

Using Health Data to Explore Unreported Violence in Greater Manchester

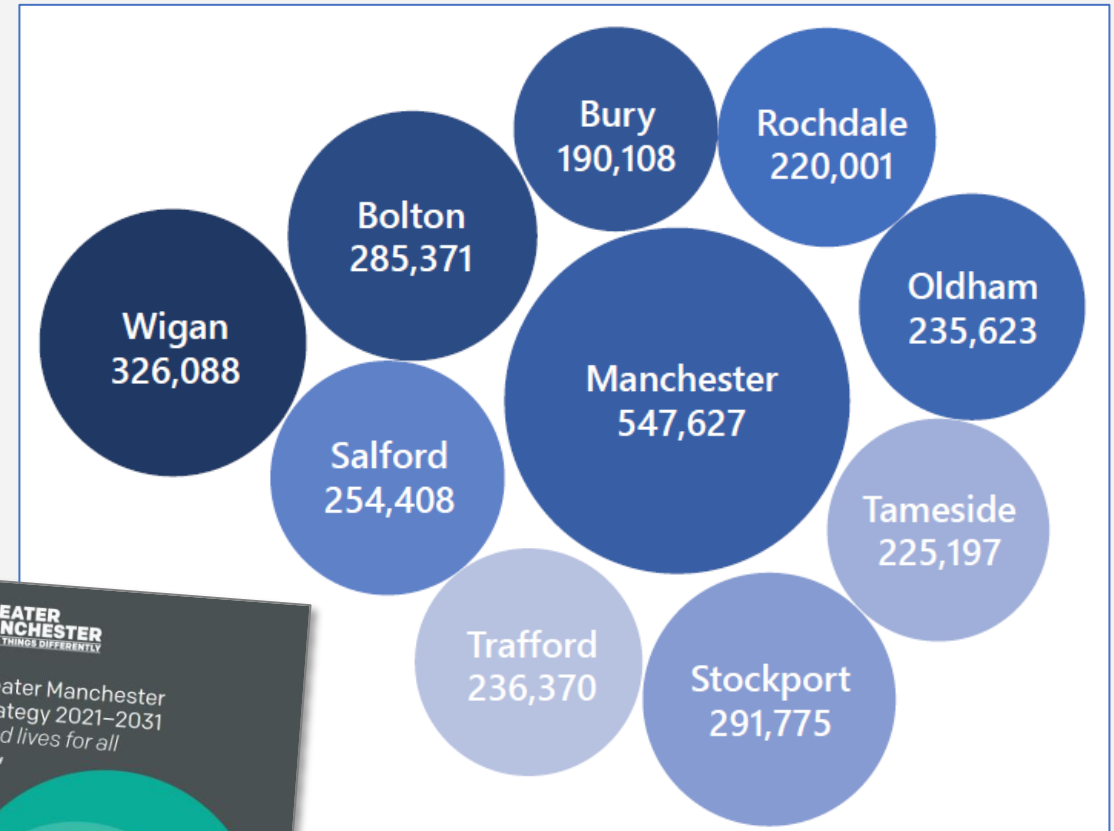
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Who are we?

- Greater Manchester Combined Authority is one of a small number of devolved Mayoral city regions in England, representing all ten local authorities in Greater Manchester and 2.8 million residents
- Coordinates action across a range of topics – housing, environment, transport, health, fire and rescue, adult skills, culture, waste and recycling, police and crime
- Works closely with a range of partners across the region, including local authorities, the GM Health and Social Care Partnership, fire service, police, community safety partnerships etc
- <https://www.greatermanchester-ca.gov.uk/>



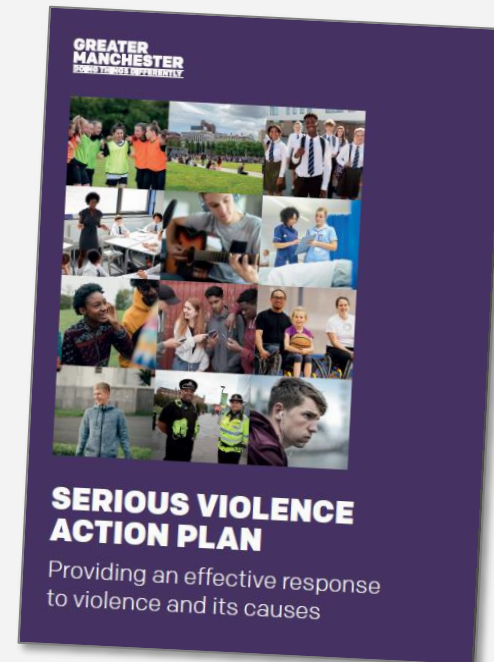
Greater Manchester Violence Reduction Unit (VRU)

