

# The Burden of Inflammatory Bowel Disease in the Gulf Region

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## INTRODUCTION

Inflammatory bowel diseases (IBD), including Crohn’s disease (CD) and ulcerative colitis (UC), impose a substantial burden worldwide. Despite extensive global evidence, data on the burden of IBD in the Gulf region remain limited. This study aims to estimate the humanistic and economic burden of IBD among adults in the United Arab Emirates (UAE), Kuwait, Qatar, Oman, and Bahrain.

## METHODS

A bottom-up approach was applied to estimate the burden. Patients were stratified by severity into mild and moderate-to-severe groups, with an additional undiagnosed group. Model inputs were drawn from published literature and local expert questionnaires to generate preliminary estimates, which were then validated through discussions with local experts to confirm accuracy. Humanistic burden was quantified using disability-adjusted life years (DALYs), while economic burden was assessed in terms of direct and indirect costs. To support cross-country comparability and reflect relative burden, annual direct costs per population as a proportion of each country’s total health expenditure (THE) were estimated.

## RESULTS

### Number of patients

CD was more prevalent in the UAE, Kuwait, and Qatar compared to UC, whereas UC was more prevalent in Oman and Bahrain (Figure 1).

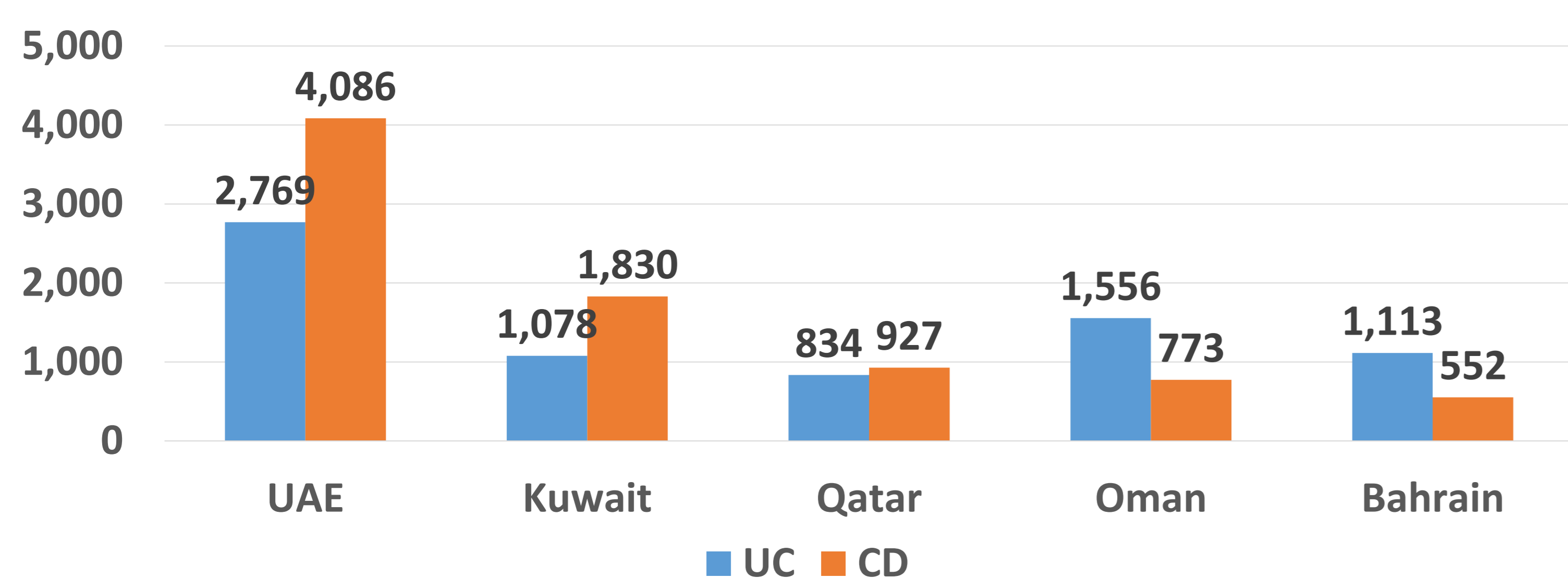


Figure 1: Number of patients

Moderate-to-severe CD was more common than mild CD across all countries. In UC, mild disease predominated in all countries except Kuwait, where moderate-to-severe UC was more frequent. Regarding undiagnosed patients, a larger share was among CD patients than among UC patients. Figure 2 presents the distribution of patient severity for UC and CD averaged across all countries.

