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## eAppendix 1. Data analysis overview and analytic notes for some of individual studies

## Overview:

As previously described, ${ }^{1}$ the collaborating cohorts were asked to compile a dataset with approximately 40 variables (key exposures [serum creatinine to estimate GFR and albuminuria], covariates [e.g., age, sex, race/ethnicity, diabetes], and outcomes [laboratory tests and hypertension]). To be consistent across cohorts, the CKD-PC Data Coordinating Center sent definitions for those variables to participating cohorts. We instructed studies not to impute any variables.

For 48 of the 63 cohorts in this specific study, the Data Coordination Center at Johns Hopkins University conducted the analysis; the remainder ran the standard code written in STATA by the Data Coordinating Center and shared the output with the Data Coordinating Center. The standard code was designed to automatically save all estimates and variance-covariance matrices needed for the meta-analysis. Then, the Data Coordinating Center meta-analyzed the estimates across cohorts using STATA.

As detailed in our previous reports, ${ }^{23}$ each cohort was instructed to standardize their serum creatinine and report its method when available. The reported creatinine standardization allows grouping studies into studies that reported using a standard IDMS traceable method or conducted some serum creatinine standardization to IDMS traceable methods (ARIC, AusDiab, Beaver Dam CKD, CanPREDDICT, CARE FOR HOMe, ESTHER, GCKD, Geisinger, Gonryo, Gubbio, HUNT, Maccabi, MASTERPLAN, MMKD, NephroTest, NHANES, Okinawa 83 \& 93 , PREVEND, Rancho Bernardo, RCAV, REGARDS, RSIII, SEED, SRR-CKD, Takahata, Tromso) and studies where the creatinine standardization was not done (AASK, ADVANCE, Aichi, BC CKD, Beijing, CCF, ChinaNS, CHS, CKD-JAC, CRIB, Framingham, IPHS, KHS, MDRD, MESA, MRC, NZDCS, Ohasama, Pima, RENAAL, Sunnybrook, ULSAM, ZODIAC). For those cohorts without standardization, the creatinine levels were reduced by $5 \%$, the calibration factor used to adjust non-standardized MDRD Study samples to IDMS. ${ }^{24}$. We did not adjust creatinine levels in those studies with unknown standardization status (JMS, KP Hawaii, Mt Sinai, NIPPON DATA80, NIPPON DATA90, PSP-CKD, SMART, Taiwan MJ, and TLGS).

We calculated eGFR using the CKD-EPI equation: eGFR $_{\text {CKD-EPI }}=141 \times$ (minimum of standardized serum creatinine $[\mathrm{mg} / \mathrm{dL}] / \kappa$ or 1$)^{\alpha} \times(\text { maximum of standardized serum creatinine }[\mathrm{mg} / \mathrm{dL}] / \kappa \text { or } 1)^{-1.209} \times 0.993^{\text {age }} \times(1.018$ if female $) \times$ ( 1.159 if black), where $\kappa$ is 0.7 if female and 0.9 if male and $\alpha$ is -0.329 if female and -0.411 if male. ${ }^{5}$ The selection of knots for eGFR and ACR was based on clinical thresholds. ${ }^{6}$

## Notes for individual studies:

1. General population cohorts

Aichi: This cohort had no ACR measures. We used protein measures from dipstick tests to quantify albuminuria. This cohort does not have data on waist circumference.

ARIC: This cohort had no ACR measures at baseline. $16 \%$ of the creatinine measures were more than 5 years apart.
AusDiab: $67 \%$ of the creatinine measures were more than 5 years apart.
Beaver Dam CKD: This cohort had no ACR measures. We used protein measures from dipstick tests to quantify albuminuria. $14 \%$ of the creatinine measures were more than 5 years apart.

CHS: This cohort had no ACR measures at the baseline visit.
CIRCS: This cohort does not have data on waist circumference or ACR measures. We used protein measures from dipstick tests to quantify albuminuria.

ESTHER: This cohort does not have data on waist circumference or ACR measures. We used protein measures from dipstick tests to quantify albuminuria. Follow up visit was about 8.4 years after baseline.

Framingham: $45 \%$ of the creatinine measures were more than 5 years apart.

Geisinger: This cohort does not have data on waist circumference.
HUNT: Follow up visit was 11.2 years after baseline.
IPHS: This cohort does not have data on waist circumference.
JMS: This cohort had no ACR measures. We used protein measures from dipstick tests to quantify albuminuria.
Maccabi: This cohort does not have data on waist circumference.

MESA: Participants free from previous cardiovascular disease at baseline.
MRC: This cohort had no ACR measures. We used protein measures from dipstick tests to quantify albuminuria.
Mt Sinai BioMe: This cohort does not have data on waist circumference. Data for the outcome of death was not available.

NHANES: This cohort does not have data on waist circumference. Data for the outcome of ESKD was not available.
NIPPON DATA80: This cohort had no ACR measures or data on waist circumference.
NIPPON DATA90: This cohort had no ACR measures or data on waist circumference.

Ohasama: This cohort had no ACR measures. We used protein measures from dipstick tests to quantify albuminuria. $21 \%$ of the visits are more than 5 years apart.

Okinawa 83: This cohort does not have data on smoking or waist circumference. Antihypertensive medication use was not available. 4,614 subjects from the Okinawa 83 cohort were measured for creatinine again in 93 and these constitute the eGFR decline outcome.

Okinawa 93: This cohort does not have data on smoking or waist circumference. Antihypertensive medication use was not available.

PREVEND: $29 \%$ of the visits are more than 5 years apart.
Rancho Bernardo: $12 \%$ of the visits are more than 5 years apart.
RCAV: This cohort does not have data on waist circumference or smoking.
REGARDS: Follow up visit is 9.4 years from baseline.
SEED: This cohort does not have data on waist circumference and has no ACR measures.

Takahata: This cohort does not have data on waist circumference. Creatinine was not measured again after baseline. Data for the outcome of ESKD was not available.

TLGS: This cohort had no ACR measures. We used protein measures from dipstick tests to quantify albuminuria. $15 \%$ of the visits were more than 5 years apart.

Tromso: All of the creatinine measures were more than 5 years apart.
ULSAM: This cohort does not have data on waist circumference, smoking, or ACR measures. Data on use of antihypertensive medications was not available. Follow up was 21 years after baseline.

## 2. High-risk cohorts

ADVANCE: This study is an intervention study which includes participants with diabetes only.
KP Hawaii: This cohort does not have data on smoking or waist circumference. Data on use of antihypertensive medications was not available.

NZDCS: This cohort does not have data on waist circumference.

Pima: History of cardiovascular disease was not available. $38 \%$ of the visits are more than 5 years apart.
ZODIAC: This cohort does not have data on waist circumference. $14 \%$ of visits were more than 5 years apart.
3. CKD cohorts

AASK: This cohort does not have data on waist circumference. Urine protein-to-creatinine ratio was converted to urine albumin-to-creatinine ratio by dividing by 2.655 for men and 1.7566 for women.

BC CKD: This cohort does not have data on waist circumference.
CanPREDDICT: This cohort does not have data on smoking or waist circumference.
CARE FOR HOMe: ACR was not measured at baseline for this cohort.
CCF: This cohort does not have data on waist circumference. History of cardiovascular disease was defined as history of either coronary artery disease or coronary heart failure.

Gonryo: This cohort does not have data on waist circumference, smoking, or ACR measures. We used protein measures from dipstick tests to quantify albuminuria.

MDRD: This cohort does not have data on waist circumference. Urine protein-to-creatinine ratio was converted to urine albumin-to-creatinine ratio by dividing by 2.655 for men and 1.7566 for women. Anti-hypertensive medication use was not available.

MMKD: This cohort does not have data on waist circumference. Urine protein-to-creatinine ratio was converted to urine albumin-to-creatinine ratio by dividing by 2.655 for men and 1.7566 for women.

Nefrona: Patients free from previous cardiovascular disease.
NephroTest; This cohort does not have data on waist circumference.
PSP-CKD: This cohort does not have data on waist circumference. Urine protein-to-creatinine ratio was converted to urine albumin-to-creatinine ratio by dividing by 2.655 for men and 1.7566 for women.

RENAAL: This cohort does not have data on waist circumference. History of cardiovascular disease was not available.

SRR-CKD: This cohort does not have data on smoking
Sunnybrook: This cohort includes patients seen in the nephrology clinics at Sunnybrook Hospital in Toronto, Ontario, Canada with CKD stage 3-5 or proteinuric CKD stage 1-2. Urine protein-to-creatinine ratio was converted to urine albumin-to-creatinine ratio by dividing by 2.655 for men and 1.7566 for women.

ESKD ascertainment by study:

| Study | Ascertainment type |
| :---: | :---: |
| AASK | Active |
| ADVANCE | Active |
| Aichi | n/a |
| ARIC | Linkage to registry, Codes |
| AusDiab | n/a |
| BC CKD | Active |
| Beaver Dam CKD | n/a |
| Beijing | n/a |
| CanPREDDICT | Active |
| CARE FOR HOMe | n/a |
| CCF | Linkage to registry |
| ChinaNS | n/a |
| CHS | Linkage to registry |
| CIRCS | n/a |
| CKD-JAC | Active |
| COBRA | n/a |
| CRIB | Active (with chart validation) |
| ESTHER | n/a |
| Framingham | n/a |
| GCKD | Active (with confirmation) |
| Geisinger | Linkage to registry |
| Gonryo | Active |
| Gubbio | n/a |
| HUNT | Active, Linkage to registry |
| IPHS | n/a |
| JHS | n/a |
| JMS | n/a |
| KHS | Codes |
| KP Hawaii | Active |
| Maccabi | Active |
| MASTERPLAN | Active |
| MDRD | Active, Linkage to registry |
| MESA | n/a |
| MMKD | Active |
| MRC Older People | n/a |
| Mt Sinai BioMe | Codes |
| Nefrona | Active |
| NephroTest | Linkage to registry |
| NHANES | n/a |
| NIPPON DATA80 | n/a |
| NIPPON DATA90 | n/a |
| NZDCS | Linkage to registry, ICD codes |
| Ohasama | n/a |
| Okinawa 83/93 | Linkage to registry |
| Pima | Active, Linkage to registry |
| PREVEND | n/a |
| PSP-CKD | Active |
| Rancho Bernardo | n/a |
| RCAV | Linkage to registry |
| REGARDS | Linkage to registry |
| RENAAL | Active (with adjudication) |
| RSIII | n/a |


| SEED | $\mathrm{n} / \mathrm{a}$ |
| :--- | :--- |
| SMART | Active (with chart validation) |
| SRR-CKD | Active, Linkage to registry |
| Sunnybrook | Linkage to registry |
| Taiwan MJ | $\mathrm{n} / \mathrm{a}$ |
| Takahata | $\mathrm{n} / \mathrm{a}$ |
| TLGS | $\mathrm{n} / \mathrm{a}$ |
| Tromso | $\mathrm{n} / \mathrm{a}$ |
| ULSAM | $\mathrm{n} / \mathrm{a}$ |
| ZODIAC | $\mathrm{n} / \mathrm{a}$ |

## eAppendix 2. Acronyms or abbreviations for studies included in the current report and their key references linked to the Web references

| AASK: | African American Study of Kidney Disease and Hypertension ${ }^{7}$ |
| :---: | :---: |
| ADVANCE: | The Action in Diabetes and Vascular Disease: Preterax and Diamicron Modified Release Controlled Evaluation (ADVANCE) trial ${ }^{8}$ |
| Aichi: | Aichi Workers' Cohort Study ${ }^{9}$ |
| ARIC: | Atherosclerosis Risk in Communities Study ${ }^{10}$ |
| AusDiab: | Australian Diabetes, Obesity, and Lifestyle Study ${ }^{11}$ |
| BC CKD: | British Columbia CKD Study ${ }^{12}$ |
| Beaver Dam CKD: | Beaver Dam CKD Study ${ }^{13}$ |
| Beijing: | Beijing Cohort Study ${ }^{14}$ |
| CanPREDDICT: | Canadian Study of Prediction of Death, Dialysis and Interim Cardiovascular Events ${ }^{15}$ |
| CARE FOR HOMe: | The Cardiovascular and Renal Outcome in CKD 2-4 Patients-The Fourth Homburg evaluation |
| CCF: | Cleveland Clinic CKD Registry Study ${ }^{16}$ |
| ChinaNS: | The China National Survey of Chronic Kidney Disease |
| CHS: | Cardiovascular Health Study ${ }^{17}$ |
| CIRCS: | Circulatory Risk in Communities Study ${ }^{18}$ |
| CKD-JAC: | Chronic Kidney Disease Japan Cohort |
| COBRA: | COBRA Study ${ }^{19}$ |
| CRIB: | Chronic Renal Impairment in Birmingham ${ }^{20}$ |
| ESTHER: | Epidemiologische Studie zu Chancen der Verhütung, Früherkennung und optimierten THerapie chronischer ERkrankungen in der älteren Bevölkerung [GERMAN] ${ }^{21}$ |
| Framingham: | Framingham Heart Study ${ }^{22}$ |
| GCKD: | German Chronic Kidney Disease Study ${ }^{23}$ |
| Geisinger: | Geisinger Health System ${ }^{24}$ |
| Gonryo: | Gonryo Study |
| Gubbio: | Gubbio Study ${ }^{25}$ |
| HUNT: | Nord Trøndelag Health Study ${ }^{26}$ |
| IPHS: | Ibaraki Prefectural Health Study ${ }^{27}$ |
| JHS: | Jackson Heart Study |
| JMS: | Jichi Medical School cohort |
| KHS: | Korean Heart Study |
| KP Hawaii: | Kaiser Permanente Hawaii Cohort ${ }^{28}$ |
| Maccabi: | Maccabi Health System ${ }^{29}$ |
| MASTERPLAN: | Multifactorial Approach and Superior Treatment Efficacy in Renal Patients with the Aid of a Nurse Practitioner ${ }^{30}$ |
| MDRD: | Modification of Diet in Renal Disease Study ${ }^{31}$ |
| MESA: | Multi-Ethnic Study of Atherosclerosis ${ }^{32}$ |
| MMKD: | Mild to Moderate Kidney Disease Study ${ }^{33}$ |
| MRC Older People: | MRC Study of assessment of older people ${ }^{34}$ |
| Mt Sinai BioMe: | Mount Sinai BioMe Biobank Platform ${ }^{35}$ |
| Nefrona: | Nefrona Study ${ }^{36}$ |
| NephroTest: | NephroTest Study ${ }^{37}$ |
| NHANES: | US National Health and Nutrition Examination Survey, using both NHANES III and the continuous NHANES from 1999-201038 |
| NIPPON DATA80: | National Integrated Project for Prospective Observation of Non-communicable Disease and its Trends in the Aged 1980 |
| NIPPON DATA90: | National Integrated Project for Prospective Observation of Non-communicable Disease and its Trends in the Aged 1990 |
| NZDCS: | New Zealand Diabetes Cohort Study ${ }^{39}$ |
| Ohasama: | Ohasama Study ${ }^{40}$ |


| Okinawa 83: | Okinawa 83 Cohort ${ }^{41}$ |
| :--- | :--- |
| Okinawa 93: | Okinawa 93 Cohort ${ }^{42}$ |
| Pima: | Pima Indian Study ${ }^{43}$ |
| PREVEND: | Prevention of Renal and Vascular End-stage Disease Study ${ }^{44}$ |
| PSP-CKD: | Primary-Secondary Care Partnership to Prevent Adverse Outcomes in Chronic Kidney |
|  | Disease |
| Rancho Bernardo: | Rancho Bernardo Study ${ }^{45}$ |
| RCAV: | Racial and Cardiovascular Risk Anomalies in CKD Cohort ${ }^{46}$ |
| REGARDS: | Reasons for Geographic And Racial Differences in Stroke Study ${ }^{47}$ |
| RENAAL: | Reduction of Endpoints in Non-insulin Dependent Diabetes Mellitus with |
|  | the Angiotensin II Antagonist Losartan ${ }^{48}$ |
| RSIII: | Rotterdam Study Third Cohort |
| SEED: | Singapore Epidemiology of Eye Diseases ${ }^{50}$ |
| SMART: | Second Manifestations of ARTerial Disease Study |
| SRR-CKD: | Swedish Renal Registry CKD Cohort ${ }^{51}$ |
| Sunnybrook: | Sunnybrook Cohort ${ }^{52}$ |
| Taiwan MJ: | Taiwan MJ Cohort Study ${ }^{53}$ |
| Takahata: | Takahata Study |
| TLGS: | Tehran Lipid and Glucose Study ${ }^{55}$ |
| Tromso: | Tromso Study |
| ULSAM: | Uppsala Longitudinal Study of Adult Men |
| ZODIAC: | Zwolle Outpatient Diabetes project Integrating Available Care ${ }^{57}$ |

## eAppendix 3. Acknowledgements and funding for collaborating cohorts

| Study | List of sponsors |
| :---: | :---: |
| AASK | AASK was supported by grants to each clinical center and the coordinating center from the National Institute of Diabetes and Digestive and Kidney Diseases. In addition, AASK was supported by the Office of Research in Minority Health (now the National Center on Minority Health and Health Disparities, NCMHD) and the following institutional grants from the National Institutes of Health: M01 RR-00080, M01 RR-00071, M0100032, P20RR11145, M01 RR00827, M01 RR00052, 2P20 RR11104, RR029887, and DK 2818-02. King Pharmaceuticals provided monetary support and antihypertensive medications to each clinical center. Pfizer Inc, AstraZeneca Pharmaceuticals, Glaxo Smith Kline, Forest Laboratories, Pharmacia and Upjohn also donated antihypertensive medications. |
| ADVANCE | National Health and Medical Research Council (NHMRC)of Australia program grants 358395 and 571281 and project grant 211086 |
| Aichi | $\begin{aligned} & \text { KAKENHI (09470112, 13470087, 17390185, 18590594, 20590641, 20790438, 22390133, } \\ & \text { 26293153) } \end{aligned}$ |
| ARIC | The Atherosclerosis Risk in Communities study has been funded in whole or in part with Federal funds from the National Heart, Lung, and Blood Institute, National Institutes of Health, Department of Health and Human Services, under Contract nos. (HHSN268201700001I, HHSN268201700003I, HHSN268201700005I, HHSN268201700004I, HHSN2682017000021). The authors thank the staff and participants of the ARIC study for their important contributions. |
| AusDiab | The Baker IDI Heart and Diabetes Institute, Melbourne, Australia, their sponsors, and the National Health and Medical Research Council of Australia (NHMRC grant 233200), Amgen Australia, Kidney Health Australia and The Royal Prince Alfred Hospital, Sydney, Australia. |
| BC CKD | BC Provincial Renal Agency, an Agency of the Provincial Health Services Authority in collaboration with University of British Columbia. |
| Beaver Dam CKD | 2U10EY006594 |
| Beijing | The research for this study was supported by the Program for New Century Excellent Talents in University (BMU2009131) from the Ministry of Education of the People's Republic of China, and the grants for the Early Detection and Prevention of Noncommunicable Chronic Diseases from the International Society of Nephrology Research Committee. |
| CanPREDDI |  |
| CARE FOR HOMe | Supported by the Else Kröner-Fresenius Stiftung |
| CCF | Supported by an unrestricted educational grant from Amgen to the Department of Nephrology and Hypertension. |
| ChinaNS |  |
| CHS | This research was supported by contracts HHSN268201200036C, HHSN268200800007C, HHSN268201800001C, N01HC55222, N01HC85079, N01HC85080, N01HC85081, N01HC85082, N01HC85083, N01HC85086, and grants U01HL080295 and U01HL1301 14 from the National Heart, Lung, and Blood Institute (NHLBI), with additional contribution from the National Institute of Neurological Disorders and Stroke (NINDS). Additional support was provided by R01AG023629 from the National Institute on Aging (NIA). A full list of principal CHS investigators and institutions can be found at CHS-NHLBI.org. |
| CIRCS |  |
| CKD-JAC |  |


