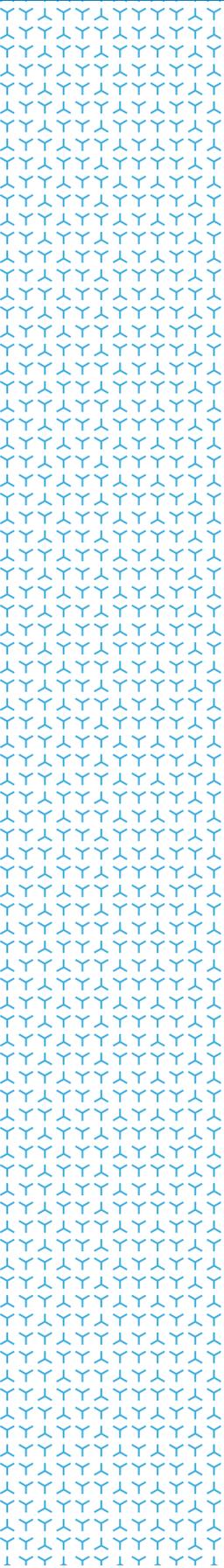


Novartis AG



Occupational Health & Safety Data Supplement

2017



NOVARTIS



Health and safety

Why it is important

At Novartis, our mission is to discover new ways to improve and extend people's lives. Health, Safety, Environment and Business Continuity Management (HSE & BCM) are integral to this mission, enabling us to consistently deliver medicines to patients safely, efficiently and without interruption. Employee health and safety is an integral part of our responsibility as an employer. Novartis Group companies are committed to providing all associates with safe workplaces.

How we approach it

As a leading healthcare company, Novartis has established ambitious objectives for HSE & BCM:

- Nurture a healthier workforce that stays safe, protect the communities in which we operate and continually minimize and offset our current and historic environmental footprint;
- Ensure our patients and customers receive their medicines, products and services without interruption; secure our company assets and key business processes; and
- Minimize the impact of emergencies on people, supply, and assets and enhance our long-term reputation.

Novartis continuously seeks innovative, sustainable strategies and systems to strengthen our commitment to occupational health and safety. Rigorous technical standards, reinforced by engineering solutions, ensure that workplaces are safe for Novartis associates as well as third party personnel and contractors.

Risk management

We take a precautionary approach to minimizing health, safety and environmental impacts across all our operations. This includes managing risks proactively through appropriate preventive and contingency measures. Risk portfolios are prepared on an annual basis, and corresponding risk minimization actions are devised and implemented. We undertake site analyses and inspections to assess site-specific risks, and we deliver HSE training to staff to embed good HSE practices.

Safety culture

Novartis proactively fosters and encourages a strong culture of safe behavior and on-site health promotion. Our Occupational Medicine department delivers programs to maintain health, reduce absenteeism, and enhance employees' ability to return to work after injury or illness. In addition, a significant number of units have introduced safety culture initiatives – behavior-based safety programs – to complement existing measures for ongoing safety management at sites. Local management

teams undertake a number of measures to promote safety awareness, including on-site walkthrough inspections by senior managers with a focus on serious injury and fatality (SIF) exposures and their safety controls.

Workplace health promotion

Launched in 2011, Be Healthy is our companywide health and well-being initiative, and builds on a tradition of providing health and well-being programs for Novartis associates. We place particular focus on prevention; statistics from the World Health Organization show that workplace health and well-being programs addressing lifestyle changes can help prevent up to 40% of noncommunicable diseases such as cardiovascular disease, cancer and lung disorders.

Be Healthy aims to help associates around the world embrace healthy lifestyles by providing opportunities for them to take control of their personal health and help prevent future health issues. The initiative is based on four pillars:

- Move: increase physical activity and decrease sedentary behavior
- Choose: eat healthy and appropriately to keep in top shape at work and at home
- Know your numbers: help associates know their key health numbers so that they can take control of their health
- Manage: provide support for associates with disabilities or illnesses to maintain or regain their ability to perform at home and at work

Be Healthy also offers healthy living and screening activities, as well as support to associates who suffer from chronic illnesses. We ensure active care management and provide support to associates after an absence due to an illness or injury so they can return to work and perform in an environment that enables them to contribute optimally. In addition, as part of Be Healthy, we provide associates access to Employee Assistance Programs (EAP) offering psychological, social, legal and financial support services.

