Needlestick Facts

One out of five healthcare workers sustain a needlestick injury.
The U.S. Centers for Disease Control and Prevention (CDC) estimates that healthcare workers sustain nearly 385,000
needlestick and sharps-related injuries annually in hospitals. The estimates rise to 800,000 when adding all other
healthcare settings, such as nursing homes, clinics, physician offices and home health, according to the CDC’s National
Institute for Occupational Safety and Health (NIOSH).

Healthcare workers are at risk of infections from needlestick injuries.
Needlestick injuries have resulted in occupational and exposure and infection with bloodborne pathogens, such as
Hepatitis B (HBV), Hepatitis C (HCV), and Human Immunodificiency Virus (HIV).

Safety devices reduce the risk of needlesticks.
Studies have shown an overall decrease in needlestick and sharps injuries after implementation of sharps injury prevention
(SIP) devices. The most effective devices eliminate the use of a needle or sharp completely, such as needleless IV access
ports or blunt suture needles.

Safety devices are the law.
The Needlestick Safety and Prevention Act, signed into law in November 2000, required OSHA to expand its Bloodborne
Pathogen Standard to include a mandate for employers to provide safety devices with “engineered sharps injury protection
and needleless systems” to reduce exposure to bloodborne pathogens. It also requires annual input from frontline workers
for identification, evaluation and selection of devices and other controls. After OSHA revised its Bloodborne Pathogen
Standard in 2001, there was a steady increase in the adoption of SIP devices in U.S. hospitals.

A variety of safety devices are available on the market.
The first U.S. patent for a SIP device was issued in 1984 and the first devices appeared on the market in 1988. Today,
there are more than 2,500 U.S. patents for SIP devices. SIP devices currently available include those devices with safety
features to protect from injury that are (1) manually activated (e.g., user actively engaged the safety mechanism after use);
(2) semi-automatic; and (3) completely automatic or passive (safety mechanism activates as part of its use without
engagement by user).

Automatic safety devices are most effective in preventing needlesticks.
A recent study evaluating the use of 22 million SIP devices found that completely automatic safety devices were ten times
more effective for needlestick injury prevention compared to those devices with automatic or semi-automatic safety
features. (Tosini et al. Infection Control and Hosp Epidemiology April 2010.)

Improvements in technology.
Technology continues to emerge, and many of the sharps injury prevention devices have moved into third or fourth
generation technology with continuous improvements in design and performance. Healthcare worker preference for
specific technology and performance criteria vary widely, making it essential to get frontline worker input into the
selection of safety devices.

Use of safety devices has risen dramatically in past decade
There has been a dramatic rise in the use of safety devices compared to conventional (non-safety) devices to prevent
needlesticks and other sharps-related injuries. According to industry estimates, from 1998 to 2009 the use of safety
devices in all US healthcare settings has risen from: 10 percent to 97 percent for IV catheters; 10 percent to 85 percent for
phlebotomy devices; and 28 percent to 80 percent for syringes and needles. Hospitals are reported to have a higher rate of
conversion to all types of safety devices compared to non-hospital healthcare settings. For syringes, the conversion rates
to safety devices may never reach 100 percent because conventional syringes (non-safety) are still allowed to be
purchased and used for procedures that do not result in contamination of the syringe or are not used on patients, e.g., used
for sterile medication preparation in pharmacy or for injection into needleless access ports on intravenous lines.