| COBRA |  |
| :---: | :---: |
| CRIB | British Renal Society Project Grant Award British Heart Foundation Project Grant Award. |
| ESTHER | Ministry of Research, Science and the Arts Baden-Württemberg (Stuttgart, Germany), Federal Ministry of Education and Research (Berlin, Germany), Federal Ministry of Family Affairs, Senior Citizens, Women and Youth (Berlin, Germany), European Commission FP7 framework programme of DG-Research (CHANCES Project). Measurement of urinary albumin was funded by Dade-Behring, Marburg, Germany. |
| Framingham | NHLBI Framingham Heart Study (N01-HC-25195). |
| GCKD | The GCKD study is supported by grants from the Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung; www.bmbf.de), FKZ 01ER 0804, 01ER 0818, 01ER 0819, 01ER 0820 und 01ER 0821 and the Foundation for Preventive Medicine of the KfH (Kuratorium für Heimdialyse und Nierentransplantation e.V. - Stiftung Präventivmedizin; www.kfh-stiftung-praeventivmedizin.de) and corporate partners (for a list see www.gckd.org). The GCKD investigators gratefully acknowledge the expert support of all members of study staff, the dedicated contribution of all collaborating nephrologists (for a list of contributors and the 169 study sites, see www.gckd.org) and the support of patients participating in the study. |
| Geisinger | Geisinger Clinic |
| Gonryo |  |
| Gubbio | Municipal and Health Authorities of Gubbio, Italy; Center of Gubbio Epidemiological Studies, Gubbio, Italy; University of Salerno, Salerno, Italy. |
| HUNT | Faculty of Medicine, Norwegian University of Science and Technology; The Norwegian Institute of Public Health; Nord-Trøndelag County Council; and Central Norway Regional Health Authority |
| IPHS |  |
| JHS | The Jackson Heart Study (JHS) is supported and conducted in collaboration with Jackson State University (HHSN268201300049C and HHSN268201300050C), Tougaloo College (HHSN268201300048C), and the University of Mississippi Medical Center (HHSN268201300046C and HHSN268201300047C) contracts from the National Heart, Lung, and Blood Institute (NHLBI) and the National Institute for Minority Health and Health Disparities (NIMHD). The authors also wish to thank the staffs and participants of the JHS. |
| JMS |  |
| KHS |  |
| KP Hawaii |  |
| Maccabi |  |
| MASTERPLAN | The MASTERPLAN study is a clinical trial with trial registration ISRCTN registry: 73187232. Sources of funding: The MASTERPLAN Study was supported by grants from the Dutch Kidney Foundation (Nierstichting Nederland, number PV 01), and the Netherlands Heart Foundation (Nederlandse Hartstichting, number 2003 B261). Unrestricted grants were provided by Amgen, Genzyme, Pfizer and Sanofi-Aventis. |
| MDRD | NIDDK UO1 DK35073 and K23 DK67303, K23 DK02904 |
| MESA | This research was supported by contracts HHSN268201500003I, N01-HC-95159, N01-HC95160, N01-HC-95161, N01-HC-95162, N01-HC-95163, N01-HC-95164, N01-HC-95165, |


|  | N01-HC-95166, N01-HC-95167, N01-HC-95168 and N01-HC-95169 from the National <br> Heart, Lung, and Blood Institute and by grants UL1-TR-0000-40 and UL1-TR-001079 from <br> NCRR. The authors thank the other investigators, the staff, and the participants of the <br> MESA study for their valuable contributions. A full list of participating MESA investigators <br> and institutions can be found at http://www.mesa-nhlbi.org. |
| :--- | :--- |
| MMKD | The MMKD study was funded by the Austrian Heart Fund and by the Innsbruck Medical <br> University. |
| MRC Older <br> People | UK Medical Research Council, Department of Health for England, Wales and the Scottish <br> Office and Kidney Research UK |
| Mt Sinai BioMe | The Nefrona study was funded by research grants from Abvie, and Instituto de Salud Carlos <br> III (PII3/01565, PI16/01354, RD16/0009/00111 (Co-funded by European Regional <br> Development Fund "A way to make Europe"). |
| Nefrona | The NephroTest CKD cohort study is supported by grants from: Inserm GIS-IReSP AO <br> 8113LS TGIR; French Ministry of Health AOM 09114 and AOM 10245; Inserm AO <br> 8022LS; Agence de la Biomédecine R0 8156LL, AURA, and Roche 2009-152-447G. The <br> Nephrotest initiative was also sponsored by unrestricted grants from F.Hoffman-La Roche <br> Ltd. <br> The authors thank the collaborators and the staff of the NephroTest Study: François <br> Vrtovsnik, Eric Daugas, Martin Flamant, Emmanuelle Vidal-Petiot (Bichat Hospital); <br> Christian Jacquot, Alexandre Karras, Eric Thervet, Christian d'Auzac, P. Houillier, M. <br> Courbebaisse, D. Eladari et G. Maruani (European Georges Pompidou Hospital ); Jean- <br> Jacques Boffa, Pierre Ronco, H. Fessi, Eric Rondeau, Emmanuel Letavernier, Jean Philippe <br> Haymann, P. Urena-Torres (Tenon Hospital) |
| NephroTest |  |

$\left.\begin{array}{|l|l|}\hline \text { RCAV } & \begin{array}{l}\text { This study was supported by grant R01DK096920 from NIH-NIDDK and is the result of } \\ \text { work supported with resources and the use of facilities at the Memphis VA Medical Center } \\ \text { and the Long Beach VA Medical Center. Support for VA/CMS data is provided by the } \\ \text { Department of Veterans Affairs, Veterans Health Administration, Office of Research and } \\ \text { Development, Health Services Research and Development, VA Information Resource } \\ \text { Center (project numbers SDR 02-237 and 98-004). }\end{array} \\ \hline \text { REGARDS } & \begin{array}{l}\text { This research project is supported by a cooperative agreement U01 NS041588 from the } \\ \text { National Institute of Neurological Disorders and Stroke, National Institutes of Health, } \\ \text { Department of Health and Human Service. The content is solely the responsibility of the } \\ \text { authors and does not necessarily represent the official views of the National Institute of } \\ \text { Neurological Disorders and Stroke or the National Institutes of Health. Representatives of } \\ \text { the funding agency have been involved in the review of the manuscript but not directly } \\ \text { involved in the collection, management, analysis or interpretation of the data. The authors } \\ \text { thank the other investigators, the staff, and the participants of the REGARDS study for their } \\ \text { valuable contributions. A full list of participating REGARDS investigators and institutions } \\ \text { can be found at http://www.regardsstudy.org } \\ \text { Additional funding was provided by an investigator-initiated grant-in-aid from Amgen and } \\ \text { an investigator-initiated National Heart, Lung, and Blood Institute (NHLBI) grant R01 }\end{array} \\ \hline \text { HL080477. Representatives from Amgen or NHLBI did not have any role in the design and } \\ \text { conduct of the study, the collection, management, analysis, and interpretation of the data, or } \\ \text { the preparation or approval of the manuscript. }\end{array}\right\}$
eTable 1. Number of Participants, Events, and Follow-up Time by Study Cohort

| Study | Baseline <br> Year(s) | N* | Follow-up time for death (y) | Followup time to ESKD (y) | Follow-up time for GFR decline $\dagger$ (y) | Death | ESKD <br> Events | GFR decline $\dagger$ events |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| General Population |  |  |  |  |  |  |  |  |
| Aichi | 2002-2003 | 4802 | 8 (2) |  |  | 81 |  | <50 |
| ARIC | 1987-1990 | 15488 | 22 (7) | 22 (7) | 14 (9) | 6304 | 418 | 2344 |
| AusDiab | 1999-2000 | 10957 | 13 (2) |  | 10 (3) | 1362 |  | 62 |
| Beaver Dam CKD | 1988-1995 | 4787 | 14 (5) |  | 5 (0) | 2052 |  | 75 |
| Beijing | 2004 | 1505 | 6 (1) |  |  | 83 |  | <50 |
| ChinaNS | 1994-2008 | 44514 | 6 (2) |  |  | 797 |  |  |
| CHS | 1992-1993 | 4574 | 12 (6) | 12 (6) | 4 (0) | 3939 | 65 | 106 |
| CIRCS | 1986-1993 | 11425 | 19 (4) |  | 13 (6) | 1413 |  | 509 |
| COBRA | 2004-2005 | 1163 | 7 (3) |  |  | 256 |  | <50 |
| ESTHER | 2000-2002 | 9746 | 11 (2) |  | 8 (0) | 1538 |  | 484 |
| Framingham | 1979-1986 | 2947 | 10 (2) |  | 8 (3) | 300 |  | 114 |
| Geisinger | 1996-2017 | 390614 | 9 (5) | 7 (5) | 7 (5) | 48573 | 3346 | 27935 |
| Gubbio | 1988-1992 | 1676 | 17 (3) |  |  | 233 |  | <50 |
| HUNT | 1995-1997 | 63852 | 13 (2) | 13 (2) | 11 (1) | 7090 | 98 | 833 |
| IPHS | 1993-2004 | 93397 | 18 (5) |  | 10 (4) | 25922 |  | 537 |
| JHS | 2000-2004 | 3463 | 10 (2) |  | 8 (1) | 296 |  | 108 |
| JMS | 1992-1995 | 4905 | 12 (2) |  |  | 287 |  |  |
| KHS | 1996-2004 | 350556 | 13 (3) | 13 (3) | 3 (2) | 13330 | 1184 | 942 |
| Maccabi | 2006-2012 | 656640 | 6 (2) | 6 (2) | 6 (2) | 33636 | 2325 | 12180 |
| MESA | 2000-2002 | 6710 | 8 (2) |  | 5 (1) | 501 |  | 142 |
| MRC | 1995-1999 | 11965 | 7 (4) |  |  | 7916 |  |  |
| Mt Sinai BioMe | 2003-2014 | 23112 | 4 (3) | 4 (3) | 4 (3) |  | 821 | 1544 |
| NHANES | 1988-1994 | 58477 | 10 (7) |  |  | 7581 |  |  |
| $\begin{array}{\|l\|} \hline \text { NIPPON } \\ \text { DATA80 } \end{array}$ | 1980 | 8847 | 24 (8) |  |  | 3203 |  |  |
| $\begin{array}{\|l\|} \hline \text { NIPPON } \\ \text { DATA90 } \end{array}$ | 1990 | 7219 | 18 (5) |  |  | 1651 |  |  |
| Ohasama | 1990-2010 | 1595 | 13 (6) |  |  | 326 |  | <50 |
| Okinawa 83 | 1983 | 8927 |  | 17 (1) | 10 (0) |  | 94 | 754 |
| Okinawa 93 | 1993 | 89368 |  | 7 (0) |  |  | 160 |  |
| PREVEND | 1997-1998 | 7865 | 11 (3) |  | 10 (3) | 768 | $<50$ | 97 |
| Rancho Bernardo | 1992-1997 | 1735 | 13 (6) |  | 8 (3) | 758 |  | 66 |
| RCAV | 2004-2012 | 3018133 | 7 (2) | 6 (2) | 6 (2) | 583387 | 9103 | 195158 |
| REGARDS | 2003-2007 | 28469 | 11 (3) | 8 (2) | 9 (1) | 6586 | 428 | 2085 |
| RSIII | 2006-2008 | 3384 | 8 (2) |  |  | 243 |  | <50 |
| SEED | 2004-2012 | 6424 | 5 (2) |  |  | 221 | $<50$ |  |
| Taiwan MJ | 1994-2008 | 473863 | 9 (4) |  | 5 (3) | 17577 |  | 354 |
| Takahata | 2004-2006 | 2272 | 9 (1) |  |  | 180 |  | <50 |
| TLGS | 1995-2006 | 10212 | 11 (3) |  | 11 (3) | 706 |  | 158 |
| Tromso | 1994-2008 | 7762 | 16 (4) |  | 11 (3) | 2390 | $<50$ | 226 |
| ULSAM | 1970-1973 | 1210 | 35 (6) |  | 21 (0) | 843 | <50 | 61 |
| Subtotal |  | 5459014 | 8 (3) | 7 (2) | 6 (3) | 782329 | 18042 | 246874 |
| High CVD Risk Cohorts |  |  |  |  |  |  |  |  |
| ADVANCE | 2001-2003 | 11038 | 9 (3) | 9 (3) | 5 (1) | 2242 | 81 | 1284 |
| KP Hawaii | 2000-2006 | 29480 | 2 (1) | 2 (1) | 2 (1) | 1288 | 289 | 1450 |
| NZDCS | 1999-2006 | 27725 | 9 (3) | 9 (3) | 2 (1) | 7910 | 942 | 179 |
| Pima | 1982-2007 | 4015 | 12 (7) | 12 (7) | 12 (7) | 1060 | 306 | 273 |
| SMART | 1996-2014 | 10485 | 7 (4) | 7 (4) |  | 1338 | 66 |  |


| ZODIAC | 1998-2002 | 1674 | 10 (4) |  | 8 (3) | 808 |  | 158 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Subtotal |  | 84417 | 6 (3) | 6 (3) | 3 (2) | 14646 | 1684 | 3344 |
| CKD Cohorts |  |  |  |  |  |  |  |  |
| AASK | 1995-1998 | 1087 | 8 (3) | 7 (3) | 6 (4) | 211 | 298 | 525 |
| BC CKD | 2003-2012 | 7646 | 7 (3) | 4 (3) | 4 (3) | 2909 | 2673 | 3221 |
| CanPREDDICT | 2008 | 1643 | 3 (1) | 3 (2) | 3 (1) | 381 | 381 | 619 |
| CARE FOR HOMe | 2008-2015 | 462 | 4 (2) |  |  | 63 | <50 | <50 |
| CCF | 2005-2009 | 36018 | 2 (1) | 2 (1) | 2 (1) | 5455 | 995 | 1669 |
| CKD-JAC | 2007-2009 | 2478 | 4 (2) | 4 (2) | 3 (1) | 73 | 502 | 1075 |
| CRIB | 1996-1998 | 369 | 6 (3) | 4 (3) | 3 (1) | 141 | 184 | 137 |
| GCKD | 2009-2012 | 5050 | 2 (0) | 2 (0) | 2 (0) | 157 | 71 | 238 |
| Gonryo | 2006-2008 | 3352 | 4 (2) | 4 (2) | 4 (2) | 126 | 336 | 453 |
| MASTERPLAN | 2004-2006 | 671 | 5 (1) | 4 (1) | 4 (1) | 118 | 148 | 192 |
| MDRD | 1989-1991 | 1771 | 16 (6) | 9 (7) | 2 (1) | 819 | 1136 | 272 |
| MMKD | 1997-1998 | 198 |  | 4 (2) |  | <50 | 74 | <50 |
| Nefrona | 2009-2011 | 1751 | 4 (1) | 2 (0) | 2 (0) | 103 | 130 | 96 |
| NephroTest | 2000-2013 | 1891 | 6 (3) | 5 (3) | 4 (2) | 364 | 448 | 234 |
| PSP-CKD | 2010-2013 | 20429 | 4 (2) | 4 (2) | 2 (1) | 4707 | 204 | 271 |
| RENAAL | 1996-1998 | 1468 | 3 (1) | 3 (1) | 2 (1) | 304 | 330 | 852 |
| SRR-CKD | 2005-2012 | 2463 | 3 (2) | 3 (2) | 2 (1) | 690 | 669 | 285 |
| Sunnybrook | 2000 | 2860 | 3 (2) | 3 (2) | 2 (2) | 695 | 340 | 460 |
| Subtotal |  | 91607 | 4 (2) | 3 (2) | 2 (1) | 17316 | 8919 | 10599 |
| Total |  | 5635038 | 8 (3) | 7 (2) | 6 (3) | 814291 | 28645 | 260817 |

CKD: chronic kidney disease; CVD: cardiovascular disease; eGFR: estimated glomerular filtration rate;
ESKD: end-stage kidney disease
Cohorts with $<50$ events for an outcome were not included in analyses for that outcome.
*Total N reflects the number of participants at risk for death in all cohorts except in MESA it represents number of participants at risk for death or GFR decline and in Mt Sinai it represents the number of participants at risk for ESKD or GFR decline.
$\dagger$ GFR decline defined as eGFR decline $\geq 40 \%$, initiation of kidney replacement therapy or eGFR $<10$ $\mathrm{mL} / \mathrm{min} / 1.73 \mathrm{~m}^{2}$.
eTable 2. Summary Baseline Characteristics by BMI Category

| General Population Cohorts |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 18.5--to <25 | 25 to <30 | 30 to <35 | $\geq 35$ | Total |
| n | 1837795 | 1958101 | 1055261 | 607857 | 5459014 |
| Age, years | 51 (15) | 57 (14) | 57 (13) | 55 (13) | 55 (14) |
| Female | 705942 (38\%) | 415334 (21\%) | 199411 (19\%) | 150168 (25\%) | 1470855 (27\%) |
| Black | 137038 (7\%) | 201712 (10\%) | 141229 (13\%) | 87869 (14\%) | 567848 (10\%) |
| Asian | 757467 (41\%) | 314566 (16\%) | 36442 (3\%) | 4330 (1\%) | 1112805 (20\%) |
| Current smoking | 200241 (11\%) | 116930 (6\%) | 35394 (3\%) | 22490 (4\%) | 375055 (7\%) |
| Systolic blood pressure ( mmHg ) | 124 (18) | 131 (18) | 134 (17) | 136 (17) | 130 (18) |
| Cholesterol (mmol/L) | 4.89 (1.02) | 4.98 (1.07) | 4.97 (1.11) | 4.91 (1.09) | 4.95 (1.07) |
| Diabetes | 142016 (8\%) | 320314 (16\%) | 280521 (27\%) | 229211 (38\%) | 972062 (18\%) |
| History of CVD | 168230 (9\%) | 277506 (14\%) | 175473 (17\%) | 106849 (18\%) | 728058 (13\%) |
| eGFR ( $\mathrm{ml} / \mathrm{min} / 1.73 \mathrm{~m} 2)$ | 89 (18) | 85 (17) | 85 (17) | 87 (18) | 86 (17) |
| ACR $>30 \mathrm{mg} / \mathrm{g}$ | 41588 (6\%) | 34388 (9\%) | 17873 (16\%) | 13772 (24\%) | 107621 (8\%) |
| Waist Circumference (cm) | 75 (12) | 87 (12) | 99 (12) | 113 (14) | 80 (14) |
| Waist Height Ratio | 0.46 (0.13) | 0.53 (0.15) | 0.60 (0.07) | 0.69 (0.08) | 0.49 (0.14) |
| High CVD Risk Cohorts |  |  |  |  |  |
| n | 19049 | 29495 | 19559 | 16314 | 84417 |
| Age, years | 63 (14) | 62 (13) | 59 (12) | 53 (12) | 60 (13) |
| Female | 9553 (50\%) | 12021 (41\%) | 9076 (46\%) | 9436 (58\%) | 40086 (47\%) |
| Black | 21 (0\%) | 41 (0\%) | 25 (0\%) | 20 (0\%) | 107 (0\%) |
| Asian | 2708 (14\%) | 2524 (9\%) | 576 (3\%) | 136 (1\%) | 5944 (7\%) |
| Current smoking | 2529 (13\%) | 3508 (12\%) | 2083 (11\%) | 1714 (11\%) | 9834 (12\%) |
| Systolic blood pressure ( mmHg ) | 135 (21) | 138 (20) | 138 (20) | 137 (20) | 137 (20) |
| Cholesterol ( $\mathrm{mmol} / \mathrm{L}$ ) | 5.10 (1.22) | 5.12 (1.22) | 5.17 (1.22) | 5.15 (1.18) | 5.13 (1.21) |
| Diabetes | 11297 (59\%) | 20248 (69\%) | 14919 (76\%) | 12730 (78\%) | 59194 (70\%) |
| History of CVD | 4959 (26\%) | 8147 (28\%) | 4455 (23\%) | 2747 (17\%) | 20308 (24\%) |
| eGFR ( $\mathrm{ml} / \mathrm{min} / 1.73 \mathrm{~m} 2$ ) | 77 (22) | 77 (21) | 79 (22) | 85 (23) | 79 (22) |
| CKD Cohorts |  |  |  |  |  |
| n | 26502 | 33654 | 19061 | 12390 | 91607 |
| Age, years | 69 (13) | 70 (11) | 69 (11) | 66 (11) | 69 (12) |
| Female | 14131 (53\%) | 14662 (44\%) | 9183 (48\%) | 7661 (62\%) | 45637 (50\%) |
| Black | 1335 (5\%) | 2125 (6\%) | 1517 (8\%) | 1400 (11\%) | 6377 (7\%) |
| Asian | 4877 (18\%) | 2520 (7\%) | 619 (3\%) | 166 (1\%) | 8182 (9\%) |
| Current smoking | 2811 (11\%) | 2833 (8\%) | 1588 (8\%) | 965 (8\%) | 8197 (9\%) |
| Systolic blood pressure ( mmHg ) | 132 (20) | 134 (19) | 135 (19) | 136 (19) | 134 (19) |
| Cholesterol (mmol/L) | 4.85 (1.19) | 4.77 (1.25) | 4.75 (1.19) | 4.75 (1.23) | 4.78 (1.22) |
| Diabetes | 5604 (21\%) | 9316 (28\%) | 7008 (37\%) | 5990 (48\%) | 27918 (30\%) |
| History of CVD | 6160 (23\%) | 9041 (27\%) | 5285 (28\%) | 3368 (27\%) | 23854 (26\%) |
| eGFR ( $\mathrm{ml} / \mathrm{min} / 1.73 \mathrm{~m} 2$ ) | 47 (18) | 46 (15) | 46 (14) | 46 (14) | 46 (16) |
| ACR $>30 \mathrm{mg} / \mathrm{g}$ | 8483 (58\%) | 11314 (62\%) | 6650 (62\%) | 4229 (60\%) | 30676 (61\%) |


