

## Introduction

Colorectal cancer (CRC) is the third leading cause of cancer related death in the United States<sup>1</sup>. Screening for CRC is recommended every 10 years for adults 50 years and older. Colonoscopy, endoscopic examination of the large bowel and rectum is crucial because early detection of CRC leads to significantly better patient outcomes<sup>1</sup>. Refugees must be educated on the concept of colonoscopy because screening measures are unusual in their home countries.

## Population of Focus

### Population of Interest:

- Refugee populations from Bhutan, Iraq and Burma

### Clinical Problem:

- Lack of understanding of colorectal cancer and importance of screening
- Limited understanding of colonoscopy preparation and procedure
- Limited exposure to primary care and early prevention in their country of origin

### Clinical Partner:

- Edward M. Kennedy Health Center

Figure 1: Health Care Access Per 1000 Population

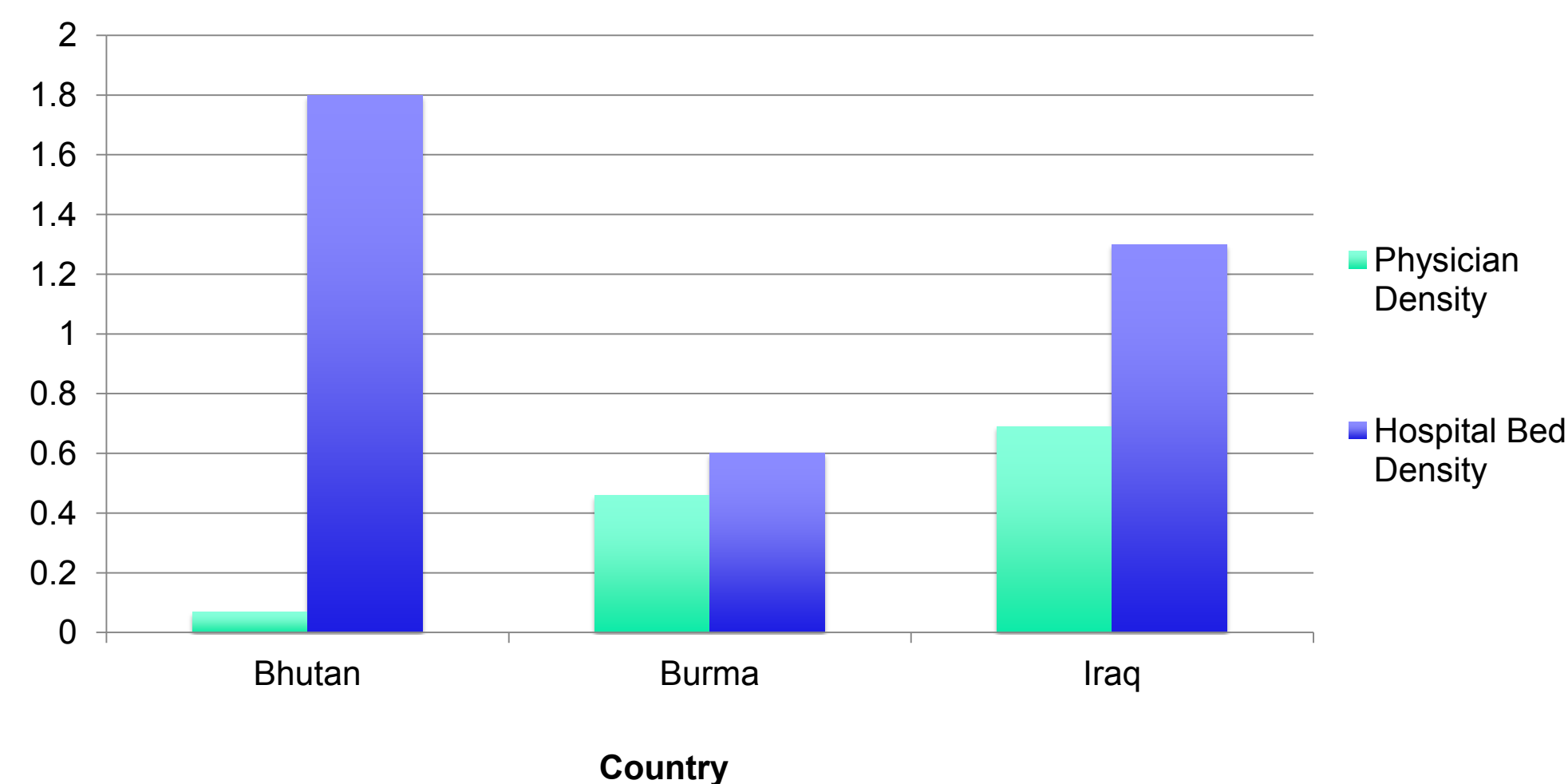


Figure 1. Density of physicians and hospital beds in the 3 countries is shown above. The World Health Organization estimates that fewer than 2.3 health workers (physicians, nurses, and midwives only) and fewer than 2 beds per 1,000 is insufficient to achieve coverage of primary healthcare needs<sup>2</sup>.

## Colorectal Cancer Epidemiology

Colorectal Cancer is among the top 10 causes of death in the United States, and within the top 40 causes of death in Bhutan, Burma, and Iraq<sup>2</sup>. Figure 2 shows the incidence and mortality of CRC by country of origin reported by the World Health Organization's International Agency for Research on Cancer. The American Joint Committee on Cancer reported 5- year survival rates based on a study examining 28,000 people diagnosed with colorectal cancer. The results reported were as follows: CRC stage I, presented with a 74% 5-year survival rate (Figure 3), while Stage IV of CRC presents a mere 6% 5-year survival rate<sup>3</sup>.

