## Supplemental Material Table of Contents:

1. Supplemental Table 1: Percentage of Levels of Kidney Function, Demographic Characteristics, and Comorbidities in the General U.S. Adult Population in 2007-2014 (vs. 19992006), NHANES
2. Supplemental Table 2: Prevalence of Demographic Characteristics and Comorbidities in the U.S. Adult Population with Impaired Kidney Function by Era, NHANES 1999-2014
3. Supplemental Figure 1: Interactive, online only version of Figure 1.

Supplemental Table 1. Percentage of Levels of Kidney Function, Demographic Characteristics, and Comorbidities in the General U.S. Adult Population in 2007-2014 (vs. 1999-2006), NHANES

|  | Percent of sample with characteristic (SE) | Percent of sample from 2007-2014 (SE) | $P$-value* | Adjusted Odds Ratio (95\% CI) $\dagger$ | $P$-value $\dagger$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All | - | 52.5 (1.0) | - | - | - |
| eGFR, mL/min/1.73m² ACR, mg/g $\ddagger$ |  |  | 0.525 |  |  |
| eGFR $\geq 60$, ACR $<30$ (no CKD) | 85.9 (0.3) | 52.4 (1.0) |  | 1 [ref] |  |
| eGFR $\geq 60$, ACR $\geq 30$ | 7.4 (0.2) | 52.0 (1.4) |  | 0.94 (0.84-1.04) | 0.227 |
| eGFR 30-59, ACR < 30 | 4.5 (0.2) | 53.8 (2.2) |  | 0.98 (0.86-1.12) | 0.796 |
| eGFR 30-59, ACR $\geq 30$ | 1.6 (0.1) | 52.3 (2.7) |  | 0.90 (0.73-1.11) | 0.337 |
| eGFR < 30, ACR < 30 | 0.2 (0) | 56.2 (6.5) |  | 1.06 (0.64-1.78) | 0.811 |
| eGFR $<30$, ACR $\geq 30$ | 0.4 (0) | 61.2 (3.7) |  | 1.29 (0.94-1.77) | 0.122 |
| Age, years |  |  | 0.002 |  |  |
| 20-39 | 38.1 (0.5) | 50.3 (1.0) |  | 1 [ref] |  |
| 40-64 | 45.2 (0.4) | 53.5 (1.3) |  | 1.17 (1.07-1.27) | < 0.001 |
| $\geq 65$ | 16.7 (0.3) | 54.7 (1.5) |  | 1.25 (1.12-1.40) | < 0.001 |
| Sex |  |  | 0.643 |  |  |
| Male | 48.1 (0.2) | 52.6 (1.0) |  | 1 [ref] |  |
| Female | 51.9 (0.2) | 52.4 (1.0) |  | 0.99 (0.95-1.02) | 0.492 |
| Race/ethnicity |  |  | 0.068 |  |  |
| Non-Hispanic white | 70.0 (1.1) | 51.1 (1.7) |  | 1 [ref] |  |
| Non-Hispanic black | 10.7 (0.6) | 52.4 (2.4) |  | 1.08 (0.83-1.40) | 0.582 |
| Hispanic | 13.3 (0.9) | 55.2 (2.8) |  | 1.23 (0.90-1.67) | 0.193 |
| Other | 6.0 (0.3) | 62.2 (2.4) |  | 1.61 (1.27-2.03) | < 0.001 |
| Insurance status |  |  | 0.195 |  |  |
| Insured | 84.2 (0.3) | 52.7 (1.1) |  | 1 [ref] |  |
| Uninsured | 15.8 (0.3) | 51.3 (1.2) |  | 0.94 (0.87-1.02) | 0.152 |
| Received medical care in last year |  |  | 0.212 |  |  |
| Yes | 84.3 (0.3) | 52.7 (1.1) |  | 1 [ref] |  |
| No | 15.7 (0.3) | 51.3 (1.2) |  | 0.94 (0.871.02) | 0.168 |
| Income status |  |  | 0.013 |  |  |
| Above poverty level | 86.5 (0.4) | 51.9 (1.1) |  | 1 [ref] |  |
| Below or equal to poverty level | 13.5 (0.4) | 56.5 (1.7) |  | 1.20 (1.03-1.39) | 0.018 |
| High school graduation |  |  | 0.066 |  |  |
| No | 18.5 (0.5) | 50.0 (1.5) |  | 1 [ref] |  |
| Yes | 81.5 (0.5) | 53.0 (1.1) |  | 1.22 (1.06-1.41) | 0.008 |