| Waist Circumference (cm) | $83(8)$ | $98(8)$ | $109(9)$ | $122(11)$ | $98(14)$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Waist Height Ratio | $0.50(0.05)$ | $0.58(0.05)$ | $0.65(0.05)$ | $0.73(0.06)$ | $0.59(0.08)$ |

eTable 3. Baseline Characteristics by BMI Category - Demographics

|  | N |  |  |  | Age |  |  |  | Female |  |  |  | Black |  |  |  | Asian |  |  |  | Current Smoking |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 18.5- \\ & <25 \end{aligned}$ | 25-<30 | 30-<35 | $\geq 35$ | $\underset{-<25}{18.5}$ |  |  |  | $\begin{aligned} & 18.5- \\ & <25 \end{aligned}$ | 25-<30 | 30- | $\geq 35$ | $\begin{aligned} & 18.5- \\ & <25 \end{aligned}$ | 25-<30 | 30-<3 | $\geq 35$ | $\begin{aligned} & 18.5- \\ & <25 \end{aligned}$ | 25-<30 | 30-<35 | $\geq 35$ | 18.5-<25 | 25-<30 | $\begin{aligned} & 30- \\ & <35 \end{aligned}$ | $\geq 35$ |
| General Population |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Aichi | 3698 | 1043 | 55 | 6 | $\begin{aligned} & 49 \\ & (7) \end{aligned}$ | $\begin{aligned} & 50 \\ & (7) \end{aligned}$ | $\begin{aligned} & 48 \\ & (7) \end{aligned}$ | $\begin{aligned} & 44 \\ & (4) \end{aligned}$ | $\begin{aligned} & 832 \\ & (22 \%) \end{aligned}$ | $\begin{aligned} & 119 \\ & (11 \%) \end{aligned}$ | $\begin{array}{\|l} 7 \\ (13 \%) \end{array}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | $\begin{aligned} & 3698 \\ & (100 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 1043 \\ (100 \%) \end{array}$ | $\begin{array}{\|l\|} \hline 55 \\ (100 \% \\ ) \end{array}$ | $\begin{aligned} & 6 \\ & (100 \% \\ & )^{6} \end{aligned}$ | 1039 (29\%) | $\begin{aligned} & 326 \\ & (32 \%) \end{aligned}$ | $\left\lvert\, \begin{aligned} & 21 \\ & (40 \%) \end{aligned}\right.$ | $\left[\begin{array}{l} 0 \\ (0 \%) \end{array}\right.$ |
| ARIC | 5042 | 6163 | 2875 | 1408 | $\begin{aligned} & 55 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{aligned} & 55 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{aligned} & 55 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{aligned} & 54 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{array}{\|l} \hline 3132 \\ (62 \%) \\ \hline \end{array}$ | $\begin{aligned} & 2725 \\ & (44 \%) \end{aligned}$ | $\begin{aligned} & 1569 \\ & (55 \%) \end{aligned}$ | $\begin{aligned} & 1070 \\ & (76 \%) \end{aligned}$ | $\begin{aligned} & 864 \\ & (17 \%) \end{aligned}$ | $\begin{array}{\|l\|l} \hline 1549 \\ (25 \%) \end{array}$ | $\begin{array}{\|l} 1007 \\ (35 \%) \\ \hline \end{array}$ | $\begin{array}{\|l} \hline 662 \\ (47 \%) \end{array}$ | $\begin{aligned} & 17 \\ & (0 \%) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 12 \\ & (0 \%) \\ & \hline \end{aligned}$ | 2 (0\%) | 1 (0\%) | 1655 (33\%) | $\begin{aligned} & 1500 \\ & (24 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 616 \\ (21 \%) \end{array}$ | $\begin{array}{\|l\|} \hline 222 \\ (16 \%) \\ \hline \end{array}$ |
| AusDiab | 4051 | 4436 | 1737 | 733 | $\begin{aligned} & 50 \\ & 50 \\ & (15) \end{aligned}$ | $\begin{aligned} & 54 \\ & (14 \\ & l^{24} \end{aligned}$ | $\begin{array}{ll} 54 & 5 \\ (13 & \\ x_{1} & \\ ) \end{array}$ | $\begin{aligned} & 51 \\ & (13 \\ & (13) \\ & \hline \end{aligned}$ | $\begin{aligned} & 2584 \\ & (64 \%) \end{aligned}$ | $\begin{aligned} & 1974 \\ & (44 \%) \end{aligned}$ | $\begin{aligned} & 907 \\ & (52 \%) \end{aligned}$ | $\begin{aligned} & 523 \\ & (71 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 687 (17\%) | $\begin{aligned} & 647 \\ & (15 \%) \end{aligned}$ | $\left.\begin{aligned} & 265 \\ & (16 \%) \end{aligned} \right\rvert\,$ | $9$ |
| $\begin{aligned} & \hline \text { Beaver Dam } \\ & \text { CKD } \end{aligned}$ | 1340 | 1984 | 1002 | 461 | $\begin{aligned} & 63 \\ & (12) \end{aligned}$ | $\begin{aligned} & 63 \\ & (11 \\ & 9 \end{aligned}$ | $\begin{aligned} & 62 \\ & \\ & (11 \\ & x_{1} \\ & \hline \end{aligned}$ | $\begin{aligned} & 60 \\ & (10 \\ & x^{6} \end{aligned}$ | $\begin{aligned} & 924 \\ & (69 \%) \end{aligned}$ | $\begin{aligned} & 943 \\ & (48 \%) \end{aligned}$ | $\begin{aligned} & 496 \\ & (50 \%) \end{aligned}$ | $\begin{aligned} & \begin{array}{l} 304 \\ (66 \%) \end{array} \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 1 (0\%) | 7 (1\%) | 4 (0\%) | 0 (0\%) | 1 (0\%) | 359 (27\%) | $\begin{aligned} & 376 \\ & (19 \%) \end{aligned}$ | $\begin{aligned} & 141 \\ & (14 \%) \end{aligned}$ | $\begin{aligned} & 63 \\ & (14 \%) \end{aligned}$ |
| Beijing | 715 | 651 | 131 | 8 | $\begin{aligned} & \begin{array}{l} 60 \\ (10) \end{array} \end{aligned}$ | $\begin{aligned} & 60 \\ & 10 \\ & 10 \end{aligned}$ | $\begin{gathered} 62 \\ (9) \end{gathered}$ | $\begin{aligned} & 55 \\ & (8) \end{aligned}$ | $\begin{aligned} & 367 \\ & (51 \%) \end{aligned}$ | $\begin{aligned} & 310 \\ & (48 \%) \end{aligned}$ | $\begin{aligned} & 74 \\ & (56 \%) \end{aligned}$ | $\begin{aligned} & 6 \\ & (75 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | $\begin{aligned} & 715 \\ & (100 \%) \end{aligned}$ | $\begin{aligned} & 651 \\ & (100 \%) \end{aligned}$ | $\begin{aligned} & 131 \\ & (100 \% \\ & \hline \end{aligned}$ | $\begin{aligned} & 8 \\ & (100 \% \\ & ) \end{aligned}$ | 175 (24\%) | $\begin{aligned} & 148 \\ & (23 \%) \end{aligned}$ | $\begin{aligned} & 26 \\ & (20 \%) \end{aligned}$ | $2$ |
| ChinaNS | 28071 | 13874 | 2285 | 284 | $\begin{aligned} & 46 \\ & (15) \end{aligned}$ | $\begin{aligned} & 50 \\ & (13 \end{aligned}$ | $\begin{array}{\|l\|l\|} \hline 50 \\ (14 \\ \hline \end{array}$ | $\begin{aligned} & 48 \\ & (15 \\ & { }_{2} \end{aligned}$ | $\begin{aligned} & 16244 \\ & (58 \%) \end{aligned}$ | $\begin{aligned} & 7549 \\ & (54 \%) \end{aligned}$ | $\begin{aligned} & 1341 \\ & (59 \%) \end{aligned}$ | $\begin{aligned} & 195 \\ & (69 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | $\begin{aligned} & 28071 \\ & (100 \%) \end{aligned}$ | $\begin{aligned} & 13874 \\ & (100 \%) \end{aligned}$ | $\begin{array}{\|l\|} 2285 \\ (100 \% \\ \hline \end{array}$ | $\begin{aligned} & 284 \\ & (100 \% \\ & ) \end{aligned}$ | 6525 (23\%) | $\begin{aligned} & 3486 \\ & (25 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 548 \\ (24 \%) \end{array}$ | $\begin{aligned} & 54 \\ & (19 \%) \end{aligned}$ |
| CHS | 1659 | 1939 | 707 | 269 | $\begin{array}{\|l} \hline 76 \\ (6) \\ \hline \end{array}$ | $\begin{aligned} & 75 \\ & 75 \\ & (5) \end{aligned}$ | $\begin{aligned} & 74 \\ & 74 \\ & (5) \end{aligned}$ | $\begin{array}{\|l\|} \hline 73 \\ (4) \\ \hline \end{array}$ | $\begin{aligned} & 980 \\ & (59 \%) \end{aligned}$ | $\begin{aligned} & 997 \\ & (51 \%) \\ & \hline \end{aligned}$ | $\begin{aligned} & 446 \\ & (63 \%) \end{aligned}$ | $\begin{aligned} & 214 \\ & (80 \%) \\ & \hline \end{aligned}$ | $\begin{aligned} & 192 \\ & (12 \%) \end{aligned}$ | $\begin{aligned} & 327 \\ & (17 \%) \\ & \hline \end{aligned}$ | $\begin{array}{\|l} \hline 169 \\ (24 \%) \end{array}$ | $\begin{aligned} & 103 \\ & (38 \%) \\ & \hline \end{aligned}$ | 1 (0\%) | 2 (0\%) | 0 (0\%) | 0 (0\%) | 213 (13\%) | $\begin{aligned} & 152 \\ & (8 \%) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 52 \\ (7 \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|l} \hline 13 \\ (5 \%) \\ \hline \end{array}$ |
| CIRCS | 8176 | 2901 | 326 | 22 | $\begin{aligned} & 54 \\ & (9) \end{aligned}$ | $\begin{aligned} & 55 \\ & (8) \end{aligned}$ | $\begin{aligned} & 55 \\ & (9) \end{aligned}$ | $\begin{aligned} & 55 \\ & (9) \end{aligned}$ | $\begin{aligned} & 4890 \\ & (60 \%) \end{aligned}$ | $\begin{aligned} & 1798 \\ & (62 \%) \end{aligned}$ | $\begin{aligned} & 244 \\ & (75 \%) \end{aligned}$ | $\begin{aligned} & 20 \\ & (91 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | $\begin{aligned} & 8176 \\ & (100 \%) \end{aligned}$ | $\begin{aligned} & 2901 \\ & (100 \%) \end{aligned}$ | $\begin{aligned} & 326 \\ & (100 \% \\ & \hline \end{aligned}$ | $\begin{aligned} & 22 \\ & (100 \% \\ & )^{2} \end{aligned}$ | 2259 (28\%) | $\begin{aligned} & 637 \\ & (22 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 58 \\ (18 \%) \end{array}$ | $4$ |
| COBRA | 440 | 429 | 191 | 103 | $\begin{aligned} & 56 \\ & (12) \end{aligned}$ | $\begin{aligned} & 53 \\ & 10 \\ & 10 \\ & \hline \end{aligned}$ | $\begin{aligned} & 51 \\ & (9) \end{aligned}$ | $\begin{aligned} & 49 \\ & (9) \end{aligned}$ | $\begin{aligned} & 223 \\ & (51 \%) \end{aligned}$ | $\begin{aligned} & 263 \\ & (61 \%) \end{aligned}$ | $\begin{aligned} & 145 \\ & (76 \%) \end{aligned}$ | $\begin{aligned} & 91 \\ & (88 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | $\begin{array}{\|l\|} \hline 440 \\ (100 \%) \end{array}$ | $\begin{aligned} & 429 \\ & (100 \%) \end{aligned}$ | $\begin{aligned} & 191 \\ & 100 \% \\ & \hline \end{aligned}$ | $\begin{aligned} & 103 \\ & (100 \% \\ & ) \end{aligned}$ | 164 (37\%) | $\begin{aligned} & 141 \\ & (33 \%) \end{aligned}$ | $\begin{aligned} & 49 \\ & (26 \%) \end{aligned}$ | $27$ |
| ESTHER | 2635 | 4603 | 1927 | 581 | $\begin{aligned} & 62 \\ & (7) \\ & \hline \end{aligned}$ | $\begin{aligned} & 62 \\ & (7) \\ & \hline \end{aligned}$ | $\begin{aligned} & 62 \\ & 62 \\ & \hline \end{aligned}$ | $\begin{aligned} & 61 \\ & (7) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 1676 \\ (64 \%) \\ \hline \end{array}$ | $\begin{aligned} & 2261 \\ & (49 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 1050 \\ (54 \%) \end{array}$ | $\begin{aligned} & \begin{array}{l} 366 \\ (63 \%) \end{array} \\ & \hline \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 567 (22\%) | $\begin{aligned} & \hline 642 \\ & (14 \%) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 242 \\ (13 \%) \end{array}$ | $\begin{array}{\|l\|} \hline 67 \\ (12 \%) \\ \hline \end{array}$ |
| Framingham | 880 | 1248 | 571 | 248 | $\begin{aligned} & 59 \\ & (10) \end{aligned}$ | $\begin{aligned} & 59 \\ & (10 \\ & { }^{29} \\ & \hline \end{aligned}$ | $\begin{aligned} & 60 \\ & (9) \end{aligned}$ | $\begin{aligned} & 57 \\ & (9) \end{aligned}$ | $\begin{aligned} & 612 \\ & (70 \%) \end{aligned}$ | $\begin{aligned} & 560 \\ & (45 \%) \end{aligned}$ | $\begin{aligned} & 251 \\ & (44 \%) \end{aligned}$ | $\begin{aligned} & 143 \\ & (58 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 150 (17\%) | $\begin{aligned} & 169 \\ & (14 \%) \end{aligned}$ | $\begin{aligned} & 91 \\ & (16 \%) \end{aligned}$ | $\begin{aligned} & 33 \\ & (13 \%) \end{aligned}$ |
| Geisinger | 92279 | 119063 | 89851 | 89421 | $\begin{aligned} & \left.\hline \begin{array}{l} 44 \\ (19) \end{array}\right) \end{aligned}$ | $\begin{aligned} & 50 \\ & (18 \\ & \hline \end{aligned}$ |  | $\begin{array}{\|l\|} \hline 48 \\ (16 \\ )^{\prime} \\ \hline \end{array}$ | $\begin{aligned} & 61056 \\ & (66 \%) \end{aligned}$ | $\begin{aligned} & 59591 \\ & (50 \%) \end{aligned}$ | $\begin{aligned} & 44869 \\ & (50 \%) \end{aligned}$ | $\begin{aligned} & 55243 \\ & (62 \%) \end{aligned}$ | $\begin{aligned} & 2156 \\ & (2 \%) \end{aligned}$ | $\begin{aligned} & 2835 \\ & (2 \%) \end{aligned}$ | $\begin{aligned} & 2430 \\ & (3 \%) \end{aligned}$ | $\begin{aligned} & 2707 \\ & (3 \%) \end{aligned}$ | $\begin{aligned} & 1228 \\ & (1 \%) \end{aligned}$ | $\begin{aligned} & 829 \\ & (1 \%) \end{aligned}$ | $\begin{aligned} & 284 \\ & (0 \%) \end{aligned}$ | $\begin{aligned} & 108 \\ & (0 \%) \end{aligned}$ | $\begin{aligned} & 24931 \\ & (27 \%) \end{aligned}$ | $\begin{aligned} & 26301 \\ & (22 \%) \end{aligned}$ | $\begin{aligned} & 18040 \\ & (20 \%) \end{aligned}$ | $\begin{aligned} & 16934 \\ & (19 \%) \end{aligned}$ |
| Gubbio | 404 | 796 | 380 | 96 | $\begin{aligned} & 54 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{aligned} & 54 \\ & \hline(6) \\ & \hline \end{aligned}$ | $\begin{aligned} & 55 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 55 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 249 \\ (62 \%) \\ \hline \end{array}$ | $\begin{aligned} & 392 \\ & (49 \%) \end{aligned}$ | $\begin{aligned} & 212 \\ & (56 \%) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 73 \\ & (76 \%) \\ & \hline \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 158 (39\%) | $\begin{array}{\|l\|} \hline 253 \\ (32 \%) \end{array}$ | $\begin{array}{\|l\|} \hline 87 \\ (23 \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 23 \\ (24 \%) \end{array}$ |
| HUNT | 25632 | 27599 | 8446 | 2175 | $\begin{aligned} & 46 \\ & (17) \end{aligned}$ | $\begin{aligned} & 52 \\ & \begin{array}{l} 52 \\ 16 \\ \hline \end{array} \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|l} 55 & 5 \\ & 16 \\ \hline & \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 54 \\ 16 \\ 16 \\ \hline \end{array}$ | $\begin{aligned} & 14939 \\ & (58 \%) \end{aligned}$ | $\begin{aligned} & 12501 \\ & (45 \%) \end{aligned}$ | $\begin{aligned} & 4713 \\ & (56 \%) \end{aligned}$ | $\begin{aligned} & 1598 \\ & (73 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 8859 (35\%) | $\begin{aligned} & 7240 \\ & (26 \%) \end{aligned}$ | $\left.\begin{array}{\|l\|} \hline 1932 \\ (23 \%) \end{array} \right\rvert\,$ | $\begin{aligned} & 455 \\ & (21 \%) \end{aligned}$ |
| IPHS | 64358 | 26305 | 2543 | 191 | $\begin{aligned} & \hline 59 \\ & (11) \end{aligned}$ | $\begin{aligned} & 60 \\ & (10 \\ & )^{20} \end{aligned}$ | $\begin{array}{l\|l} 59 & 5 \\ (10 & \\ x^{2} & \\ \hline \end{array}$ | $\begin{aligned} & 57 \\ & (10 \\ & { }^{5} \end{aligned}$ | $\begin{aligned} & 41774 \\ & (65 \%) \end{aligned}$ | $\begin{aligned} & 17651 \\ & (67 \%) \end{aligned}$ | $\begin{aligned} & 1999 \\ & (79 \%) \end{aligned}$ | $\begin{aligned} & 168 \\ & (88 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | $\begin{aligned} & 64358 \\ & (100 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 26305 \\ (100 \%) \end{array}$ | $\begin{aligned} & 2543 \\ & (100 \% \\ & \hline \end{aligned}$ | $\begin{aligned} & \begin{array}{l} 191 \\ (100 \% \\ ) \end{array}, ~ \end{aligned}$ | $\begin{aligned} & 13224 \\ & (21 \%) \end{aligned}$ | $\begin{aligned} & 4405 \\ & (17 \%) \end{aligned}$ | $\begin{aligned} & 388 \\ & (15 \%) \end{aligned}$ | $\begin{aligned} & 23 \\ & (12 \%) \end{aligned}$ |