Figure 2: Colorectal Cancer Incidence & Mortality

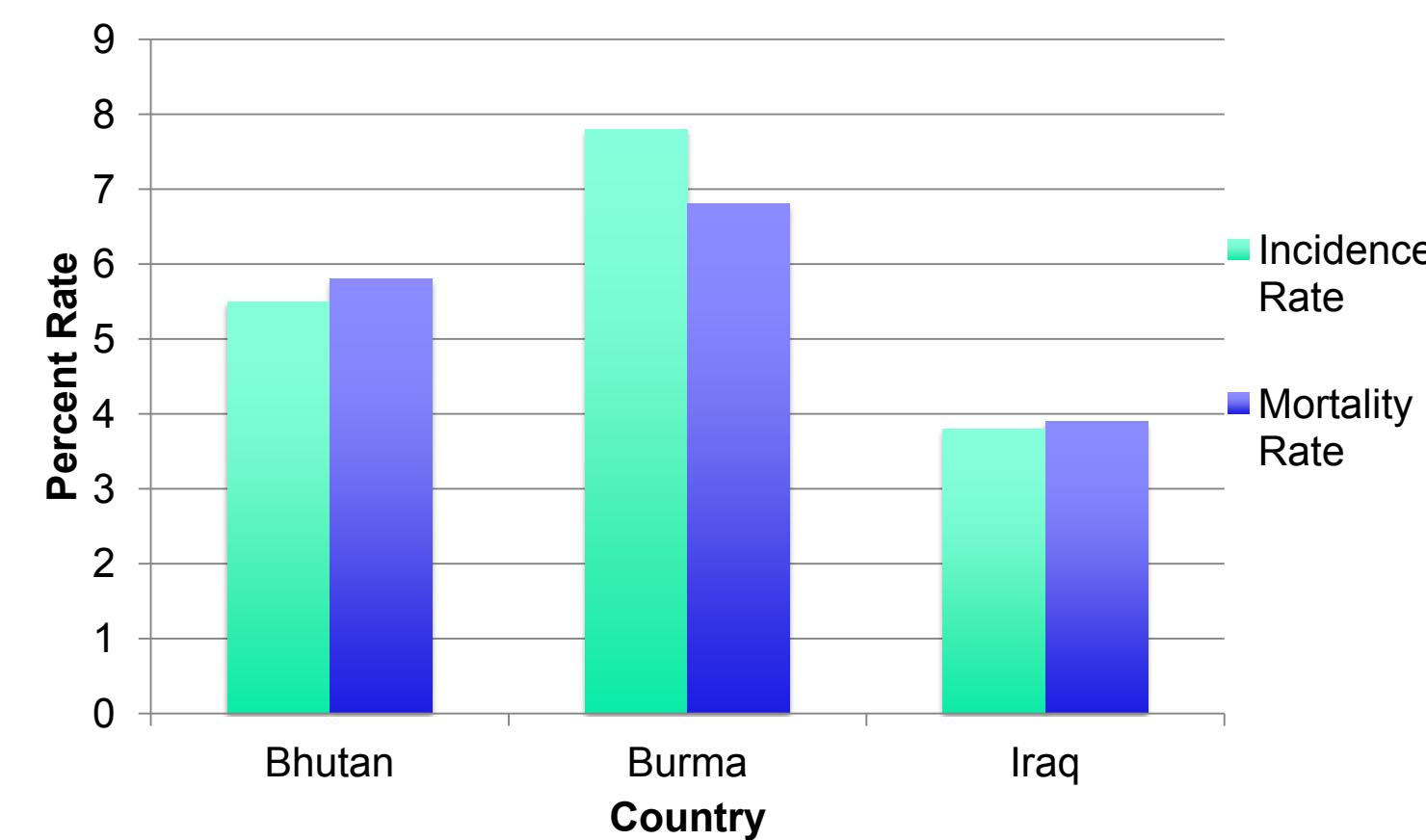
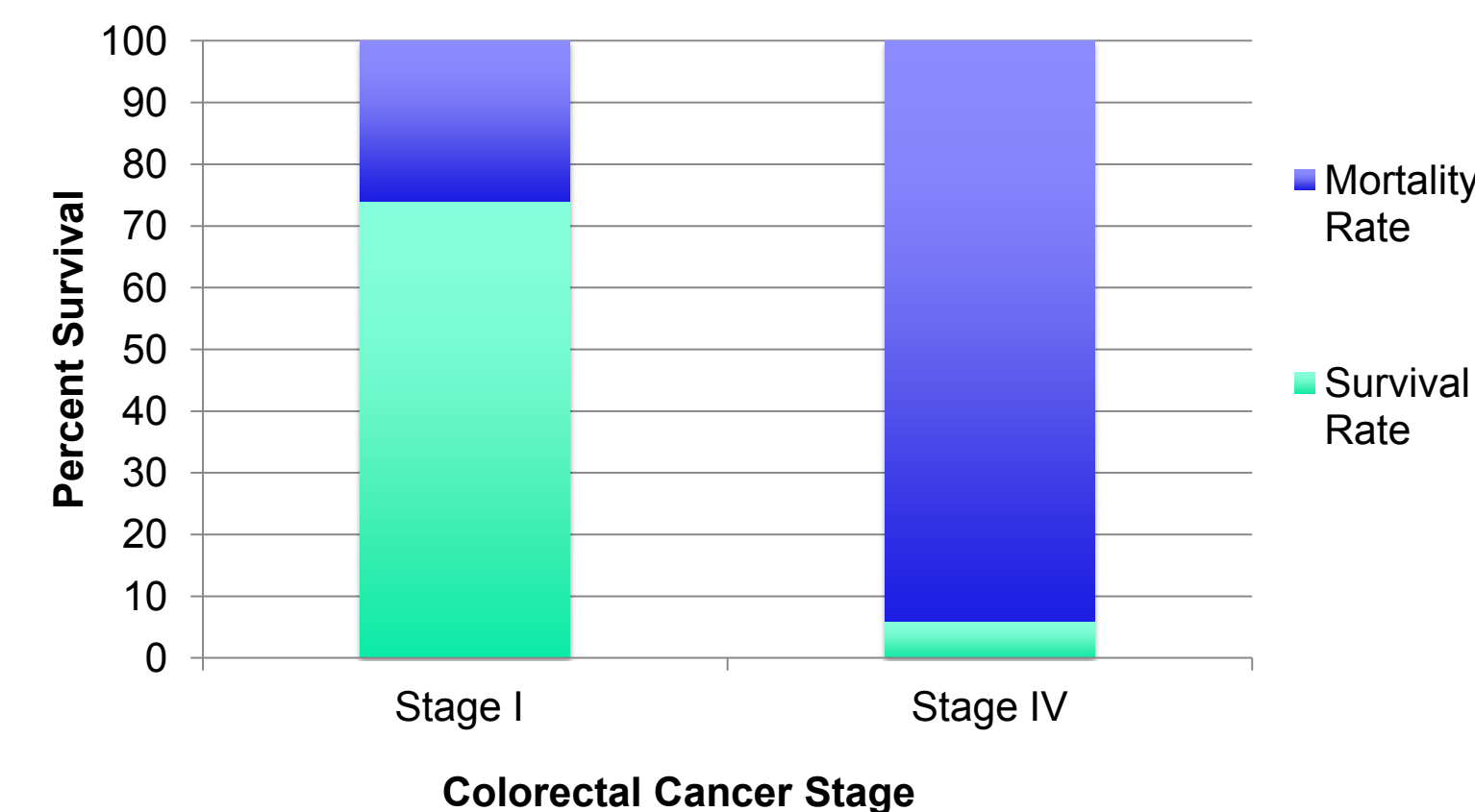


