



## **Safety in Sampling**

*What are you doing to reduce needlestick injuries?*



# Risks of unsafe sampling

## *The impact of needlestick injuries*

### Are you aware of the risk that your staff faces with needlestick injuries, each day?

- This can lead to exposure to more than 20 blood borne pathogens, including hepatitis B virus (HBV), hepatitis C virus (HCV) and human immunodeficiency virus (HIV).<sup>1</sup>
- The emotional distress of needlestick injuries (NSIs) can be severe and long lasting, often requiring counseling. This is especially true if the injury involves exposure to HIV.<sup>2</sup>
- Independent of the level of healthcare worker (HCW) experience, the incidence of NSIs is still too high.<sup>1</sup>
- The projected 2 million NSIs is probably a low estimate because of lack of surveillance systems and underreporting of injuries. Research has shown 40-75% underreporting of these injuries.<sup>1</sup>

### What is being done to address this risk?

- Risks been recognized and assessed by many governmental bodies and health & safety groups, worldwide, in an effort to reduce the NSI risk to millions of HCW.
- More directives and guidelines have, or will, be implemented to ensure improved HCW safety. Including EU Directive 2010/32/EU, which should be implemented by April 2013.<sup>3</sup>

“2 million HCW experience percutaneous exposure to infectious diseases each year”<sup>4</sup>

### How widespread is the risk of NSIs?

- 37.6% of HBV, 39% of HCV and 4.4% of HIV/AIDS in healthcare workers around the world are due to needlestick injuries.<sup>4</sup>
- In studies spanning 20 countries, healthcare workers experience, on average, one to nine needlestick injuries per year.<sup>4</sup>
- In separate studies 66-95% of all HCW occupational incidents were due to NSIs.<sup>4</sup>

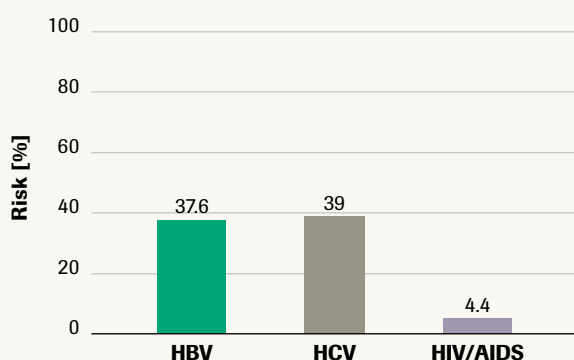


Fig. 1: Percentage risk of blood borne pathogen infections due to needlestick injuries in healthcare workers.<sup>4</sup>

### What is the potential cost impact of NSIs?

- Estimated costs for dealing with NSIs were USD 188.5 million, for the US alone in 2004. These costs were split between medical costs and lost productivity.<sup>5</sup>
- Another report estimated costs of safer needle implementation to be USD 185 million per year, but with treatment costs of USD 291 million, meaning there was an expected net saving of USD 106 million, for the US alone.<sup>6</sup>

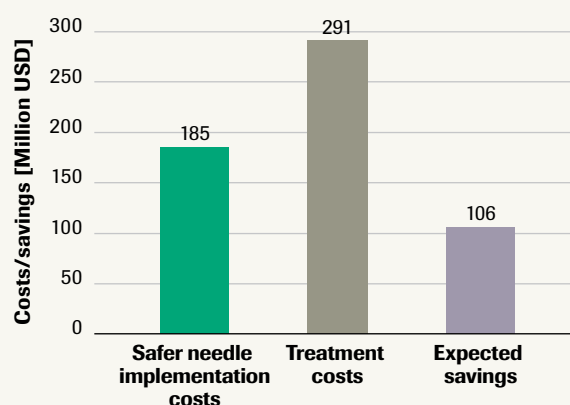


Fig. 2: Estimated costs and savings with reduced needlestick injuries, for the US alone.<sup>6</sup>




# Helping reduce the risk

## *Make your hospital a safer place*

### How can safer sampling help your hospital?

- Between 62-88% of all needlestick injuries could have been avoided by the use of safety devices.<sup>7</sup>
- Health and safety of workers is paramount and is closely linked to the health of patients. This underpins the quality of care.<sup>3</sup>
- Potential savings to the hospital from the implementation of safer sampling devices by reducing NSI incidence and costs.<sup>5</sup>
- Assist hospitals in complying with governmental directives and guidelines.<sup>3</sup>