| JHS | 489 | 1074 | 922 | 978 | 50 5 <br> $(14)$  | $\begin{array}{\|l\|} \hline 51 \\ (12 \\ ) \end{array}$ | $\begin{aligned} & 51 \\ & (11 \end{aligned}$ | $\begin{aligned} & 49 \\ & (11 \\ & (12 \end{aligned}$ | $\begin{aligned} & 256 \\ & (52 \%) \end{aligned}$ | $\begin{aligned} & \hline 555 \\ & (52 \%) \end{aligned}$ | $\begin{aligned} & 572 \\ & (62 \%) \end{aligned}$ | $\begin{aligned} & \hline 746 \\ & (76 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 489 \\ (100 \%) \end{array}$ | $\begin{aligned} & 1074 \\ & (100 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 922 \\ (100 \%) \end{array}$ | $\begin{aligned} & 978 \\ & (100 \% \\ & ) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 111 (23\%) | $\begin{aligned} & 156 \\ & (15 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 113 \\ (12 \%) \end{array}$ | $\begin{aligned} & 108 \\ & (11 \%) \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| JMS | 3741 | 1060 | 100 | 4 | 54 56 <br> $(11)$  | 56 <br> $(10$ <br> $)$ | $\begin{aligned} & 55 \\ & (10 \\ & \hline \end{aligned}$ | $\begin{aligned} & 54 \\ & (11 \\ & ) \end{aligned}$ | $\begin{aligned} & 2339 \\ & (63 \%) \end{aligned}$ | $\begin{aligned} & 704 \\ & (66 \%) \end{aligned}$ | $\begin{aligned} & 73 \\ & (73 \%) \end{aligned}$ | $\begin{aligned} & 3 \\ & (75 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | $\begin{aligned} & 3741 \\ & (100 \%) \end{aligned}$ | $\begin{aligned} & 1060 \\ & (100 \%) \end{aligned}$ | $\begin{aligned} & 100 \\ & (100 \% \\ & \hline \end{aligned}$ | $\begin{aligned} & 4 \\ & (100 \% \\ & ) \end{aligned}$ | 850 (23\%) | $\begin{aligned} & 206 \\ & (19 \%) \end{aligned}$ | $\begin{aligned} & 17 \\ & (17 \%) \end{aligned}$ | $\begin{aligned} & 0 \\ & (0 \%) \end{aligned}$ |
| KHS | 233940 | 108088 | 8020 | 508 | $\begin{array}{\|l\|l} \hline 46 \\ (10) & 4 \\ \hline \end{array}$ | 47  <br> $(10$  <br> $)$  <br> 51  | $\begin{aligned} & 46 \\ & (10 \\ & ) \end{aligned}$ | $\begin{aligned} & 46 \\ & (11 \\ & ) \end{aligned}$ | $\begin{aligned} & 94399 \\ & (40 \%) \end{aligned}$ | $\begin{aligned} & 32373 \\ & (30 \%) \end{aligned}$ | $\begin{aligned} & 3385 \\ & (42 \%) \end{aligned}$ | $\begin{aligned} & 280 \\ & (55 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | $\begin{aligned} & 233940 \\ & (100 \%) \end{aligned}$ | $\begin{aligned} & 108088 \\ & (100 \%) \end{aligned}$ | $\begin{aligned} & 8020 \\ & (100 \% \end{aligned}$ | $\begin{aligned} & 508 \\ & (100 \% \\ & \hline \end{aligned}$ | $\begin{aligned} & 57190 \\ & (31 \%) \end{aligned}$ | $\begin{aligned} & 27396 \\ & (32 \%) \end{aligned}$ | $\begin{aligned} & \hline 1926 \\ & (30 \%) \end{aligned}$ | $\begin{aligned} & 88 \\ & (21 \%) \end{aligned}$ |
| Maccabi | 231926 | 240646 | 123905 | 60163 | $\begin{array}{l\|l} 44 & 5 \\ (16) \end{array}$ | 51  <br> $(16$  <br> $)$  | $\begin{aligned} & 52 \\ & (15 \\ & \hline \end{aligned}$ | $\begin{aligned} & 51 \\ & (15 \end{aligned}$ | $\begin{aligned} & 151710 \\ & (65 \%) \end{aligned}$ | $\begin{aligned} & 115532 \\ & (48 \%) \end{aligned}$ | $\begin{aligned} & 65412 \\ & (53 \%) \end{aligned}$ | $\begin{aligned} & 39016 \\ & (65 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 4793 (2\%) | $\begin{aligned} & 5153 \\ & (2 \%) \end{aligned}$ | $\begin{aligned} & 2520 \\ & (2 \%) \end{aligned}$ | $\begin{aligned} & 1135 \\ & (2 \%) \end{aligned}$ |
| MESA | 1882 | 2653 | 1418 | 757 | $\left.\begin{array}{l\|l} \hline 63 & 6 \\ (11) & \\ ( \end{array}\right)$ | 63 <br> $(10$ <br> $)$ | $\begin{aligned} & 62 \\ & (10 \\ & \hline \end{aligned}$ | $\begin{aligned} & 60 \\ & (9) \end{aligned}$ | $\begin{aligned} & 1047 \\ & (56 \%) \end{aligned}$ | $\begin{aligned} & 1212 \\ & (46 \%) \end{aligned}$ | $\begin{aligned} & 726 \\ & (51 \%) \end{aligned}$ | $\begin{aligned} & 553 \\ & (73 \%) \end{aligned}$ | $\begin{aligned} & 317 \\ & (17 \%) \end{aligned}$ | $\begin{aligned} & 694 \\ & (26 \%) \end{aligned}$ | $\begin{array}{\|l} 503 \\ (35 \%) \end{array}$ | $\begin{aligned} & 347 \\ & (46 \%) \end{aligned}$ | $\begin{aligned} & 491 \\ & (26 \%) \end{aligned}$ | $\begin{aligned} & 246 \\ & (9 \%) \end{aligned}$ | $\begin{aligned} & 32 \\ & (2 \%) \end{aligned}$ | 2 (0\%) | 276 (15\%) | $\begin{aligned} & 418 \\ & (16 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 216 \\ (15 \%) \end{array}$ | $\begin{aligned} & 92 \\ & (12 \%) \end{aligned}$ |
| MRC | 4891 | 5045 | 1621 | 408 | $\begin{array}{l\|l} \hline 82 \\ (5) & 8 \\ \hline \end{array}$ | $\begin{array}{\|l} \hline 81 \\ (4) \\ \hline \end{array}$ | $\begin{aligned} & 80 \\ & (4) \end{aligned}$ | $\begin{aligned} & 80 \\ & (4) \end{aligned}$ | $\begin{aligned} & 3017 \\ & (62 \%) \end{aligned}$ | $\begin{aligned} & 2823 \\ & (56 \%) \end{aligned}$ | $\begin{aligned} & 1051 \\ & (65 \%) \end{aligned}$ | $\begin{aligned} & \hline 324 \\ & (79 \%) \\ & \hline \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 671 (14\%) | $\begin{array}{\|l\|} \hline 491 \\ (10 \%) \end{array}$ | $\begin{array}{\|l\|l} \hline 143 \\ (9 \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 28 \\ (7 \%) \\ \hline \end{array}$ |
| Mt Sinai BioMe | 6973 | 7524 | 4591 | 4024 | $\begin{array}{l\|l} \hline 49 & 5 \\ (17) & \\ ) \end{array}$ | 53  <br> $(15$  <br> $)$  | $\begin{aligned} & 53 \\ & (14 \end{aligned}$ | $\begin{aligned} & 50 \\ & (14 \\ & ) \end{aligned}$ | $\begin{aligned} & 4144 \\ & (59 \%) \end{aligned}$ | $\begin{aligned} & 3950 \\ & (52 \%) \end{aligned}$ | $\begin{aligned} & 2847 \\ & (62 \%) \end{aligned}$ | $\begin{aligned} & 2946 \\ & (73 \%) \end{aligned}$ | $\begin{array}{\|l\|l} 1378 \\ (20 \%) \end{array}$ | $\begin{aligned} & 1794 \\ & (24 \%) \end{aligned}$ | $\begin{aligned} & 1352 \\ & (29 \%) \end{aligned}$ | $\begin{aligned} & 1572 \\ & (39 \%) \end{aligned}$ | $\begin{aligned} & 330 \\ & (5 \%) \end{aligned}$ | $\begin{aligned} & 168 \\ & (2 \%) \end{aligned}$ | $\begin{aligned} & 40 \\ & (1 \%) \end{aligned}$ | $\begin{aligned} & 19 \\ & (0 \%) \end{aligned}$ | 910 (14\%) | $\begin{aligned} & 1067 \\ & (15 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 721 \\ (17 \%) \end{array}$ | $\begin{aligned} & 603 \\ & (16 \%) \end{aligned}$ |
| NHANES | 20023 | 19980 | 10915 | 7559 | $\begin{array}{\|l\|l} \hline 42 \\ (21) & 4 \\ \hline \end{array}$ | 49  <br>   | $\begin{aligned} & 49 \\ & (18 \\ & ) \end{aligned}$ | $\begin{aligned} & 46 \\ & (17 \\ & ) \\ & \hline \end{aligned}$ | $\begin{aligned} & 10494 \\ & (52 \%) \end{aligned}$ | $\begin{aligned} & 8991 \\ & (45 \%) \end{aligned}$ | $\begin{aligned} & 5744 \\ & (53 \%) \end{aligned}$ | $\begin{aligned} & 4955 \\ & (66 \%) \end{aligned}$ | $\begin{aligned} & 4171 \\ & (21 \%) \end{aligned}$ | $\begin{aligned} & 3973 \\ & (20 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 2613 \\ (24 \%) \end{array}$ | $\begin{aligned} & 2435 \\ & (32 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 3868 (22\%) | $\begin{aligned} & 3182 \\ & (17 \%) \end{aligned}$ | $\begin{aligned} & \hline 1651 \\ & (16 \%) \end{aligned}$ | $\begin{aligned} & 1074 \\ & (15 \%) \end{aligned}$ |
| $\begin{aligned} & \text { NIPPON } \\ & \text { DATA80 } \end{aligned}$ | 6841 | 1810 | 181 | 15 | 50  <br> $(13)$ 50 <br>   | 50 <br> $(12$ <br> $)$ | $\begin{array}{\|l} \hline 53 \\ 12 \\ \hline \end{array}$ | $\begin{aligned} & 43 \\ & (8) \end{aligned}$ | $\begin{aligned} & 3734 \\ & (55 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 1048 \\ (58 \%) \end{array}$ | $\begin{aligned} & 146 \\ & (81 \%) \end{aligned}$ | $\begin{aligned} & 14 \\ & (93 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | $\begin{aligned} & 6841 \\ & (100 \%) \end{aligned}$ | $\begin{aligned} & 1810 \\ & (100 \%) \end{aligned}$ | $\begin{aligned} & 181 \\ & (100 \% \\ & \hline \end{aligned}$ |  | 2298 (34\%) | $\begin{aligned} & 518 \\ & (29 \%) \end{aligned}$ | $\begin{aligned} & 25 \\ & (14 \%) \end{aligned}$ | $\begin{aligned} & 1 \\ & (7 \%) \end{aligned}$ |
| $\begin{aligned} & \hline \text { NIPPON } \\ & \text { DATA90 } \end{aligned}$ | 5379 | 1653 | 168 | 19 | 52 5 <br> $(14)$  <br>   | 54 <br> $(13$ <br> $)$ | $\begin{array}{\|l} 53 \\ (13 \\ \hline \\ \hline \end{array}$ | $\begin{aligned} & 52 \\ & (11 \\ & (11 \\ & ) \end{aligned}$ | $\begin{aligned} & 3126 \\ & (58 \%) \end{aligned}$ | $\begin{aligned} & 939 \\ & (57 \%) \end{aligned}$ | $\begin{aligned} & 116 \\ & (69 \%) \end{aligned}$ | $\begin{aligned} & \hline 13 \\ & (68 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | $\begin{array}{\|l\|} \hline 5379 \\ (100 \%) \end{array}$ | $\begin{array}{\|l\|} \hline 1653 \\ (100 \%) \end{array}$ | $\begin{aligned} & 168 \\ & (100 \% \end{aligned}$ | $\begin{aligned} & 19 \\ & (100 \% \end{aligned}$ | 1520 (28\%) | $\begin{aligned} & 476 \\ & (29 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 40 \\ (24 \%) \end{array}$ | $\begin{aligned} & 4 \\ & (21 \%) \end{aligned}$ |
| Ohasama | 1105 | 445 | 37 | 8 | $\begin{aligned} & 64 \\ & (10) \end{aligned}$ | 63 <br> $(9)$ | $\begin{array}{\|l\|} \hline 61 \\ 10 \\ \hline \\ \hline \end{array}$ | $\begin{aligned} & 61 \\ & 12 \\ & 12 \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 643 \\ (58 \%) \end{array}$ | $\begin{array}{\|l\|} \hline 277 \\ (62 \%) \end{array}$ | $\begin{aligned} & 28 \\ & (76 \%) \end{aligned}$ | $\begin{aligned} & \hline 5 \\ & (63 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | $\begin{aligned} & 1105 \\ & (100 \%) \end{aligned}$ | $\begin{aligned} & 445 \\ & (100 \%) \end{aligned}$ | $\begin{aligned} & 37 \\ & (100 \% \\ & \hline \end{aligned}$ | $\begin{aligned} & 8 \\ & (100 \% \\ & \hline \end{aligned}$ | 193 (18\%) | $\begin{array}{\|l\|} \hline 53 \\ (12 \%) \end{array}$ | $\begin{aligned} & 1 \\ & (3 \%) \end{aligned}$ | $\begin{aligned} & 2 \\ & (25 \%) \end{aligned}$ |
| Okinawa 83 | 5824 | 2655 | 411 | 37 | 51 52 <br> $(16)$  | $\begin{array}{\|l\|} \hline 52 \\ (13 \\ \hline \end{array}$ | $\begin{array}{\|l} \hline 52 \\ (14 \\ \hline \end{array}$ | $\begin{aligned} & 51 \\ & (15 \\ & ) \\ & \hline \end{aligned}$ | $\begin{aligned} & 3449 \\ & (59 \%) \end{aligned}$ | $\begin{aligned} & 1565 \\ & (59 \%) \end{aligned}$ | $\begin{aligned} & 285 \\ & (69 \%) \end{aligned}$ | $\begin{aligned} & 30 \\ & (81 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | $\begin{aligned} & 5824 \\ & (100 \%) \end{aligned}$ | $\begin{aligned} & 2655 \\ & (100 \%) \end{aligned}$ | $\begin{aligned} & 411 \\ & (100 \% \\ & \hline \end{aligned}$ | $\begin{aligned} & 37 \\ & (100 \% \\ & \hline \end{aligned}$ | 0 (0\%) | 0 (0\%) | $\begin{aligned} & 0 \\ & (0 \%) \end{aligned}$ | $\begin{aligned} & 0 \\ & (0 \%) \end{aligned}$ |
| Okinawa 93 | 55560 | 29433 | 3987 | 388 | 54 56 <br> $(16)$  <br>   | 56  <br> $(13$  <br>   | $\begin{array}{\|l} \hline 54 \\ (13 \\ \hline \end{array}$ | $\begin{aligned} & 50 \\ & (13 \\ & 1 \\ & \hline \end{aligned}$ | $\begin{aligned} & 32111 \\ & (58 \%) \end{aligned}$ | $\begin{aligned} & 16160 \\ & (55 \%) \end{aligned}$ | $\begin{aligned} & 2513 \\ & (63 \%) \end{aligned}$ | $\begin{aligned} & 264 \\ & (68 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | $\begin{aligned} & 55560 \\ & (100 \%) \end{aligned}$ | $\begin{aligned} & 29433 \\ & (100 \%) \end{aligned}$ | $\begin{aligned} & 3987 \\ & (100 \% \end{aligned}$ | $\begin{aligned} & 388 \\ & (100 \% \end{aligned}$ |  |  |  |  |
| PREVEND | 3398 | 3231 | 961 | 275 | $\begin{array}{l\|l} \hline 46 & 5 \\ (12) & 5 \\ \hline \end{array}$ | 53  <br> $(13$  <br> $)$  | $\begin{aligned} & 54 \\ & (12 \\ & ) \end{aligned}$ | $\begin{aligned} & 53 \\ & (12 \\ & ) \end{aligned}$ | $\begin{aligned} & 1900 \\ & (56 \%) \end{aligned}$ | $\begin{aligned} & 1360 \\ & (42 \%) \end{aligned}$ | $\begin{aligned} & 481 \\ & (50 \%) \end{aligned}$ | $\begin{aligned} & 195 \\ & (71 \%) \end{aligned}$ | $\begin{aligned} & 25 \\ & (1 \%) \end{aligned}$ | $\begin{aligned} & 28 \\ & (1 \%) \end{aligned}$ | $\begin{aligned} & 14 \\ & (1 \%) \end{aligned}$ | 9 (3\%) | $\begin{aligned} & 69 \\ & (2 \%) \end{aligned}$ | $\begin{aligned} & 65 \\ & (2 \%) \end{aligned}$ | $\begin{aligned} & 25 \\ & (3 \%) \end{aligned}$ | 2 (1\%) | 1359 (40\%) | $\begin{aligned} & 951 \\ & (29 \%) \end{aligned}$ | $\begin{aligned} & 264 \\ & (27 \%) \end{aligned}$ | $\begin{aligned} & 72 \\ & (26 \%) \end{aligned}$ |
| Rancho Bernardo | 881 | 656 | 150 | 48 | 72  <br> $(12)$ 71 <br>   | 71 <br> $(11$ <br> $)$ | $\begin{array}{\|l} 69 \\ (11 \\ ) \\ \hline \end{array}$ | $\begin{aligned} & 67 \\ & (10 \\ & ) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 618 \\ & (70 \%) \end{aligned}$ | $\begin{aligned} & 323 \\ & (49 \%) \end{aligned}$ | $\begin{aligned} & 82 \\ & (55 \%) \end{aligned}$ | $\begin{aligned} & 29 \\ & (60 \%) \end{aligned}$ | 1 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 5 (1\%) | 3 (0\%) | 0 (0\%) | 0 (0\%) | 68 (8\%) | $\begin{aligned} & 36 \\ & (6 \%) \end{aligned}$ | $\begin{aligned} & 12 \\ & (8 \%) \end{aligned}$ | $\begin{aligned} & 5 \\ & (10 \%) \end{aligned}$ |
| RCAV | 659151 | 1173855 | 756831 | 428296 | $\begin{array}{\|l\|l} \hline 61 & 6 \\ (15) & 6 \\ ) \end{array}$ | 61  <br> $(14$  <br> $)$  | $\begin{array}{\|l} \hline 59 \\ (13 \\ \hline \end{array}$ | $\begin{array}{\|l} \hline 57 \\ (11 \\ ) \\ \hline \end{array}$ | $\begin{aligned} & 49457 \\ & (8 \%) \end{aligned}$ | $\begin{aligned} & 57809 \\ & (5 \%) \end{aligned}$ | $\begin{aligned} & 42946 \\ & (6 \%) \end{aligned}$ | $\begin{aligned} & 35369 \\ & (8 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 125403 \\ (19 \%) \end{array}$ | $\begin{aligned} & 185489 \\ & (16 \%) \end{aligned}$ | $\begin{aligned} & 129220 \\ & (17 \%) \end{aligned}$ | $\begin{aligned} & 76338 \\ & (18 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) |  |  |  |  |
| REGARDS | 6801 | 10644 | 6380 | 4644 | $\begin{array}{l\|l} \hline 67 \\ (10) \end{array}$ | $\begin{aligned} & 66 \\ & (9) \end{aligned}$ | $\begin{gathered} 65 \\ (9) \end{gathered}$ | $\begin{gathered} 62 \\ (8) \end{gathered}$ | $\begin{aligned} & 3784 \\ & (56 \%) \end{aligned}$ | $\begin{aligned} & 4961 \\ & (47 \%) \end{aligned}$ | $\begin{aligned} & 3534 \\ & (55 \%) \end{aligned}$ | $\begin{aligned} & 3252 \\ & (70 \%) \end{aligned}$ | $\begin{aligned} & 2031 \\ & (30 \%) \end{aligned}$ | $\begin{aligned} & 3926 \\ & (37 \%) \end{aligned}$ | $\begin{aligned} & 2989 \\ & (47 \%) \end{aligned}$ | $\begin{aligned} & 2711 \\ & (58 \%) \\ & \hline \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 1317 (19\%) | $\begin{aligned} & 1427 \\ & (13 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 784 \\ (12 \%) \end{array}$ | $\begin{aligned} & 516 \\ & (11 \%) \end{aligned}$ |