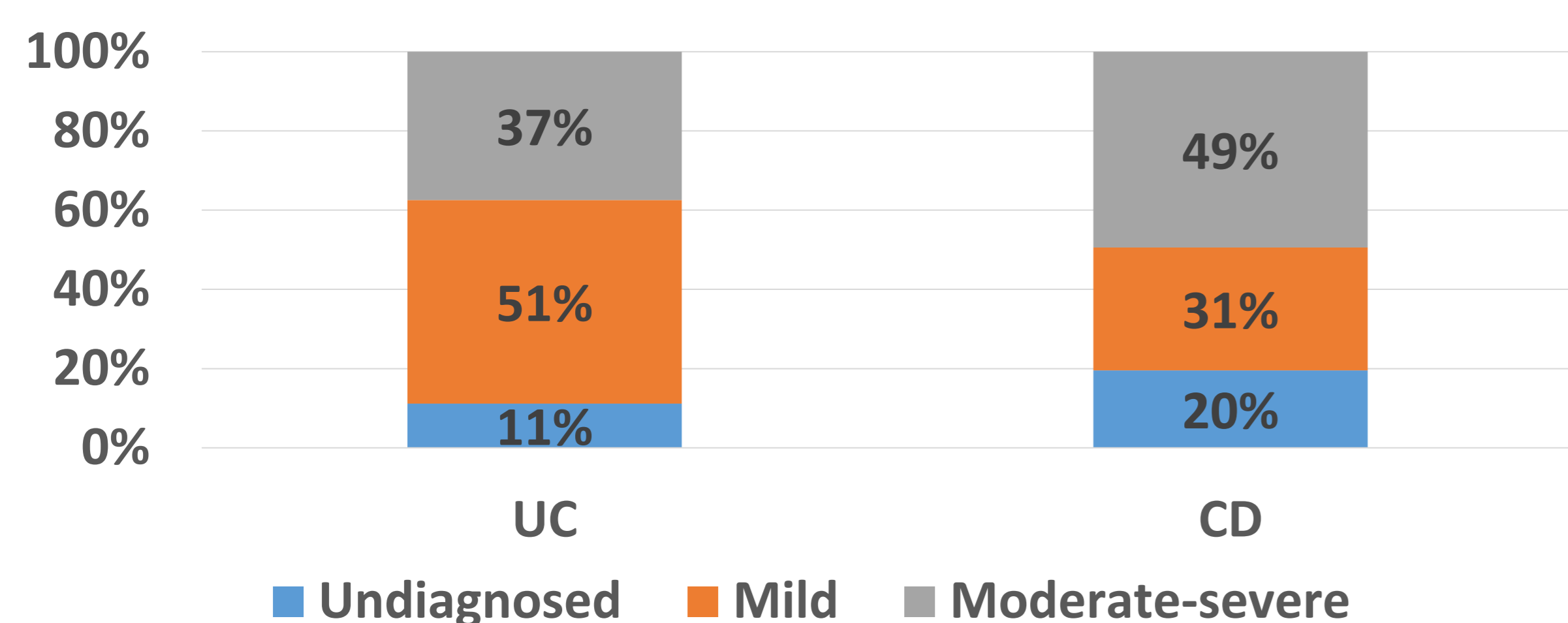


Figure 2: Average patient distribution across all countries

### Humanistic burden

Across all countries, CD was associated with a greater humanistic burden, averaging 10.4 DALYs per patient, compared with 6.7 DALYs per patient for UC. Figure 3 presents the lifetime DALYs per patient for UC and CD by country.