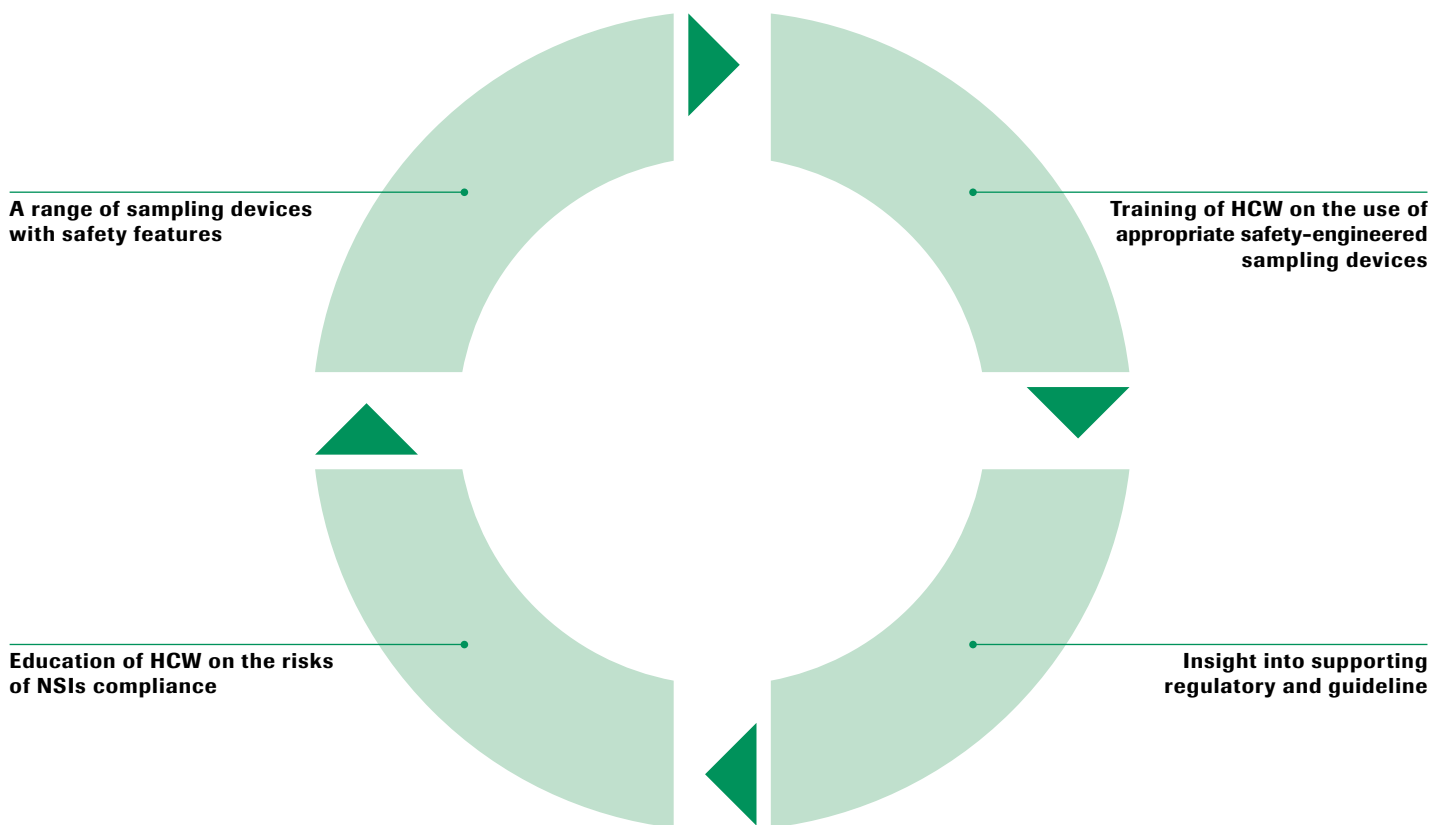


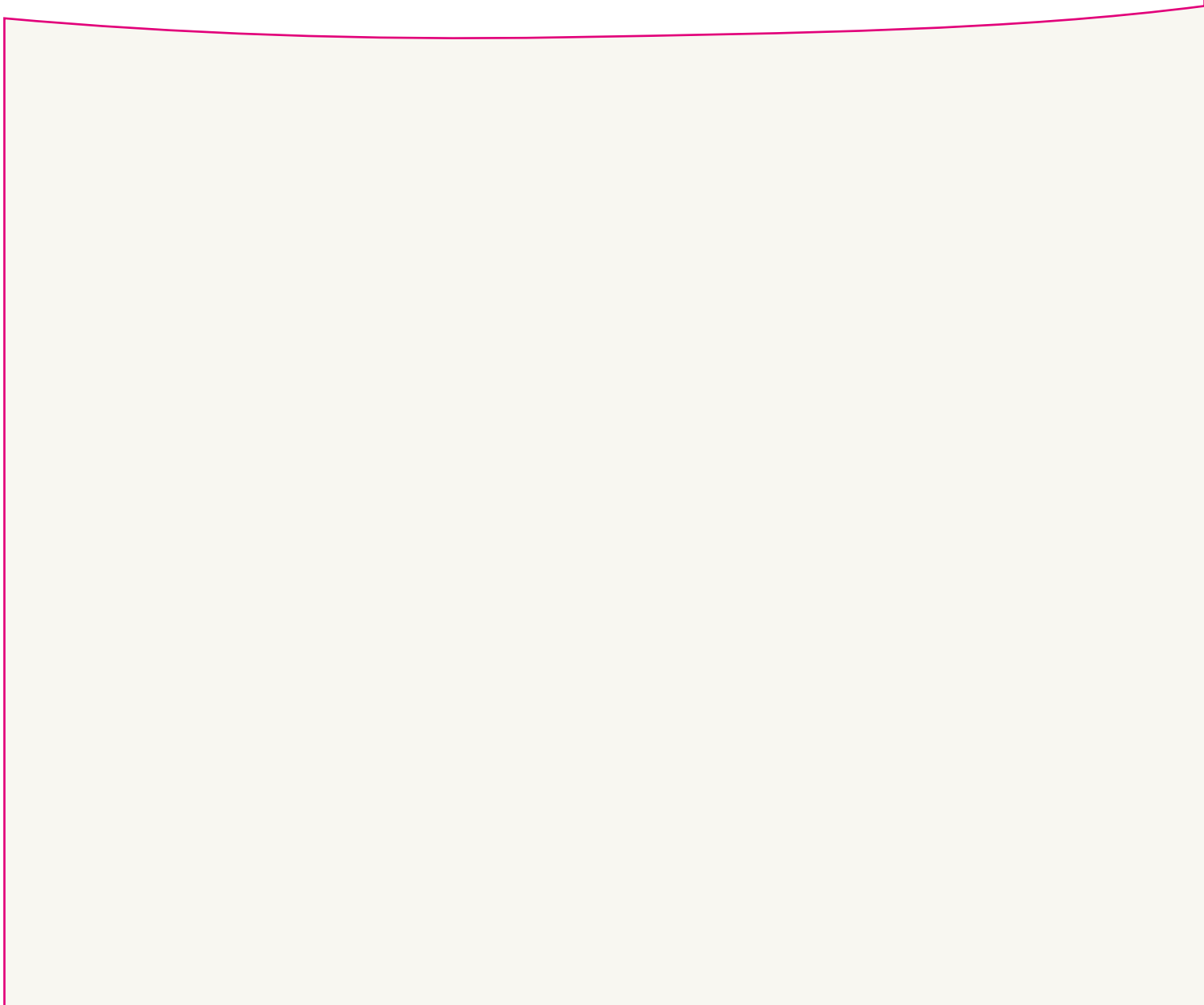
*“Taking action to prevent and protect against unnecessary injuries, if properly carried out, will have a positive effect on resources”<sup>3</sup>*

#### **What can be done to support safer sampling?**

- A risk assessment on exposure to blood borne infections, due to NSIs, should be maximized through: implementing safe procedures for handling and disposing of sharps – Including the use of devices with safety-engineered protection mechanisms.<sup>8</sup>
- A continuous educational effort for HCW leads to a reduction of sharps injuries.<sup>9</sup>
- Monitoring of results on reduction of incidents.<sup>8</sup>
- Appropriate vaccination of at risk HCW (Only Hepatitis B vaccine).<sup>8</sup>
- Incident reporting system procedures reviewed with health and safety representatives.<sup>8</sup>

# How can Roche help you create a safer work environment for sampling?





#### References

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8. OSHA Regulations on Sharps Safety Requirements (2001).