| RSIII | 981 | 1555 | 607 | 241 | $\begin{array}{l\|l} 56 \\ (7) & 5 \\ \hline \end{array}$ | $\left.\begin{array}{\|l\|l} \hline 57 \\ (6) \end{array}\right)$ | $\begin{array}{\|l} 58 \\ (7) \\ \hline \end{array}$ | $\begin{aligned} & 57 \\ & (7) \end{aligned}$ | $\begin{array}{\|l} \hline 636 \\ (65 \%) \\ \hline \end{array}$ | $\begin{aligned} & \hline 783 \\ & (50 \%) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 334 \\ (55 \%) \\ \hline \end{array}$ | $\begin{aligned} & \hline 158 \\ & (66 \%) \\ & \hline \end{aligned}$ | $\begin{array}{\|l} \hline 11 \\ (1 \%) \\ \hline \end{array}$ | $\begin{aligned} & 23 \\ & (1 \%) \\ & \hline \end{aligned}$ | $\begin{array}{\|l} 10 \\ (2 \%) \end{array}$ | 6 (2\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 308 (31\%) | $\begin{array}{\|l} \hline 405 \\ (26 \%) \end{array}$ | $\begin{array}{\|l\|} \hline 138 \\ (23 \%) \end{array}$ | $\begin{array}{\|l\|} \hline 56 \\ (23 \%) \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SEED | 3364 | 2248 | 628 | 184 | $\begin{array}{\|l\|l} \hline 59 \\ (10) & 5 \\ \hline \end{array}$ | 58 5 <br> $(9)$ $($ <br>   | $\begin{array}{\|l} \hline 57 \\ (10 \\ \hline \\ \hline \end{array}$ | $\begin{aligned} & 55 \\ & (9) \end{aligned}$ | $\begin{aligned} & 1553 \\ & (46 \%) \end{aligned}$ | $\begin{aligned} & 1025 \\ & (46 \%) \end{aligned}$ | $\begin{aligned} & \hline 392 \\ & (62 \%) \end{aligned}$ | $\begin{aligned} & 138 \\ & (75 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | $\begin{aligned} & 3364 \\ & (100 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 2248 \\ (100 \%) \end{array}$ | 628 <br> (100\% |  | 1009 (30\%) | $\begin{aligned} & 628 \\ & (28 \%) \end{aligned}$ | $\begin{aligned} & 137 \\ & (22 \%) \end{aligned}$ | $\begin{aligned} & 31 \\ & (17 \%) \end{aligned}$ |
| Taiwan MJ | 333042 | 120874 | 17370 | 2577 | $\begin{array}{l\|l} \hline 40 & 4 \\ (14) & \\ ) \end{array}$ | $\begin{array}{l\|l} \hline 46 \\ (14 & 4 \\ ) & ( \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 45 \\ (14 \\ \hline \end{array}$ | $\begin{array}{\|l} \hline 40 \\ 10 \\ 14 \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 180363 \\ (54 \%) \end{array}$ | $\begin{aligned} & 48243 \\ & (40 \%) \end{aligned}$ | $\begin{aligned} & 8386 \\ & (48 \%) \end{aligned}$ | $\begin{aligned} & \hline 1308 \\ & (51 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | $\begin{array}{\|} 333042 \\ (100 \%) \end{array}$ | $\begin{aligned} & 120874 \\ & (100 \%) \end{aligned}$ | $\begin{aligned} & 17370 \\ & (100 \% \\ & ) \end{aligned}$ | $\begin{aligned} & 2577 \\ & (100 \% \\ & \hline \end{aligned}$ | $\begin{aligned} & 59935 \\ & (22 \%) \end{aligned}$ | $\begin{aligned} & 26089 \\ & (28 \%) \end{aligned}$ | $\left\|\begin{array}{l} 3686 \\ (27 \%) \end{array}\right\|$ | $\begin{array}{\|l\|} \hline 596 \\ (29 \%) \end{array}$ |
| Takahata | 1524 | 661 | 83 | 4 | 63  <br> $(10)$ 6 | 64 <br> $(9)$ | $\begin{array}{\|l} \hline 62 \\ (11 \\ \hline \end{array}$ | $\begin{array}{\|l} \hline 58 \\ (18 \\ ) \\ \hline \end{array}$ | $\begin{aligned} & 846 \\ & (56 \%) \end{aligned}$ | $\begin{aligned} & 355 \\ & (54 \%) \end{aligned}$ | $\begin{aligned} & 63 \\ & (76 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 4 \\ (100 \%) \end{array}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | $\begin{aligned} & 1524 \\ & (100 \%) \end{aligned}$ | $\begin{aligned} & 661 \\ & (100 \%) \end{aligned}$ | $83$ |  | 284 (19\%) | $\begin{aligned} & 96 \\ & (15 \%) \end{aligned}$ | $\begin{aligned} & 9 \\ & (11 \%) \end{aligned}$ | $\left\lvert\, \begin{aligned} & 0 \\ & (0 \%) \end{aligned}\right.$ |
| TLGS | 3770 | 4138 | 1812 | 492 | 37  <br> $(16)$  <br>   | 44 46 <br> $(15$ $(1)$ <br> $)$  | $\begin{array}{\|l\|} \hline 46 \\ 13 \\ \hline \end{array}$ | $\begin{array}{\|l} \hline 47 \\ (13 \\ ) \\ \hline \end{array}$ | $\begin{aligned} & 1874 \\ & (50 \%) \end{aligned}$ | $\begin{aligned} & 2208 \\ & (53 \%) \end{aligned}$ | $\begin{aligned} & 1240 \\ & (68 \%) \end{aligned}$ | $\begin{aligned} & 396 \\ & (80 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 648 (17\%) | $\begin{aligned} & 626 \\ & (15 \%) \end{aligned}$ | $\begin{aligned} & 202 \\ & (11 \%) \end{aligned}$ | $\left\lvert\, \begin{aligned} & 41 \\ & (8 \%) \end{aligned}\right.$ |
| Tromso | 3365 | 3288 | 917 | 192 | $\begin{array}{\|l\|l} \hline 58 \\ (11) & 6 \\ \hline \end{array}$ | $\begin{aligned} & 60 \\ & (9) \end{aligned}$ | $\begin{array}{\|c} \hline 61 \\ (9) \\ \hline \end{array}$ | $\begin{aligned} & \hline 62 \\ & (9) \\ & \hline \end{aligned}$ | $\begin{aligned} & 2090 \\ & (62 \%) \\ & \hline \end{aligned}$ | $\begin{aligned} & 1616 \\ & (49 \%) \end{aligned}$ | $\begin{aligned} & \hline 591 \\ & (64 \%) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 138 \\ & (72 \%) \\ & \hline \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 1357 (40\%) | $\begin{aligned} & 933 \\ & (28 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 211 \\ (23 \%) \end{array}$ | $\begin{array}{\|l\|} \hline 26 \\ (14 \%) \\ \hline \end{array}$ |
| ULSAM | 659 | 496 | 48 | 7 | $\begin{array}{ll} \hline 50 \\ (1) & 5 \\ \hline \end{array}$ | 50 <br> $(1)$ | 50 (1) | 50 <br> $(0)$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 311 (47\%) | $\begin{array}{\|l\|} \hline 200 \\ (40 \%) \end{array}$ | $\begin{aligned} & 22 \\ & (46 \%) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 2 \\ (29 \%) \\ \hline \end{array}$ |
| Subtotal | 1837795 | 1958101 | 1055261 | 607857 | 51 57 <br> $(15)$  <br>   | $\begin{array}{l\|l} \hline 57 & 5 \\ (14 & ( \\ ) & \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 57 \\ (13 \\ ) \\ \hline \end{array}$ | $\begin{aligned} & 55 \\ & (13 \\ & ) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 705942 \\ \mathbf{( 3 8 \%}) \end{array}$ | $\begin{array}{\|l\|} \hline 415334 \\ (21 \%) \end{array}$ | $\begin{aligned} & 199411 \\ & (19 \%) \end{aligned}$ | $\begin{aligned} & 150168 \\ & (25 \%) \end{aligned}$ | $\begin{aligned} & 137038 \\ & (7 \%) \end{aligned}$ | $\begin{aligned} & 201712 \\ & (10 \%) \end{aligned}$ | $\begin{aligned} & 141229 \\ & (13 \%) \end{aligned}$ | $\begin{aligned} & 87869 \\ & (14 \%) \end{aligned}$ | $\begin{aligned} & \mathbf{7 5 7 4 6 7} \\ & \mathbf{( 4 1 \% )} \end{aligned}$ | $\begin{aligned} & \mathbf{3 1 4 5 6 6} \\ & \mathbf{( 1 6 \% )} \end{aligned}$ | $\begin{aligned} & 36442 \\ & (3 \%) \end{aligned}$ | $\begin{aligned} & \mathbf{4 3 3 0} \\ & (1 \%) \end{aligned}$ | $\begin{aligned} & 200241 \\ & (11 \%) \end{aligned}$ | $\begin{aligned} & 116930 \\ & (6 \%) \end{aligned}$ | $\begin{aligned} & 35394 \\ & (3 \%) \end{aligned}$ | $\begin{aligned} & 22490 \\ & (4 \%) \end{aligned}$ |

## High CVD Risk Cohorts

| ADVANCE | 2987 | 4538 | 2404 | 1109 | $\begin{aligned} & 66 \\ & 6 \\ & \hline \end{aligned}$ | $\begin{array}{\|l} 67 \\ (6) \\ \hline \end{array}$ | $\begin{array}{\|l} \hline 66 \\ (6) \\ \hline \end{array}$ | $\begin{array}{\|l} 65 \\ (6) \\ \hline \end{array}$ | $\begin{aligned} & 1269 \\ & (42 \%) \\ & \hline \end{aligned}$ | $\begin{array}{\|l} \hline 1729 \\ (38 \%) \end{array}$ | $\begin{aligned} & \hline 1074 \\ & (45 \%) \end{aligned}$ | $\begin{aligned} & \hline 615 \\ & (55 \%) \end{aligned}$ | 4 (0\%) | $\begin{array}{\|l\|l} \hline 17 \\ (0 \%) \end{array}$ | $\begin{array}{\|l\|l} \hline 11 \\ (0 \%) \end{array}$ | 5 (0\%) | $\begin{array}{\|l} 2069 \\ (69 \%) \\ \hline \end{array}$ | $\begin{array}{\|l} \hline 1763 \\ (39 \%) \end{array}$ | $\begin{array}{\|l\|} \hline 317 \\ (13 \%) \end{array}$ | $\begin{array}{\|l\|l} \hline 40 \\ (4 \%) \\ \hline \end{array}$ | 464 (16\%) | $\begin{array}{\|l\|} \hline 681 \\ (15 \%) \end{array}$ | $\begin{array}{\|l} \hline 324 \\ (14 \%) \end{array}$ | $\begin{aligned} & 191 \\ & (17 \%) \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| KP Hawaii | 6933 | 9336 | 6645 | 6566 | $\begin{aligned} & 66 \\ & (15) \end{aligned}$ | $\begin{aligned} & 62 \\ & (14 \\ & )^{2} \\ & \hline \end{aligned}$ | $\begin{aligned} & 58 \\ & (13 \\ & (13 \\ & \hline \end{aligned}$ | $\begin{aligned} & 53 \\ & (13 \\ & (13) \end{aligned}$ | $\begin{aligned} & 4150 \\ & (60 \%) \end{aligned}$ | $\begin{aligned} & 4326 \\ & (46 \%) \end{aligned}$ | $\begin{aligned} & \hline 3083 \\ & (46 \%) \end{aligned}$ | $\begin{aligned} & 3484 \\ & (53 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) |  |  |  |  |
| NZDCS | 4600 | 9139 | 7437 | 6549 | $\begin{aligned} & 65 \\ & (17) \end{aligned}$ | $\begin{aligned} & 64 \\ & (14 \\ & ) \end{aligned}$ | $\begin{aligned} & 61 \\ & (13 \\ & (3) \end{aligned}$ | $\begin{aligned} & 55 \\ & (13 \\ & (13 \\ & ) \end{aligned}$ | $\begin{aligned} & 2260 \\ & (49 \%) \end{aligned}$ | $\begin{aligned} & 3840 \\ & (42 \%) \end{aligned}$ | $\begin{aligned} & \hline 3494 \\ & (47 \%) \end{aligned}$ | $\begin{aligned} & 4007 \\ & (61 \%) \end{aligned}$ | $\begin{aligned} & 17 \\ & (0 \%) \end{aligned}$ | $\begin{aligned} & 24 \\ & (0 \%) \end{aligned}$ | $\begin{aligned} & 14 \\ & (0 \%) \end{aligned}$ | $\begin{aligned} & 15 \\ & (0 \%) \end{aligned}$ | $\begin{aligned} & 639 \\ & (14 \%) \end{aligned}$ | $\begin{aligned} & 761 \\ & (8 \%) \end{aligned}$ | $\begin{aligned} & 259 \\ & (3 \%) \end{aligned}$ | $\begin{aligned} & 96 \\ & (1 \%) \end{aligned}$ | 669 (15\%) | $\begin{aligned} & 1203 \\ & (13 \%) \end{aligned}$ | $\begin{aligned} & \hline 1060 \\ & (14 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 1132 \\ (17 \%) \end{array}$ |
| Pima | 550 | 1029 | 1070 | 1366 | $\begin{aligned} & 32 \\ & (17) \end{aligned}$ | $\begin{aligned} & \hline 36 \\ & (16 \\ & )^{2} \end{aligned}$ | $\begin{aligned} & 34 \\ & (14 \\ & ) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 31 \\ (12 \\ 3 \\ \hline \end{array}$ | $\begin{aligned} & 292 \\ & (53 \%) \end{aligned}$ | $\begin{aligned} & \hline 549 \\ & (53 \%) \end{aligned}$ | $\begin{aligned} & \hline 602 \\ & (56 \%) \end{aligned}$ | $\begin{aligned} & \hline 913 \\ & (67 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 114 (29\%) | $\begin{aligned} & 209 \\ & (28 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 211 \\ (30 \%) \end{array}$ | $\begin{aligned} & 219 \\ & (26 \%) \end{aligned}$ |
| SMART | 3663 | 4742 | 1556 | 524 | $\begin{aligned} & 57 \\ & (14) \end{aligned}$ | $\begin{aligned} & 59 \\ & (11 \\ & ) \end{aligned}$ | $\begin{aligned} & 57 \\ & (11 \\ & ) \end{aligned}$ | $\begin{array}{\|l} 53 \\ (12 \\ 12 \\ \hline \end{array}$ | $\begin{aligned} & 1432 \\ & (39 \%) \end{aligned}$ | $\begin{aligned} & 1230 \\ & (26 \%) \end{aligned}$ | $\begin{aligned} & 541 \\ & (35 \%) \end{aligned}$ | $\begin{aligned} & 265 \\ & (51 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 1211 (33\%) | $\begin{aligned} & 1272 \\ & (27 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 411 \\ (27 \%) \end{array}$ | $\begin{aligned} & 146 \\ & (28 \%) \end{aligned}$ |
| ZODIAC | 316 | 711 | 447 | 200 | $\begin{aligned} & 71 \\ & (12) \end{aligned}$ | $\begin{array}{\|l} \hline 67 \\ (12 \\ ) \\ \hline \end{array}$ | $\begin{aligned} & 66 \\ & (11 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 64 \\ & (12 \\ & \mathbf{n}^{2} \\ & \hline \end{aligned}$ | $\begin{aligned} & 150 \\ & (47 \%) \end{aligned}$ | $\begin{aligned} & 347 \\ & (49 \%) \end{aligned}$ | $\begin{aligned} & 282 \\ & (63 \%) \end{aligned}$ | $\begin{aligned} & 152 \\ & (76 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 71 (23\%) | $\begin{aligned} & 143 \\ & (20 \%) \end{aligned}$ | $\begin{aligned} & 77 \\ & (17 \%) \end{aligned}$ | $\begin{aligned} & 26 \\ & (13 \%) \end{aligned}$ |
| Subtotal | 19049 | 29495 | 19559 | 16314 | $\begin{aligned} & 63 \\ & (14) \end{aligned}$ | $\begin{aligned} & \hline \mathbf{6 2} \\ & (13 \\ & ) \end{aligned}$ | $\begin{aligned} & \mathbf{5 9} \\ & (12 \\ & ) \end{aligned}$ | $\begin{array}{\|l} 53 \\ (12 \\ ) \\ \hline \end{array}$ | $\begin{array}{\|l\|l\|} \hline 9553 \\ \mathbf{( 5 0 \%}) \end{array}$ | $\begin{aligned} & 12021 \\ & (41 \%) \end{aligned}$ | $\begin{aligned} & \hline 9076 \\ & (46 \%) \end{aligned}$ | $\begin{aligned} & \hline 9436 \\ & (58 \%) \end{aligned}$ | $\begin{aligned} & 21 \\ & (0 \%) \end{aligned}$ | $\begin{aligned} & \hline \mathbf{4 1} \\ & (0 \%) \end{aligned}$ | $\begin{aligned} & 25 \\ & (0 \%) \end{aligned}$ | $\begin{aligned} & \mathbf{2 0} \\ & (0 \%) \end{aligned}$ | $\begin{aligned} & 2708 \\ & (14 \%) \end{aligned}$ | $\begin{aligned} & 2524 \\ & (9 \%) \end{aligned}$ | $\begin{aligned} & \mathbf{5 7 6} \\ & (3 \%) \end{aligned}$ | $\begin{aligned} & 136 \\ & (1 \%) \end{aligned}$ | $\begin{aligned} & 2529 \\ & (13 \%) \end{aligned}$ | $\begin{aligned} & \mathbf{3 5 0 8} \\ & \mathbf{( 1 2 \% )} \end{aligned}$ | $\begin{aligned} & 2083 \\ & (11 \% \\ & ) \end{aligned}$ | $\begin{aligned} & 1714 \\ & (11 \% \\ & ) \end{aligned}$ |