- GMCA are one of the key partners in Greater Manchester's Violence Reduction Unit
- The Violence Reduction Unit brings together Greater Manchester Police, National Probation Service, health and education professionals, youth justice and local authorities to address the underlying causes of violent crime and work together with communities to prevent it
- <https://gmvru.co.uk/>



VIOLENCE REDUCTION UNIT

DOING THINGS DIFFERENTLY FOR
GREATER MANCHESTER'S COMMUNITIES

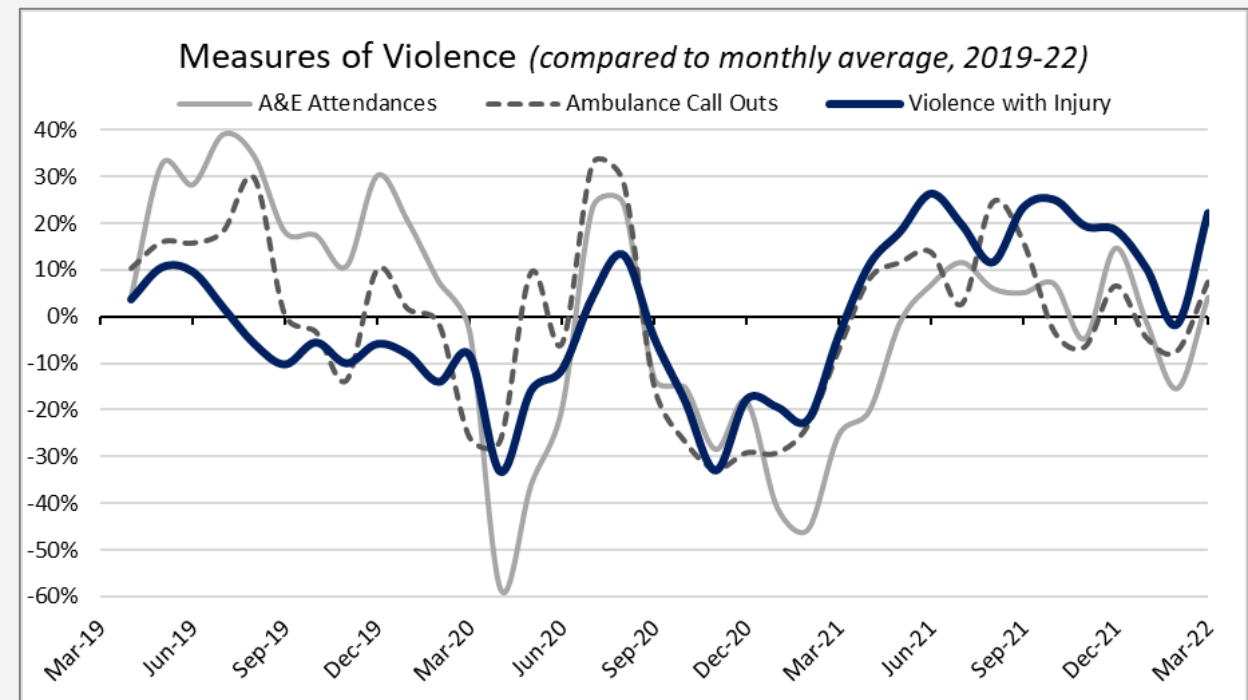


GMCA GREATER
MANCHESTER
COMBINED
AUTHORITY

Why is health data important to us?



