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Presentation title: Crimes against people and seasonality and weather patterns: Evidence from official records

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Analyses of patterns of crime through police official reports has a long tradition, since they provided information about the number and type of crimes, temporal and spatial distributions, and adopted measures (Yeboah, 2008). Although there are soundness evidences about the prevalence of different types of victimization and some of their features (e.g., victim-offender relationship), research about other variables, such as seasonality and weather patterns, seems to be sparser. Our study addressed criminal occurrences of crimes against people at Historic Centre of Porto, from 1st January 2015 to 31st December 2019, through official statistics provided by the Comando Metropolitano do Porto, according to a partnership in the Project “LookCrim: Looking at communities and physical spaces”. The database included 1993 incidents, with a mean number of 398.6 cases per year.

Almost 94% of the incidents represent simple offense to physical integrity, 2.4% to other crimes against liberty and sexual self-determination, 2.3% to other crimes against physical integrity, 1.1% to serious offense to physical integrity, and 0.4% to offense to physical integrity by neglect. Most of the crimes were reported in hot seasons, namely Summer (27.6%) and Spring (26.2%), being June (11.0%) and August (10.2%) the months were more crimes were reported. Concerning weather, 72.9% of the crimes were registered on days with average temperature, 21.1% on high temperature, and 6.0% on low temperature days. Concomitantly, crimes against person seemed to decrease with increased rain: 77.0% with no rainy-days, 11.0% between 1 and 4mm, 7.1% between 5 and 14mm, and 4.9% equal or above 15 mm. Results may be important for forecasting purposes and their impact will be discussed.