CKD Cohorts

| AASK | 215 | 362 | 265 | 245 | $\begin{aligned} & 56 \\ & (11) \end{aligned}$ | 55 <br> $(11$ <br> $)$ | 55 <br> 10 <br> 10 | $\begin{aligned} & 52 \\ & (11 \\ & ) \end{aligned}$ | $\begin{aligned} & 87 \\ & (40 \%) \end{aligned}$ | $\begin{aligned} & 117 \\ & (32 \%) \end{aligned}$ | $\begin{aligned} & 95 \\ & (36 \%) \end{aligned}$ | $\begin{aligned} & 123 \\ & (50 \%) \end{aligned}$ | $\left\|\begin{array}{l} 215 \\ (100 \%) \end{array}\right\|$ | $\left\lvert\, \begin{aligned} & 362 \\ & (100 \%) \end{aligned}\right.$ | 265 <br> (100\%) | 245 <br> (100\% | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 100 (47\%) | $\begin{aligned} & 99 \\ & (27 \%) \end{aligned}$ | $\begin{array}{\|l} 73 \\ (28 \%) \end{array}$ | $\begin{aligned} & 46 \\ & (19 \%) \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| BC CKD | 2182 | 2796 | 1605 | 1063 | $\begin{aligned} & 68 \\ & (16) \end{aligned}$ | $\begin{aligned} & \hline 69 \\ & 13 \\ & ) \end{aligned}$ | $\begin{aligned} & 68 \\ & (12 \end{aligned}$ | $\begin{aligned} & 65 \\ & (11 \\ & (1) \end{aligned}$ | $\begin{aligned} & 1020 \\ & (47 \%) \end{aligned}$ | $\begin{aligned} & 1115 \\ & (40 \%) \end{aligned}$ | $\begin{aligned} & 686 \\ & (43 \%) \end{aligned}$ | $\begin{aligned} & \hline 588 \\ & (55 \%) \end{aligned}$ | $\begin{aligned} & 12 \\ & (1 \%) \end{aligned}$ | $\begin{aligned} & 15 \\ & (1 \%) \end{aligned}$ | $\begin{aligned} & 13 \\ & (1 \%) \end{aligned}$ | 5 (0\%) | $\begin{aligned} & 709 \\ & (32 \%) \end{aligned}$ | $\begin{aligned} & \hline 634 \\ & (23 \%) \end{aligned}$ | $\begin{aligned} & 252 \\ & (16 \%) \end{aligned}$ | $\begin{aligned} & 81 \\ & (8 \%) \end{aligned}$ | 117 (12\%) | $\begin{aligned} & 157 \\ & (12 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 94 \\ (12 \%) \end{array}$ | $\begin{aligned} & 52 \\ & (10 \%) \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CanPREDDICT | 344 | 569 | 390 | 340 | $\begin{aligned} & 67 \\ & (15) \end{aligned}$ | $\begin{aligned} & 71 \\ & (12 \\ & ) \end{aligned}$ | $\begin{aligned} & 69 \\ & (12 \end{aligned}$ | $\begin{aligned} & 66 \\ & (11 \end{aligned}$ | $\begin{aligned} & 147 \\ & (43 \%) \end{aligned}$ | $\begin{aligned} & 156 \\ & (27 \%) \end{aligned}$ | $\begin{aligned} & 137 \\ & (35 \%) \end{aligned}$ | $\begin{aligned} & 157 \\ & (46 \%) \end{aligned}$ | 3 (1\%) | $\begin{aligned} & 12 \\ & (2 \%) \end{aligned}$ | $\begin{aligned} & 11 \\ & (3 \%) \end{aligned}$ | 1 (0\%) | $\begin{aligned} & 17 \\ & (5 \%) \end{aligned}$ | $\begin{aligned} & 10 \\ & (2 \%) \end{aligned}$ | 5 (1\%) | 2 (1\%) |  |  |  |  |
| CARE FOR HOMe | 68 | 164 | 161 | 69 | $\begin{aligned} & 63 \\ & (15) \end{aligned}$ | $\begin{aligned} & \hline 66 \\ & (12 \\ & ) \\ & \hline \end{aligned}$ | $\begin{array}{\|l} \hline 67 \\ (12 \\ \hline \end{array}$ | $\begin{aligned} & 62 \\ & (11 \\ & ) \\ & \hline \end{aligned}$ | $\begin{aligned} & 32 \\ & (47 \%) \end{aligned}$ | $\begin{aligned} & \hline 59 \\ & (36 \%) \end{aligned}$ | $\begin{aligned} & 65 \\ & (40 \%) \end{aligned}$ | $\begin{aligned} & 32 \\ & (46 \%) \end{aligned}$ | 1 (1\%) | 0 (0\%) | 1 (1\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 6 (9\%) | $\begin{aligned} & \hline 19 \\ & (12 \%) \end{aligned}$ | $\begin{aligned} & 14 \\ & (9 \%) \end{aligned}$ | $\begin{aligned} & 8 \\ & (12 \%) \end{aligned}$ |
| CCF | 8858 | 13366 | 7971 | 5823 | $\begin{aligned} & 75 \\ & (13) \end{aligned}$ | $\begin{array}{\|l} \hline 73 \\ (11 \\ ) \\ \hline \end{array}$ | $\begin{aligned} & 71 \\ & (11 \\ & \hline \end{aligned}$ | $\begin{aligned} & 67 \\ & (11 \\ & ) \end{aligned}$ | $\begin{aligned} & 5221 \\ & (59 \%) \end{aligned}$ | $\begin{aligned} & 6284 \\ & (47 \%) \end{aligned}$ | $\begin{aligned} & 4109 \\ & (52 \%) \end{aligned}$ | $\begin{aligned} & 3822 \\ & (66 \%) \end{aligned}$ | $\begin{aligned} & 879 \\ & (10 \%) \end{aligned}$ | $\begin{aligned} & 1388 \\ & (10 \%) \end{aligned}$ | $\begin{aligned} & 1021 \\ & (13 \%) \end{aligned}$ | $\begin{aligned} & 1003 \\ & (17 \%) \end{aligned}$ | $\begin{aligned} & 74 \\ & (1 \%) \end{aligned}$ | $\begin{aligned} & \hline 54 \\ & (0 \%) \end{aligned}$ | $\begin{aligned} & 14 \\ & (0 \%) \end{aligned}$ | 8 (0\%) | 799 (9\%) | $\begin{aligned} & 954 \\ & (7 \%) \end{aligned}$ | $\begin{aligned} & 569 \\ & (7 \%) \end{aligned}$ | $\begin{aligned} & 401 \\ & (7 \%) \end{aligned}$ |
| CKD-JAC | 1643 | 685 | 131 | 19 | $\begin{aligned} & 61 \\ & (11) \end{aligned}$ | $\begin{aligned} & 61 \\ & (11 \\ & \\ & \hline \end{aligned}$ | $\begin{aligned} & 56 \\ & 13 \\ & \hline \end{aligned}$ | $\begin{aligned} & 53 \\ & (12 \\ & ) \\ & \hline \end{aligned}$ | $\begin{aligned} & 600 \\ & (37 \%) \end{aligned}$ | $\begin{aligned} & 211 \\ & (31 \%) \end{aligned}$ | $\begin{aligned} & 45 \\ & (34 \%) \end{aligned}$ | $\begin{aligned} & 9 \\ & (47 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | $\begin{aligned} & 1643 \\ & (100 \%) \end{aligned}$ | $\begin{aligned} & 685 \\ & (100 \%) \end{aligned}$ | $\begin{aligned} & 131 \\ & (100 \% \\ & \hline \end{aligned}$ | $\begin{aligned} & 19 \\ & (100 \% \\ & \hline \end{aligned}$ | 224 (16\%) | $\begin{aligned} & 104 \\ & (18 \%) \end{aligned}$ | $\begin{aligned} & 25 \\ & (22 \%) \end{aligned}$ | $\begin{aligned} & 4 \\ & (27 \%) \end{aligned}$ |
| CRIB | 134 | 159 | 54 | 22 | $\begin{aligned} & 61 \\ & (16) \end{aligned}$ | $\begin{aligned} & \hline 63 \\ & (13 \\ & 13 \end{aligned}$ | $\begin{aligned} & 61 \\ & (12 \\ & 12 \end{aligned}$ | $\begin{aligned} & 56 \\ & (11 \\ & ) \end{aligned}$ | $\begin{aligned} & 57 \\ & (43 \%) \end{aligned}$ | $\begin{aligned} & \hline 46 \\ & (29 \%) \end{aligned}$ | $\begin{aligned} & 14 \\ & (26 \%) \end{aligned}$ | $\begin{aligned} & 11 \\ & (50 \%) \end{aligned}$ | 6 (4\%) | 8 (5\%) | 4 (7\%) | $\begin{aligned} & 4 \\ & (18 \%) \end{aligned}$ | 6 (4\%) | $\begin{aligned} & \hline 13 \\ & (8 \%) \end{aligned}$ | 3 (6\%) | 2 (9\%) | 24 (18\%) | $\begin{aligned} & 17 \\ & (11 \%) \end{aligned}$ | $\begin{aligned} & 5 \\ & (9 \%) \end{aligned}$ | $\begin{aligned} & 0 \\ & (0 \%) \end{aligned}$ |
| GCKD | 1015 | 1876 | 1252 | 907 | $\begin{aligned} & 55 \\ & (14) \end{aligned}$ | $\begin{aligned} & 62 \\ & (11 \\ & \hline \end{aligned}$ | $\begin{array}{\|l} \hline 62 \\ 111 \\ \hline \end{array}$ | $\begin{aligned} & 62 \\ & (10 \\ & ) \\ & \hline \end{aligned}$ | $\begin{aligned} & 518 \\ & (51 \%) \end{aligned}$ | $\begin{aligned} & 607 \\ & (32 \%) \end{aligned}$ | $\begin{aligned} & 460 \\ & (37 \%) \end{aligned}$ | $\begin{aligned} & 418 \\ & (46 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 241 (24\%) | $\begin{array}{\|l} 266 \\ (14 \%) \end{array}$ | $\begin{aligned} & 184 \\ & (15 \%) \end{aligned}$ | $\begin{aligned} & 112 \\ & (12 \%) \end{aligned}$ |
| Gonryo | 2236 | 931 | 153 | 32 | $\begin{aligned} & 62 \\ & (15) \end{aligned}$ | $\begin{aligned} & 63 \\ & (13 \\ & ) \end{aligned}$ | $\begin{aligned} & 57 \\ & (15 \end{aligned}$ | $\begin{array}{\|l\|} \hline 50 \\ (16 \\ ) \\ \hline \end{array}$ | $\begin{aligned} & 1055 \\ & (47 \%) \end{aligned}$ | $\begin{aligned} & \hline 412 \\ & (44 \%) \end{aligned}$ | $\begin{aligned} & \hline 82 \\ & (54 \%) \end{aligned}$ | $\begin{aligned} & 25 \\ & (78 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | $\begin{array}{\|l\|} \hline 2236 \\ (100 \%) \end{array}$ | $\begin{array}{\|l\|} \hline 931 \\ (100 \%) \end{array}$ | $\begin{aligned} & 153 \\ & (100 \% \end{aligned}$ | $\begin{aligned} & 32 \\ & (100 \% \\ & \hline \end{aligned}$ |  |  |  |  |
| MASTERPLA N | 203 | 314 | 112 | 42 | $\begin{aligned} & \mathrm{57} \\ & (14) \end{aligned}$ | $\begin{aligned} & 62 \\ & (11 \\ & \\ & \hline \end{aligned}$ | $\begin{aligned} & 63 \\ & 111 \\ & \hline \end{aligned}$ | $\begin{aligned} & 59 \\ & (11 \\ & ) \end{aligned}$ | $\begin{aligned} & 75 \\ & (37 \%) \end{aligned}$ | $\begin{aligned} & 71 \\ & (23 \%) \end{aligned}$ | $\begin{aligned} & 33 \\ & (29 \%) \end{aligned}$ | $\begin{aligned} & 25 \\ & (60 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 65 (33\%) | $\begin{aligned} & 50 \\ & (16 \%) \end{aligned}$ | $\begin{aligned} & 18 \\ & (16 \%) \end{aligned}$ | $\begin{aligned} & 6 \\ & (15 \%) \end{aligned}$ |
| MDRD | 614 | 711 | 329 | 117 | $\begin{aligned} & 47 \\ & (14) \end{aligned}$ | $\begin{aligned} & \hline 53 \\ & (12 \\ & \hline \end{aligned}$ | $\begin{aligned} & 53 \\ & (12 \\ & \hline \end{aligned}$ | $\begin{aligned} & 50 \\ & (12 \\ & ) \end{aligned}$ | $\begin{aligned} & 301 \\ & (49 \%) \end{aligned}$ | $\begin{aligned} & 223 \\ & (31 \%) \end{aligned}$ | $\begin{aligned} & 108 \\ & (33 \%) \end{aligned}$ | $\begin{aligned} & \hline 61 \\ & (52 \%) \end{aligned}$ | $\begin{aligned} & \hline \left.\begin{array}{l} 54 \\ (9 \%) \end{array} \right\rvert\, \end{aligned}$ | $\begin{aligned} & 84 \\ & (12 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 52 \\ (16 \%) \end{array}$ | $\begin{aligned} & 34 \\ & (29 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 85 (14\%) | $\begin{aligned} & 82 \\ & (12 \%) \end{aligned}$ | $\begin{aligned} & 28 \\ & (9 \%) \end{aligned}$ | $\begin{aligned} & 15 \\ & (13 \%) \end{aligned}$ |
| MMKD | 107 | 72 | 14 | 5 | $\begin{aligned} & 44 \\ & (13) \\ & \hline \end{aligned}$ | $\begin{array}{\|l} \hline 51 \\ (10 \\ ) \\ \hline \end{array}$ | $\begin{array}{\|l} 54 \\ (11 \\ \hline \end{array}$ | $\begin{aligned} & 52 \\ & (6) \end{aligned}$ | $\begin{aligned} & 50 \\ & (47 \%) \end{aligned}$ | $\begin{aligned} & 11 \\ & (15 \%) \end{aligned}$ | $\begin{aligned} & 4 \\ & (29 \%) \end{aligned}$ | $\begin{aligned} & 2 \\ & (40 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 29 (27\%) | $\begin{aligned} & 11 \\ & (15 \%) \end{aligned}$ | $\begin{aligned} & 1 \\ & (7 \%) \end{aligned}$ | $\begin{aligned} & 1 \\ & (20 \%) \end{aligned}$ |
| Nefrona | 358 | 726 | 465 | 202 | $\begin{array}{\|l\|} \hline 53 \\ (14) \\ \hline \end{array}$ | $\begin{array}{\|l} \hline 61 \\ (11 \\ \hline \end{array}$ | $\begin{array}{\|l} \hline 62 \\ (10 \\ \hline \end{array}$ | $\begin{aligned} & 62 \\ & (10 \\ & ) \\ & \hline \end{aligned}$ | $\begin{aligned} & 162 \\ & (45 \%) \end{aligned}$ | $\begin{aligned} & 214 \\ & (29 \%) \end{aligned}$ | $\begin{aligned} & 164 \\ & (35 \%) \end{aligned}$ | $\begin{aligned} & 115 \\ & (57 \%) \end{aligned}$ | 1 (0\%) | 0 (0\%) | 2 (0\%) | 1 (0\%) | 3 (1\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 98 (27\%) | $\begin{aligned} & 136 \\ & (19 \%) \end{aligned}$ | $\begin{aligned} & 75 \\ & (16 \%) \end{aligned}$ | $\begin{aligned} & 35 \\ & (17 \%) \end{aligned}$ |
| NephroTest | 751 | 722 | 302 | 116 | $\begin{aligned} & 55 \\ & (16) \end{aligned}$ | $\begin{aligned} & \hline 61 \\ & (14 \\ & ) \\ & \hline \end{aligned}$ | $\begin{array}{\|l} \hline 62 \\ (13 \\ \hline \end{array}$ | $\begin{aligned} & 60 \\ & (12 \\ & ) \\ & \hline \end{aligned}$ | $\begin{array}{\|l} \hline 293 \\ (39 \%) \end{array}$ | $\begin{aligned} & 174 \\ & (24 \%) \end{aligned}$ | $\begin{aligned} & 97 \\ & (32 \%) \end{aligned}$ | $\begin{aligned} & 46 \\ & (40 \%) \end{aligned}$ | $\begin{aligned} & 94 \\ & (13 \%) \end{aligned}$ | $\begin{aligned} & 105 \\ & (15 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 32 \\ (11 \%) \end{array}$ | $\begin{aligned} & 13 \\ & (11 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 126 (17\%) | $\begin{aligned} & 84 \\ & (12 \%) \end{aligned}$ | $\begin{aligned} & 40 \\ & (13 \%) \end{aligned}$ | $\begin{aligned} & 12 \\ & (10 \%) \end{aligned}$ |
| PSP-CKD | 5731 | 7636 | 4492 | 2570 | $\begin{array}{\|l\|} \hline 78 \\ (11) \end{array}$ | $\begin{array}{\|l} \hline 75 \\ 10 \\ 10 \\ \hline \end{array}$ | $\begin{array}{\|l} \hline 72 \\ 10 \\ \hline \end{array}$ | $\begin{aligned} & 69 \\ & (10 \\ & ) \\ & \hline \end{aligned}$ | $\begin{aligned} & 3655 \\ & (64 \%) \end{aligned}$ | $\begin{aligned} & 4153 \\ & (54 \%) \end{aligned}$ | $\begin{aligned} & 2600 \\ & (58 \%) \end{aligned}$ | $\begin{aligned} & 1809 \\ & (70 \%) \end{aligned}$ | $\begin{aligned} & 43 \\ & (1 \%) \end{aligned}$ | $\begin{aligned} & 80 \\ & (1 \%) \end{aligned}$ | $\begin{aligned} & 56 \\ & (1 \%) \end{aligned}$ | $\begin{aligned} & 28 \\ & (1 \%) \end{aligned}$ | $\begin{aligned} & 62 \\ & (1 \%) \end{aligned}$ | $\begin{aligned} & 105 \\ & (1 \%) \end{aligned}$ | $\begin{aligned} & 45 \\ & (1 \%) \end{aligned}$ | $\begin{aligned} & 16 \\ & (1 \%) \end{aligned}$ | 711 (19\%) | $\begin{aligned} & 690 \\ & (14 \%) \end{aligned}$ | $\begin{aligned} & 360 \\ & (13 \%) \end{aligned}$ | $\begin{aligned} & 208 \\ & (12 \%) \end{aligned}$ |
| RENAAL | 333 | 530 | 329 | 276 | $\begin{array}{\|l\|} \hline 60 \\ (8) \\ \hline \end{array}$ | $\begin{aligned} & 61 \\ & (7) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 61 \\ (7) \\ \hline \end{array}$ | $\begin{aligned} & 57 \\ & (8) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 103 \\ (31 \%) \\ \hline \end{array}$ | $\begin{aligned} & \hline 158 \\ & (30 \%) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 125 \\ & (38 \%) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 155 \\ & (56 \%) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 27 \\ (8 \%) \\ \hline \end{array}$ | $\begin{array}{\|l} \hline 71 \\ (13 \%) \end{array}$ | $\begin{array}{\|l\|} \hline 60 \\ (18 \%) \\ \hline \end{array}$ | $\begin{array}{\|l} \hline 66 \\ (24 \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 127 \\ (38 \%) \\ \hline \end{array}$ | $\begin{aligned} & \hline 88 \\ & (17 \%) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 16 \\ (5 \%) \\ \hline \end{array}$ | 6 (2\%) | 96 (29\%) | $\begin{array}{\|l\|} \hline 79 \\ (15 \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 51 \\ (16 \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 37 \\ (13 \%) \\ \hline \end{array}$ |
| SRR-CKD | 802 | 965 | 464 | 232 | $\begin{array}{\|l} \hline 67 \\ (17) \end{array}$ | $\begin{aligned} & 69 \\ & (14 \\ & ) \\ & \hline \end{aligned}$ | $\begin{aligned} & 68 \\ & (14 \\ & \hline \end{aligned}$ | $\begin{aligned} & 65 \\ & (12 \\ & ) \end{aligned}$ | $\begin{aligned} & 304 \\ & (38 \%) \end{aligned}$ | $\begin{aligned} & 251 \\ & (26 \%) \end{aligned}$ | $\begin{aligned} & 141 \\ & (30 \%) \end{aligned}$ | $\begin{aligned} & 104 \\ & (45 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) |  |  |  |  |


| Sunnybrook | 908 | 1070 | 572 | 310 | $\begin{array}{\|l} \hline 63 \\ (20) \end{array}$ | $\begin{aligned} & 65 \\ & (16 \\ & y^{6} \end{aligned}$ | $\mathfrak{l} \left\lvert\, \begin{aligned} & 64 \\ & 15 \end{aligned}\right.$ | $\begin{aligned} & \left.\begin{array}{l} 59 \\ (15 \\ ) \end{array}\right) \end{aligned}$ | $\begin{aligned} & 451 \\ & (50 \%) \end{aligned}$ | $\begin{aligned} & 400 \\ & (37 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 218 \\ (38 \%) \end{array}$ | $\begin{aligned} & 159 \\ & (51 \%) \end{aligned}$ | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 90 (10\%) | $\begin{array}{\|l} \hline 85 \\ (8 \%) \end{array}$ | $\begin{aligned} & 51 \\ & (9 \%) \end{aligned}$ | $\begin{aligned} & 28 \\ & (9 \%) \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Subtotal | 26502 | 33654 | 19061 | 12390 | $\begin{aligned} & 69 \\ & (13) \end{aligned}$ | $\begin{aligned} & \mathbf{7 0} \\ & \mathbf{1 1 1} \\ & y^{2} \end{aligned}$ | $\begin{aligned} & 69 \\ & \mathbf{1 1 1} \\ & ) \end{aligned}$ | $\begin{aligned} & \mathbf{6 6} \\ & (11 \\ & { }^{2} \end{aligned}$ | $\begin{aligned} & 14131 \\ & (53 \%) \end{aligned}$ | $\begin{aligned} & 14662 \\ & (\mathbf{4 4 \%}) \end{aligned}$ | $\begin{aligned} & 9183 \\ & (48 \%) \end{aligned}$ | $\begin{aligned} & 7661 \\ & (62 \%) \end{aligned}$ | $\begin{aligned} & \mathbf{1 3 3 5} \\ & (\mathbf{5 \%}) \end{aligned}$ | $\begin{aligned} & 2125 \\ & (6 \%) \end{aligned}$ | $\begin{aligned} & 1517 \\ & (8 \%) \end{aligned}$ | $\begin{aligned} & 1400 \\ & (11 \%) \end{aligned}$ | $\begin{aligned} & 4877 \\ & (18 \%) \end{aligned}$ | $\begin{aligned} & 2520 \\ & (7 \%) \end{aligned}$ | $\begin{aligned} & \mathbf{6 1 9} \\ & (3 \%) \end{aligned}$ | $\begin{aligned} & 166 \\ & (1 \%) \end{aligned}$ | $\begin{aligned} & 2811 \\ & (11 \%) \end{aligned}$ | $\begin{aligned} & 2833 \\ & (8 \%) \end{aligned}$ | $\begin{aligned} & 1588 \\ & (8 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 965 \\ (8 \%) \end{array}$ |
| Total | 1883346 | 2021250 | 1093881 | 636561 | $151$ | $\begin{aligned} & 57 \\ & 14 \\ & 14 \\ & \hline \end{aligned}$ | $\begin{aligned} & 57 \\ & (13 \\ & 9 \end{aligned}$ | $\begin{aligned} & 55 \\ & (13 \\ & ) \end{aligned}$ | $\begin{aligned} & 729626 \\ & (39 \%) \end{aligned}$ | $\begin{aligned} & 442017 \\ & (22 \%) \end{aligned}$ | $\begin{aligned} & 7217670 \\ & (20 \%) \end{aligned}$ | $\begin{aligned} & 167265 \\ & (26 \%) \end{aligned}$ | $\begin{aligned} & 138394 \\ & (7 \%) \end{aligned}$ | $203878$ | $\begin{aligned} & 142771 \\ & (13 \%) \end{aligned}$ | $\begin{aligned} & 89289 \\ & (14 \%) \end{aligned}$ | $\begin{aligned} & 765052 \\ & (41 \%) \end{aligned}$ | $\begin{aligned} & 2319610 \\ & (16 \%) \end{aligned}$ | $\begin{aligned} & 37637 \\ & (\mathbf{3 \%}) \end{aligned}$ | $\begin{array}{\|l\|} \hline \mathbf{4 6 3 2} \\ (1 \%) \end{array}$ | $\begin{aligned} & 205581 \\ & (11 \%) \end{aligned}$ | $\begin{aligned} & 123271 \\ & (6 \%) \end{aligned}$ | $\begin{aligned} & 39065 \\ & (4 \%) \end{aligned}$ | $\begin{aligned} & 25169 \\ & (4 \%) \end{aligned}$ |

