TOGETHER WE ARE STRONGER
Disclosures

- R. Nicholas Carleton, Ph.D., R.D. Psych.
  - Professor of Psychology
  - Scientific Director for CIPSRT
  - No relationships with commercial interests; no conflicts of interest to declare
  - Research support
    - Canadian Institutes of Health Research (CIHR)
    - Canadian Institute for Public Safety Research and Treatment (CIPSRT)
    - Government of Canada, Public Safety Canada (PSC)
    - Saskatchewan Health Research Foundation (SHRF)
    - University of Regina
Disclosures

• Renée S. MacPhee, Ph.D.
  – Associate Professor Kinesiology & Physical Education / Health Sciences
  – CIPSRT Associate Director for Paramedics
  – No relationships with commercial interests; no conflicts of interest to declare
  – Research support
    • Canadian Institutes of Health Research (CIHR)
    • Canadian Institute for Public Safety Research and Treatment (CIPSRT)
    • Government of Canada
    • Public Safety Canada (PSC)
    • Wilfrid Laurier University
CIPSRT

• Canadian Institute for Public Safety Research and Treatment
  – A coast-to-coast-to-coast multi-university team of top Canadian researchers working with public safety personnel executives and key stakeholders on a long-term initiative to identify the tools required to support the recognition, prevention, and treatment of health concerns facing Canadian public safety personnel and their families.
Canadian Institute for Public Safety Research and Treatment
  – Officially launched in August 2017
  – Evidence-based activities are critical, but nascent
  – Assembled funding from 2016-2017 (~400K)
    • Federal
    • University-based
    • Wounded Warriors Canada
  – Expanded federal funding in 2018 (30M)
    • Minister of Public Safety and Emergency Preparedness
CIPSRT

• Mission
  – To provide a Canadian hub for strategic public safety wellness research and analysis, knowledge translation and mobilization, working with public safety leaders and academics from across Canada to develop and deploy solutions that meet the current and future needs of Canadian Public Safety Personnel.

• Vision
  – Canadian public safety personnel, their organizations, their families, and their communities having access to up-to-date, scientifically robust evidence to inform policies and programs for a full range of health and wellness challenges.
CIPSRT

- Associate Directors of Research Sectors
  - Corrections
    - Dr. Rosemary Ricciardelli, Memorial University
  - Fire
    - Dr. Heidi Cramm, Queen’s University
  - Paramedics
    - Dr. Renée MacPhee, Wilfrid Laurier University
  - Police
    - Dr. Greg Anderson, Justice Institute of British Columbia
Public Safety Steering Committee (PSSC)

- Diverse national public safety leaders, both administration and frontline
  - Canadian Association of Chiefs of Police
    - Mark Chatterbok, Steve Schnitzer
  - Canadian Association of Fire Chiefs
    - Tina Saryeddine, Ken McMullen
  - Canadian Association for Police Governance
    - Jennifer Malloy, Rob Stephanson
  - Canadian Police Association
    - Tom Stamatakis, Casey Ward
  - Correctional Service of Canada
    - Nathalie Dufresne-Meek
  - Union of Canadian Correctional Officers
    - Jason Godin
  - International Association of Firefighters
    - Scott Marks, Sandy Hamamoto
  - Paramedic Association of Canada
    - Chris Hood, Pierre Poirier
  - Paramedic Chiefs of Canada
    - Randy Mellow, Kelly Nash
  - Royal Canadian Mounted Police
    - Gregory Kratzig
  - Union of Safety and Justice Employees
    - Stan Stapleton, Richard Girard
• **Scientific Representatives**
  
  – Interdisciplinary academics from multiple institutions
  
  • Canadian Health Information Management Association
  • Centre for Addiction and Mental Health
  • Dalhousie University
  • Justice Institute of British Columbia
  • McGill University
  • McMaster University
  • Memorial University
  • Mount Royal University
  • Queen’s University
  • Saskatchewan Health Authority
  • Simon Fraser University
  • University of Alberta
  • University of Calgary
  • University of Manitoba
  • University of Ontario Institute of Technology
  • University of Ottawa
  • University of Regina
  • Wayne State University
  • Wilfrid Laurier University
• Partner and Stakeholder Organizations
  – Government of Canada
  – Public Safety Canada (PSC)
  – Canadian Institutes for Health Research (CIHR)
  – Canadian Institute for Military and Veteran Health Research (CIMVHR)
  – Collaborative Centre for Justice and Safety (CCJS)
  – Mental Health Commission of Canada (MHCC)
  – Community Safety Knowledge Alliance (CSKA)
• Partner and Stakeholder Organizations
  – Community Stakeholders
    • Badge of Life Canada
    • Behind the Red Serge
    • Families of the RCMP for PTSD Awareness
    • First Responder Mental Health Network Collaboration
    • Mood Disorders Society of Canada
    • Tema Conter Trust
    • Wounded Warriors Canada
Research
Peer Support and Crisis Intervention Programs in Canadian First Responders: Blue Paper

