

The Effects of Organ Procurement Policy on Organ Trafficking



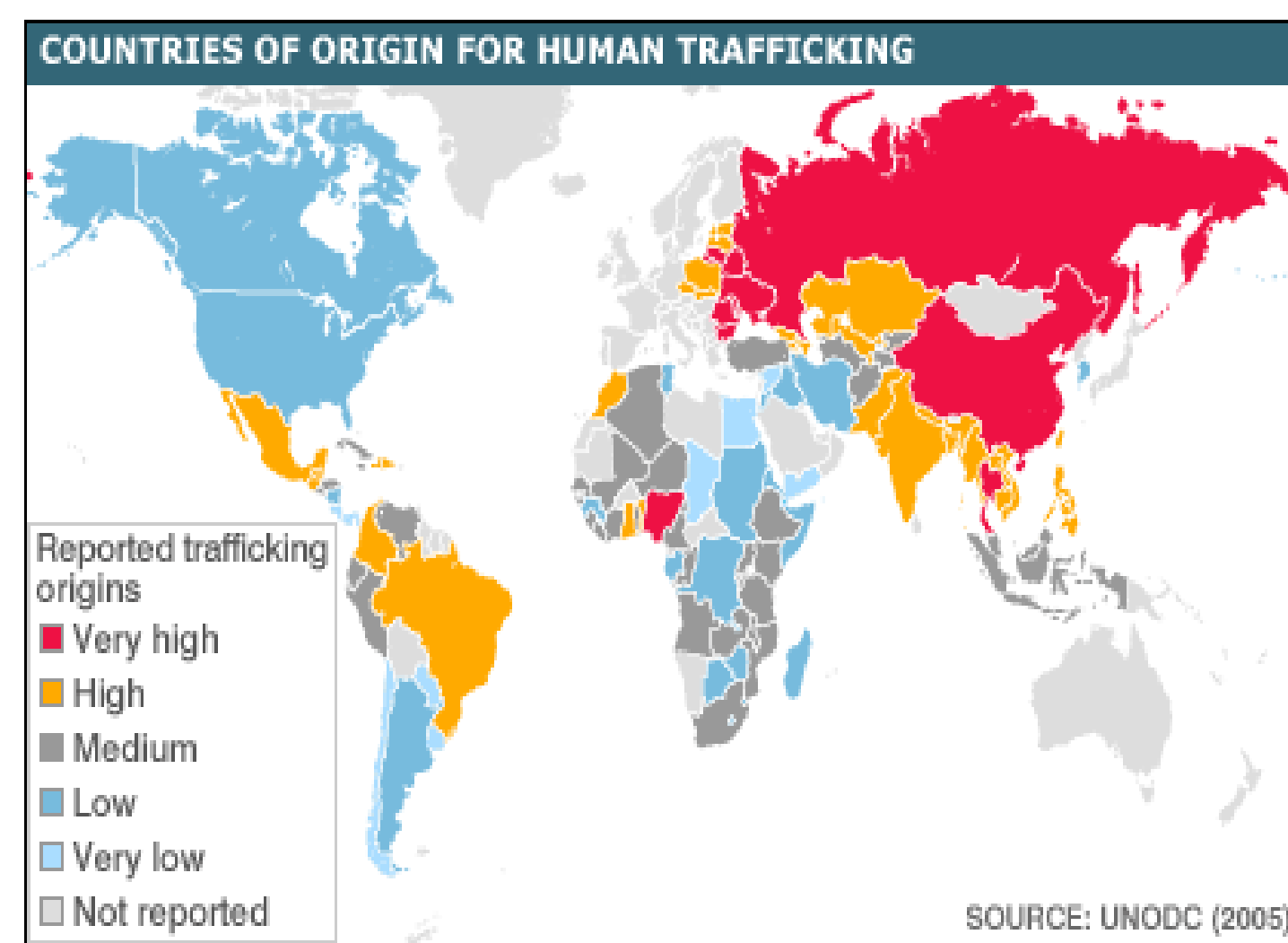
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Introduction

A scarcity of available organs to meet transplant demands has spurred illegal organ trading into a lucrative business. As more families are touched by organ failure and faced with long waiting lists and medical care costs, the temptation to resort to illegal means increases. The selling and buying of organs as a commodity has clear ethical, economic, and social ramifications for both donor and recipient. Over time, countries have developed different means of increasing the donor supply, namely through Opt-in, Opt-out, Mandated Choice, and the more controversial prisoner-based policies. Each of these models carries with it ethical concerns. It is hypothesized that implementation of the most effective policy would reduce the amount of organ trafficking.

