



XIII
INTERNATIONAL
WINTER ROAD
CONGRESS

QUÉBEC, FEBRUARY 8 TO 11, 2010



Québec 

SUSTAINABLE WINTER SERVICE FOR ROAD USERS

The importance of winter maintenance for cyclists

Dr. Anna Niska

Swedish National Road and Transport
Research Institute (VTI)

Researcher

anna.niska@vti.se



FINDING A BETTER WAY

WHY CYCLE IN WINTER?

- Environmental reasons - Climate change
- Health reasons
- Quick and easy
- Refreshing and relaxing
- No other options











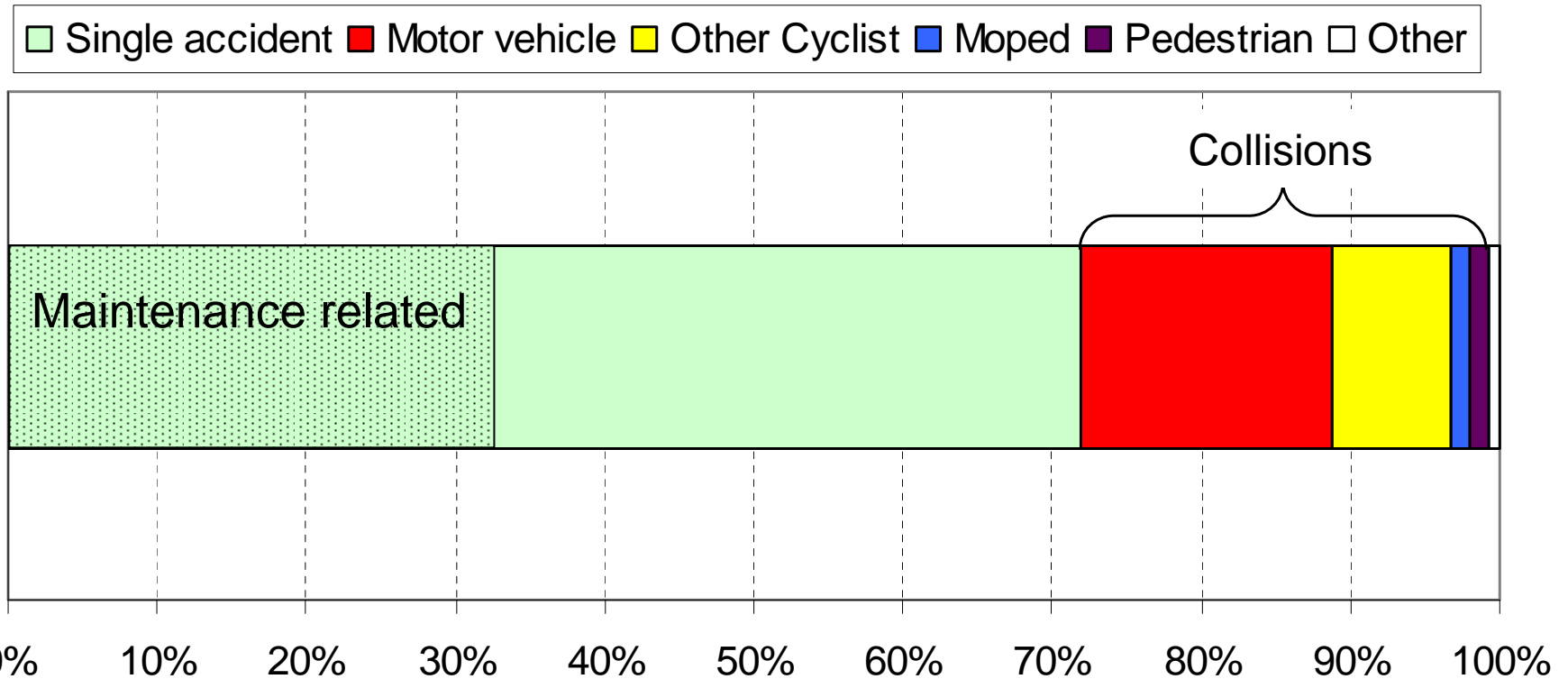


THE IMPORTANCE OF WINTER MAINTENANCE FOR CYCLISTS

- Accessibility – travel time, strain
- Mode choice