- Research started following several questions from public safety leaders in December 2015
  - What’s **BEST** for resilience and support?
  - Peer-reviewed, freely available
    - [http://www.cipsrt-icrtsp.ca](http://www.cipsrt-icrtsp.ca)
  - No conclusive evidence of harm
  - Should develop and support, but we need more research and more standardization
Prevalence Survey

• Pan-Canadian Pan-Public Safety Personnel Prevalence Survey “AX1”
  – The evidence base has been extremely limited
  – Partially funded by the Ministry of Public Safety and Emergency Preparedness
  – ~9,000 participants
  – Quantitative and qualitative data
Prevalence Survey – Results

- Mental Disorder Symptoms Among Public Safety Personnel in Canada

<table>
<thead>
<tr>
<th>Positive Screening Percentages for Recent Mental Disorders Based on Self-Report Measures</th>
<th>Gen</th>
<th>Total Sample</th>
<th>Mun / Prov Police</th>
<th>RCMP</th>
<th>Correctional Workers</th>
<th>Fire</th>
<th>Paramedics</th>
<th>Call Centre</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTSD</td>
<td>~1.1-3.5</td>
<td>23.2</td>
<td>19.5&lt;sup&gt;d&lt;/sup&gt;</td>
<td>30.0&lt;sup&gt;a&lt;/sup&gt;</td>
<td>29.1&lt;sup&gt;a&lt;/sup&gt;</td>
<td>13.5&lt;sup&gt;b&lt;/sup&gt;</td>
<td>24.5&lt;sup&gt;c&lt;/sup&gt;</td>
<td>18.3&lt;sup&gt;d&lt;/sup&gt;</td>
</tr>
<tr>
<td>Major Depressive Disorder</td>
<td>~7</td>
<td>26.4</td>
<td>19.6&lt;sup&gt;b&lt;/sup&gt;</td>
<td>31.7&lt;sup&gt;a&lt;/sup&gt;</td>
<td>31.1&lt;sup&gt;a&lt;/sup&gt;</td>
<td>20.2&lt;sup&gt;b&lt;/sup&gt;</td>
<td>29.6&lt;sup&gt;a&lt;/sup&gt;</td>
<td>33.2&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Gen. Anxiety Disorder</td>
<td>~3</td>
<td>18.6</td>
<td>14.6&lt;sup&gt;b,c&lt;/sup&gt;</td>
<td>23.3&lt;sup&gt;a&lt;/sup&gt;</td>
<td>23.6&lt;sup&gt;a&lt;/sup&gt;</td>
<td>11.7&lt;sup&gt;b&lt;/sup&gt;</td>
<td>20.5&lt;sup&gt;a&lt;/sup&gt;</td>
<td>18.0&lt;sup&gt;a,c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Social Anxiety Disorder</td>
<td>~6.7</td>
<td>15.2</td>
<td>10.0&lt;sup&gt;b&lt;/sup&gt;</td>
<td>18.7&lt;sup&gt;a&lt;/sup&gt;</td>
<td>18.3&lt;sup&gt;a&lt;/sup&gt;</td>
<td>11.0&lt;sup&gt;b&lt;/sup&gt;</td>
<td>20.0&lt;sup&gt;a&lt;/sup&gt;</td>
<td>16.9&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Panic Disorder</td>
<td>~1.6</td>
<td>8.9</td>
<td>5.9&lt;sup&gt;b&lt;/sup&gt;</td>
<td>12.0&lt;sup&gt;a&lt;/sup&gt;</td>
<td>12.2&lt;sup&gt;a&lt;/sup&gt;</td>
<td>5.1&lt;sup&gt;b&lt;/sup&gt;</td>
<td>10.3&lt;sup&gt;a,c&lt;/sup&gt;</td>
<td>7.6&lt;sup&gt;b,c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Alcohol Use Disorder</td>
<td>~7-25</td>
<td>5.9</td>
<td>5.8&lt;sup&gt;c&lt;/sup&gt;</td>
<td>3.9&lt;sup&gt;a&lt;/sup&gt;</td>
<td>6.8&lt;sup&gt;b,c&lt;/sup&gt;</td>
<td>8.0&lt;sup&gt;b&lt;/sup&gt;</td>
<td>6.1&lt;sup&gt;b,c&lt;/sup&gt;</td>
<td>7.2&lt;sup&gt;b,c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Any mental disorder&lt;sup&gt;4&lt;/sup&gt;</td>
<td>10.1</td>
<td>44.5</td>
<td>36.7&lt;sup&gt;b&lt;/sup&gt;</td>
<td>50.2&lt;sup&gt;a&lt;/sup&gt;</td>
<td>54.6&lt;sup&gt;a&lt;/sup&gt;</td>
<td>34.1&lt;sup&gt;b&lt;/sup&gt;</td>
<td>49.1&lt;sup&gt;a&lt;/sup&gt;</td>
<td>48.4&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