To identify the most efficient method, we selected four countries representative of their respective policies and analyzed the efficacy of their procurement via donor registry archives dating between 1993 and 2010.

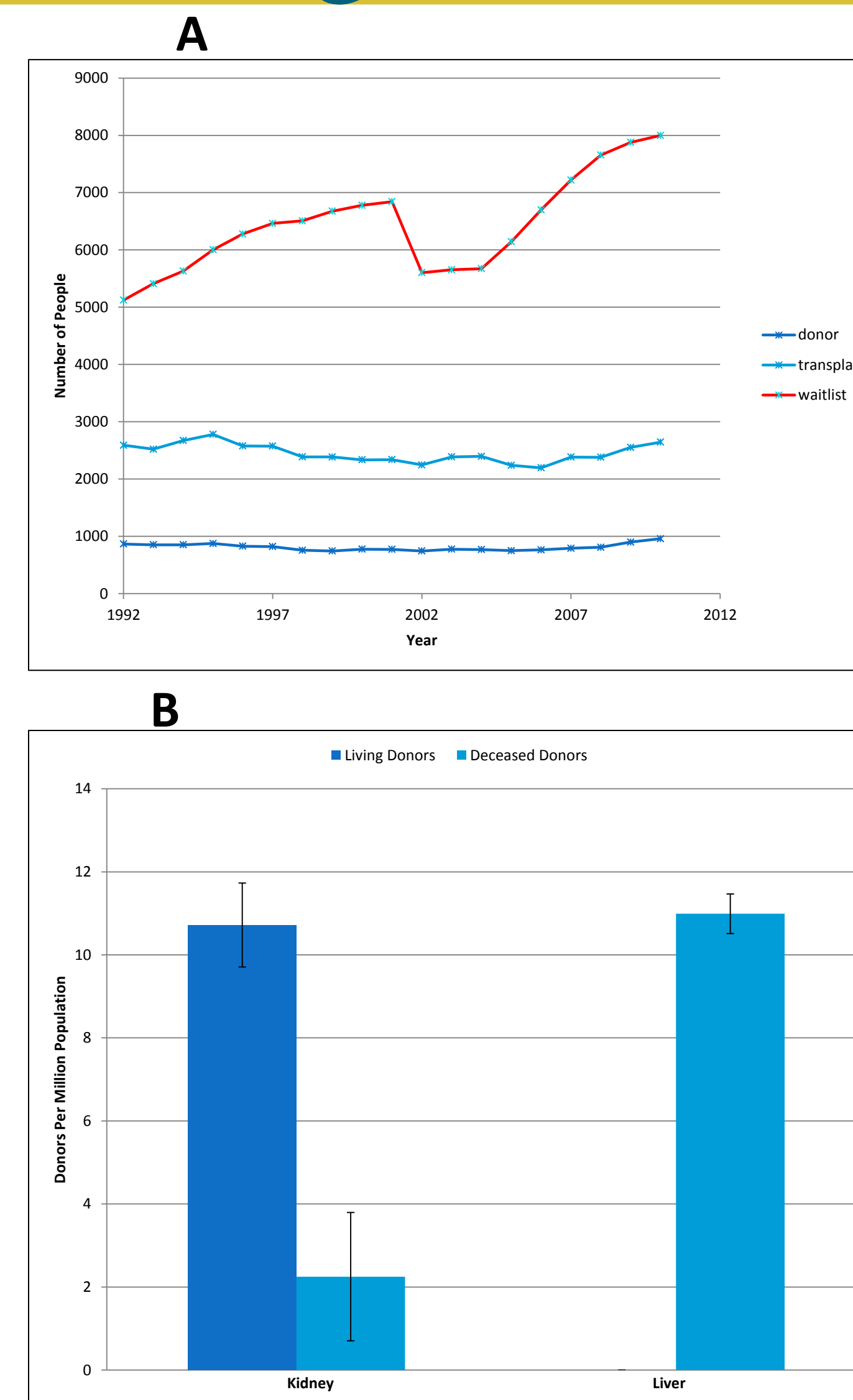


United Kingdom

Figure 2: The United Kingdom adopted the Mandated Choice policy. All citizens are legally required to state whether or not they wish to be organ donors.

(A) Total wait list increased at a rate of 109 people/year. Average transplant operations decreased 12 people/year. Total organ donation decreased at rates of 0.2 people/year.

(B) Donor rates pmp between 2000 and 2010 are half those in US. The use of liver from living donors is discouraged in the UK for fear of complications.

