

Prevention of spinal cord injury

To coincide with the International Day of Persons with Disabilities, 3 December, WHO has launched the *International perspectives on spinal cord injury*. This report summarises the best available evidence on the causes, prevention, care and lived experience of people with spinal cord injury (SCI) across the life course and throughout the world. The report follows on from the *World report on disability* and will further implement the Convention on the Rights of Persons with Disabilities (CRPD). The report has been developed in association with the International Spinal Cord Society and with support from Swiss Paraplegic Research.

Globally, between 40 and 80 persons per million population suffer a traumatic spinal cord injury (TSCI) or non-traumatic spinal cord injury (NTSCI) every year. This means there are between 250 000 and 500 000 new cases annually: one to two new cases every minute. People with SCI are two to five times more likely to die prematurely. Preventable secondary conditions, such as infections from untreated pressure ulcers, are no longer among the leading causes of death of people with SCI in high-income countries, but these conditions remain the main causes of death of people with SCI in low-income countries. SCI is associated with lower rates of school enrolment and economic participation, and it carries substantial individual and societal costs.

The new report highlights that the majority of SCIs are due to preventable causes: road traffic injuries, falls and violence. For example, nearly 70% of cases in the WHO African Region, 55% in the WHO Western Pacific Region and 40% in the WHO South-East Asia Region are due to road traffic crashes. Tumours, tuberculosis (TB), infections and spina bifida are implicated in NTSCI. A meta-analysis carried out for this report found an overall incidence rate of spina bifida of 4.5/10 000 live births. The report highlights that a large proportion of both TSCI and NTSCI is preventable.

Many of the consequences associated with SCI do not result from the condition itself, but from inadequate medical care and rehabilitation services, and from barriers in the physical, social and policy environments that exclude people with SCI from full participation. Implementation of CRPD requires action to address these gaps and barriers.

Essential measures for improving the survival, health and participation of people with SCI include the following:

- ▶ Timely, appropriate prehospital management: quick recognition of suspected SCI, rapid evaluation and initiation of injury management, including immobilisation of the spine.
- ▶ Acute care (including surgical intervention) appropriate to the type and severity of injury, degree of instability, presence of neural compression and in accordance with the wishes of the patient and their family.
- ▶ Access to ongoing healthcare, health education and products (eg, catheters) to reduce risk of secondary conditions and improve quality of life.
- ▶ Access to skilled rehabilitation and mental health services to maximise functioning, independence, overall well-being and

community integration. Management of bladder and bowel function is of primary importance.

- ▶ Access to appropriate assistive devices that can enable people to perform everyday activities they would not otherwise be able to undertake, reducing functional limitations and dependency. Only 5–15% of people in low-income and middle-income countries have access to the assistive devices they need.
- ▶ Specialised knowledge and skills among providers of medical care and rehabilitation services.

Essential measures to secure the right to education and economic participation include legislation, policy and programmes that promote the following:

- ▶ Physically accessible homes, schools, workplaces, hospitals and transportation.
- ▶ Inclusive education.
- ▶ Elimination of discrimination in employment and educational settings.
- ▶ Vocational rehabilitation to optimise the chance of employment.
- ▶ Microfinance and other forms of self-employment benefits to support alternative forms of economic self-sufficiency.
- ▶ Access to social support payments that do not act as disincentive to return to work.
- ▶ Correct understanding of SCI and positive attitudes towards people living with it.

The key message of the new report is that SCI although a medically complex and life-disrupting condition is preventable, survivable and need not preclude good health and social inclusion. WHO works across the spectrum from primary prevention of traumatic and non-traumatic causes of SCI, improvements in trauma care, strengthening health and rehabilitation services and support for inclusion of people with SCI.

RELATED LINKS

International perspectives on spinal cord injury

http://www.who.int/disabilities/policies/spinal_cord_injury/

World report on disability

http://www.who.int/disabilities/world_report/2011/en/index.html

CRPD <http://www.un.org/disabilities/default.asp?navid=14&pid=150>

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