



# Protecting employees

# Agenda

- 1 Prevention of dust
- 2 Harmony's approach to health
- 3 Industry initiatives
- 4 Conclusion



# Prevention of dust



# Dust management strategy in Harmony

- Awareness and training:
  - Initial training
  - Induction / Refresher Training
  - Silicosis Prevention Training for Health and Safety Reps (MHSC)
  - Silicosis Awareness Communication
  - Continuous Awareness (Asbestikum TV screens)
- Engineering controls:
  - Foggers
  - Airway Spray Systems
  - Spray Cars
  - Multi Stage Filtration
  - Winch Covers
  - Tip Covers
  - Tip Filters



# Silicosis Awareness Communication

An underground worker had been exposed to silica dust in the workplace for over a decade without taking the necessary precautions.

Over a period of years he experienced difficulty breathing, coughing, chest pains, fever and fatigue.

Several years later he was diagnosed with silicosis, an incurable lung disease.

Silica particles in dust are invisible but reach deep inside the lungs.

Never stand in a visible cloud of dust.

When wearing a dust sampler, don't remove it until the end of the shift. It measures the amount of dust around you.

Always wear respirators when working in dusty areas.

## HOW CAN WE PREVENT SILICOSIS IN THE WORKPLACE:

Always water down the work place effectively and repeat during the shift if required.

Never sweep the work area with a dry brush or broom, rather wet the area slightly before sweeping.

Use water spray-cars to wet side and foot walls in tunnels to stop dust.

Maintain good ventilation conditions. Install foggers or dust filters on main tips in main intake airways to ensure good quality air. Fit waterblasts to the end of ventilation columns to trap dust after the blast.

Shower or wash up and change into clean clothes before you leave the mine premises.

Go for your yearly medical examination that includes a lung x-ray.

Don't smoke as this could damage your lungs even further.

Let's all take precautions to prevent silicosis at Harmony Gold.

**CONGRATULATIONS!**  
Issue 5 Winner

**Benjamin Sizane**  
Harmony Target



# Extract from E-Learning training programme



In-haulage Sprays



Tip Filter Units



Respiratory Protection  
Equipment  
(Dust Masks)



Tip Doors



Spray Cars



Winch Protection  
Covers



Dust Monitoring  
Programme



Watering-Down  
Procedure

# Engineering controls

	Planned	Operational
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## MOSH Leading Practices