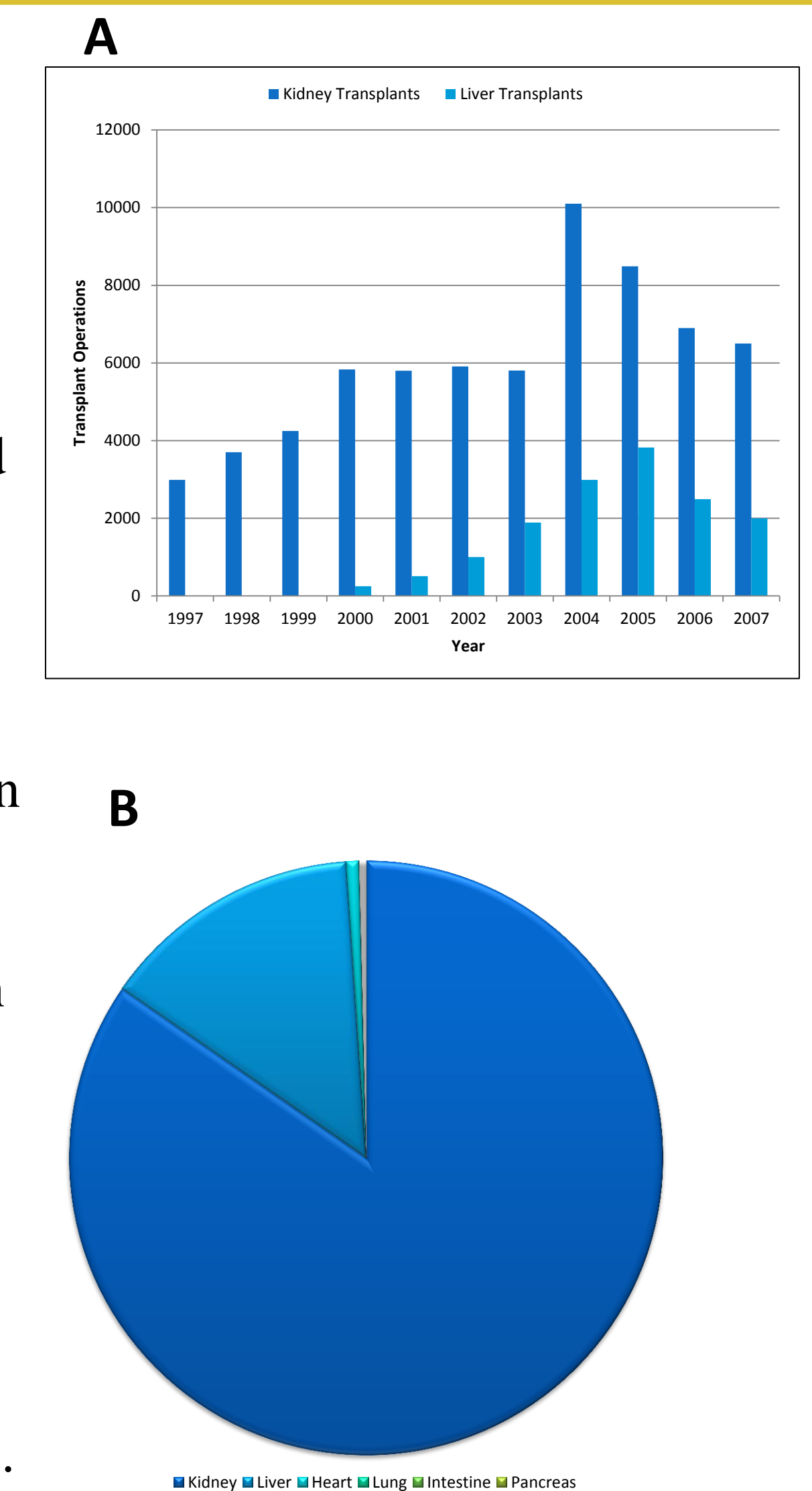


China

Figure 4: The majority of organs are harvested from executed prisoners. About 1.5 million patients/year are wait listed while about 10,000 total transplants are performed. Cultural ideals have contributed to the low voluntary organ donations rates. In 2007, China implemented the Regulation on Human Organ Transplantation to establish a voluntary donation system.

(A) Between 1997 and 2007, an average of 6,025 kidney transplants and 1,359 liver transplants occur.

(B) As of 2008, the majority of transplants are kidneys (86,800 kidney surgeries; 102,551 total).

