



Serviço Público Federal
Ministério da Educação

Fundação Universidade Federal de Mato Grosso do Sul



Programa de Pós-Graduação em Doenças Infecciosas e Parasitárias – PPGDIP/UFMS

PROVA DE LÍNGUA INGLESA – 16 de setembro de 2019 (Edital N° 05/2019 - PPGDIP/UFMS)

Número da INSCRIÇÃO: _____

Considerando o artigo abaixo, **responda em PORTUGUÊS ou INGLÊS as questões de 1 a 9 apresentadas após o texto**. A questão 10 deve ser respondida em português.

KEDDY, Karen H. Old and new challenges related to global burden of diarrhoea. **The Lancet Infectious Diseases**, v. 18, n. 11, p. 1163-1164, 2018.
doi: [https://doi.org/10.1016/S1473-3099\(18\)30424-9](https://doi.org/10.1016/S1473-3099(18)30424-9)

1 The Global Burden of Disease (GBD) project has five major goals: improve control
2 of disease burdens, generate opportunities for informed debate, identify disease control
3 priorities, create knowledge about diseases, and enable rational allocation of resources
4 for disease control. Of the diseases that any national Ministry of Health should combat,
5 diarrhoeal diseases are among the most challenging. Diarrhoeal diseases are not
6 diseases of excess, habit, or heredity, and optimal interventions, with few exceptions,
7 might fall outside the ministerial scope. Food and water are major vehicles of diarrhoeal
8 disease and remain unavoidable risk factors for morbidity and mortality.

9 By refining their methods, Robert Reiner and colleagues have updated estimates
10 of global diarrhoea burden for 2016, highlighting current and new causes for concern,
11 reiterating the excessive morbidity and mortality in children younger than 5 years, defining
12 the association between case-fatality ratio and Socio-demographic Index (SDI), and
13 emphasising the vulnerability of the ageing global population. Diarrhoeal diseases affect
14 all ages, but particularly the young and the elderly. Despite a 57% reduction in diarrhoea
15 deaths since 2000, children younger than 5 years remain the most vulnerable group to
16 diarrhoeal and foodborne diseases. An estimated 1.1 billion total episodes of diarrhoea,
17 about 1.8 episodes per child, occurred in this age group in 2016 compared with an
18 incidence of 0.90 episodes (95% uncertainty interval [UI] 0.82 – 1.00) per person-year in
19 adults older than 70 years. Although the rotavirus vaccine has undoubtedly affected the

20 burden of diarrhoeal disease in children, rotavirus diarrhoea remains the commonest
21 cause of death in children younger than 5 years due to diarrhoea (20.3 deaths [95% UI
22 16.6 – 24.5] per 100,000), suggesting that the vaccine is still underused globally.

23 Ageing populations have created further challenges for the control of diarrhoeal
24 disease. The UN reported that the population of individuals older than 60 years will
25 increase globally from 962.3 million in 2017 to 2080.5 million in 2050, primarily in Africa,
26 where a projected 230% increase will occur. In 2016, diarrhoea mortality was about three
27 times greater in adults older than 70 years than in children younger than 5 years: the
28 commonest cause of diarrhoea in elderly people was the bacteria *Shigella*, causing 18.4
29 deaths (95% UI 10.5 – 31.8) per 100,000. Excessive mortality due to invasive shigellosis
30 in adult women with HIV caring for sick children suggests interventions aimed at
31 controlling childhood diarrhoea might benefit vulnerable adults. In countries where case-
32 fatality rates should be lower because of high SDI, HIV probably remains an important
33 factor in disease outcome.

34 Cholera, which is associated with breakdowns in delivery of safe water, contributed
35 to 1.5 deaths (95% UI 0.9 – 2.4) per 100,000 worldwide and was the third commonest
36 cause of diarrhoeal death occurring predominantly in countries with political and economic
37 instability. Mapping the history of cholera outbreaks traces a narrative of conflict.
38 *Clostridium difficile* is often poorly investigated in countries with a low SDI, and although
39 it contributed little to global diarrhoeal mortality, it had the greatest impact on diarrhoeal
40 mortality in high SDI countries (7761 total deaths).

