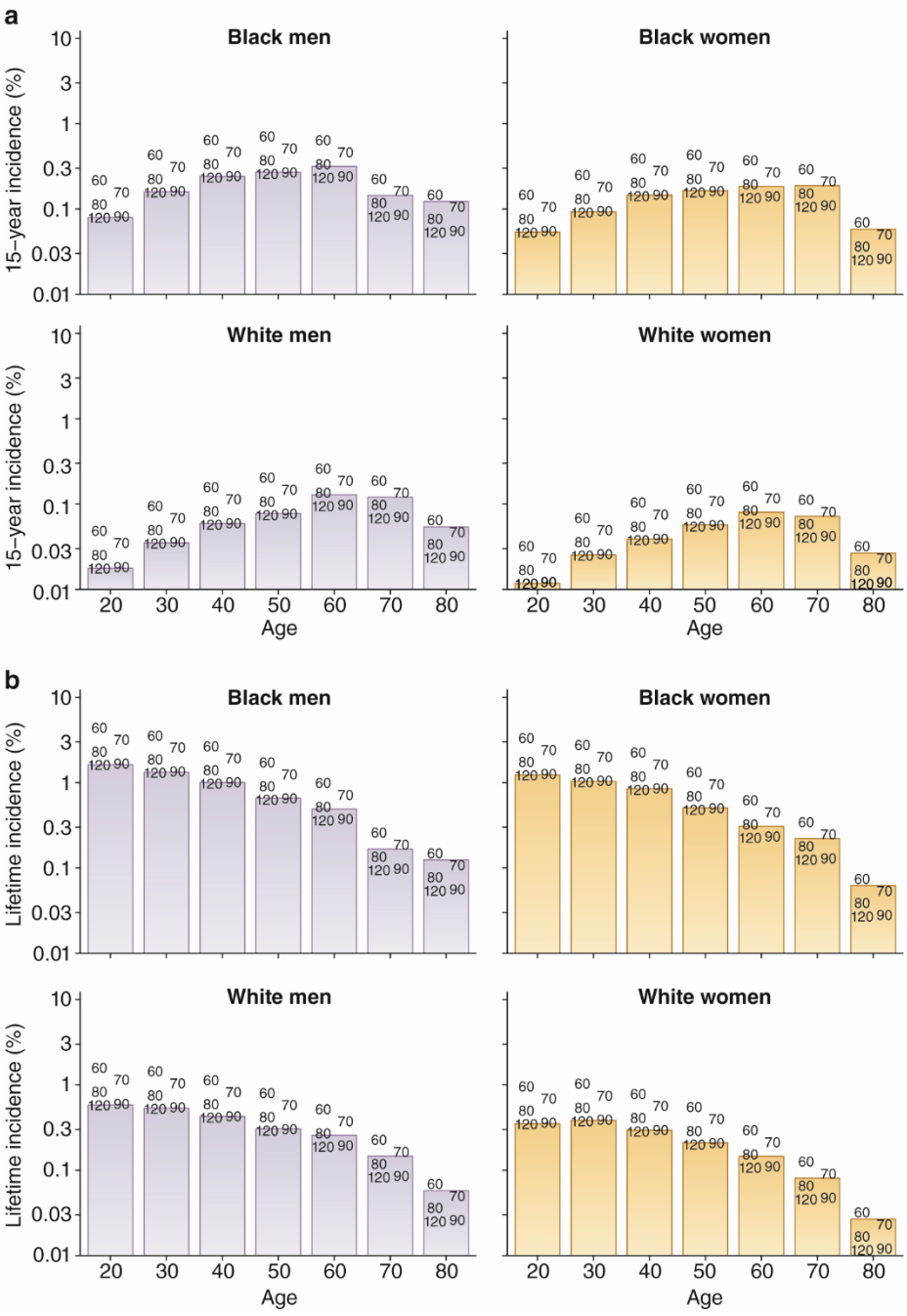
Supplemental Appendix

Guideline Development Principles and Methods

KDIGO's approach is to provide comprehensive recommendations with transparency, whereby a guideline Work Group makes recommendations that they deem necessary to inform cohesive patient care while also making it clear which recommendations are supported by evidence and which are not. The KDIGO guideline and evaluation framework was informed by a systematic evidence review (1). The ERT searched Ovid Medline, Ovid EMBASE, and the Cochrane Library to identify previous systematic reviews, randomized controlled trials (RCTs), and observational studies published and indexed in bibliographic databases through September 2014. Prior living kidney donor guidelines and guidelines relevant to kidney disease care in the general population were also considered (e.g., 2012 KDIGO Chronic Kidney Disease guideline (2)). This process confirmed that there was sparse evidence to support many aspects of living donor practice. Yet when the Work Group broadly shared the proposed guideline content during planning consultations, the community expressed a desire for guidance on topic areas even when evidence was lacking. Thus, the current guideline is heavily populated with 'ungraded' recommendations led by Work Group members with knowledge about the field. The recommendations cover the major dimensions of living kidney donor evaluation, care, and follow-up, and provide healthcare professionals with a perspective when they undertake important decisions in their own practice without evidence from eligible studies. In response to limitations of available data to ground a quantitative framework to assess donor candidate eligibility, a novel feature of the development methodology was the creation of a statistical model to better quantify long-term risk (described below) (3). After drafting initial recommendations, the guideline was improved through a comprehensive public review; the complete response to public comment is available online (4).

Supplemental Figure 1.



The effect of age, sex, race and predonation GFR on 15-year (panel a) and predicted lifetime risk of kidney failure (panel b). On the y-axis is the chance of the outcome in the absence of donation. The base-case scenarios were selected as being representative of recent US living kidney donors: age-specific eGFR (114, 106, 98, 90, 82, 74, and 66 mL/min per 1.73 m^2 for ages 20, 30, 40, 50, 60, 70, and 80 years, respectively), systolic blood pressure 120 mm Hg, urine albumin-to-creatinine ratio 4 mg/g [0.4 mg/mmol], BMI 26 kg/m^2, and no diabetes mellitus or antihypertensive medication use. As shown the

predicted lifetime risk of kidney failure in the absence of donation is higher in black vs. white individuals, and is higher in younger vs. older individuals. Different eGFR values are presented above the bars; for any given age, sex and race stratum the predicted risk of kidney failure is higher with a lower baseline eGFR. Reproduced with permission from KDIGO (5).

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