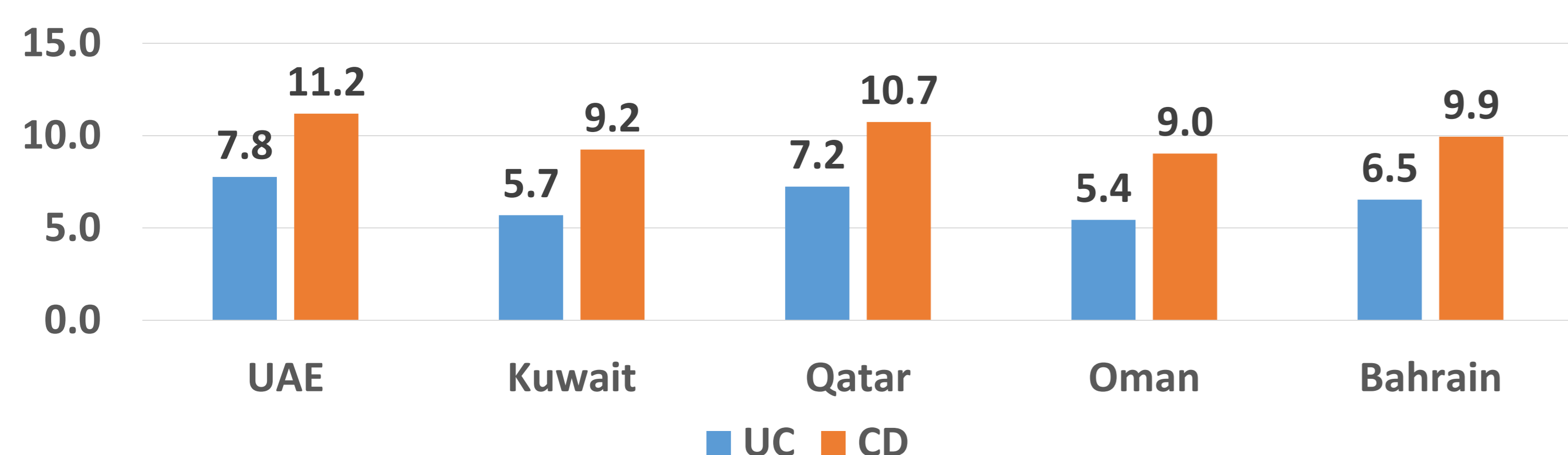


Figure 3: Lifetime DALYs per patient per country

## Economic burden

### Direct costs

Average annual direct costs per patient ranged from approximately USD 9,000 to 34,000 for CD and USD 5,000 to 22,000 for UC across countries. Table 1 outlines the per-population costs and the % out of THE for UC and CD across all countries.

Table 1: Annual direct medical cost per patient and per population (USD 2024)

	Per population		% THE	
	UC	CD	UC	CD
UAE	55.3	95.0	0.20%	0.34%
Kuwait	23.3	62.3	0.26%	0.68%
Qatar	8.5	15.1	0.18%	0.31%
Oman	8.1	7.1	0.28%	0.25%
Bahrain	9.8	7.3	0.55%	0.41%

\*costs are in millions

### Indirect costs

Indirect costs per patient averaged approximately USD 7,600 per year for CD and USD 4,000 per year for UC across all countries, with presenteeism accounting for the largest share. Figure 4 presents the indirect cost per patient population across all countries.