| Body mass index, $\mathrm{kg} / \mathrm{m}^{2}$ |  |  | < 0.001 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| <30 | 66.2 (0.4) | 51.3 (1.0) |  | 1 [ref] |  |
| $\geq 30$ | 33.8 (0.4) | 55.3 (1.3) |  | 1.18 (1.09-1.28) | < 0.001 |
| Diabetes mellitus§ |  |  | < 0.001 |  |  |
| No: SR-, $\mathrm{A}_{1 \mathrm{c}}<6.5 \%$ | 90 (0.2) | 51.8 (1.0) |  | 1 [ref] |  |
| Yes: SR-, $\mathrm{A}_{1 \mathrm{c}} \geq 6.5 \%$ | 2.0 (0.1) | 58.8 (2.4) |  | 1.22 (1.01-1.48) | 0.043 |
| Yes: $\mathrm{SR}+, \mathrm{A}_{\text {cc }}<6.5 \%$ | 2.9 (0.1) | 56.9 (2.4) |  | 1.16 (0.96-1.39) | 0.128 |
| Yes: $\mathrm{SR}+, \mathrm{A}_{\text {lc }} \geq 6.5 \%$ | 5.2 (0.2) | 58.9 (1.9) |  | 1.24 (1.09-1.42) | 0.002 |
| Hypertension\# |  |  | < 0.001 |  |  |
| No: SR-, BP < 140/90 | 64.5 (0.5) | 54.6 (1.1) |  | 1 [ref] |  |
| Yes: SR-, BP $\geq 140 / 90$ | 6.1 (0.2) | 46.9 (2.0) |  | 0.69 (0.59-0.82) | < 0.001 |
| Yes: SR+, BP < 140/90, no BP medication | 4.1 (0.2) | 53.4 (2.3) |  | 0.95 (0.80-1.13) | 0.595 |
| Yes: SR+, BP $\geq 140 / 90$, no BP medication | 1.2 (0.1) | 48.0 (3.5) |  | 0.74 (0.56-0.98) | 0.038 |
| Yes: SR+, $\mathrm{BP}<140 / 90, \geq 1 \mathrm{BP}$ medication | 16.0 (0.4) | 64.1 (1.6) |  | 1.42 (1.28-1.57) | < 0.001 |
| Yes: SR+, $\mathrm{BP} \geq 140 / 90, \geq 1 \mathrm{BP}$ medication | 8.1 (0.2) | 53.7 (1.8) |  | 0.90 (0.79-1.02) | 0.115 |
| Cardiac failure |  |  | 0.489 |  |  |
| No | 97.7 (0.1) | 52.5 (1.0) |  | 1 [ref] |  |
| Yes | 2.3 (0.1) | 54.0 (2.5) |  | 1.00 (0.84-1.18) | 0.984 |
| Prior myocardial infarction |  |  | 0.328 |  |  |
| No | 96.7 (0.1) | 52.6 (1.0) |  | 1 [ref] |  |
| Yes | 3.3 (0.1) | 50.7 (2.4) |  | 0.87 (0.75-1.00) | 0.045 |

NHANES: National Health and Nutrition Examination Survey
SE: standard error; CI: confidence interval

* Chi-square test
$\dagger$ Logistic regression, adjusted for age, sex, and race/ethnicity
$\ddagger$ eGFR/ACR: estimated glomerular filtration rate (eGFR), by the CKD-EPI equation, and albumin-creatinine ratio (ACR), normal kidney function if eGFR $\geq 60 \mathrm{~mL} / \mathrm{min} / 1.73 \mathrm{~m}^{2}$ and ACR $<30 \mathrm{mg} / \mathrm{g}$
§ Diabetes mellitus status defined by self-reported history (SR-: no by self-report, SR+: yes by self-report) and hemoglobin $\mathrm{A}_{1 \mathrm{c}}$ ( $\mathrm{A}_{1 \mathrm{c}}$ )
\# Hypertension status defined by self-reported history (SR-: no by self-report, SR+: yes by selfreport) and resting blood pressure ( BP , in mmHg ), further characterized by use of any selfdescribed antihypertensive medication (BP medication) among those SR+

Supplemental Table 2. Prevalence of Demographic Characteristics and Comorbidities in the U.S. Adult Population with Impaired Kidney Function* by Era, NHANES 1999-2014