### Mental Disorder Count

<table>
<thead>
<tr>
<th>0</th>
<th>58.2</th>
<th>65.9</th>
<th>52.7</th>
<th>48.4</th>
<th>67.7</th>
<th>52.9</th>
<th>55.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15.1</td>
<td>13.8</td>
<td>14.8</td>
<td>16.7</td>
<td>13.2</td>
<td>19.4</td>
<td>13.9</td>
</tr>
<tr>
<td>2</td>
<td>8.7</td>
<td>8.0</td>
<td>8.1</td>
<td>10.9</td>
<td>8.7</td>
<td>7.4</td>
<td>12.4</td>
</tr>
<tr>
<td>3 or more</td>
<td>18.0</td>
<td>12.3</td>
<td>24.4</td>
<td>24.0</td>
<td>10.4</td>
<td>20.4</td>
<td>17.9</td>
</tr>
</tbody>
</table>
# Prevalence Survey – Results

## Chronic Pain Among Public Safety Personnel in Canada

### Chronic Pain Prevalence Percentages and Locations\(^1,2\)

<table>
<thead>
<tr>
<th></th>
<th>Gen %</th>
<th>Total Sample</th>
<th>Mun / Prov Police</th>
<th>RCMP</th>
<th>Correctional Workers</th>
<th>Fire</th>
<th>Paramedics</th>
<th>Call Centre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Chronic Pain</td>
<td>18.9</td>
<td>40.2</td>
<td>35.9</td>
<td>43.4</td>
<td>45.4</td>
<td>35.3</td>
<td>44.1</td>
<td>36.7</td>
</tr>
<tr>
<td>Lower back</td>
<td>22.3</td>
<td>24.0</td>
<td>22.1</td>
<td>26.5</td>
<td>26.1</td>
<td>18.4</td>
<td>28.9</td>
<td>20.2</td>
</tr>
<tr>
<td>Shoulder</td>
<td>6.1</td>
<td>17.6</td>
<td>14.7</td>
<td>19.6</td>
<td>18.5</td>
<td>15.7</td>
<td>21.5</td>
<td>15.3</td>
</tr>
<tr>
<td>Neck</td>
<td>5.4</td>
<td>16.8</td>
<td>15.4</td>
<td>17.8</td>
<td>21.0</td>
<td>12.3</td>
<td>18.1</td>
<td>17.3</td>
</tr>
<tr>
<td>Arm</td>
<td>2.2</td>
<td>11.1</td>
<td>10.6</td>
<td>12.5</td>
<td>12.6</td>
<td>6.7</td>
<td>12.5</td>
<td>13.3</td>
</tr>
<tr>
<td>Leg</td>
<td>7.2</td>
<td>14.3</td>
<td>12.7</td>
<td>15.7</td>
<td>16.5</td>
<td>11.3</td>
<td>15.0</td>
<td>17.3</td>
</tr>
<tr>
<td>Hand</td>
<td>2.8</td>
<td>10.9</td>
<td>9.8</td>
<td>12.0</td>
<td>13.6</td>
<td>7.2</td>
<td>12.0</td>
<td>13.3</td>
</tr>
<tr>
<td>Foot</td>
<td>3.4</td>
<td>12.6</td>
<td>11.8</td>
<td>14.9</td>
<td>15.4</td>
<td>7.6</td>
<td>12.2</td>
<td>13.7</td>
</tr>
<tr>
<td>Headaches</td>
<td>6.2</td>
<td>15.2</td>
<td>14.4</td>
<td>16.0</td>
<td>18.5</td>
<td>9.1</td>
<td>18.8</td>
<td>15.7</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>7.1</td>
<td>5.7</td>
<td>8.8</td>
<td>6.8</td>
<td>5.2</td>
<td>9.1</td>
<td>6.5</td>
</tr>
</tbody>
</table>