eTable 4. Baseline Characteristics by BMI Category - Cardiovascular Disease and Chronic Kidney Disease Risk Factors

|  | SBP |  |  |  | Diabetes |  |  |  | History of CVD |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 18.5-<25 | 25-<30 | 30-<35 | $\geq 35$ | 18.5-<25 | 25-<30 | 30-<35 | $\geq 35$ | 18.5-<25 | 25-<30 | 30-<35 | $\geq 35$ |
| General Population |  |  |  |  |  |  |  |  |  |  |  |  |
| Aichi | 125 (15) | 132 (15) | 139 (15) | 136 (18) | 295 (8\%) | 121 (12\%) | 10 (18\%) | 3 (50\%) | 34 (1\%) | 9 (1\%) | 1 (2\%) | 0 (0\%) |
| ARIC | 116 (19) | 121 (18) | 125 (18) | 130 (19) | 246 (5\%) | 640 (10\%) | 545 (19\%) | 400 (28\%) | 457 (9\%) | 756 (12\%) | 429 (15\%) | 273 (19\%) |
| AusDiab | 124 (18) | 132 (18) | 135 (18) | 136 (18) | 175 (4\%) | 333 (8\%) | 249 (14\%) | 161 (22\%) | 251 (6\%) | 423 (10\%) | 182 (11\%) | 64 (9\%) |
| Beaver Dam CKD | 128 (21) | 132 (20) | 136 (20) | 139 (19) | 57 (4\%) | 139 (7\%) | 108 (11\%) | 89 (19\%) | 130 (10\%) | 214 (11\%) | 104 (10\%) | 42 (9\%) |
| Beijing | 123 (18) | 127 (18) | 131 (19) | 144 (24) | 179 (26\%) | 200 (32\%) | 36 (29\%) | 3 (38\%) | 113 (16\%) | 131 (20\%) | 31 (24\%) | 3 (38\%) |
| ChinaNS | 123 (19) | 134 (20) | 142 (21) | 140 (22) | 1644 (6\%) | 1487 (11\%) | 318 (14\%) | 49 (17\%) | 589 (2\%) | 458 (4\%) | 107 (5\%) | 12 (5\%) |
| CHS | 135 (22) | 136 (21) | 138 (20) | 142 (22) | 162 (10\%) | 290 (15\%) | 181 (26\%) | 91 (34\%) | 447 (27\%) | 500 (26\%) | 193 (27\%) | 79 (29\%) |
| CIRCS | 130 (18) | 136 (18) | 140 (18) | 139 (18) | 202 (2\%) | 114 (4\%) | 15 (5\%) | 2 (9\%) | 97 (1\%) | 42 (1\%) | 9 (3\%) | 1 (5\%) |
| COBRA | 154 (24) | 153 (24) | 148 (24) | 140 (22) | 79 (18\%) | 93 (22\%) | 35 (18\%) | 22 (21\%) | 75 (17\%) | 76 (18\%) | 34 (18\%) | 17 (17\%) |
| ESTHER | 134 (19) | 140 (19) | 145 (19) | 148 (21) | 278 (11\%) | 843 (18\%) | 539 (28\%) | 216 (37\%) | 357 (14\%) | 800 (17\%) | 439 (23\%) | 137 (24\%) |
| Framingham | 124 (19) | 129 (19) | 132 (17) | 132 (18) | 27 (3\%) | 78 (6\%) | 73 (13\%) | 55 (22\%) | 69 (8\%) | 138 (11\%) | 75 (13\%) | 32 (13\%) |
| Geisinger | 119 (18) | 126 (18) | 129 (18) | 131 (18) | 3988 (4\%) | 9635 (8\%) | 11225 (12\%) | $\begin{aligned} & 16884 \\ & (19 \%) \end{aligned}$ | 5221 (6\%) | 8166 (7\%) | 6128 (7\%) | 5639 (6\%) |
| Gubbio | 125 (18) | 130 (18) | 134 (18) | 138 (17) | 8 (2\%) | 35 (4\%) | 36 (9\%) | 11 (11\%) | 14 (3\%) | 43 (5\%) | 27 (7\%) | 14 (15\%) |
| HUNT | 131 (20) | 140 (21) | 146 (22) | 147 (23) | 436 (2\%) | 876 (3\%) | 546 (6\%) | 239 (11\%) | 1395 (5\%) | 2442 (9\%) | 938 (11\%) | 209 (10\%) |
| IPHS | 132 (18) | 138 (17) | 142 (17) | 144 (18) | 1661 (3\%) | 890 (3\%) | 110 (4\%) | 13 (7\%) | 2686 (4\%) | 1457 (6\%) | 187 (7\%) | 9 (5\%) |
| JHS | 124 (18) | 125 (17) | 126 (16) | 127 (16) | 29 (6\%) | 131 (12\%) | 185 (20\%) | 269 (28\%) | 33 (7\%) | 84 (8\%) | 83 (9\%) | 82 (8\%) |
| JMS | 125 (19) | 133 (18) | 137 (20) | 139 (15) | 2073 (55\%) | 595 (56\%) | 58 (58\%) | 1 (25\%) | 32 (1\%) | 13 (1\%) | 5 (5\%) | 0 (0\%) |
| KHS | 119 (17) | 127 (18) | 133 (19) | 139 (20) | 12778 (5\%) | 9228 (9\%) | 1017 (13\%) | 99 (19\%) | 3525 (2\%) | 2003 (2\%) | 181 (2\%) | 17 (3\%) |
| Maccabi | 117 (16) | 126 (17) | 131 (18) | 134 (19) | 11178 (5\%) | 29439 (12\%) | 23811 (19\%) | $\begin{aligned} & 15485 \\ & (26 \%) \end{aligned}$ | 18305 (8\%) | $\begin{aligned} & 31782 \\ & (13 \%) \end{aligned}$ | $\begin{aligned} & 17986 \\ & (15 \%) \end{aligned}$ | 8242 (14\%) |
| MESA | 122 (22) | 127 (21) | 129 (21) | 132 (21) | 131 (7\%) | 301 (11\%) | 246 (17\%) | 173 (23\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) |
| MRC | 148 (23) | 149 (22) | 151 (22) | 153 (22) | 295 (6\%) | 406 (8\%) | 186 (11\%) | 60 (15\%) | 842 (17\%) | 868 (17\%) | 267 (17\%) | 76 (19\%) |
| Mt Sinai BioMe | 120 (19) | 127 (19) | 130 (19) | 132 (20) | 826 (12\%) | 1302 (17\%) | 1083 (24\%) | 1154 (29\%) | 556 (8\%) | 771 (10\%) | 584 (13\%) | 533 (13\%) |
| NHANES | 119 (19) | 125 (19) | 126 (18) | 127 (18) | 1070 (5\%) | 2300 (12\%) | 1901 (17\%) | 1880 (25\%) | 1287 (7\%) | 1871 (10\%) | 1137 (11\%) | 831 (12\%) |
| $\begin{array}{\|l} \hline \text { NIPPON } \\ \text { DATA80 } \\ \hline \end{array}$ | 135 (21) | 142 (21) | 147 (23) | 143 (21) | 182 (3\%) | 77 (4\%) | 12 (7\%) | 0 (0\%) | 188 (3\%) | 43 (2\%) | 5 (3\%) | 0 (0\%) |


| $\begin{array}{\|l\|} \hline \text { NIPPON } \\ \text { DATA90 } \\ \hline \end{array}$ | 134 (21) | 141 (19) | 148 (22) | 157 (22) | 263 (5\%) | 96 (6\%) | 11 (7\%) | 0 (0\%) | 226 (4\%) | 84 (5\%) | 8 (5\%) | 1 (5\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ohasama | 129 (18) | 133 (16) | 129 (14) | 143 (22) | 134 (12\%) | 60 (13\%) | 2 (5\%) | 3 (38\%) | 61 (6\%) | 32 (7\%) | 1 (3\%) | 1 (13\%) |
| Okinawa 83 | 129 (20) | 137 (20) | 145 (21) | 151 (21) | 69 (3\%) | 47 (5\%) | 16 (13\%) | 1 (9\%) |  |  |  |  |
| Okinawa 93 | 125 (17) | 131 (17) | 135 (17) | 138 (17) | 1326 (3\%) | 1216 (6\%) | 281 (10\%) | 49 (17\%) |  |  |  |  |
| PREVEND | 121 (17) | 133 (20) | 139 (20) | 139 (20) | 171 (5\%) | 251 (8\%) | 107 (11\%) | 30 (11\%) | 102 (3\%) | 233 (7\%) | 61 (6\%) | 21 (8\%) |
| Rancho Bernardo | 136 (24) | 136 (21) | 136 (18) | 140 (20) | 94 (11\%) | 101 (15\%) | 30 (20\%) | 19 (40\%) | 131 (15\%) | 98 (15\%) | 16 (11\%) | 6 (13\%) |
| RCAV | 130 (19) | 133 (17) | 135 (17) | 137 (17) | $\begin{aligned} & 88755 \\ & (13 \%) \end{aligned}$ | $\begin{aligned} & 245887 \\ & (21 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 232922 \\ (31 \%) \end{array}$ | $\begin{array}{\|l\|} \hline 189250 \\ (44 \%) \end{array}$ | $\begin{aligned} & 120182 \\ & (18 \%) \end{aligned}$ | $\begin{array}{\|l} \hline 215009 \\ (18 \%) \end{array}$ | $\begin{aligned} & 143343 \\ & (19 \%) \end{aligned}$ | $\begin{aligned} & 89158 \\ & (21 \%) \end{aligned}$ |
| REGARDS | 124 (17) | 127 (16) | 129 (16) | 132 (16) | 636 (9\%) | 1833 (17\%) | 1743 (27\%) | 1809 (39\%) | 1499 (22\%) | 2528 (24\%) | 1511 (24\%) | 1094 (24\%) |
| RSIII | 127 (19) | 134 (18) | 137 (19) | 139 (18) | 52 (5\%) | 177 (11\%) | 130 (21\%) | 96 (40\%) | 53 (5\%) | 113 (7\%) | 79 (13\%) | 25 (10\%) |
| SEED | 136 (21) | 139 (20) | 142 (21) | 141 (19) | 730 (22\%) | 752 (33\%) | 266 (42\%) | 91 (49\%) | 304 (9\%) | 258 (11\%) | 69 (11\%) | 24 (13\%) |
| Taiwan MJ | 118 (18) | 129 (20) | 134 (21) | 137 (20) | 11352 (3\%) | 9713 (8\%) | 2181 (13\%) | 383 (15\%) | 8638 (3\%) | 5543 (5\%) | 1077 (6\%) | 158 (6\%) |
| Takahata | 133 (16) | 138 (15) | 141 (13) | 161 (21) | 147 (10\%) | 99 (15\%) | 10 (12\%) | 0 (0\%) | 66 (4\%) | 27 (4\%) | 2 (2\%) | 0 (0\%) |
| TLGS | 113 (16) | 121 (19) | 125 (20) | 131 (19) | 172 (5\%) | 366 (9\%) | 216 (12\%) | 78 (16\%) | 113 (3\%) | 222 (5\%) | 91 (5\%) | 35 (7\%) |
| Tromso | 138 (21) | 146 (22) | 152 (23) | 160 (22) | 69 (2\%) | 131 (4\%) | 77 (8\%) | 41 (21\%) | 152 (5\%) | 264 (8\%) | 83 (9\%) | 14 (7\%) |
| ULSAM | 129 (16) | 134 (17) | 141 (17) | 144 (27) | 15 (2\%) | 13 (3\%) | 1 (2\%) | 1 (14\%) | 0 (0\%) | 5 (1\%) | 0 (0\%) | 0 (0\%) |
| Subtotal | 124 (18) | 131 (18) | 134 (17) | 136 (17) | $\begin{aligned} & \hline 142016 \\ & (8 \%) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline \begin{array}{l} 320314 \\ (16 \%) \end{array} \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 280521 \\ (27 \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 229211 \\ \mathbf{( 3 8 \%}) \end{array}$ | 168230 (9\%) | $\begin{array}{\|l\|} \hline 277506 \\ (14 \%) \end{array}$ | $\begin{aligned} & \hline 175473 \\ & (17 \%) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 106849 \\ (18 \%) \end{array}$ |
| High CVD Risk Cohorts |  |  |  |  |  |  |  |  |  |  |  |  |
| ADVANCE | 141 (22) | 145 (21) | 148 (21) | 147 (21) | $\begin{aligned} & \hline 2987 \\ & (100 \%) \end{aligned}$ | 4538 (100\%) | 2404 (100\%) | $\begin{aligned} & \hline 1109 \\ & (100 \%) \end{aligned}$ | 667 (22\%) | 1213 (27\%) | 636 (26\%) | 286 (26\%) |
| KP Hawaii | 132 (21) | 133 (20) | 134 (19) | 136 (20) | 2778 (40\%) | 4685 (50\%) | 3855 (58\%) | 4279 (65\%) | 1384 (20\%) | 1754 (19\%) | 1192 (18\%) | 1110 (17\%) |
| NZDCS | 135 (20) | 138 (19) | 139 (19) | 140 (19) | $\begin{array}{\|l\|} \hline 4600 \\ (100 \%) \end{array}$ | 9139 (100\%) | 7437 (100\%) | $\begin{array}{\|l} \hline 6549 \\ (100 \%) \end{array}$ | 880 (19\%) | 2004 (22\%) | 1529 (21\%) | 1053 (16\%) |
| Pima | 116 (18) | 120 (19) | 120 (18) | 119 (16) | 127 (23\%) | 325 (32\%) | 301 (28\%) | 373 (27\%) |  |  |  |  |
| SMART | 139 (22) | 142 (21) | 144 (21) | 144 (21) | 489 (13\%) | 850 (18\%) | 475 (31\%) | 220 (42\%) | 1892 (52\%) | 2953 (62\%) | 937 (60\%) | 231 (44\%) |
| ZODIAC | 148 (25) | 152 (25) | 152 (23) | 154 (24) | 316 (100\%) | 711 (100\%) | 447 (100\%) | 200 (100\%) | 136 (43\%) | 223 (31\%) | 161 (36\%) | 67 (34\%) |
| Subtotal | 135 (21) | 138 (20) | 138 (20) | 137 (20) | $\begin{aligned} & 11297 \\ & (59 \%) \end{aligned}$ | 20248 (69\%) | 14919 (76\%) | $\begin{aligned} & 12730 \\ & (78 \%) \end{aligned}$ | 4959 (26\%) | 8147 (28\%) | 4455 (23\%) | 2747 (17\%) |
| CKD Cohorts |  |  |  |  |  |  |  |  |  |  |  |  |
| AASK | 150 (24) | 150 (23) | 149 (24) | 153 (24) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 126 (59\%) | 185 (51\%) | 141 (53\%) | 93 (38\%) |
| BC CKD | 136 (23) | 137 (23) | 138 (23) | 136 (24) | 831 (38\%) | 1329 (48\%) | 932 (58\%) | 730 (69\%) | 520 (24\%) | 779 (28\%) | 488 (30\%) | 342 (32\%) |


| CanPREDDICT | 132 (20) | 132 (19) | 134 (19) | 136 (21) | 106 (31\%) | 261 (46\%) | 225 (58\%) | 246 (72\%) | 111 (32\%) | 240 (42\%) | 143 (37\%) | 137 (40\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CARE FOR HOMe | 145 (25) | 152 (24) | 151 (22) | 158 (25) | 11 (16\%) | 47 (29\%) | 72 (45\%) | 41 (59\%) | 18 (26\%) | 51 (31\%) | 48 (30\%) | 24 (35\%) |
| CCF | 129 (21) | 130 (19) | 132 (19) | 133 (20) | 1227 (14\%) | 2751 (21\%) | 2311 (29\%) | 2462 (42\%) | 2259 (26\%) | 3778 (28\%) | 2220 (28\%) | 1486 (26\%) |
| CKD-JAC | 131 (18) | 136 (19) | 134 (19) | 144 (18) | 455 (28\%) | 292 (43\%) | 56 (43\%) | 12 (63\%) | 158 (10\%) | 94 (14\%) | 13 (10\%) | 1 (5\%) |
| CRIB | 150 (22) | 154 (21) | 150 (25) | 147 (22) | 16 (12\%) | 20 (13\%) | 22 (41\%) | 6 (27\%) | 53 (40\%) | 82 (52\%) | 23 (43\%) | 10 (45\%) |
| GCKD | 136 (20) | 141 (20) | 141 (21) | 139 (20) | 163 (16\%) | 528 (28\%) | 554 (44\%) | 560 (62\%) | 225 (22\%) | 578 (31\%) | 495 (40\%) | 404 (45\%) |
| Gonryo | 131 (16) | 134 (15) | 134 (15) | 136 (17) | 681 (30\%) | 311 (33\%) | 59 (39\%) | 14 (44\%) | 394 (18\%) | 154 (17\%) | 21 (14\%) | 4 (13\%) |
| MASTERPLAN | 135 (20) | 141 (20) | 141 (24) | 144 (24) | 30 (15\%) | 75 (24\%) | 41 (37\%) | 17 (40\%) | 45 (22\%) | 105 (34\%) | 43 (39\%) | 12 (29\%) |
| MDRD | 130 (19) | 133 (18) | 136 (18) | 134 (18) | 21 (3\%) | 40 (6\%) | 25 (8\%) | 16 (14\%) | 40 (7\%) | 95 (13\%) | 40 (12\%) | 15 (13\%) |
| MMKD | 139 (23) | 137 (18) | 133 (21) | 151 (26) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 8 (7\%) | 13 (18\%) | 1 (7\%) | 0 (0\%) |
| Nefrona | 140 (22) | 145 (21) | 146 (20) | 149 (23) | 73 (45\%) | 206 (51\%) | 175 (61\%) | 89 (72\%) |  |  |  |  |
| NephroTest | 133 (21) | 138 (20) | 140 (19) | 139 (21) | 117 (16\%) | 240 (33\%) | 148 (49\%) | 73 (63\%) | 99 (13\%) | 161 (22\%) | 82 (27\%) | 37 (32\%) |
| PSP-CKD | 132 (16) | 133 (15) | 134 (15) | 135 (15) | 1010 (18\%) | 1837 (24\%) | 1493 (33\%) | 1113 (43\%) | 1765 (31\%) | 2279 (30\%) | 1313 (29\%) | 699 (27\%) |
| RENAAL | 151 (21) | 153 (20) | 154 (18) | 153 (18) | 333 (100\%) | 530 (100\%) | 329 (100\%) | 276 (100\%) |  |  |  |  |
| SRR-CKD | 139 (23) | 141 (23) | 142 (23) | 143 (21) | 197 (25\%) | 336 (35\%) | 245 (53\%) | 144 (62\%) | 234 (29\%) | 314 (33\%) | 151 (33\%) | 75 (32\%) |
| Sunnybrook | 131 (22) | 136 (21) | 136 (20) | 136 (21) | 333 (37\%) | 513 (48\%) | 321 (56\%) | 191 (62\%) | 105 (12\%) | 133 (12\%) | 63 (11\%) | 29 (9\%) |
| Subtotal | 132 (20) | 134 (19) | 135 (19) | 136 (19) | 5604 (21\%) | 9316 (28\%) | 7008 (37\%) | 5990 (48\%) | 6160 (23\%) | 9041 (27\%) | 5285 (28\%) | 3368 (27\%) |
| Total | 124 (18) | 131 (18) | 134 (17) | 136 (18) | $\begin{aligned} & 158917 \\ & (8 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 349878 \\ (17 \%) \end{array}$ | $\begin{array}{\|l\|} \hline \mathbf{3 0 2 4 4 8} \\ \mathbf{( 2 8 \% )} \end{array}$ | $\begin{array}{\|l\|} \hline 247931 \\ (39 \%) \end{array}$ | $\begin{aligned} & 179349 \\ & (10 \%) \end{aligned}$ | $\begin{array}{\|l} 294694 \\ (15 \%) \end{array}$ | $\begin{aligned} & 185213 \\ & (17 \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 112964 \\ (18 \%) \end{array}$ |