How we perform

Novartis reports work-related injuries and illnesses among Group company associates. Our lost-time injury and illness rate (LTIR) is a key performance indicator, enabling direct comparison between the performance of our units and on a country-by-country basis. Since 2014, the LTIR also includes third-party personnel.

The total recordable case rate (TRCR) includes work-related injury with or without lost time, work-related illness with or without lost time, work-related loss of consciousness and work-related fatality. Since 2014, the TRCR also includes third-party personnel.

Key performance indicators	2017	2016	2015
Lost-time injury and illness rate (per 200 000 hours worked) ¹	0.12	0.08	0.11
Total recordable case rate (per 200 000 hours worked) ^{1,2}	0.36	0.31	0.40

¹ Data include Novartis associates and third-party personnel managed by Novartis associates.

² Includes all work-related injury and illness, whether leading to lost time or not

Novartis GRI Content Index

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Occupational Health and Safety

403-1 Workers representation in formal joint management-worker health and safety committees

- a. **The level at which each formal joint management-worker health and safety committee typically operates within the organization.**
- b. **Percentage of workers whose work, or workplace, is controlled by the organization, that are represented by formal joint management-worker health and safety committees.**

Novartis has established a HSE & BCM Management System Manual defining clear roles and responsibilities within the company. Function, Division, Business Unit, platform and site leadership own and are accountable for HSE & BCM performance within their operation(s) and location(s).

They provide visible leadership toward achieving a strong compliance and incident-free culture by leading HSE & BCM management review meetings with relevant stakeholders. In 2017, 86% of sites with more than 100 Novartis associates had a formal joint management/worker health and safety committee that met on a regular basis to monitor and advise on the site occupational health and safety program and performance.

Relevant sites like manufacturing, research and development have 100% coverage. Office sites rarely have HSE committees and tend to appoint safety coordinators instead. Overall, 91% of the Novartis associates are represented in such committees.

403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work related fatalities

- a. **Types of injury, injury rate (IR), occupational disease rate (ODR), lost day rate (LDR), absentee rate (AR), and work-related fatalities, for all employees, with a breakdown by: i. region; ii. gender.**
- b. **Types of injury, injury rate (IR), and work-related fatalities, for all workers (excluding employees) whose work, or workplace, is controlled by the organization, with a breakdown by: i. region; ii. gender.**
- c. **The system of rules applied in recording and reporting accident statistics.**

Serious Injury and Fatality Prevention

At Novartis, the reporting, investigation and reduction of cases with serious injury and fatality (SIF) potential was a priority in 2017. A SIF case is defined as a work-related incident that results in a serious injury or even death to the person involved. Reporting of SIF and SIF potential cases is an integral part of the annual HSE&BC plans. In 2017, we recorded no serious injuries and unfortunately one fatality.

The SIF prevention program was started in 2014 and the initial focus was risk-based to identify, assess and improve control for situations with a serious injury and fatality potential. A nine step program has been developed in 2017 to focus on better understanding and trending the precursors for SIF exposure. Improved incident analytics and trending have identified key focus areas and technical requirement documents with associated training, and gap assessments have been launched as part of our management system to improve control for these common causes of SIF exposure.

Good safety performance is linked to a supportive culture where associates are empowered to speak up and stop work if there is something wrong. A Safety Culture survey was conducted in 2017 to identify opportunities for improvements and additional support. Workshops have started across the organization to emphasize accountability and the importance of safe behaviors.

Contractor management has been identified as a critical element of our SIF prevention program. Many initiatives were launched in 2017 to ensure better engagement and governance. Examples include proposals to evaluate contractors based on their safety performance and stricter criteria for their initial selection.

