INDIVIDUAL CASE STUDY (CASE CODE: 10)

BIOTECHNOLOGY & HEALTHCARE ADMINISTRATION COMMITTEE

PARTICIPANT GUIDELINES

- Event will be presented to you through your reading of CURIS Skills, CURIS Knowledge and Case Details
- Each case study must be completed individually and should take approximately 1 hour
- You should take approximately 10 minutes to review this information and 20 mins to conduct external research to help prepare your response
- You should then take approximately 20 minutes to write your response and allot 10 minutes to edit your response and submit your work
- Please also include a citations page to indicate which external sources were used
- All submissions will be made through the CurisConnect website
- You will be evaluated on how well you demonstrate the CURIS Skills and meet the CURIS Knowledge criteria. The last page in your case study package consists of an Evaluation Form whereby the evaluator will allot points for the completion of the case study.
- The points allotted will be based on the depth and detail of your explanation in your response since there are no defined right or wrong answers, but rather we want to see your thinking, research, knowledge and understanding on the situation at hand.
- The amount of points earned will correspond to the amount of volunteer minutes or hours you will earn. The threshold and range for this grading scheme can also be found at the bottom of the Evaluation Form.
- Participants who successfully complete the case study will receive a Certificate of Participation

CURIS SKILLS

- Critical Thinking – Reason effectively and use systems thinking.
- Communication – Communicate clearly.
- Creativity and Innovation – Show evidence of creativity.
- Healthcare Oriented Mindset - Utilizes proper terminology and demonstrates foundational educational understanding in discipline.

CURIS KNOWLEDGE

- Participants are encouraged to apply biostatistical principles and techniques to address the key issues outlined above, demonstrating proficiency in data analysis, risk assessment, intervention planning, outcome evaluation, and strategic decision-making within the context of public health promotion.
- The case study aims to showcase the value of biostatistics in informing evidence-based public health interventions and driving positive health outcomes at the population level.

CASE DETAILS

BioHealth Solutions is a research and consulting firm specializing in biostatistics and epidemiology. Established in 2010, BioHealth Solutions has been at the forefront of advancing statistical methods to address public health challenges. With a diverse client base including government agencies, healthcare organizations, and pharmaceutical companies, BioHealth Solutions is committed to leveraging data-driven approaches to improve health outcomes globally.

The case focuses on a public health initiative aimed at reducing the prevalence of obesity in a suburban community. The target population comprises adults aged 25-65 years residing in the community, characterized by diverse socio-economic backgrounds and lifestyle factors. The initiative aims to implement evidence-based interventions to promote healthy behaviors, such as increased physical activity and improved dietary habits, to combat obesity and its associated health risks.

Mr. Johnson, a 45-year-old resident of the community, presents as a typical participant in the initiative. He has a sedentary lifestyle, consumes a high-calorie diet, and has a body mass index (BMI) in the obese range. Mr. Johnson has a family history of obesity-related conditions, including type 2 diabetes and cardiovascular disease. He expresses interest in participating in the public health program to improve his health and well-being.

Please also address the following questions in your response:

- How can biostatistical methods be utilized to analyze and interpret the collected data effectively?
- How can biostatistics help quantify the relative contributions of these factors to obesity risk?
- What statistical techniques can be employed to assess the effectiveness of different intervention approaches and optimize program outcomes?
- How can biostatistics be used to track changes in BMI, dietary habits, physical activity levels, and incidence of obesity-related conditions?
- How can statistical modeling inform decision-making regarding resource allocation and program expansion efforts?

EVALUATION FORM

PARTICIPANT:_____

EVALUATOR: _____

Did the participant:		**Below expectations**	**Meets expectations**	**Exceeds expectations**	**Judged score**
CURIS KNOWLEDGE					
1	Explain the principles of orthodontic treatment.	2	4	6	
2	Describe pros and cons of different orthodontic appliances.	2	4	6	
3	Identify factors affecting patient decisions on treatment options.	2	4	6	
CURIS SKILLS					
4	Critical Thinking & Problem-Solving	1	2	3	
5	Communication, Terminology & Professionalism	1	2	3	
6	Creativity & Innovation	1	2	3	
7	Healthcare Oriented Mindset	1	2	3	
				TOTAL SCORE	

Total Score	Volunteer Minutes
25-30 points	1 hour
20-24 points	45 mins
15-19 points	30 mins
10-14 points	15 mins