Figure 3: Colorectal Cancer 5-Year Survival Rate by Cancer Stage



## Interprofessional Collaboration

Physicians, nurse practitioners (NP), nurses, medical assistants, interpreters and administrators must work together in order to provide care for the refugee population. In order to increase colonoscopy appointment rates in our population of focus, physicians and NPs must communicate clearly with nurses and medical assistants so that referral appointments are made. In addition, physicians, NPs, and nurses with assistance from interpreters must ensure that patients understand the requirements for a colonoscopy, from preparation to the procedure. Finally, administrators must confirm patient understanding of the preparation and procedure when they book appointments for refugees.

Time	Total UMASS Referrals	Number of Patients That Could Not Be Reached	Number of Patients That No-Showed	Number of Patients Bumped/Cancel led Appointment	Number of Colonoscopy Results Received	Number that Attended Appointment But No Results Shown	Number of Appointments That Are Pending
3 Month Cohort	139	58	7	10	46	10	8
Percent of Total Referrals		41%	5%	7.20%	33%	7.20%	5.80%

Table 1. From a three month observation of total colonoscopies ordered at UMass, it can be seen that a fundamental problem is inability to contact the patients. Also, a small percentage of patients had appointments canceled and others are still pending. The cohort was from April to June, so all referrals should have led to patients obtaining colonoscopies, four months later (Oct).

## Service Project Summary

### Goals:

- Educate Bhutanese community over 50 years old about CRC and screening for early detection.

### Progress:

- A low-literacy educational presentation was developed for the Bhutanese community over 50 years old.
- Presentation has been evaluated by a Nepali interpreter to ensure simple and effective translation.
- Pilot presentation will be presented to Bhutanese Association in order to meet expectations and needs of the community.

### Outcomes:

- Systematical errors identified and in the process of being remedied to improve patient attendance.
- The educational program will be presented in the near future.

## Discussion

- The Bhutanese community expressed a desire for education regarding colonoscopies and CRC-early detection by colonoscopy is vital for improved survival rates.
- Primary care and screening is foreign to a majority of the population.
- Refugees have been either missing appointments or not preparing for the procedure correctly.
- Identified systemic error that disallowed contact of patients for referral appointment.
- Educational program designed to help the community understand the importance of screening and instruction on how to prepare for colonoscopies

## Acknowledgements

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## References

- American Cancer Society (2012). Cancer Facts & Figures. Retrieved from <http://www.cancer.org/acs/groups/content/@epidemiologysurveillance/documents/document/acspc-031941.pdf>
- World Health Organization (2011). Country Health Care Facts. Retrieved from <http://www.who.int/countries/mmr/en/>
- American Joint Committee on Cancer (2010). Cancer Staging. Retrieved from <http://cancerstaging.org/CSE/Resources/Pages/default.aspx>