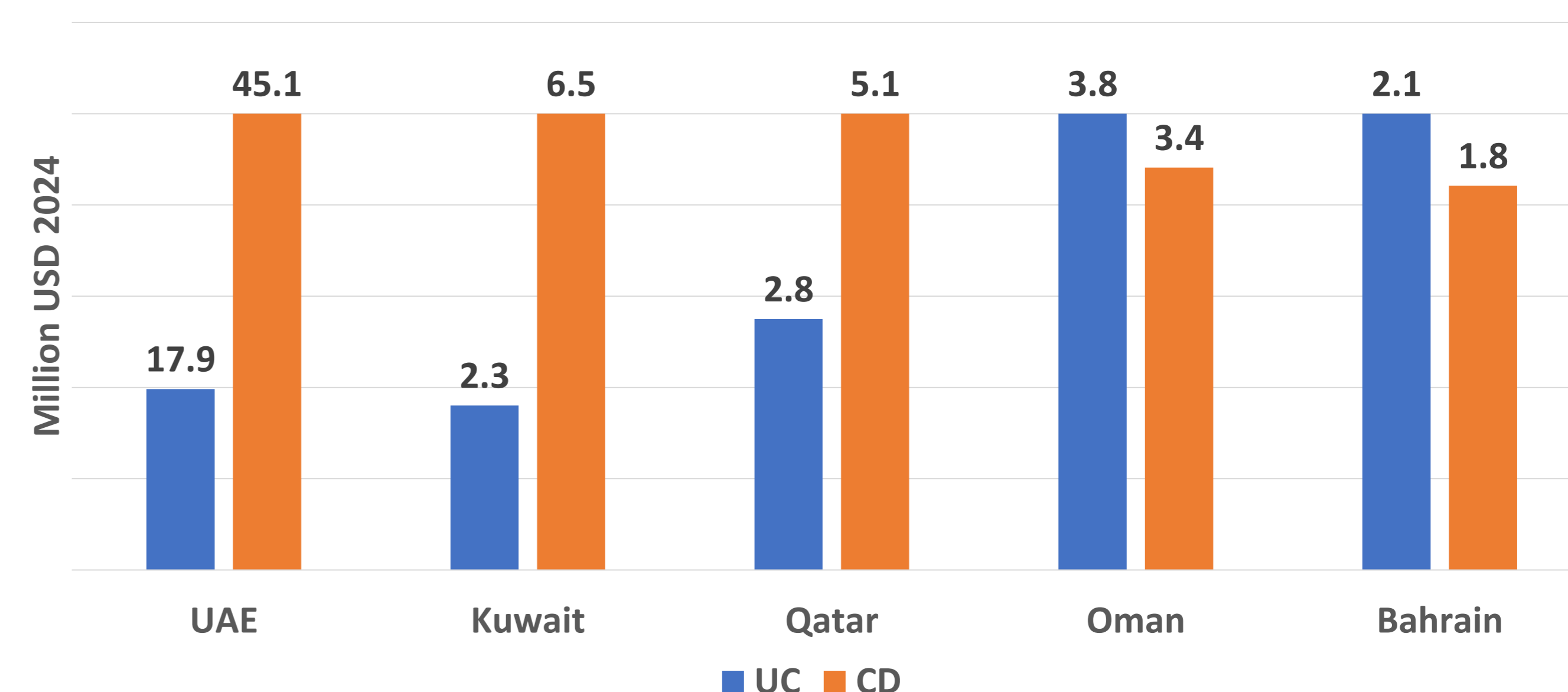


Figure 4: Annual indirect cost per patient population (million USD 2024)

Indirect costs accounted for 12% to 38% of the total economic burden of CD and 13% to 42% of the total economic burden of UC. Figures 5 show the contribution of direct and indirect costs to the overall economic burden averaged across all countries for UC and CD, respectively.

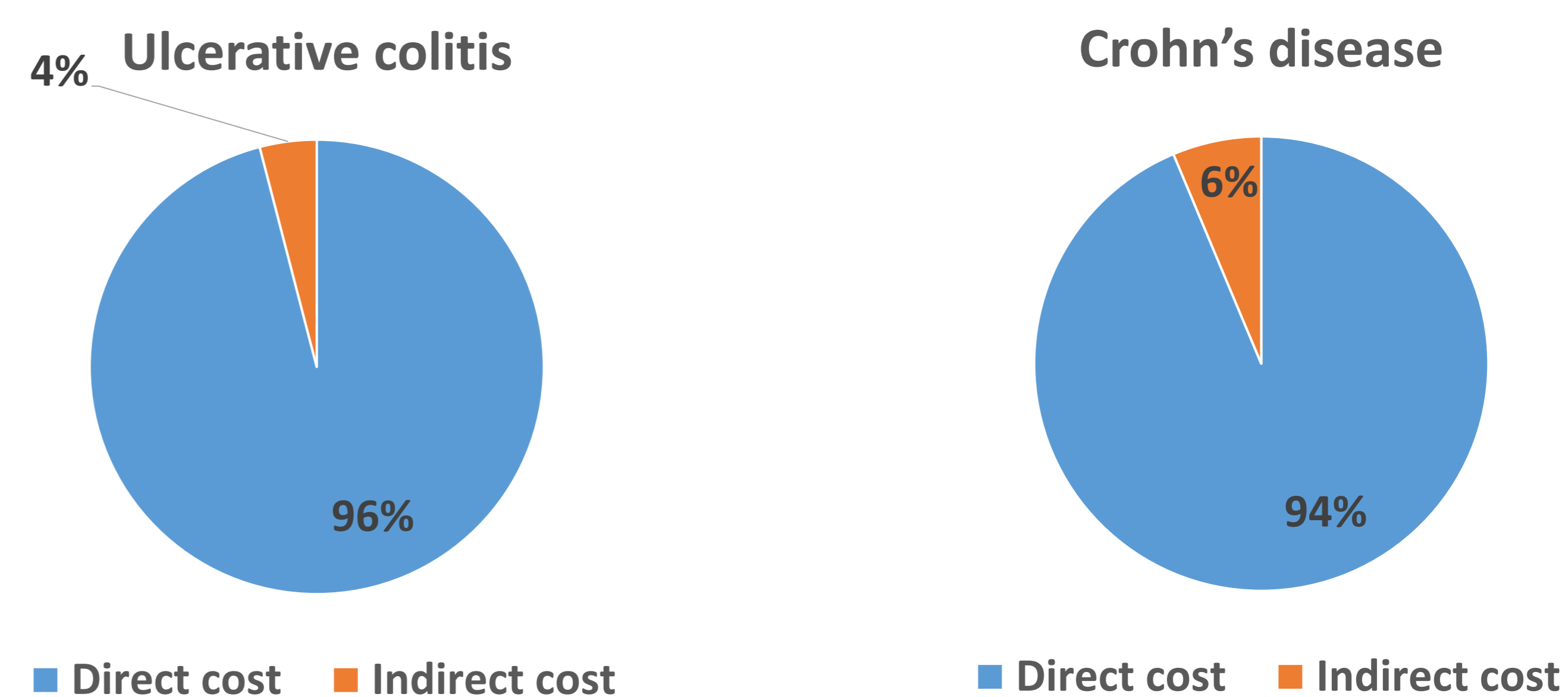


Figure 5: Direct and indirect cost contribution to the total economic burden

## CONCLUSION

IBD imposes a substantial burden in the Gulf region, driven by high direct and indirect costs and notable reductions in quality of life. These findings can help inform the development of region-specific healthcare policies and resource allocation decisions.

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