- Historically, violence has been treated as purely a matter for policing
- Increasing recognition that police action should not be the only response to violence, and is not necessarily the most effective in isolation
- When treated as a criminal justice issue, our understanding has relied primarily on criminal justice data (primarily police)
- Many people will not report incidents to the police (or more importantly, *certain people* are less likely to)
- Recording practices also affect rates – especially relevant in Greater Manchester
- Comparing violence with injury data and health data incidents to gain an understanding of how many victims are ‘missing’ from police data

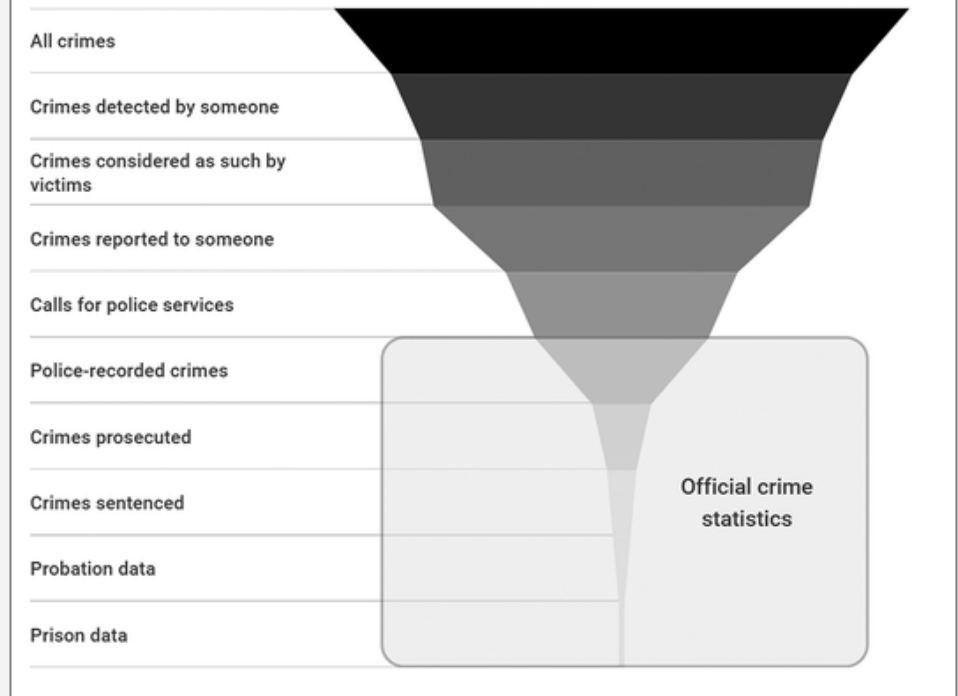


How much goes unrecorded by police?

- According to CSEW, only 49% of violent incidents are reported to the police (68% of wounding incidents)
- Just 73% of victims of violence with injury think it was a crime (13% said ‘it’s just something that happens’)
- We know roughly how much is unreported, but **WHO, WHERE, and WHEN?** We can’t plan interventions around a rough estimate – we need data on those incidents and victims!