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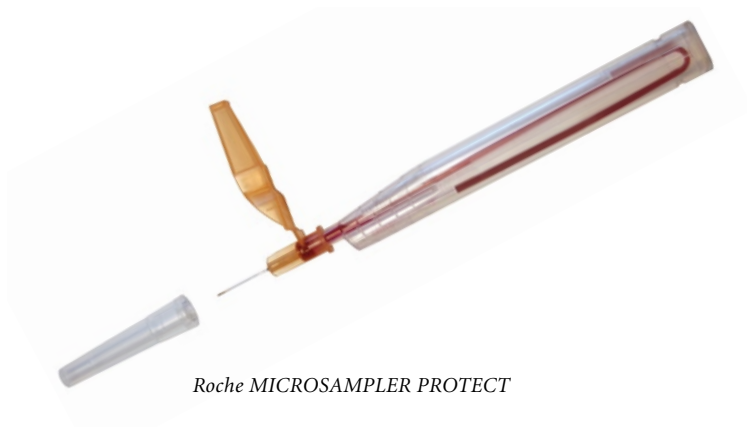
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# Roche MICROSAMPLER PROTECT

*Eliminating the risk of needlestick injuries and minimizing patient pain*



Roche MICROSAMPLER PROTECT

## Prevention of needlestick injuries

- The one-hand operable safety needle of the MICROSAMPLER PROTECT guarantees 100% OSHA and TRPA250 compliance.
- In addition, the integrated plastic capillary reduces the risk of biohazardous contamination compared to glass capillaries, which could break.
- The transparent housing allows a better visibility of the blood flow through the capillary and helps to control the fill level.

## Offering a quick procedure and accurate results.

- Patients like a less traumatic, less painful puncture with one of the smallest gauge needles in the industry.
- The innovative design and function allow you to provide the best in patient care.
- The fast, single step procedure fills automatically with minimal arterial pressure and offers sample stability to meet your most exacting standards.



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*Life needs answers*

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**MICROSAMPLER PROTECT**

<b>Product No.</b>	<b>Description</b>	<b>Pack size</b>	<b>Needle Gauge</b>	<b>Heparin concentration</b>
05772494001	MICROSAMPLER PROTECT, non-sterile	200	25 gauge	6 IU balanced sodium heparin and 9 IU balanced lithium heparin/100 µL
05772583001	MICROSAMPLER PROTECT, sterile	50	25 gauge	6 IU balanced sodium heparin and 9 IU balanced lithium heparin/100 µL
05772591001*	Kit Roche MICROSAMPLER PROTECT USA	50	25 gauge	6 IU balanced sodium heparin and 9 IU balanced lithium heparin/100 µL
03112152180	Caps for Roche MICROSAMPLER PROTECT	300		

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# BD Eclipse™

*Eliminating the risk of needlestick injuries and pre-analytical errors, for the best patient outcome*



BD Eclipse™

## Integrated safety

- The safety shield is an integrated part of the device, not an accessory
- The needle bevel and safety shield are in alignment
- No extra manipulation needed

## One-handed technique

- No change in the collection technique
- Digital pressure to puncture site allowed while neutralizing the needle point

## Enhanced safety

- Locking mechanism is visually and audibly confirmed
- Immediate activation at needle withdrawal
- Irreversible locking mechanism



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**Syringe**

<b>Product No.</b>	<b>Description</b>	<b>Pack size</b>	<b>Needle Gauge</b>	<b>Heparin concentration</b>
04579704001	BD 3 mL Preset balanced heparin with BD Eclipse safety needle	100	22 gauge	80 IU Balanced

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