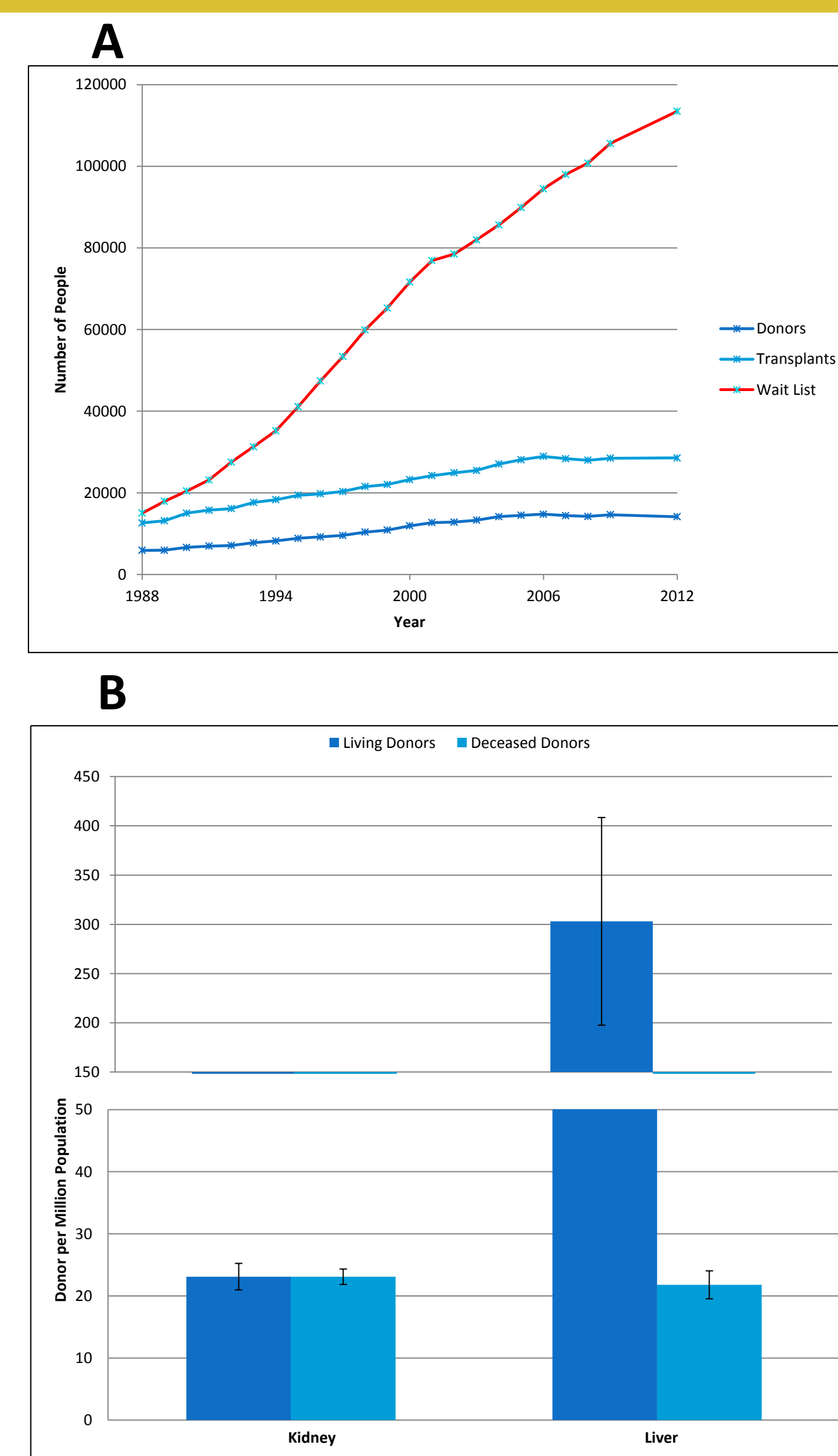


United States

Figure 1: The United States adopted the Opt-in policy of organ procurement. All citizens are presumed to be non-donors unless officially stated otherwise.

(A) Total wait list increased at a rate of 4,402 people/year. Average transplants increased 759 people/year. Total organ donation increase 446 people/year.

(B) Donor rates per million population (pmp) from 2000 to 2010 of kidneys and livers. High liver donations from living patients.

