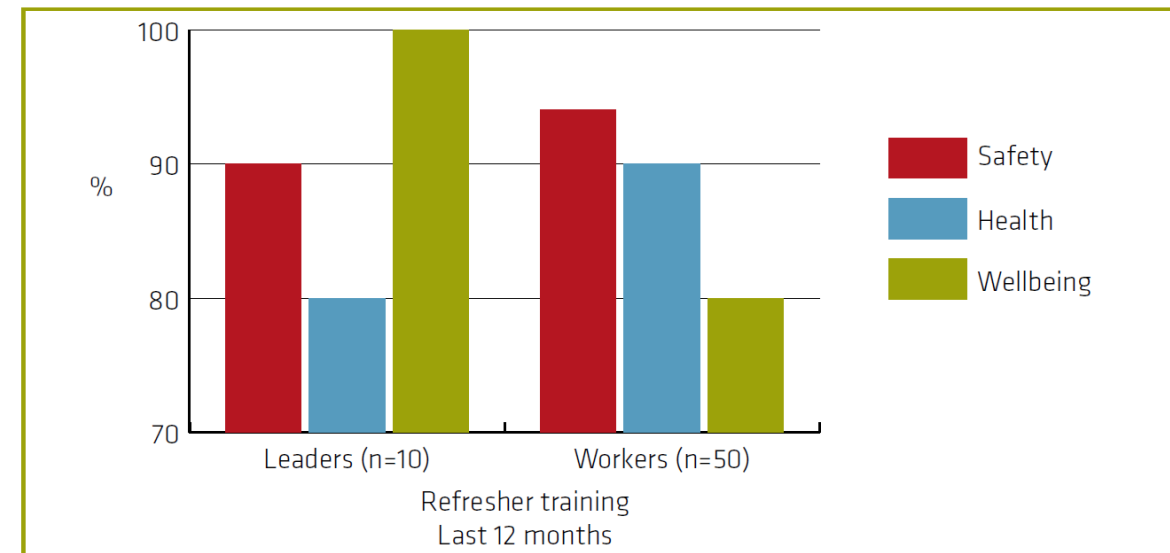
Option 3, Quantitative measurement

Frequency



How often are SHW an integrated part of discussions in pre-work briefings?

Percent



How often are SHW covered in refresher training?

Working with leading indicators

- Identify your strengths and needs for improvement in SHW
- Discuss priorities with leaders and workers
- Adapt the indicators – make them relevant for your context and resources
- **Get experience with one or two indicators**

Proactive leading indicators

- Guide with 14 fact sheets
- <http://visionzero.global>

- Available in:
 - English
 - French
 - German
 - Japanese
 - Russian
 - Spanish
 - Ukrainian
 - Etc.



Scientific publication

- Zwetsloot, Leka, Kines, Jain (2020). Vision Zero: Developing proactive leading indicators for safety, health and wellbeing at work. *Safety Science*. 130, 104890, 1-10.
- Open access (free to download)



Vision zero: Developing proactive leading indicators for safety, health and wellbeing at work

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ARTICLE INFO

Keywords:
Benchmarking
International Social Security Association
Knowledge transfer and exchange
Research to practice
Prevention culture
Key performance indicator

ABSTRACT

The importance of leading occupational safety and health (OSH) indicators in complementing lagging indicators is an emerging topic for the promotion of a prevention culture in organizations. The purpose of this paper is to describe the development process of a set of proactive leading indicators for safety, health and wellbeing (SHW) at work, which was carried out as part of the International Social Security Association's (ISSA) Vision Zero strategy. Principles of integrated knowledge transfer and exchange between research, policy and practice were followed in both the conception and development phases, and a mixed methods approach was applied across four stages consisting of: a literature review and input from industry; a quantitative evaluation through an online survey; a qualitative evaluation through feedback from organizational representatives and key stakeholders; and a consensus building workshop with the ISSA Steering Committee. A set of fourteen indicators was developed to complement the ISSA Vision Zero strategy, two in relation to each of its seven golden rules for promoting SHW at work. The indicators deal with integrating each aspect of SHW in e.g. visible and competent leadership, procurement, pre-work briefings, evaluating risk management and targeted programmes, learning from unplanned events, innovation and change, work organization, onboarding and refresher training. Results can be presented qualitatively and quantitatively as e.g. 'yes' or 'no' responses, on a Likert or continuum (five-point) scale, or with frequencies and percentages. The indicators are designed for use by both small and large organizations across all sectors, and can be used for benchmarking and as key performance indicators. They are not only intended to better direct and control SHW processes, but also to support the development of a prevention culture. Recommendations are provided on how the indicators can be refined and improved through future research.

1. Introduction

'Vision Zero' (VZ) at work is a transformational approach to prevention that integrates the three aspects of safety, health and well-being (SHW). It is based on the assumption that all accidents, harm and work-related ill-health are preventable. VZ is the ambition and commitment to create and ensure safe and healthy work and to prevent all accidents, harm and work-related diseases in order to achieve excellence in SHW. VZ should be understood as a journey, a process towards the ideal. It is also a value-based vision implying that work should not negatively affect workers' SHW, and if possible, should help them maintain or improve their SHW and develop their self-confidence, competences and employability (Zwetsloot et al., 2017b). VZ is regarded as a commitment strategy (Zwetsloot et al., 2013a; Zwetsloot et al., 2017a), which

implies that the process of continual improvement is driven by the commitment of both (top) leaders and workers. In the implementation of VZ commitment, communication, culture, and learning, are key aspects (Zwetsloot et al., 2017a). A commitment strategy can start at any level of SHW performance, and trigger a continual improvement process. This implies that VZ is relevant for a large variety of organizations (not only for the well-known frontrunners, but also for small organizations).

This paper describes the development of a set of proactive leading indicators for SHW for the International Social Security Association (ISSA). ISSA and its fourteen sections for prevention launched their VZ strategy and the ISSA Global VZ Campaign in September 2017 at the XXI World Congress on Safety and Health at Work in Singapore. The strategy and campaign are run by ISSA partners in more than 80

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Scientific paper:

Vision Zero - Developing proactive leading indicators for safety, health and wellbeing at work. Zwetsloot G, Leka S, Kines P & Jain A. Journal: **Safety Science**, 2020, 130, article no. 104890, pages 1-10.

<https://doi.org/10.1016/j.ssci.2020.104890>