VISION ZERO & ROAD SAFETY

Implementation Challenges
VISION ZERO AND HEALTH: PROMOTING HEALTH, REDUCING SERIOUS INJURIES

Supporting Safe Mobility in Surrey

Tobin Copley, Fraser Health Injury Prevention Lead
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UPSTREAM PREVENTION: A FRASER HEALTH PRIORITY

• Fraser Health recently dedicated resources to target community-focused injury prevention
  • Chronic disease prevention: healthy physical activity
  • 90% of injuries are preventable
A TENSION IN PUBLIC HEALTH

• We support & promote physically active lifestyles for the prevention of chronic disease
• Active modes of transportation support health
• But activity can bring injury risks
• Need to balance healthy development and prevention of chronic disease against injury risk
  • Topical example: Bicycles, helmets, and infrastructure
BURDEN OF INJURY

• Unintentional injury cost British Columbians $3.0 billion in 2010
  • Direct care costs: $2.0 billion
• $1B total annual direct costs for unintentional injury in Fraser Health alone in 2010
• Transport-related injury
  • 16% of total direct costs (#2)
  • 14% of deaths (#3)
BURDEN OF INJURY IN BC

LEADING CAUSES OF DEATH, ALL AGES
BC, 2011

<table>
<thead>
<tr>
<th>Cause of Death</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malignant Neoplasms</td>
<td>28.7%</td>
</tr>
<tr>
<td>Cardiovascular Disease</td>
<td>18.8%</td>
</tr>
<tr>
<td>Cerebrovascular Diseases</td>
<td>7.0%</td>
</tr>
<tr>
<td>Injuries</td>
<td>5.6%</td>
</tr>
<tr>
<td>Chronic Pulmonary Disease</td>
<td>4.6%</td>
</tr>
</tbody>
</table>

Proportion of All Deaths
BURDEN OF INJURY IN BC

LEADING CAUSES OF DEATH, AGES 1-44
BC, 2011

Cause of Death

- Injuries: 38.5%
- Malignant Neoplasms: 16.2%
- Cardiovascular Disease: 4.8%
- Certain Infectious and Parasitic Diseases: 3.0%
- Other Disorders of the Nervous System: 2.4%

Proportion of All Deaths
MVCs AND EQUITY

• Burden of MVC injury disproportionately affects
  • Males
  • Young people… and seniors
  • Socioeconomically marginalized people
  • Indigenous peoples
  • Geographically remote locations

• Safety improvements are also slower to benefit disadvantaged populations
EQUITY AND INJURY: INDIGENOUS PEOPLE
SERIOUS INJURY BY ROAD USER TYPE
HOSPITALIZED INJURY FRASER HEALTH REGION 2001/02 - 2016/17

People in a motor vehicle

People cycling

People walking

People walking or cycling now account for 39% of hospitalizations
CHANGING OUR PRACTICE

• Resourcing injury prevention
• Healthy Built Environment Team
• Advancing geographic linked health data
• Liaising with communities to promote safe mobility through Vision Zero
• Supporting communities undertaking Vision Zero-aligned actions
SHABNEM AFZAL
Road Safety Manager
Vision Zero Lead

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EVERYONE HAS THE RIGHT TO SAFE MOBILITY

No matter WHO we are
WHERE we are going
HOW we are getting there
HUMAN LIFE

• System protects those who use it
GLOBAL CONTEXT  ROAD SAFETY DATA

1.3 MILLION PEOPLE  die on the world’s roads

2,000 PEOPLE  die on Canada’s roads

300 PEOPLE  die on BC’s roads
SURREY’S CALL TO ACTION

EACH YEAR, 20 PEOPLE ARE KILLED ON SURREY’S ROADS

12,000 ARE INJURED

VISION ZERO
SURREY

Every life matters.
EVERY HOUR

One person is injured
EVERY DAY

Crashes cost over one million dollars
EVERY MONTH

More than one person is killed
EVERY YEAR

Injury collisions go up 3%
OUR VISION

Surrey has Zero people killed and seriously injured on its roads and human life is valued above all else in the transportation network.
OUR MISSION

Working in collaboration with our partners, we will take equitable, data-driven and evidence-based actions to ensure that city resources are spent where they will have the greatest impact on creating safer streets.
OUR FOCUS AREAS

VICTIMS OF HARM

• Vulnerable Road Users higher burden of injury
• 5% of commuting trips
• 50% of traffic fatalities
OUR FOCUS AREAS

LOCATIONS OF HARM

• Heat map shows concentration of KSI collisions
• 80% of KSIs at Intersections
• Spatial Inequity
OUR FOCUS AREAS

PERPETRATORS OF HARM

• Distracted Driving – leading contributing factor
• Speeding and Impaired Driving
OUR FOCUS AREAS

EQUITY

• Certain subgroups of the population suffer disproportionately
• Equity embedded within decision making
INDIGENOUS INEQUITY
FRASER HEALTH DATA

Motor vehicle collision fatality rate per 100,000 population of each group

20.2
STATUS
INDIAN

8.4
OTHER
RESIDENTS

MORE THAN TWICE
the motor vehicle fatality rate
OUR APPROACH

DATA DRIVEN & EVIDENCE LED

• Implementing best practices
• Enhanced Data Analytics
• More data on pedestrian and cyclists counts / movements
• Cameras and predictive models
NOW?
IMPLEMENTATION

• Embedding Vision Zero
  • City Strategic Plans integrate safe mobility
  • Community Plans, Urban Design
  • Road Safety through environmental design
  • Integrating Safety - Prioritization process
  • Research & Innovation
SAFETY & EFFICIENCY

• Not oppositional
• Shift Focus
• Collisions Impact Efficiency
• Moving people without bias
SAFETY FOUNDATIONAL TO ACTIVE TRANSPORTATION

• **Transportation** - Modal Shift, VRU, Transit, New Mobility
• **Health** - Active Lifestyle-life expectancy, Injury Prevention
• **Sustainability** - Vehicles = 50% Surrey GHG Emissions
OUR ACTIONS

TOP 50 HIGH COLLISION INTERSECTIONS

• Implement targeted safety improvements based on crash profiles
OUR ACTIONS

LEADING PEDESTRIAN INTERVALS

• Pedestrians 4-7 second head start
• 59% reduction in vehicle-pedestrian collisions
• Leading BC – 30 implemented to date
OUR ACTIONS

CYCLE TRACKS

• Physically separate road users
• Up to 90% reduction in vehicle-cyclist collisions
OUR ACTIONS

TARGETED AND PROACTIVE ENFORCEMENT

• Working in Partnership
• Address distraction, speed, impairment
SPEED MANAGEMENT REVIEW

RESEARCH & DATA
Mapping data, Analysing trends, Researching best practices

EDUCATION & ENGAGEMENT
Collaboration, Strategic Messaging, Events
CONCLUSION
SAFE & ACTIVE TRANSPORTATION

Changing mindsets through discourse
Safety as a precursor
Linked Data – Problem identification
Silo busting – shared responsibility
Leadership & Collaboration
Equity
TOGETHER WE CAN SAVE LIVES

We refuse to accept the loss of life or the burden of serious injury as the inevitable price of our mobility.

Because Every Life Matters.