The safety of our drivers remains a high priority with the ongoing Driver Safety Program. The key focus areas are:

- Restrict the use of two wheelers and transition toward four wheel vehicles where possible
- Increase awareness on distracted driving as the main cause of road accidents
- Share best practice through the Global Driver Safety Network
- Restrict the use of cell phones and electronic devices
- Reinforce the ban on driving under influence of alcohol and drugs.

In 2017, we developed our HSE&BCM resilience strategy as a transition away from the traditional audit process. This program is an enabler for our people to openly engage in continuous improvement and sharing. Through improvement workshops that develop leadership knowledge, open review of our critical programs and utilizing operational excellence practices, we work to ensure that we deliver strong HSE&BCM performance.

Lost Time Injury and Illness Rate (LTIR)

Novartis reports work-related injuries or illnesses among company associates. Our Lost Time Injury and Illness Rate (LTIR) is a key performance indicator, enabling direct comparison between the performance of our units and on a country-by-country basis. Since 2014, the LTIR also includes third-party personnel. The LTIR for 2017 was 0.12, slightly above our all-time low result of 0.08 in 2016. In 2017, the organization continued to focus on the potential for Serious Injury or Fatality. The LTIR was removed as an organizational target and replaced with targets on SIF prevention.

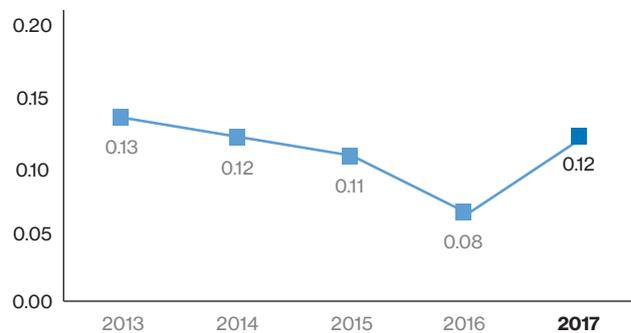
Continuing management commitment and rigorous roll-out of the above-mentioned comprehensive SIF prevention program, combined with ongoing training for associates, have driven our progress in the overall injury and illness reduction. All significant incidents including incidents with SIF potential, incidents with lost time, and relevant near-misses are investigated. The level and extent of the investigation reflect the seriousness or potential impact of the event. Suitable processes and criteria – such as risk/potential consequences and learning potential – are put in place to ensure that investigations are carried out adequately.

Total Recordable Case Rate (TRCR)

Many injury and illness cases without lost time have the potential to lead to lost time. Identifying and managing the circumstances in which these incidents occur ultimately reduces the overall risk of having a serious incident, lost time injuries and illnesses or even fatalities. A recordable case includes:

- Work-related injury with or without lost time
- Work-related illness with or without lost time
- Work-related loss of consciousness
- Work-related fatality

Lost-Time Injury and Illness Rate



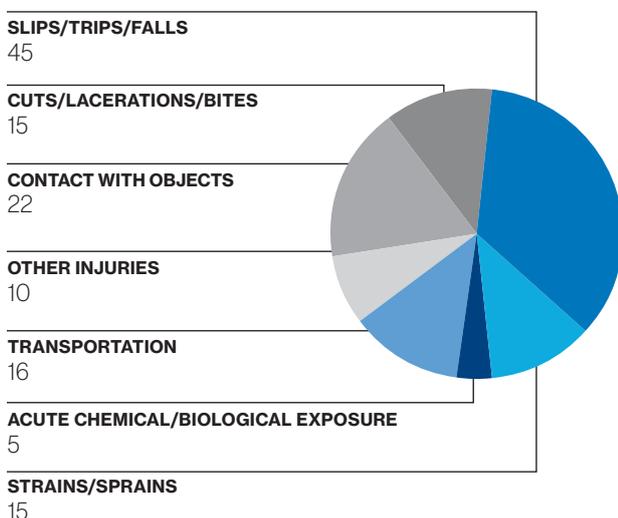
The Total Recordable Case Rate (TRCR) equals the division of all recordable cases by the hours worked, multiplied by 200 000 for standardization. Since 2014, the TRCR also includes third-party personnel. In 2017, the Novartis Group TRCR was 0.36, slightly above 0.31 achieved in 2016.