1 Non-mutually exclusive chronic pain locations.
2 Only calculated for respondents who reported experiencing any chronic pain, more days than not, that lasted longer than 3 months.
### Prevalence Survey – Results

**Chronic Pain Among Public Safety Personnel in Canada**

<table>
<thead>
<tr>
<th>Perceived Cause of Chronic Pain¹,²</th>
<th>Total Sample</th>
<th>Mun / Prov Police</th>
<th>RCMP</th>
<th>Correctional Workers</th>
<th>Fire</th>
<th>Paramedics</th>
<th>Call Centre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injury related to active duty</td>
<td>40.2</td>
<td>39.6</td>
<td>54.4</td>
<td>24.5</td>
<td>29.2</td>
<td>50.5</td>
<td>11.0</td>
</tr>
<tr>
<td>Injury related to work other than active duty</td>
<td>9.6</td>
<td>10.2</td>
<td>7.3</td>
<td>11.6</td>
<td>11.6</td>
<td>9.4</td>
<td>7.7</td>
</tr>
<tr>
<td>Injury not related to work</td>
<td>16.2</td>
<td>18.9</td>
<td>8.5</td>
<td>20.8</td>
<td>19.4</td>
<td>14.8</td>
<td>27.5</td>
</tr>
<tr>
<td>Non-injury-related disease (e.g., osteoarthritis)</td>
<td>11.2</td>
<td>10.0</td>
<td>7.8</td>
<td>14.8</td>
<td>11.3</td>
<td>12.1</td>
<td>23.1</td>
</tr>
</tbody>
</table>

¹Non-mutually exclusive chronic pain locations.
²Only calculated for respondents who reported experiencing any chronic pain, more days than not, that lasted longer than 3 months.


Prevalence Survey – Results

• Suicidal Ideation, Plans, and Attempts Among Public Safety Personnel in Canada

<table>
<thead>
<tr>
<th>Prevalence of Past-Year and Lifetime Self-Reported Suicidal Behaviour</th>
<th>Gen</th>
<th>Total Sample</th>
<th>Mun/Prov Police</th>
<th>RCMP</th>
<th>Correctional Workers</th>
<th>Fire</th>
<th>Paramedics</th>
<th>Call Centre</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Past-Year</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suicidal Ideation</td>
<td>~5.8</td>
<td>10.1</td>
<td>8.3</td>
<td>9.9</td>
<td>11.0</td>
<td>8.5</td>
<td>15.4</td>
<td>9.5</td>
</tr>
<tr>
<td>Suicidal Planning</td>
<td>~2.2</td>
<td>4.1</td>
<td>3.4</td>
<td>4.1</td>
<td>4.8</td>
<td>2.7</td>
<td>7.1</td>
<td>2.5</td>
</tr>
<tr>
<td>Suicidal Attempt</td>
<td>~&lt;1.0*</td>
<td>0.3</td>
<td>0.2</td>
<td>0.2</td>
<td>0.4</td>
<td>0.3</td>
<td><strong>0.9</strong></td>
<td>0.4</td>
</tr>
<tr>
<td><strong>Lifetime</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suicidal Ideation</td>
<td>~11.5-14.1</td>
<td>27.8</td>
<td>20.5</td>
<td>25.7</td>
<td>35.2</td>
<td>25.2</td>
<td><strong>41.1</strong></td>
<td>28.7</td>
</tr>
<tr>
<td>Suicidal Planning</td>
<td>~4.1-5.1</td>
<td>13.3</td>
<td>8.9</td>
<td>11.2</td>
<td>20.1</td>
<td>8.8</td>
<td><strong>23.8</strong></td>
<td>13.6</td>
</tr>
<tr>
<td>Suicidal Attempt</td>
<td>~1.0-4.0*</td>
<td>4.6</td>
<td>2.1</td>
<td>2.4</td>
<td>8.1</td>
<td>3.3</td>
<td><strong>9.8</strong></td>
<td>8.6</td>
</tr>
</tbody>
</table>
Prevalence Survey – Limitations