Foggers	78	66
Airway Spray Systems	82	75
Spray Cars	31	20

## MOSH Simple Leading Practices

Multi Stage Filtration	38	34
Winch Covers	1171	387

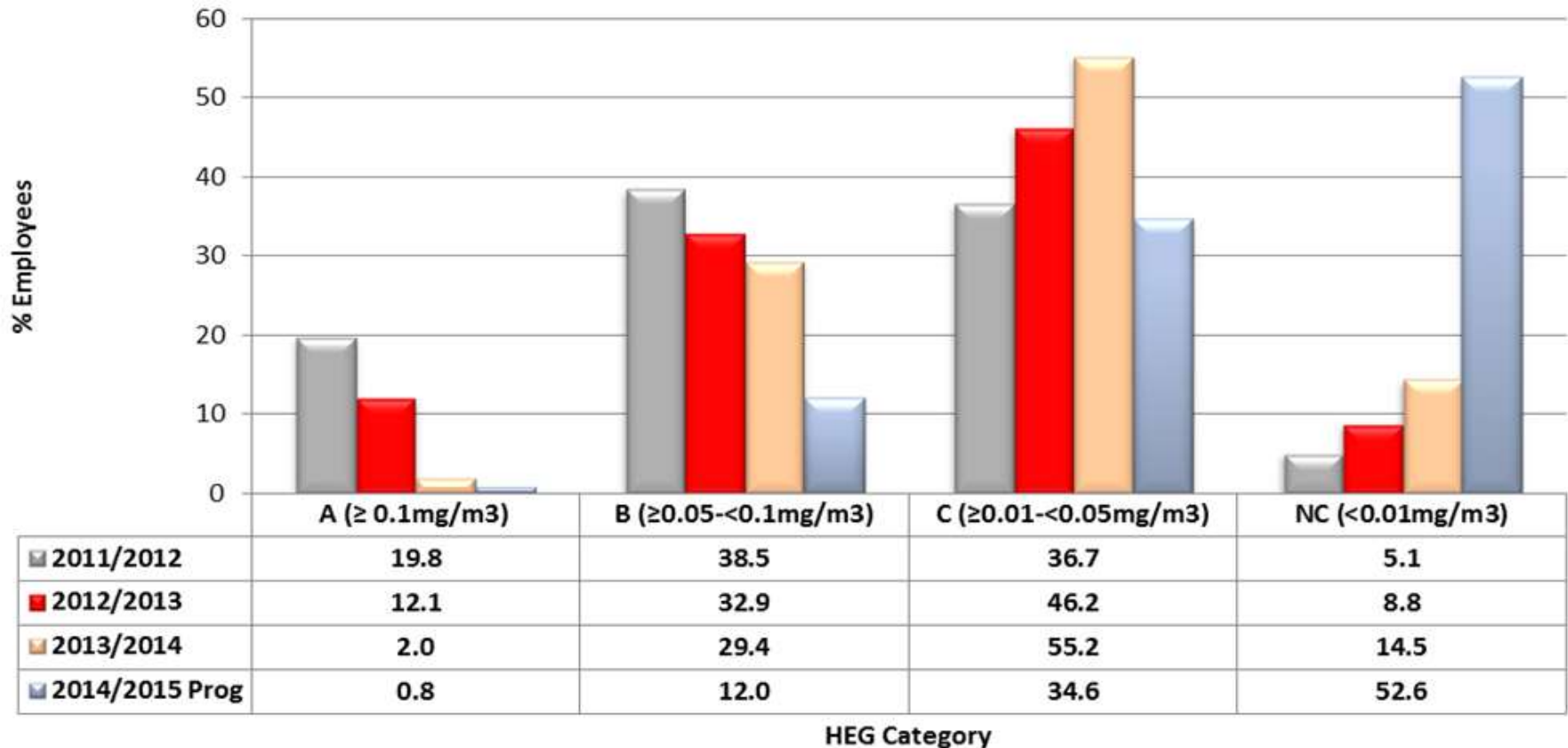
## Harmony Initiatives

Tip Covers	63	62
Tip Filters	49	38