|  | Percent of sample with characteristic (Standard error) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1999-2002 | 2003-2006 | 2007-2010 | 2011-2014 |
| Age, years |  |  |  |  |
| 20-39 | 18.4 (2.0) | 14.8 (1.4) | 15.0 (1.0) | 15.9 (1.1) |
| 40-64 | 34.1 (1.6) | 34.9 (1.4) | 33.3 (1.3) | 37.1 (1.6) |
| $\geq 65$ | 47.5 (1.7) | 50.4 (1.9) | 51.7 (1.5) | 47.0 (1.6) |
| Sex |  |  |  |  |
| Male | 41.7 (1.3) | 43.5 (1.6) | 42.1 (1.3) | 42.5 (1.7) |
| Female | 58.3 (1.3) | 56.5 (1.6) | 57.9 (1.3) | 57.5 (1.7) |
| Race/ethnicity |  |  |  |  |
| Non-Hispanic white | 71.1 (2.4) | 72.4 (2.7) | 71.6 (2.7) | 68.7 (2.5) |
| Non-Hispanic black | 11.3 (1.5) | 11.8 (1.7) | 11.8 (1.3) | 12.5 (1.6) |
| Hispanic | 12.4 (2.5) | 9.7 (1.5) | 11.7 (1.9) | 12.2 (1.7) |
| Other | 5.2 (1.4) | 6.0 (1.0) | 4.9 (1.0) | 6.6 (0.8) |
| Insurance status |  |  |  |  |
| Insured | 89.8 (1.1) | 91.6 (1.0) | 92.0 (0.8) | 91.9 (0.6) |
| Uninsured | 10.2 (1.1) | 8.4 (1.0) | 8.0 (0.8) | 8.1 (0.6) |
| Received medical care in last year |  |  |  |  |
| Yes | 90.0 (1.1) | 91.8 (1.0) | 92.0 (0.8) | 92.0 (0.6) |
| No | 10.0 (1.1) | 8.2 (1.0) | 8.0 (0.8) | 8.0 (0.6) |
| Income status |  |  |  |  |
| Above poverty level | 81.8 (2.2) | 88.2 (0.9) | 85.4 (1.1) | 81.9 (1.2) |
| Below or equal to poverty level | 18.2 (2.2) | 11.8 (0.9) | 14.6 (1.1) | 18.1 (1.2) |
| High school graduation |  |  |  |  |
| No | 33.3 (1.7) | 25.6 (1.4) | 27.0 (1.6) | 22.8 (1.6) |
| Yes | 66.7 (1.7) | 74.4 (1.4) | 73.0 (1.6) | 77.2 (1.6) |
| Body mass index, $\mathrm{kg} / \mathrm{m}^{2}$ |  |  |  |  |
| <30 | 61.6 (2.3) | 60.3 (1.6) | 57.7 (1.5) | 55.9 (1.6) |
| $\geq 30$ | 38.4 (2.3) | 39.7 (1.6) | 42.3 (1.5) | 44.1 (1.6) |
| Diabetes mellitus $\dagger$ |  |  |  |  |
| No: SR-, $\mathrm{A}_{1 \mathrm{c}}<6.5 \%$ | 77.7 (1.6) | 72.5 (1.9) | 70.3 (1.5) | 70.4 (1.4) |
| Yes: SR-, $\mathrm{A}_{\text {cc }} \geq 6.5 \%$ | 4.2 (0.8) | 3.9 (0.7) | 4.7 (0.6) | 4.0 (0.6) |
| Yes: $\mathrm{SR}+, \mathrm{A}_{1 \mathrm{c}}<6.5 \%$ | 5.1 (0.7) | 8.6 (1.1) | 8.1 (0.8) | 6.8 (0.8) |
| Yes: SR+, $\mathrm{A}_{1 \mathrm{c}} \geq 6.5 \%$ | 13.0 (1.1) | 15.0 (1.6) | 16.8 (1.4) | 18.8 (1.2) |
| Hypertension $\ddagger$ |  |  |  |  |
| No: SR-, BP < 140/90 | 36.5 (1.8) | 31.0 (1.6) | 33.2 (1.7) | 33.6 (1.6) |
| Yes: SR-, BP $\geq 140 / 90$ | 13.6 (0.9) | 10.8 (1.0) | 9.0 (0.7) | 5.9 (0.8) |
| Yes: SR+, BP < 140/90, no BP medication | 2.6 (0.6) | 3.2 (0.7) | 2.0 (0.4) | 1.7 (0.4) |
| Yes: SR+, BP $\geq 140 / 90$, no BP medication | 2.3 (0.6) | 1.6 (0.4) | 1.0 (0.3) | 1.5 (0.4) |
| Yes: SR+, BP $<140 / 90, \geq 1$ BP medication | 19.3 (1.3) | 27.7 (1.9) | 32.6 (1.3) | 35.2 (1.3) |
| Yes: SR+, BP $\geq 140 / 90, \geq 1 \mathrm{BP}$ medication | 25.8 (1.5) | 25.6 (1.4) | 22.2 (1.0) | 22.1 (1.2) |
| Cardiac failure |  |  |  |  |
| No | 93.1 (0.8) | 91.1 (0.9) | 92.6 (0.9) | 90.5 (0.9) |
| Yes | 6.9 (0.8) | 8.9 (0.9) | 7.4 (0.9) | 9.5 (0.9) |
| Prior myocardial infarction |  |  |  |  |
| No | 91.4 (1.0) | 88.5 (1.0) | 91.7 (0.6) | 90.5 (0.9) |
| Yes | 8.6 (1.0) | 11.5 (1.0) | 8.3 (0.6) | 9.5 (0.9) |

NHANES: National Health and Nutrition Examination Survey

* Impaired kidney function defined by estimated glomerular filtration rate $<60 \mathrm{~mL} / \mathrm{min} / 1.73 \mathrm{~m}^{2}$, by the CKD-EPI equation, or albumin-creatinine ratio $\geq 30 \mathrm{mg} / \mathrm{g}$
$\dagger$ Diabetes mellitus status defined by self-reported history (SR-: no by self-report, SR+: yes by self-report) and hemoglobin $\mathrm{A}_{1 c}\left(\mathrm{~A}_{1 c}\right)$
$\ddagger$ Hypertension status defined by self-reported history (SR-: no by self-report, SR+: yes by selfreport) and resting blood pressure ( BP , in mmHg ), further characterized by use of any selfdescribed antihypertensive medication (BP medication) among those SR+

