1. What is the current literature? What is the novelty of the study.
2. What is the cohort size?

Michael: UK BioBank MASLD Fat Fraction

* Incidence of liver related events in MASLD pts stratified by fat fraction
* UKB cohort fatty liver prevalence is very low in the subgroup that was selected for long term follow up for fat fraction measurement
  + Can do around 10,000 pts
  + 5-10%, 10-15%, >15% fat fraction groups
* 15-25% fat or higher is fatty liver

Dr. Huang

* Compare incidence of liver and non liver events in pts with cirrhosis with and without GLP1
* Any cirrhosis cause
* Previous studies have done studies in masld cirrhosis only. We will study cirrhosis of all causes
* How many patients?
* Cohort size: not over 4000 pts treated (huge size for non treated with GLP) – not enough sample size to do individual etiologies so may need to group viral nonviral etc
* Compare rates of cirrhosis decompensation
* PSM matching
* “Alcohol use disorder” (DON’T use “alcoholic" or “alcohol abuse”)
* Treatment of interest is GLP1 so index date: GLP initiation date (we exclude pts who started GLP1 before cirrhosis dx)
  + For control group (no GLP1) we will use random date for index date
* immortal time bias, meaning that, during the period of observation, there is some interval during which the outcome event cannot occur. The research participants are “immortal” in that they must survive long enough to receive the intervention being studied. --> Landmark analysis <https://pmc.ncbi.nlm.nih.gov/articles/PMC10175158/#:~:text=Landmark%20analysis%20is%20useful%20when,the%20time%20of%20the%20landmark.>

Dr. Wang – OSHPD

* Association of income and education data to study MAFLD burden and disparities
* Look up geospatial analysis
* Previous studies use GBD and NHANES. Only 3 studies so far
* Study MASLD burden for 2005-2023, forecast 2024-2035.
  + Burden = annual cost (number of hospital discharges, annual hospital cost, )
  + Don't use “burden” because it is extremely non specific
  + Need to know the population first before interpreting the data (baseline characteristics data)
* Use 2000-2022 data. Not up to 2023 because we need mortality data.
* **Biggest strength of OSHPD is mortality** so should do mortality!!!

Hong – OSHPD

* Cost for CLD hospitalization, ED visit, surgeries/treatments
* Disease burden of CLD inpatient (incidence, prevalence, CLD survival and mortality, etiology)
* Healthcare cost (hospital charges, number discharges, length of hospital stay, readmissions, cost for prescription meds and surgical procedures)
* Forecast to 2035
* Do we have ED data? Ambulatory surgery data?
* Subgroup analysis by age, sex, etiology
* Use 2005-2019
  + Bc early years of any database could not be clean
* Analyze Jan-Jun and Jul-Dec (?) need to account for seasonal change?

Winnie

* Viral hepatitis with or without DM and risks of developing liver and non liver outcomes
  + Do 4:1 PSM instead of 1:1 to increase statistical power
  + Diabetic complications – there’s a scoring system
  + Subgroup by SGLT2 and metformin
* Chronic liver disease mortality and projection up to 2040 in US
  + CDC Wonder (NVSS)
  + OS and liver related
  + Group deaths by cirrhosis and hcc as well

Dr. Taotao

* Truven antiviral treatment rate in patients with HBV/HCC
* NA treated: 1107, untreated: 2101
* Sahith’s paper looked at this with Optum and had around 3000
* HBV HCC cohort cirrhosis % is very low in Truven – around 30%, which is probably due to undiagnosed cirrhosis
  + Check for pts who had had HCC screening (imaging and AFP) -- these pts probs does not have undiagnosed cirrhosis