# HEG Population Improvement

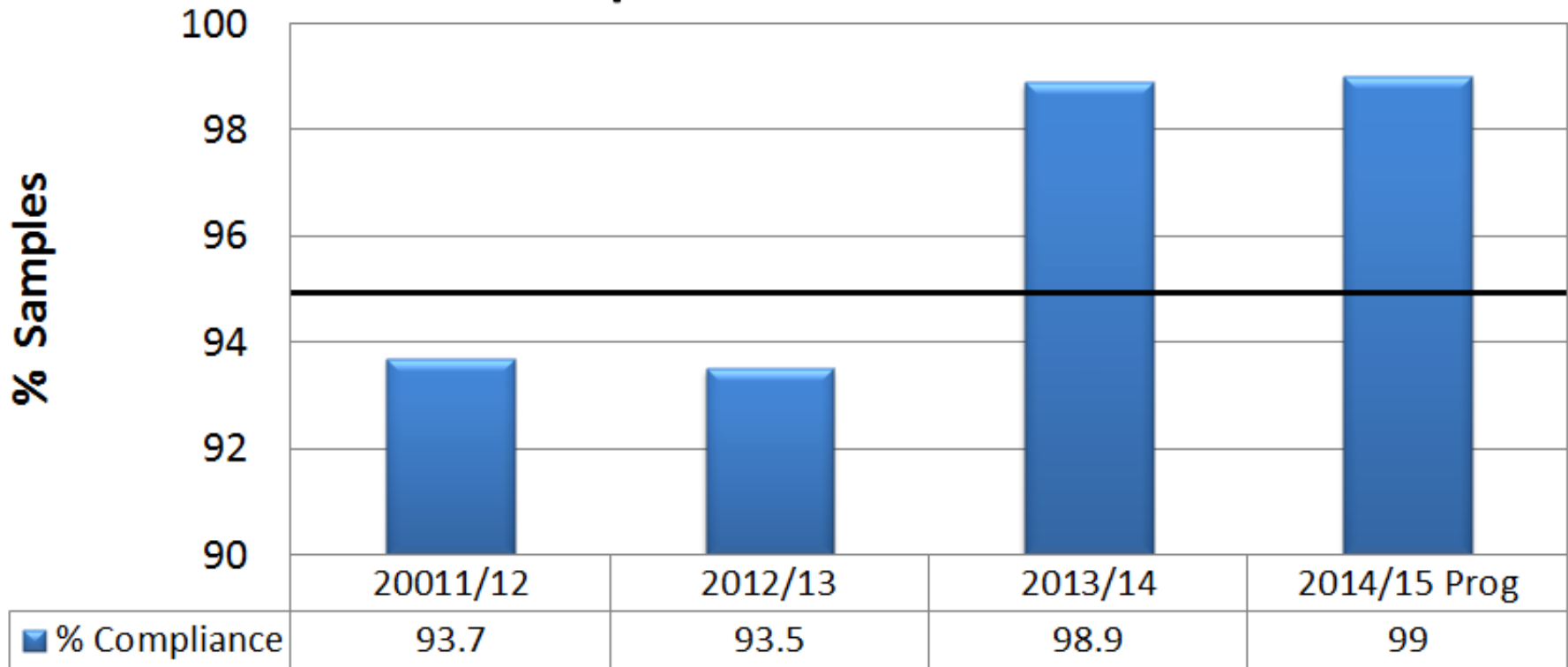
Employees per HEG Category



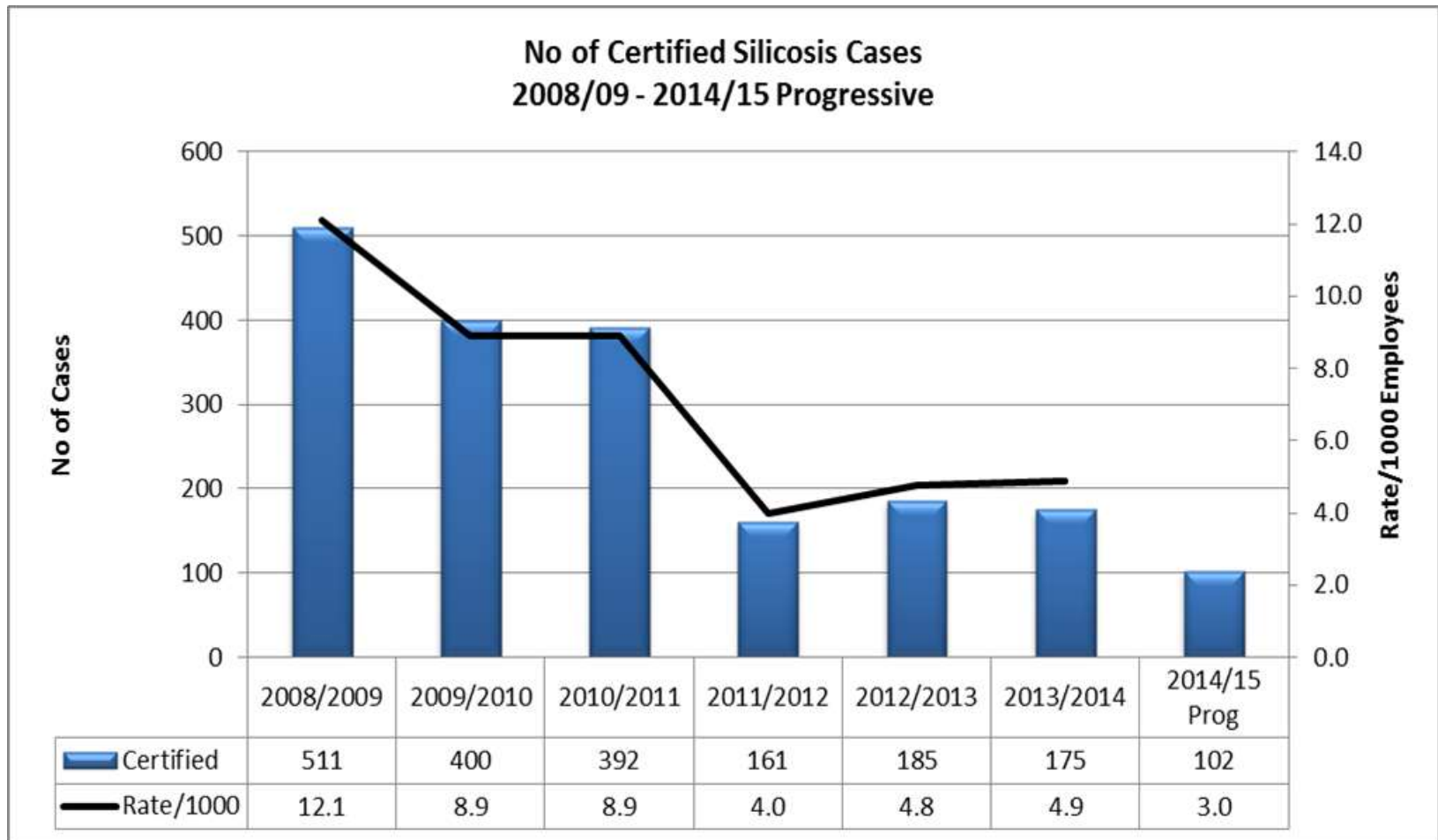


# Milestone Compliance – % Samples below 0.1 mg/m<sup>3</sup>

"95% Samples not to exceed OEL"