Occupational injury and illness to company associates

During 2017, a total of 381 company associates suffered work-related injuries. Of these, 128 (2016: 83) led to days off work (integrated into the LTIR). The distribution of injuries by immediate cause indicates that the most prominent safety issues are related to non-operational activities, such as slips, trips and falls at offices and sites, and transport accidents within the sales force. Together, these causes account for 48% of occupational injuries with lost time.

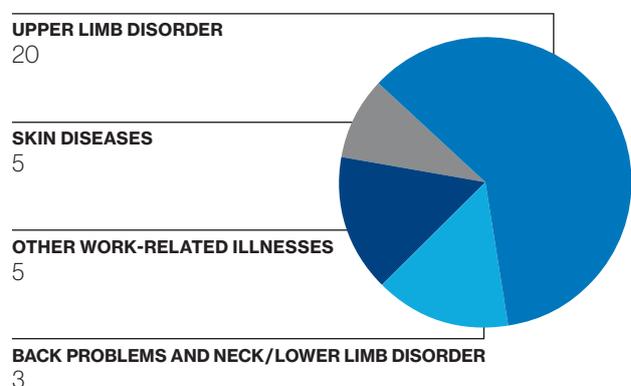
Injury with lost time 2017

Total: 128 associates



Illness with and without lost time 2017

Illness total: 33 associates



Novartis sites reported a total of 33 occupational illnesses in 2017, compared to 17 in 2016. Of these, 3 – compared to 6 in 2016 – led to days off work. This figure is integrated into the LTIR, and represents 2% of the total lost time cases. The most prominent work-related health issue remains musculoskeletal disease, which accounted for 70% of illness cases in 2017.

The Lost Time Occupational Illness Rate was 0.003 per 200 000 working hours in 2017, compared to 0.005 in 2016. The Total Recordable Occupational Illness Rate was 0.028 per 200 000 working hours in 2017, compared to 0.013 in 2016.

Third-party personnel injuries

Year	Number of TPP	Number of injury cases w/wo lost time
2013	10 700	61
2014	11 400	60
2015	11 800	62
2016	12 500	58
2017	12 400	49

Occupational injury and illness to third-party personnel

Beyond Novartis associates, we recognize our responsibility to promote the health and safety of third-party personnel (TPP). TPP are those individuals employed by a third party that invoices Novartis for hours completed. They work regularly on Novartis premises and receive day-to-day work assignments from Novartis associates. Some companies refer to these individuals, including sub-contracted workers, as contractors (see below Occupational injury and illness to contractors for our definition of contractors).

In 2017, Novartis employed more than 12 400 TPP. There were 49 occupational injuries and illnesses among this group. Of these, 20 resulted in lost time. As with our own associates, any incident is rigorously investigated in order to reduce the total number of work-related incidents.

Due to the increasing number of TPP working for Novartis, LTIR and TRCR targets since 2014 include this population (see LTIR and TRCR sections above). The TPP LTIR for 2017 was 0.16 and the TPP TRCR for 2017 was 0.40. Novartis does not differentiate between occupational injuries or illnesses for TPP. As a consequence, it is not possible to calculate a Lost Time Occupational Illness Rate for TPP.

Occupational injury and illness to contractors

Beyond Novartis associates and TPP, we recognize our responsibility to promote the health and safety of contractors. Contractors are those individuals employed by companies undertaking work for Novartis within the terms of a contract or service agreement. In contrast with TPP, contractors receive day-to-day work assignments from their companies' management and are hired to complete a job on their own. Novartis only reports health and safety data from contractors who regularly work at a Novartis site, such as cleaning, catering, security, engineering and maintenance personnel. These contractors, known as "fixed" or "nested" contractors, work a minimum of one month per year for Novartis.

Novartis reports the LTIR for contractors, but not the TRCR for this group. Because we cannot precisely determine the number of cases without lost time for this group on a global level, the rate would be inaccurate and unreliable.