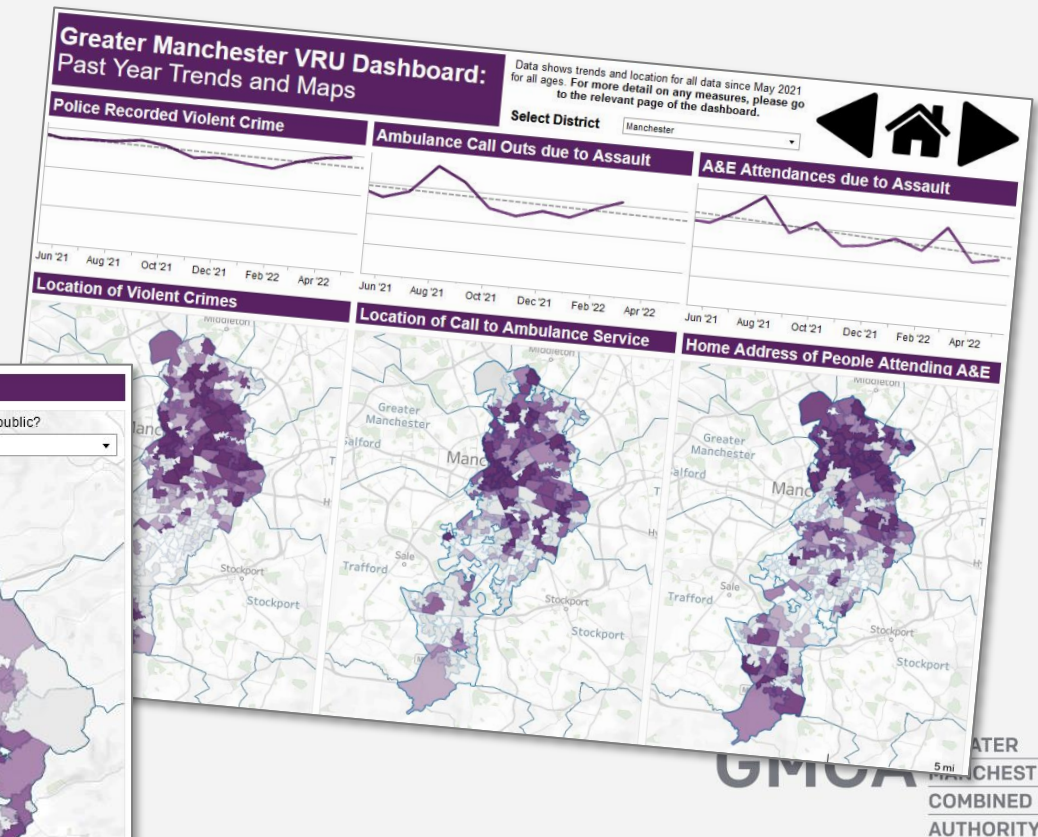
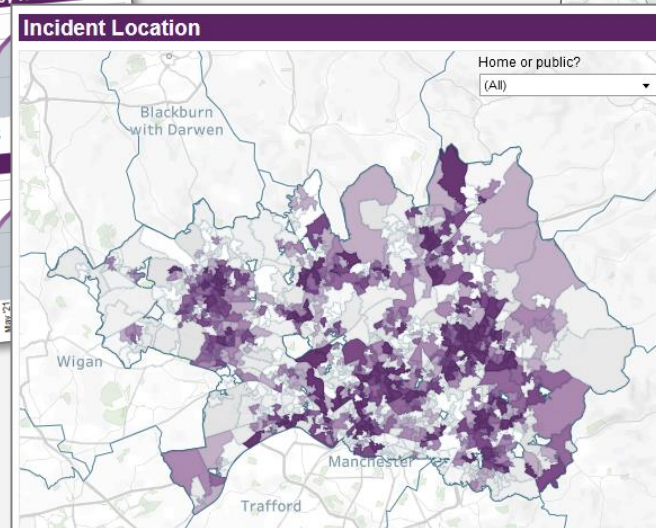
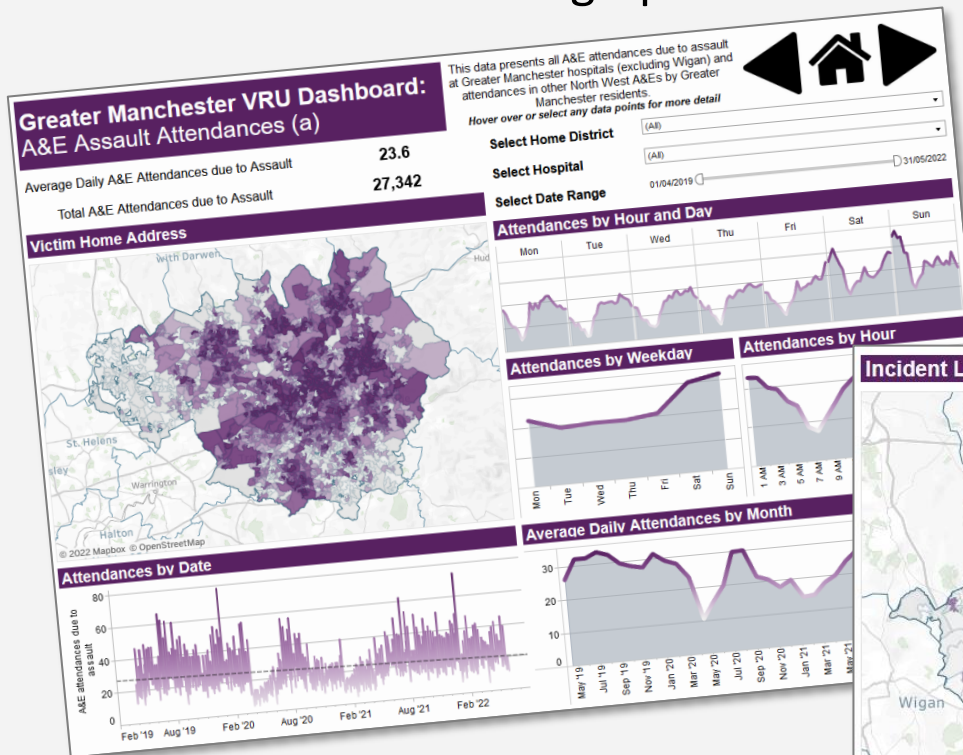


