

# MAT221E-QUIZ I

Fall21

18/11/2021 (Duration 20. min)

In August 2021, the Ministry of Health of a specific country reported that among 6.937.546 people aged 12 or more, 1.302.912 of them are “not fully vaccinated” for Covid-19. Furthermore, the Ministry of Health also reported that 214 people were hospitalized among “not fully vaccinated” people for Covid-19 and 301 people were hospitalized among “fully vaccinated” people for Covid-19. Based on this real-world data:

- a) What is the probability of being fully vaccinated for Covid-19 in this country?
- b) What is the probability of being fully vaccinated given that s/he is hospitalized for Covid-19?
- c) What is the probability of being hospitalized if a person is not fully vaccinated?
- d) What is the probability of being hospitalized if a person is vaccinated?
- e) If risk ratio (RR) for being hospitalized is defined as:  $RR = \frac{\text{Probability of being hospitalized if a person is not fully vaccinated}}{\text{Probability of being hospitalized if a person is fully vaccinated}}$ ,  
Which group is under risk for being hospitalized at most?