pandemic response – transporting patients, essential workers, goods, and services – and will continue to be critical in the recovery phase as countries restructure ‘COVID safe’ transport systems and revamp their economies.

The report concludes by identifying areas that require urgent additional research, policy, and regulation development.

7B.003 REDUCING MUSCULOSKELETAL INJURY RISK USING WEARABLE AND SMARTPHONE TECHNOLOGY

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10.1136/injuryprev-2021-safety.173

Context Wearable and smartphone technology has become a core element in the injury prevention and rehabilitation process for professional athletes. This technology can also be used in the prevention of injury in the workplace, and the return to work process following injury.

Process Wearable technology is used collect accurate and valid information which enables:

- The physical demands of the tasks to be measured and assessed
- The physical capacity of the individual to be measured and assessed
- The identification of injury risk when the demands of the task are greater than the capacity of the individual

Analysis The the physical demands of individual work tasks and the capacity of workers to perform these tasks was quantified using a combination of linear and rotational acceleration variables to calculate load.

Outcomes The data collected enabled:

- The creation of the benchmarks for the safest method of performing work tasks
- Assessment of workers performing these work tasks and comparison to the benchmark to identify injury risks for uninjured workers, and provide them with feedback to reduce their injury risks.

Learning Outcomes Delegates who attend this session will receive:

- Background on the accuracy and validity of wearable technology for movement analysis in the workplace
- An overview of the data analysis and reporting process
- Various case studies involving the use of wearable technology to identify and reduce injury risk and guide the return to work process following injury

7C – Alcohol, Drugs & Injury, March 25, 2021

7C.001 CHANGING DRUG OVERDOSE DEATHS PATTERNS WHERE US RATES ARE HIGHEST: GLOBAL IMPLICATIONS

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Background Rural West Virginia leads the US in overdose deaths. The role of multiple drug combinations in fatality trends is unclear especially given rapid increases in methamphetamine involvement.

Methods Toxicology data from our WV Forensic Drug Database contains drug levels on all drug-involved deaths in WV, including determinations if drugs caused or contributed to death. Trends from 2013 to 2018 were examined including separate methamphetamine analyses.

Results Death rates increased dramatically to 49.6/100,000 with most deaths involving poly-substances with fentanyl. Heroin-related deaths increased from 138 to 257 in 2017, falling in 2018, as did prescription drug deaths. Methamphetamine involvement increased 12-fold (28 cases in 2013 to 336 cases in 2018). Most methamphetamine-related deaths (N=815) involved other drugs (only 25% involved methamphetamine alone). Opioids were present in 63.8% of methamphetamine deaths; fentanyl/FAs having the largest increase (4% 2013, to 49% in 2018) and prescription opioids decreased by over 100%. Despite increasing methamphetamine deaths, proportions with only methamphetamine did not change over time. Heroin presence without fentanyl/FAs steadily decreased for methamphetamine-involved deaths; by 2018, only 2% had heroin present without fentanyl/FAs.

Discussion Drug-related deaths in this rural state continue to increase and most involve multiple drugs with a rapid rise in methamphetamine over the past three years. Unlike urban drug problems, the origins of the WV epidemic are largely iatrogenic, starting with extremely high opioid prescription rates. This presentation will outline the progression of the rural drug problem in WV, describe harm-reduction efforts and include more detailed statistical modeling of trends.

7C.002 VIOLENCE DOMINATES THE BASELINE FOR SDG 3.5.2 TO REDUCE HARMFUL ALCOHOL USE

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Background/Aims Social Development Goal 3.5.2 calls for a 10% reduction in harmful alcohol use. We began evaluating efforts to achieve this goal in Alexandra, South Africa; Brasilia, Brazil; Columbus, Ohio; Jiangshan, China; Leuven, Belgium; and Zacatecas, Mexico by estimating baseline harm.

Methods Following the Global Burden of Disease (GBD), we measured alcohol-attributable burden in Years of Healthy Life (YHLs) lost. GBD estimates harmful alcohol use from a jurisdiction's alcohol consumption and diagnosis-specific relative risk distributions. We assessed alcohol consumption and alcohol-involved violence through surveys of 1500 adults per city and, except in Columbus, 1500 youth. We combined those data with GBD's relative risk curves and accessible police-reported road crash data to estimate the baseline. We incorporated the financial effects of health problems into the baseline by converting them to YHL-equivalents. For use in conversion, we defined a standardized YHL as the average year of life expectancy lost to a crash death or homicide.