41 Climate change might directly and indirectly affect burden estimates in the future.
42 The authors showed that SDI was associated with diarrhoea mortality, irrespective of age.
43 Climate change disproportionately threatens food production, and hence food security, in
44 countries with a low SDI, with complications of food scarcity potentially overwhelming
45 those countries where low SDI is associated with high case-fatality rates in children.
46 Malnutrition and stunting, which are associated with climate change, are risk factors for
47 severe diarrhoea, and flood and drought resulting from climate change have been further
48 associated with increased burdens of diarrhoeal disease in affected areas.

49 Debate regarding disease control has affected strategies related to safe food,
50 sanitation, and water, and socioeconomic and political stability. Implementation of these
51 strategies has been inadequate, sometimes non-existent, and improvements remain

52 vulnerable to regression. Insufficient resources in countries that have the greatest burden
53 of diarrhoeal diseases have been detrimental to progress in global control of such
54 diseases. This underfunding has caused unequal reductions in diarrhoeal disease
55 burdens among countries. Knowledge about and insight into diarrhoeal diseases have
56 advanced, but improved granularity would enhance country-level management for all age
57 groups. More high-quality data are needed on the complex cause-and-effect associations
58 between stunting and diarrhoea, climate change, the role of comorbidities, acute versus
59 subacute disease, and bloody versus non-bloody diarrhoea. By updating these GBD
60 estimates, Reiner and colleagues have reminded us that substantial progress is needed
61 to reduce the global burden of diarrhoea.

- 1) De acordo com texto, quais são os objetivos do projeto Carga Global da Doenças?
(1,0 ponto)

Resposta: melhorar o controle da carga de doenças, gerar oportunidades para debate informado, identificar prioridades de controle de doenças, gerar conhecimento sobre doenças e permitir a alocação racional de recursos para o controle de doenças.

Answer: improve control of disease burdens, generate opportunities for informed debate, identify disease control priorities, create knowledge about diseases, and enable rational allocation of resources for disease control.

- 2) Explique, de acordo com o texto, por que entre todas as doenças a serem controladas, as doenças diarreicas apresentam os maiores desafios para o seu controle? (1,0 ponto)

Resposta: as doenças diarreicas não são doenças de excesso, hábito ou hereditariedade, e intervenções amplas, com poucas exceções, podem ficar fora das prioridades governamentais, no âmbito dos ministérios da saúde. Alimentos e água são os principais veículos de doenças diarreicas e, portanto, permanecem como fatores de risco inevitáveis para morbimortalidade por essas doenças.

Answer: diarrhoeal diseases are not diseases of excess, habit, or heredity, and optimal interventions, with few exceptions, might fall outside the ministerial scope. Food and water are major vehicles of diarrhoeal disease and remain unavoidable risk factors for morbidity and mortality.

- 3) Qual grupo etário é o mais acometido (ou mais vulnerável) pelas doenças diarreicas? Justifique, com base no texto, por que este é o grupo etário mais acometido pelas doenças diarreicas. (1,0 ponto)

Resposta: crianças menores que 5 anos de idade. Apesar da redução de 57% nas mortes por diarreia desde 2000, crianças menores de 5 anos continuam sendo o grupo mais vulnerável para as doenças diarreicas e outras doenças transmitidas por alimentos. Entre o total estimado de 1,1 bilhão de episódios de diarreia em 2016, cerca de 1,8 episódio por criança ocorreu nessa faixa etária.

Answer: children younger than 5 years. Despite a 57% reduction in diarrhoea deaths since 2000, children younger than 5 years remain the most vulnerable group to diarrhoeal and foodborne diseases. An estimated 1.1 billion total episodes of diarrhoea, about 1.8 episodes per child, occurred in this age group in 2016.