Novartis employed approximately 15 000 contractors during 2017. There were 49 occupational injuries and illnesses with lost time among this group in 2017. The contractor LTIR for 2017 was 0.37 (compared to 0.44 in 2016). Novartis does not differentiate between occupational injuries or illnesses for contractors. As a consequence, it is not possible to calculate a Lost Time Occupational Illness Rate for this group.

Overall health and safety data by region

The following tables present selected key health and safety performance figures by region. Due to privacy and equal opportunity considerations, Novartis does not break down health and safety data by gender.

COMPANY ASSOCIATES HEALTH AND SAFETY, BY REGION

Region	Total injury and illness cases	Fatalities	Total cases with lost time	Total lost-time days	Total working hours	TRCR	LTIR
Europe	178	0	81	901	99 119 407	0.36	0.16
North America	195	0	32	666	48 336 437	0.81	0.13
Latin America	9	1	5	30	11 640 367	0.17	0.09
Asia	29	0	13	38	64 326 612	0.09	0.04
Middle East and Africa	1	0	0	0	6 663 422	0.03	0.00
Oceania	2	0	0	0	1 569 393	0.25	0.00
Total	414	1	131	1635	231 655 638	0.36	0.11

THIRD-PARTY PERSONNEL HEALTH AND SAFETY, BY REGION

Region	Total injury and illness cases	Fatalities	Total cases with lost time	Total working hours	TRCR	LTIR
Europe	24	0	14	9 720 780	0.49	0.29
North America	22	0	6	5 393 652	0.82	0.22
Latin America	0	0	0	1 584 145	0.00	0.00
Asia	3	0	0	6 080 294	0.10	0.00
Middle East and Africa	0	0	0	1 334 937	0.00	0.00
Oceania	0	0	0	266 934	0.00	0.00
Total	49	0	20	24 380 742	0.40	0.16

CONTRACTORS HEALTH AND SAFETY, BY REGION

Region	Fatalities	Total cases with lost time	Total working hours	LTIR
Europe	0	40	12 947 416	0.62
North America	0	6	5 162 606	0.23
Latin America	0	1	2 860 733	0.07
Asia	0	2	4 909 180	0.08
Middle East and Africa	0	0	577 559	0.00
Oceania	0	0	27 147	0.00
Total	0	49	26 484 641	0.37

403-3 Workers with high incidence or high risk of diseases related to their occupation

- a. Whether there are workers whose work, or workplace, is controlled by the organization, involved in occupational activities who have a high incidence or high risk of specific diseases.**

Novartis associates at many sites handle biologic or infectious materials. Handling biological materials is an integral and essential part of research, development and manufacturing programs at Novartis. Biological materials can include human or animal pathogens, genetically modified viruses, and experimental or transgenic animals.

We take great care in an effort to ensure we prevent misuse of material. Our biosafety program sets out standards, tools and practices for associates to manage potential risks when handling biological materials. Risk management and safety measures are stipulated in our guidelines on biosafety and in our detailed guidance notes. These standards are binding and based on best practice. We regularly assess compliance through inspections and conformance reviews at sites conducting biological activities. Owing to the high level of risk management, there are no occupational illnesses recorded in this group.

403-4 Health & Safety topics covered in formal agreements with trade unions

- a. Whether formal agreements (either local or global) with trade unions cover health and safety.**
- b. The extent, as a percentage, to which various health and safety topics are covered by these agreements.**

HSE & BCM is a fundamental component of our long-term business strategy. We provide our associates with safe working conditions, and strive to protect them from potential health hazards and injuries. All Novartis associates are expected to adhere to the health and safety requirements outlined in the Novartis Global HSE Policy and the Novartis Code of Conduct.

We do not collect information globally on whether health and safety topics are covered in formal agreements with trade unions or with Novartis Employee Representative Councils (NERCs). We consult local trade unions and NERCs to understand the approach to implementing these requirements on a country-by-country basis. For instance, at sites in Basel and the Rhine Valley, Novartis holds consultation processes and sets up commissions with Employee Representative Councils on various HSE & BCM topics.