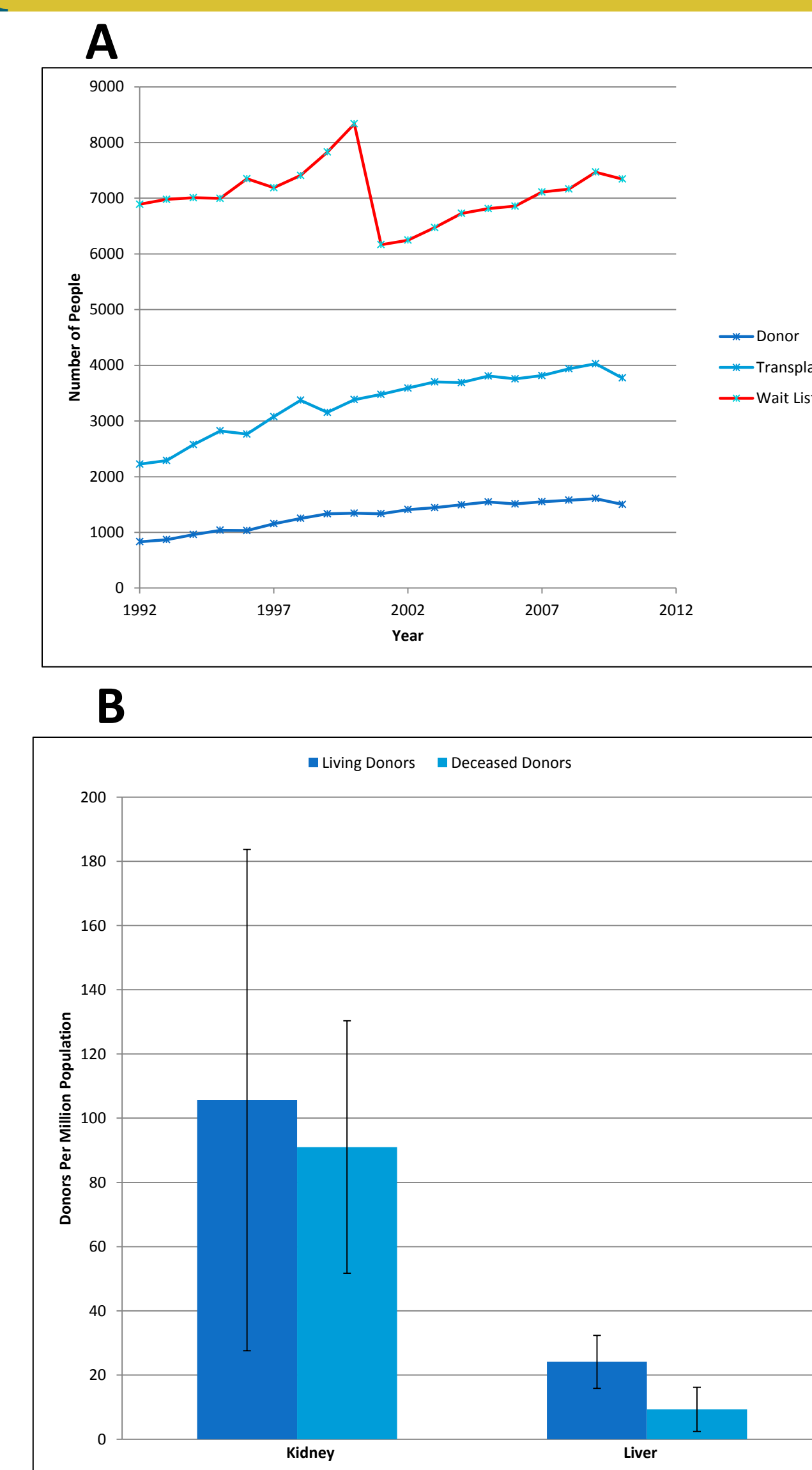


Spain

Figure 3: Spain adopted the Opt-out policy of organ procurement. All citizens are presumed to be donors unless officially stated otherwise.

(A) Total wait list has decreased at a rate of 3.67 people/year. Average transplant operations increased 114.2 people/year. Total organ donation have increased 48.06 people/year.

(B) Donor rates pmp between 2000 and 2010 show very high kidney procurement from both living and deceased donors. Liver donation rates during this span are approximately that seen in other countries.



Conclusions

- In all countries there is a shortage of donated and procured organs compared to need.
- Average donation rates per million population (pmp) show Spain's Opt-out system is more effective than Mandated Choice or Opt-in policies at kidney procurement.
- Surprisingly, significantly more living donors are seen in the Opt-out system.
- While many organs are procured, prisoner exploitation in China must lead to a re-evaluation of organ procurement ethical concerns.

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