Figure 1. The ‘funnel’ of crime data.



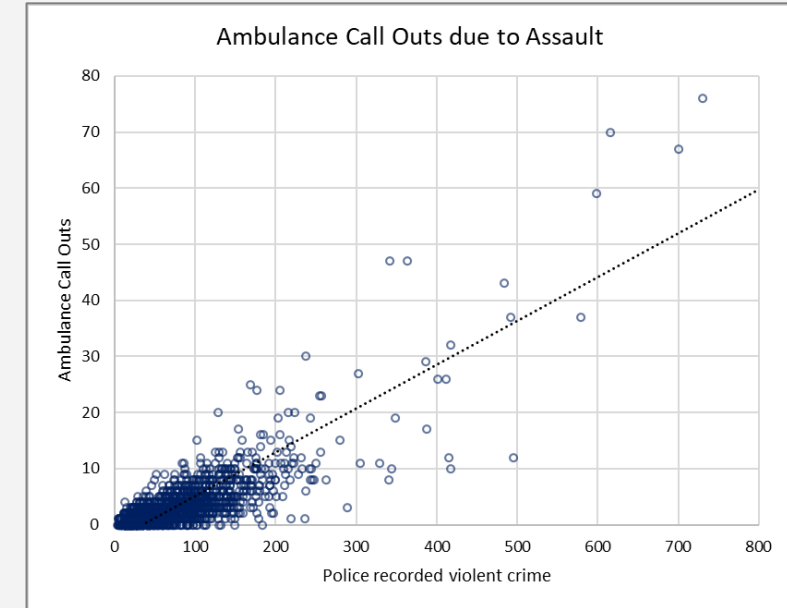
Day to day use of data

- We have access to several datasets we can compare and contrast over time, victim demographics, and geographic spread down to LSOA level – police recorded crime, ambulance call outs, and A&E attendances
- While this is only a subset of violence, according to the CSEW, 30% of violence with injury requires medical attention, and 4% require hospital stays (the majority are bruises only)
- Data is available to our wider network via an online dashboard with the ability to view specific local authorities or demographics