# Number of Silicosis Cases and Rate/1000 Employees



# Harmony's approach to health



# A holistic approach to health

**Proactive**

## **Based on pillars**

- Promotion and awareness of risks
- Prevention and assessment of risks
- Intervention (programmes)
- Continuous risk e-profiling

**Proximity**

**Moving services closer to our people**

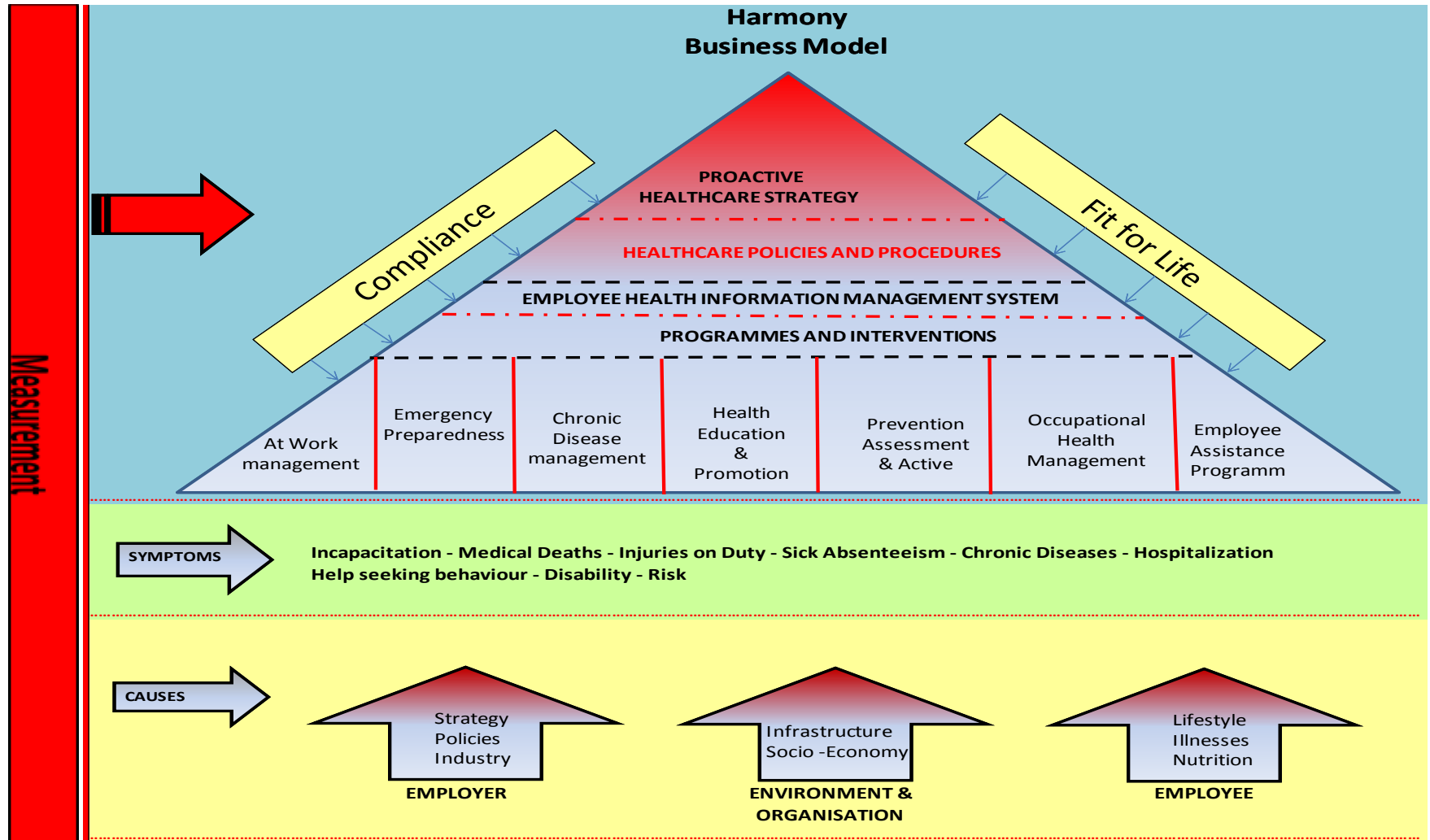
**Curative**

## **Based on**

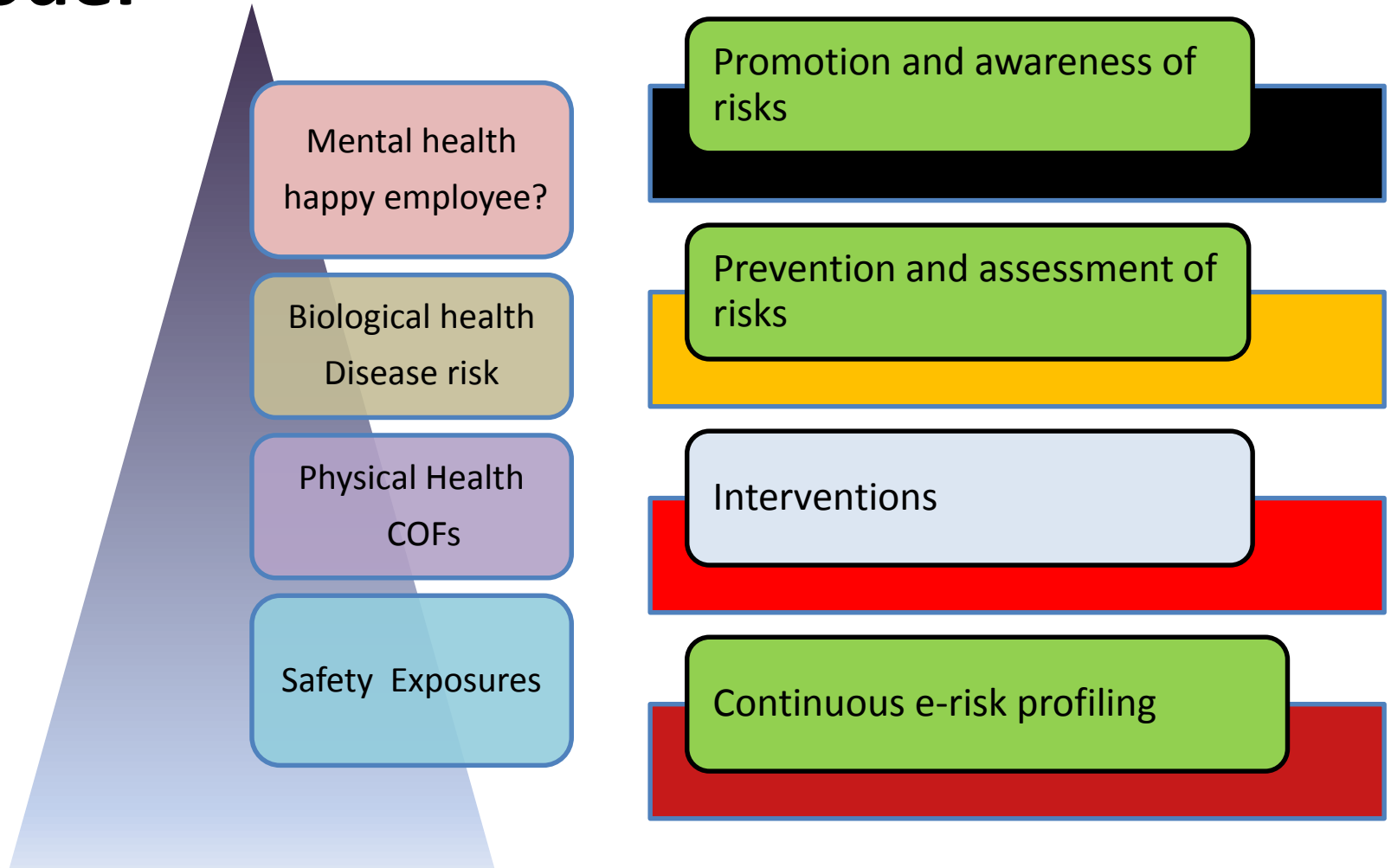
- Sick
- Hospitalisation
- Referral to specialists
- Terminally ill
- Incapacitation
- Disability
- Death



# Harmony Health Care Model



# Components of Pro-active Healthcare model



# We have a pro-active healthcare strategy

- Early identification of health risks and diseases
  - shaft based **medical hubs**
  - teams of 25 – 35 per hub providing a 24-hour service
  - each team has a social worker, health educator, primary healthcare doctor and occupational health specialist.
- Surveillance and screening methods
  - mass yearly case finding
  - yearly compulsory 100% HIV counselling
  - early TB detection using advance technology - Gene X-pert.



# We have a pro-active healthcare strategy...cont'd

- Management of TB
  - All employees and contractors
  - mandatory isolation of identified cases
  - ARV treatment offered @ CD4\* count < 500
  - referral system extended to include Southern African Development Community (SADC)
  - collaboration with local and Lesotho governments.
- Prevention
  - UV lights in risk areas
  - research to provide UV light protection on buses and use at homes?