- 4) Explique a contradição de ideias (ou informações) descrito entre as linhas 19 a 22? (1,0 ponto)

Resposta: embora a vacina contra o rotavírus tenha diminuído o impacto das doenças diarreicas em crianças, a diarreia por rotavírus continua sendo a causa mais comum de morte em crianças menores de 5 anos devido à diarreia, sugerindo que a vacina ainda é subutilizada no mundo.

Answer: Although the rotavirus vaccine has undoubtedly affected the burden of diarrhoeal disease in children, rotavirus diarrhoea remains the commonest cause of death in children younger than 5 years due to diarrhea, suggesting that the vaccine is still underused globally.

- 5) O texto afirma que populações idosas têm apresentado novos desafios para o controle de doenças diarreicas. Resumidamente, em até 5 linhas, explique essa afirmação? (1,0 ponto)

Resposta: dados da Organização das Nações Unidas mostraram que a população de indivíduos com mais de 60 anos aumentará globalmente, principalmente na África, onde ocorrerá um aumento projetado de 230%. Em 2016, a mortalidade por diarreia foi cerca de três vezes maior em adultos com mais de 70 anos do que em crianças com menos de 5 anos.

Answer: data from UN reported that the population of individuals older than 60 years will increase globally, primarily in Africa, where a projected 230% increase will occur. In 2016, diarrhoea mortality was about three times greater in adults older than 70 years than in children younger than 5 years.

- 6) Por que as mudanças climáticas podem afetar direta e indiretamente as estimativas sobre a magnitude e a carga das doenças diarreicas no futuro? (1,0 ponto)

Resposta: as mudanças climáticas ameaçam desproporcionalmente a produção de alimentos e, portanto, a segurança alimentar, especialmente em países com baixo índice sociodemográfico; o que pode gerar complicações da escassez de alimentos que potencialmente sobrecarregam os países com baixos indicadores sociodemográficos, onde são observados a associação entre o baixo status sociodemográfico e as altas taxas de mortalidade infantil.

Answer: climate change disproportionately threatens food production, and hence food security, in countries with a low socio-demographic index, with complications of food scarcity potentially overwhelming those countries where low socio-demographic index is associated with high case-fatality rates in children.

7) Quais são os fatores de risco associados a diarreia severa citados no texto? (1,0 ponto)

Resposta: desnutrição e nanismo.

Answer: malnutrition and stunting.

8) Embora o conhecimento e a percepção acerca da magnitude e importância das doenças diarreicas tenham avançado, o que mais é necessário para melhorar a gestão e o controle dessas doenças em nível nacional e em todas as faixas etárias? (1,0 ponto)

Resposta: são necessários mais dados de alta qualidade sobre as complexas associações de causa e efeito entre nanismo e diarreia, mudanças climáticas, papel das comorbidades, doença aguda versus subaguda e diarreia sanguinolenta e não sanguinolenta.

Answer: more high-quality data are needed on the complex cause-and-effect associations between stunting and diarrhoea, climate change, the role of comorbidities, acute versus subacute disease, and bloody versus non-bloody diarrhoea

9) Quais são as três causas mais comuns de morte por doenças diarreicas? (1,0 ponto)

Resposta: infecção pelo rotavírus (rotavirose), pela bactéria do gênero *Shigella* (shigelose) e a cólera.

Answer: rotavirus infection, *Shigella* infection (shigellosis) and cholera.

10) Considerando o contexto em que estão inseridas no texto, como você traduziria para o português as expressões abaixo? (1,0 ponto)

- uncertainty interval (linha 18): intervalo de incerteza

- childhood diarrhoea (linha 31): **diarreia infantil**
- case-fatality ratio (linha 12): **razão ou relação caso-fatalidade**
- high-quality data (linha 57): **dados de alta qualidade**