- Accident risk

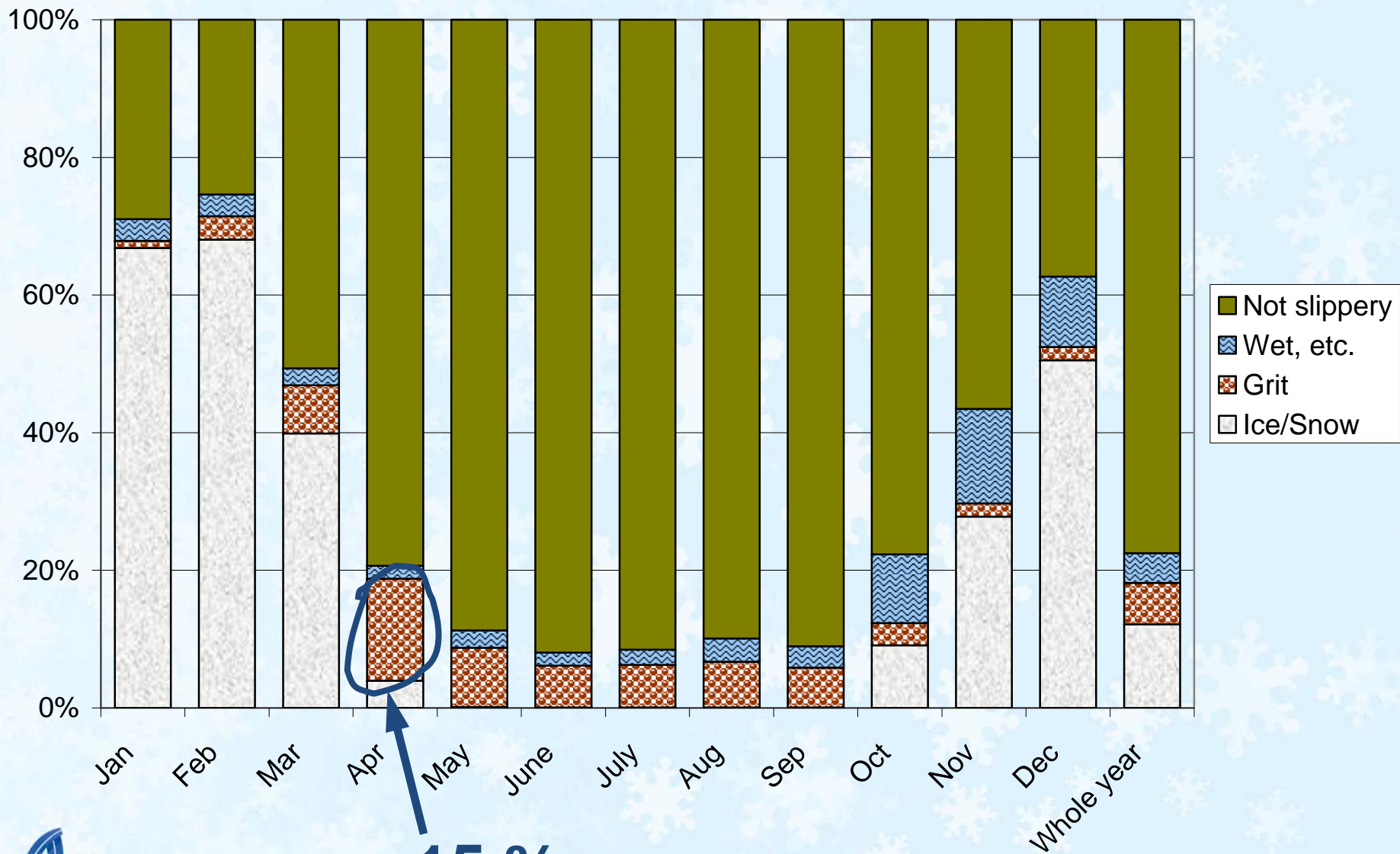


CYCLE ACCIDENTS



According to reports from hospital emergency rooms, 2003 to 2006

SINGLE BICYCLE ACCIDENTS DUE TO SLIPPERINESS



15 %

GRIT FROM WINTER MAINTENANCE IN THE SPRINGTIME



WARM WETTED SAND



BROOMING AND SALTING



RECOMMENDATIONS

- Sweep up grit as soon as possible
- Clear snow before > 3 cm
- Clear snow before
- Prevent the format
- Identify problemati
- Plan carefully; clea
- Adapt methods an



ADHERENT EQUIPMENT



THANK YOU FOR YOUR ATTENTION!



Questions?

Poster session P3 – Thursday, 10.00 a.m.

Exhibition – Nordic Pavillion