\*The CD stands for 'cluster of differentiation'. It refers to molecules on the surface of cells (glycoproteins) and is used to categorise cells that are part of your immune system. CD4 cells are T-cells and are the most commonly used immune marker for monitoring HIV progression and the impact of treatment.

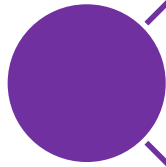


# Prevention, promotion and education

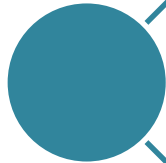
- ✓ TB And HIV clinics on the mines with individual monitoring by healthcare professionals
- ✓ Healthcare workers trained to recognise most prevalent diseases
- ✓ Screening this diseases at healthcare centres
- ✓ Campaigns, e-learning, quarterly pamphlets, mine-based health and safety topics, podcast, LCD monitors underground covering, HIV, TB, Lifestyle behaviours



# Harmony Healthcare 2014 Fact Sheet

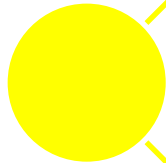


**34 000 Employees (Incl. Contractors)**

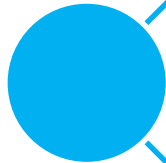


**Average Age Workforce = 43**

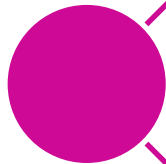
**Male = 43 & Female = 38**



**HIV/AIDS prevalence = 22%**



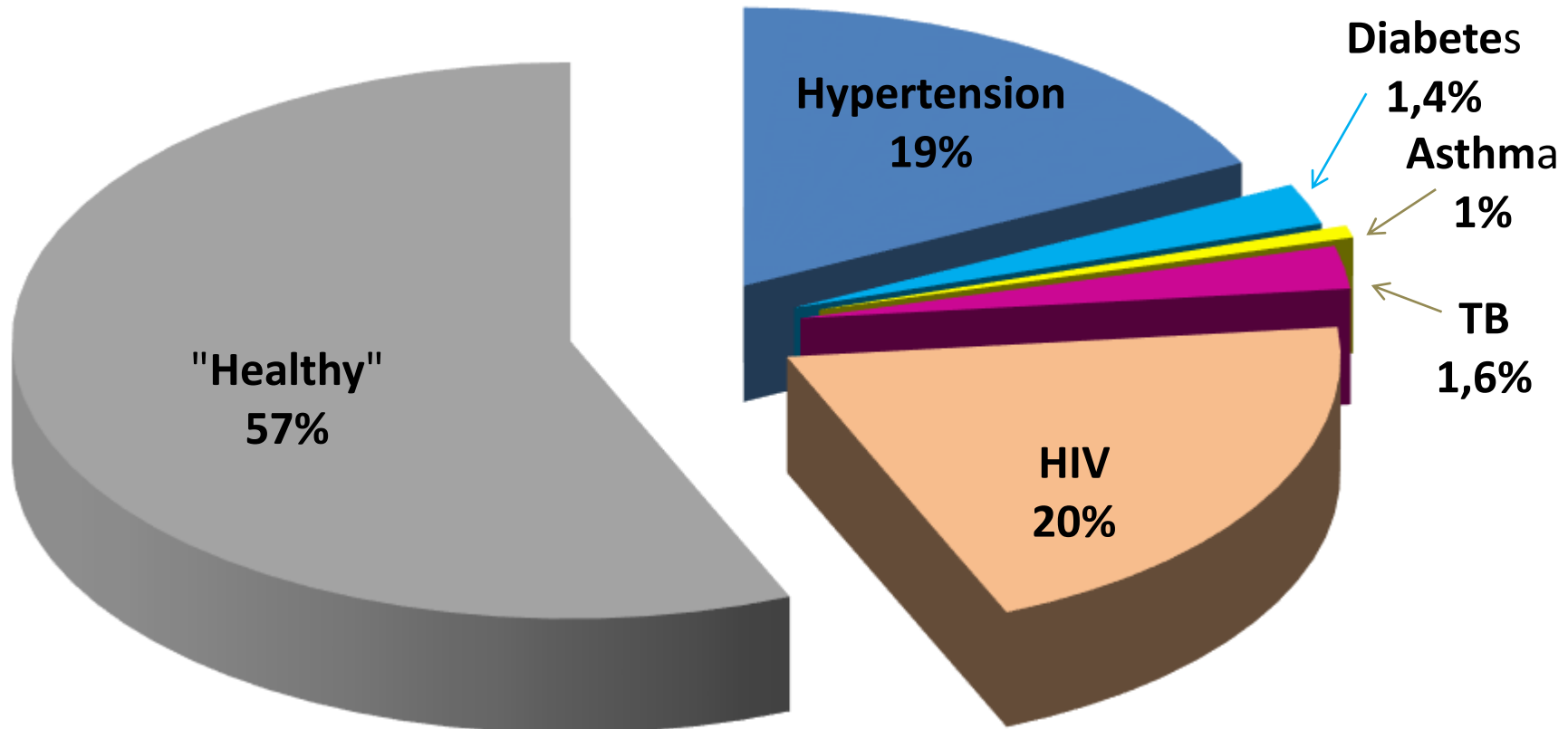
**4 640 Employees on ARV/HAART**



**Sick Absenteeism Rate = 4.88%**



# Harmony burden of disease fact sheet



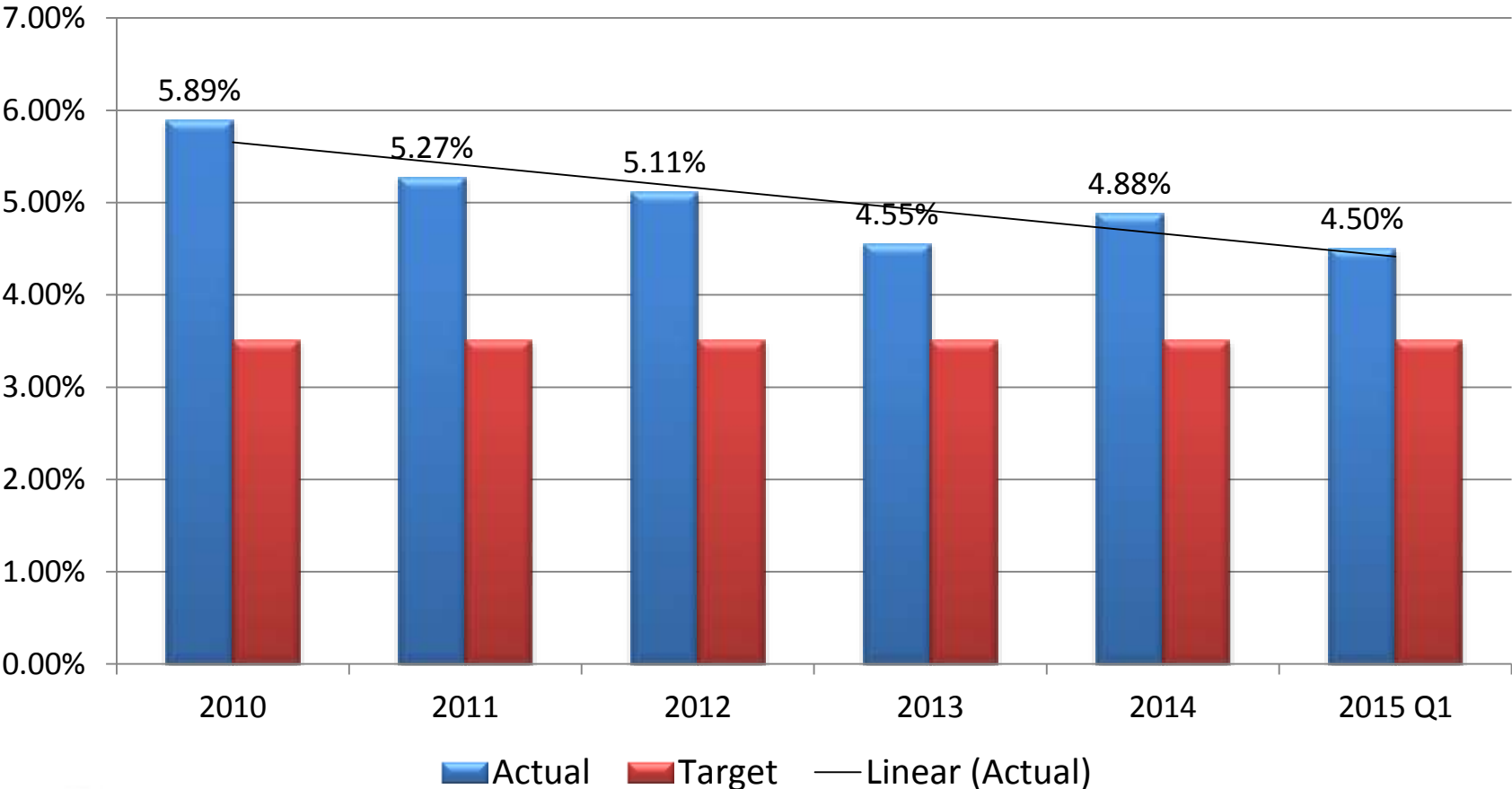
# Achievements since 2009

- Sick leave trends **-25%**
- Hospitalization costs **-35%**
- Mortality in service trends **-46%**
- TB incident trends **-50%**