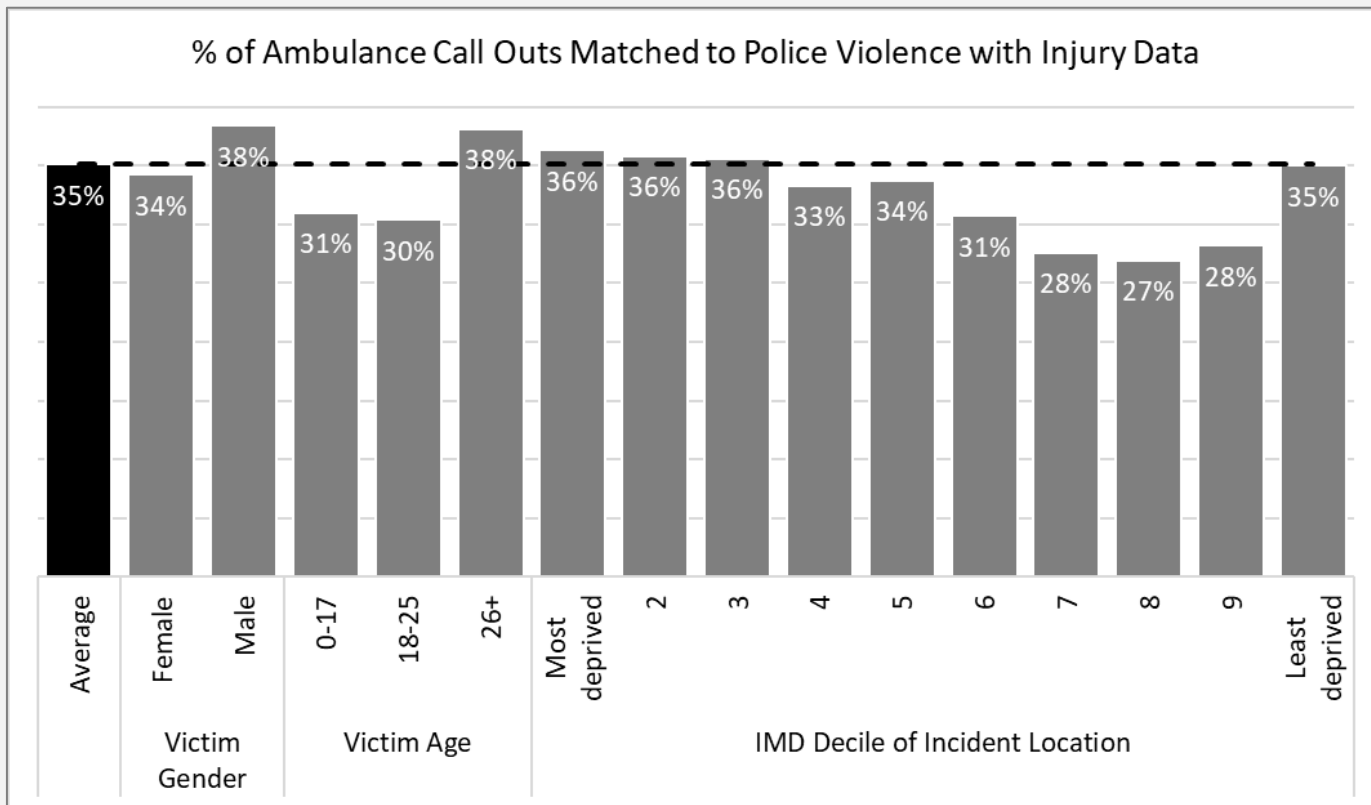
Analysing Ambulance Call Outs

- As well as simple comparisons, we have attempted to track events across datasets
- We know there is a correlation between ambulance call outs and police recorded crime, but what overlap is there? By matching events in ambulance and crime data we can see what proportion of ambulance call outs have recorded crimes
- Using data from August 2019 to March 2022 (14,382 ambulance call outs and 69,945 police recorded violence with injury crimes)
- Data is anonymous, so have generated comparable identifiers for each dataset
- Used a four part coding system which included LSOA of incident, age band, gender, and date of incident. For those where we had either gender or age but not both, we used a three part code
- We were limited by the detail of data available, but carried out checks to ensure that the coding was sensitive enough to attribute it to an individual – 95% of four part codes were entirely unique and 92% of the three part codes
- We matched these codes across to understand how many events appeared in both datasets



What did we find?

- 30% of NWAS incidents can be found within the GMP violence with injury dataset using the four part code, rising to 35% using the three part code – comparable to other recent academic studies
- Patterns between demographics and deprivation profile of location are perhaps surprising – differences in reporting or policing?



“The declining marginal increase in the overlapping incidents with increasing size of spatial nets suggests that a net with cell size of 100 to 200m provides the best trade-off between reliability and matching”

Cambridge Journal of Evidence-Based Policing (2021) 5:20–39

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Table 5 Proportion of ambulance and ED datasets incidents found in the police dataset using varying spatial nets

Size of spatial net	Dataset	Overlap
30 m × 30 m	Amb	9.5%
	ED	3.1%
100 m × 100 m	Amb	24.3%
	ED	11.5%
200 m × 200 m	Amb	34.0%
	ED	20.0%

Note: Spatial net size with 6-h time window

Next steps – what do we want?

- Hugely important to get **identifiable data**! Not to identify individuals, but to track across datasets and track repeats – we know that harm is concentrated among a small cohort, but who are that cohort?
- Continue building links with health services and others across the sector – **serious violence duty** should help
- Continue to engage academics to support access to this data
- **Lobby government for central support** in what is collected – some data sources rely on good will and individual relationships which lead to single points of failure
- **De-mystify data sharing** - GDPR has scared people!
- Encourage and support use of this data on the ground / front line

Thank you!

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