• Similar limitations apply to all results
  – Self-selection
    • Generally demographically representative
    • Over or under representation of symptoms
  – Anonymous self-report; screening instead of interviews
  – Recent variable timeframe for mental health
  – Broad categories
  – Attrition
  – Complicated direct comparisons with extant population data sets
Prevalence Survey – Publications

- Available Spring and Summer 2018
  - Qualitatively Unpacking Canadian Public Safety Personnel Experiences of Trauma and their Wellbeing
  - Anxiety-Related Psychopathology and Chronic Pain Comorbidity Among Public Safety Personnel
  - The Association Between Child Abuse and Suicidal Ideation, Plans, and Attempts in a Sample of Canadian Public Safety Personnel
  - Exposures to Potentially Traumatic Events Among Public Safety Personnel in Canada
  - Assessing the Relative Impact of Diverse Stressors Among Public Safety Personnel in Canada
  - Personality and Mental Disorder Symptoms in Canadian Public Safety Personnel
Prevalence Survey – Applied

- Anonymous Online Screening

Screenings
Depression, Anxiety, Stress (DASS-21)

The following questions ask about different symptoms that can be experienced as part of normal daily stressors, but also as potential indicators of a mental health issue.

Please read each statement and indicate how much the statement applied to you over the past seven days. Do not spend too much time on any statement.

1. I found it hard to wind down
   - Did not apply to me at all
   - Applied to me some degrees, or some of the time
   - Applied to me one or more degrees of the time

2. I was aware of dryness of my mouth
   - Did not apply to me at all
   - Applied to me some degrees, or some of the time
   - Applied to me one or more degrees of the time

3. I couldn’t seem to experience any positive feeling at all
   - Did not apply to me at all
   - Applied to me some degrees, or some of the time

9. Optionally, you may select your field of work to have a more relevant comparison for your results. If you leave this unselected, your results will be compared with all public safety personnel.

DASS-21 Results

Depression Result: Normal
Relative to PUBLIC SAFETY PERSONNEL, your score is slightly lower than average.

Anxiety Result: Normal
Relative to PUBLIC SAFETY PERSONNEL, your score is lower than average.

Stress Result: Mild
Relative to PUBLIC SAFETY PERSONNEL, your score is slightly higher than average.

Email your results to yourself.

From emergency, always call 911 or contact the emergency service nearest you.
Next Steps
Next Steps

- A Longitudinal Study of Operational Stress Injuries (Nov 2018)
  - A Pilot for all PSP
    - 9-year project
    - Data from personal interviews, self-reports, biological metrics
    - Identify risk factors for poor mental health
    - Identify factors that promote good mental health
    - Program evaluation of a mental health training intervention
    - Develop infrastructure and evidence to support all PSP
Next Steps

• PSP-Specific Internet Cognitive Behavioural Therapy (ICBT) (2019)
  – National pilot project
  – Stepped care mental health program
    • Self-help
    • Anonymous screening
    • Online evidence-based therapy
      – Qualified mental health professionals
      – Capacity to refer for additional care
Next Steps

• Statistics Canada Epidemiology (2019)
  – A full epidemiology study to be conducted by CIPSRT and Statistics Canada, interviewing approximately 30,000 PSP
  – In line with Federal Parliamentary recommendations
Next Steps

• Organizational Learning and Psychological Safety (2019)
  – Potentially critical gains in mental health might be driven by leadership
    • Research results pending
  – Tailored leadership training for PSP
    • Includes promoting mental health in PSP organizations
    • Leadership training for teams working in Volatile, Uncertain, Complex, Ambiguous (VUCA) environments
  – Developed with University of Regina team
  – Pilot testing under way
Next Steps

• Long Term – Fast, easy, and confidential access to programs, assessments, and treatments that are:
  – evidence-based, sustainable, proactive, with no out-of-pocket costs
  – inclusive of accredited peer support networks
Next Steps

- Dedicated Public Safety Personnel Research Stream
TOGETHER WE ARE STRONGER

CIPSRT
Canadian Institute for Public Safety Research and Treatment

ICRTSP
Institut canadien de recherche et de traitement en sécurité publique