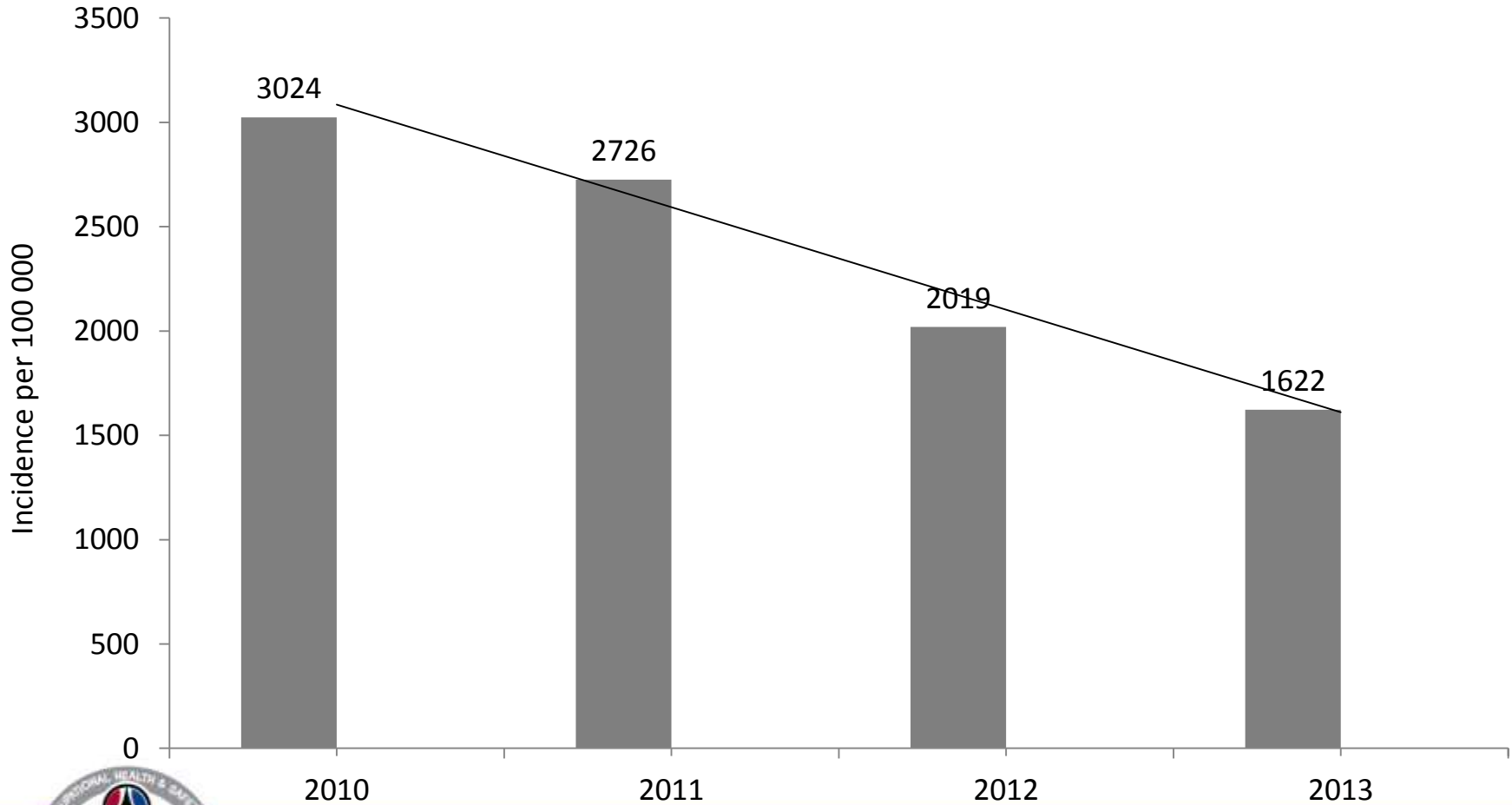
# Outcomes

## Sick Absenteeism Trends



# Declining TB incidence for Harmony

TB incidence for calendar years 2010 - 2013  
(including contractors)



# Occupational Lung diseases

## *Industry Initiatives*



- **QUESTIONS?**