eTable 5. Baseline Characteristics by BMI Category - Kidney Measures

|  | mean (SD) eGFR ml/min/1.73m ${ }^{2}$ |  |  |  | N (\%) ACR $>30 \mathrm{mg} / \mathrm{g}$ |  |  |  | N (\%) missing ACR |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 18.5-<25 | 25-<30 | 30-<35 | $\geq 35$ | 18.5-<25 | 25-<30 | $30-<35$ | $\geq 35$ | 18.5-<25 | 25-<30 | 30-<35 | $\geq 35$ |
| General Population |  |  |  |  |  |  |  |  |  |  |  |  |
| Aichi | 100 (13) | 98 (13) | 99 (13) | 97 (15) | 62 (2\%) | 32 (3\%) | 7 (14\%) | 1 (17\%) | 198 (5\%) | 49 (5\%) | 5 (9\%) | 0 (0\%) |
| ARIC | 103 (14) | 101 (16) | 102 (17) | 106 (18) |  |  |  |  | 5042 (100\%) | 6163 (100\%) | $\begin{aligned} & 2875 \\ & (100 \%) \end{aligned}$ | $\begin{aligned} & \hline 1408 \\ & (100 \%) \end{aligned}$ |
| AusDiab | 88 (16) | 84 (16) | 84 (16) | 87 (17) | 217 (5\%) | 261 (6\%) | 159 (9\%) | 79 (11\%) | 7 (0\%) | 11 (0\%) | 11 (1\%) | 4 (1\%) |
| Beaver Dam CKD | 81 (19) | 79 (17) | 78 (18) | 79 (19) | 45 (3\%) | 72 (4\%) | 48 (5\%) | 31 (7\%) | 9 (1\%) | 6 (0\%) | 2 (0\%) | 2 (0\%) |
| Beijing | 84 (14) | 82 (15) | 79 (14) | 84 (14) | 39 (5\%) | 43 (7\%) | 5 (4\%) | 1 (13\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) |
| ChinaNS | 102 (18) | 98 (17) | 97 (17) | 100 (19) | 3015 (11\%) | 1724 (12\%) | 410 (18\%) | 57 (20\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) |
| CHS | 70 (17) | 71 (16) | 71 (17) | 71 (19) |  |  |  |  | 1659 (100\%) | 1939 (100\%) | 707 (100\%) | 269 (100\%) |
| CIRCS | 89 (15) | 87 (15) | 87 (16) | 84 (22) | 198 (2\%) | 126 (4\%) | 17 (5\%) | 4 (18\%) | 27 (0\%) | 10 (0\%) | 0 (0\%) | 0 (0\%) |
| COBRA | 93 (22) | 97 (19) | 101 (19) | 106 (17) | 78 (18\%) | 64 (15\%) | 26 (14\%) | 12 (12\%) | 2 (0\%) | 0 (0\%) | 0 (0\%) | 1 (1\%) |
| ESTHER | 87 (20) | 87 (20) | 87 (20) | 87 (22) | 246 (9\%) | 502 (11\%) | 279 (15\%) | 123 (21\%) | 10 (0\%) | 20 (0\%) | 8 (0\%) | 2 (0\%) |
| Framingham | 89 (17) | 88 (19) | 88 (22) | 90 (18) | 112 (13\%) | 134 (11\%) | 73 (13\%) | 36 (15\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) |
| Geisinger | 99 (23) | 92 (22) | 91 (22) | 94 (22) | 977 (34\%) | 1760 (30\%) | 2070 (31\%) | 3326 (35\%) | 89414 (97\%) | $\begin{array}{\|l\|} \hline 113116 \\ (95 \%) \\ \hline \end{array}$ | $\begin{aligned} & 83244 \\ & (93 \%) \end{aligned}$ | $\begin{aligned} & 79797 \\ & (89 \%) \end{aligned}$ |
| Gubbio | 84 (11) | 85 (12) | 85 (11) | 83 (13) | 13 (3\%) | 27 (3\%) | 17 (4\%) | 13 (14\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) |
| HUNT | 102 (18) | 96 (19) | 92 (20) | 93 (20) | 260 (11\%) | 502 (12\%) | 293 (14\%) | 122 (17\%) | 23250 (91\%) | 23253 (84\%) | 6385 (76\%) | 1447 (67\%) |
| IPHS | 87 (14) | 84 (14) | 84 (15) | 87 (16) | 1189 (2\%) | 849 (3\%) | 150 (6\%) | 15 (8\%) | 734 (1\%) | 302 (1\%) | 38 (1\%) | 5 (3\%) |
| JHS | 100 (22) | 97 (20) | 98 (21) | 99 (22) | 20 (6\%) | 60 (8\%) | 71 (11\%) | 107 (17\%) | 157 (32\%) | 330 (31\%) | 280 (30\%) | 339 (35\%) |
| JMS | 98 (15) | 96 (15) | 97 (14) | 97 (19) | 59 (2\%) | 44 (4\%) | 3 (3\%) |  | 27 (1\%) | 6 (1\%) | 2 (2\%) | 0 (0\%) |
| KHS | 87 (14) | 84 (14) | 85 (15) | 86 (16) | $\begin{aligned} & 18479 \\ & (12 \%) \end{aligned}$ | 7283 (11\%) | 568 (11\%) | 60 (18\%) | 85775 (37\%) | 39193 (36\%) | 2744 (34\%) | 170 (33\%) |
| Maccabi | 97 (21) | 89 (21) | 88 (21) | 90 (22) | 2246 (15\%) | 5453 (17\%) | 4881 (22\%) | 3436 (27\%) | 217225 (94\%) | $\begin{array}{\|l\|} \hline \begin{array}{l} 209388 \\ (87 \%) \end{array} \\ \hline \end{array}$ | $\begin{aligned} & \hline 101904 \\ & (82 \%) \\ & \hline \end{aligned}$ | $\begin{aligned} & 47512 \\ & (79 \%) \\ & \hline \end{aligned}$ |
| MESA | 83 (16) | 83 (16) | 83 (17) | 86 (18) | 140 (7\%) | 227 (9\%) | 164 (12\%) | 109 (14\%) | 6 (0\%) | 8 (0\%) | 10 (1\%) | 5 (1\%) |
| MRC | 58 (15) | 57 (15) | 56 (14) | 53 (14) | 346 (8\%) | 350 (7\%) | 120 (8\%) | 25 (7\%) | 282 (6\%) | 255 (5\%) | 81 (5\%) | 27 (7\%) |
| Mt Sinai BioMe | 87 (26) | 83 (25) | 82 (25) | 87 (27) | 310 (50\%) | 420 (45\%) | 328 (44\%) | 346 (48\%) | 6354 (91\%) | 6598 (88\%) | 3845 (84\%) | 3297 (82\%) |
| NHANES | 102 (25) | 95 (25) | 95 (25) | 98 (26) | 1932 (10\%) | 2088 (11\%) | 1404 (13\%) | 1206 (16\%) | 450 (2\%) | 411 (2\%) | 157 (1\%) | 142 (2\%) |
| $\begin{aligned} & \text { NIPPON } \\ & \text { DATA80 } \\ & \hline \end{aligned}$ | 84 (17) | 82 (17) | 79 (18) | 90 (20) |  |  |  |  | 6841 (100\%) | 1810 (100\%) | 181 (100\%) | 15 (100\%) |


| $\begin{array}{\|l} \hline \text { NIPPON } \\ \text { DATA90 } \end{array}$ | 95 (17) | 91 (16) | 91 (17) | 94 (15) |  |  |  |  | 5379 (100\%) | 1653 (100\%) | 168 (100\%) | 19 (100\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ohasama | 95 (12) | 94 (13) | 94 (16) | 99 (10) | 53 (5\%) | 34 (8\%) | 3 (8\%) |  | 15 (1\%) | 7 (2\%) | 0 (0\%) | 0 (0\%) |
| Okinawa 83 | 76 (17) | 74 (15) | 73 (15) | 78 (19) | 1073 (18\%) | 630 (24\%) | 145 (35\%) | 16 (43\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) |
| Okinawa 93 | 78 (17) | 75 (16) | 77 (17) | 80 (17) | 1642 (3\%) | 1357 (5\%) | 336 (8\%) | 53 (14\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) |
| PREVEND | 100 (15) | 93 (16) | 93 (16) | 96 (17) | 260 (8\%) | 397 (12\%) | 152 (16\%) | 59 (21\%) | 13 (0\%) | 10 (0\%) | 7 (1\%) | 0 (0\%) |
| Rancho Bernardo | 65 (16) | 65 (15) | 66 (15) | 69 (16) | 134 (15\%) | 91 (14\%) | 15 (10\%) | 9 (19\%) | 10 (1\%) | 1 (0\%) | 0 (0\%) | 0 (0\%) |
| RCAV | 86 (17) | 83 (15) | 83 (15) | 85 (16) | 1543 (23\%) | 4036 (22\%) | 3981 (23\%) | 3306 (26\%) | 652497 (99\%) | $\begin{aligned} & 1155417 \\ & (98 \%) \end{aligned}$ | $\begin{aligned} & 739740 \\ & (98 \%) \\ & \hline \end{aligned}$ | $\begin{aligned} & 415567 \\ & (97 \%) \end{aligned}$ |
| REGARDS | 84 (19) | 84 (20) | 85 (20) | 88 (23) | 845 (13\%) | 1337 (13\%) | 995 (16\%) | 915 (21\%) | 266 (4\%) | 392 (4\%) | 250 (4\%) | 201 (4\%) |
| RSIII | 87 (13) | 86 (14) | 86 (14) | 86 (16) | 42 (5\%) | 69 (5\%) | 45 (8\%) | 25 (11\%) | 60 (6\%) | 80 (5\%) | 31 (5\%) | 15 (6\%) |
| SEED | 87 (18) | 84 (19) | 84 (20) | 87 (21) |  |  |  |  | 3364 (100\%) | 2248 (100\%) | 628 (100\%) | 184 (100\%) |
| Taiwan MJ | 90 (18) | 84 (17) | 85 (18) | 90 (20) | 5214 (2\%) | 3759 (3\%) | 927 (5\%) | 227 (9\%) | 15940 (5\%) | 2656 (2\%) | 484 (3\%) | 105 (4\%) |
| Takahata | 98 (12) | 96 (12) | 96 (16) | 96 (30) | 191 (13\%) | 120 (18\%) | 28 (34\%) | 3 (75\%) | 5 (0\%) | 2 (0\%) | 0 (0\%) | 0 (0\%) |
| TLGS | 81 (15) | 74 (14) | 72 (14) | 72 (14) | 66 (2\%) | 71 (2\%) | 40 (3\%) | 14 (4\%) | 1019 (27\%) | 1032 (25\%) | 440 (24\%) | 116 (24\%) |
| Tromso | 95 (13) | 92 (13) | 91 (13) | 90 (15) | 142 (5\%) | 195 (7\%) | 64 (8\%) | 26 (16\%) | 561 (17\%) | 360 (11\%) | 112 (12\%) | 29 (15\%) |
| ULSAM | 99 (10) | 97 (10) | 96 (12) | 104 (6) |  |  |  |  | 659 (100\%) | 496 (100\%) | 48 (100\%) | 7 (100\%) |
| Subtotal | 89 (18) | 85 (17) | 85 (17) | 87 (18) | 41588 (6\%) | 34388 (9\%) | 17873 (16\%) | 13772 (24\%) | 1113893 (61\%) | $\begin{array}{\|l} \hline 1564974 \\ (80 \%) \\ \hline \end{array}$ | $\begin{aligned} & \hline 943759 \\ & (89 \%) \end{aligned}$ | $\begin{aligned} & 550501 \\ & (91 \%) \end{aligned}$ |
| High CVD Risk Cohorts |  |  |  |  |  |  |  |  |  |  |  |  |
| ADVANCE | 79 (18) | 78 (17) | 76 (17) | 77 (17) | 940 (33\%) | 1301 (30\%) | 663 (29\%) | 321 (31\%) | 107 (4\%) | 184 (4\%) | 139 (6\%) | 71 (6\%) |
| KP Hawaii | 73 (23) | 75 (23) | 79 (23) | 83 (25) | 1660 (33\%) | 2330 (34\%) | 1890 (38\%) | 2106 (44\%) | 1893 (27\%) | 2469 (26\%) | 1654 (25\%) | 1746 (27\%) |
| NZDCS | 75 (24) | 74 (22) | 76 (22) | 81 (23) | 242 (6\%) | 495 (6\%) | 586 (9\%) | 618 (11\%) | 655 (14\%) | 1189 (13\%) | 852 (11\%) | 673 (10\%) |
| Pima | 121 (21) | 116 (22) | 119 (19) | 123 (15) | 110 (20\%) | 271 (26\%) | 214 (20\%) | 245 (18\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) |
| SMART | 79 (19) | 77 (18) | 79 (19) | 83 (20) | 368 (31\%) | 527 (33\%) | 223 (36\%) | 95 (40\%) | 2482 (68\%) | 3128 (66\%) | 934 (60\%) | 285 (54\%) |
| ZODIAC | 66 (17) | 69 (17) | 67 (17) | 70 (17) | 27 (9\%) | 62 (9\%) | 27 (6\%) | 18 (9\%) | 11 (3\%) | 21 (3\%) | 12 (3\%) | 4 (2\%) |
| Subtotal | 77 (22) | 77 (21) | 79 (22) | 85 (23) | 3347 (24\%) | 4986 (22\%) | 3603 (23\%) | 3403 (25\%) | 5148 (27\%) | 6991 (24\%) | 3591 (18\%) | 2779 (17\%) |
| CKD Cohorts |  |  |  |  |  |  |  |  |  |  |  |  |
| AASK | 45 (15) | 46 (14) | 46 (14) | 46 (15) | 112 (52\%) | 184 (51\%) | 143 (54\%) | 153 (63\%) | 0 (0\%) | 4 (1\%) | 0 (0\%) | 1 (0\%) |
| BC CKD | 32 (16) | 33 (15) | 34 (16) | 36 (17) | 1173 (69\%) | 1383 (67\%) | 772 (65\%) | 511 (66\%) | 482 (22\%) | 719 (26\%) | 426 (27\%) | 286 (27\%) |
| CanPREDDICT | 25 (10) | 26 (10) | 26 (10) | 26 (10) | 124 (66\%) | 216 (72\%) | 146 (75\%) | 134 (73\%) | 157 (46\%) | 270 (47\%) | 195 (50\%) | 156 (46\%) |


| CARE FOR HOMe | 47 (20) | 48 (18) | 48 (19) | 50 (16) | 37 (54\%) | 75 (46\%) | 84 (52\%) | 39 (57\%) | 0 (0\%) | 0 (0\%) | 1 (1\%) | 0 (0\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CCF | 47 (12) | 48 (11) | 48 (11) | 47 (12) | 2321 (74\%) | 3679 (75\%) | 2265 (72\%) | 1670 (67\%) | 5718 (65\%) | 8437 (63\%) | 4828 (61\%) | 3331 (57\%) |
| CKD-JAC | 37 (17) | 38 (18) | 39 (17) | 45 (15) | 172 (11\%) | 59 (10\%) | 16 (14\%) |  | 134 (8\%) | 72 (11\%) | 15 (11\%) | 2 (11\%) |
| CRIB | 21 (11) | 23 (11) | 24 (11) | 23 (11) | 114 (87\%) | 129 (82\%) | 44 (83\%) | 17 (85\%) | 3 (2\%) | 1 (1\%) | 1 (2\%) | 2 (9\%) |
| GCKD | 53 (21) | 49 (17) | 48 (17) | 48 (17) | 646 (64\%) | 1083 (59\%) | 648 (53\%) | 475 (53\%) | 11 (1\%) | 25 (1\%) | 20 (2\%) | 15 (2\%) |
| Gonryo | 74 (33) | 76 (30) | 78 (34) | 88 (36) | 739 (83\%) | 271 (82\%) | 56 (84\%) | 11 (92\%) | 1346 (60\%) | 600 (64\%) | 86 (56\%) | 20 (63\%) |
| MASTERPLAN | 38 (15) | 37 (15) | 34 (14) | 31 (12) | 141 (74\%) | 204 (69\%) | 81 (74\%) | 31 (76\%) | 13 (6\%) | 20 (6\%) | 3 (3\%) | 1 (2\%) |
| MDRD | 39 (23) | 41 (20) | 42 (20) | 43 (20) |  |  |  |  | 614 (100\%) | 711 (100\%) | 329 (100\%) | 117 (100\%) |
| MMKD | 49 (33) | 45 (26) | 47 (24) | 31 (19) | 99 (93\%) | 66 (92\%) | 12 (86\%) | 5 (100\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) |
| Nefrona | 30 (15) | 32 (14) | 33 (14) | 31 (13) | 140 (68\%) | 261 (65\%) | 185 (65\%) | 92 (70\%) | 151 (42\%) | 326 (45\%) | 181 (39\%) | 70 (35\%) |
| NephroTest | 48 (24) | 43 (21) | 40 (19) | 43 (21) | 485 (65\%) | 468 (66\%) | 222 (74\%) | 85 (73\%) | 7 (1\%) | 11 (2\%) | 3 (1\%) | 0 (0\%) |
| PSP-CKD | 50 (13) | 51 (13) | 52 (12) | 53 (13) | 1807 (66\%) | 2702 (69\%) | 1692 (70\%) | 906 (67\%) | 3008 (52\%) | 3728 (49\%) | 2058 (46\%) | 1210 (47\%) |
| RENAAL | 38 (13) | 39 (13) | 39 (12) | 39 (12) | 333 (100\%) | 530 (100\%) | 329 (100\%) | 276 (100\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) |
| SRR-CKD | 23 (11) | 24 (11) | 24 (10) | 25 (10) | 605 (75\%) | 746 (77\%) | 384 (83\%) | 187 (81\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) | 0 (0\%) |
| Sunnybrook | 52 (33) | 49 (28) | 53 (28) | 57 (32) | 414 (74\%) | 477 (71\%) | 265 (72\%) | 158 (73\%) | 347 (38\%) | 401 (37\%) | 205 (36\%) | 95 (31\%) |
| Subtotal | 47 (18) | 46 (15) | 46 (14) | 46 (14) | 8483 (58\%) | $\begin{aligned} & 11314 \\ & (62 \%) \\ & \hline \end{aligned}$ | 6650 (62\%) | 4229 (60\%) | 11991 (45\%) | 15325 (46\%) | 8351 (44\%) | 5306 (43\%) |
| Total | 89 (18) | 84 (17) | 84 (17) | 86 (18) | 53418 (7\%) | $\begin{aligned} & 50688 \\ & (\mathbf{1 2 \%}) \end{aligned}$ | 28126 (20\%) | 21404 (27\%) | 1131032 (60\%) | $\begin{array}{\|l\|} \hline 1587290 \\ (79 \%) \end{array}$ | $\begin{array}{\|l\|} \hline 955701 \\ (87 \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 558586 \\ (88 \%) \end{array}$ |

eFigure 1. Relationships of BMI with Waist Circumference (A and B) and Waist-Height Ratio (C and D), in Women (A and C) and Men (B and D)

eFigure 2. Hazard Ratios at 35 vs. 25 kg/m² in Individual General Population Cohorts, by Median Baseline Year


This figure plots the adjusted hazard ratio for each general population cohort study on the $y$-axis and the baseline year of the study on the $x$-axis. The green line corresponds to the meta-regression line of the log hazard ratios against the median baseline year of each cohort. The size of each bubble is inversely proportional to the variance of the effect estimate within each study cohort.
eFigure 3. Sensitivity Analyses Excluding the First 3 Years of Follow-up (A), ESKD as the Sole Outcome (B), Competing Risk of Death (C), and Adjusting for Potential Mediators (D) for BMI in General Population Cohorts


Panels demonstrates the meta-analyzed hazard ratio and $95 \%$ confidence interval related to body-mass index, modeled using linear splines with knots at $20,25,30$, and $35 \mathrm{~kg} / \mathrm{m}^{2}$, with solid circles indicating points in which there are significant differences in risk from the reference point at $25 \mathrm{~kg} / \mathrm{m}^{2}$. Panel D is additionally adjustment for SBP, eGFR, diabetes, total cholesterol, and history of CVD beyond the demographic characteristics of age, sex, and race.
eFigure 4. BMI Interactions by Age (A), Black Race (B), Hypertension (C), and Albuminuria (D) with GFR decline in General Population Cohorts


Panels demonstrates the meta-analyzed hazard ratio and $95 \%$ confidence interval related to body-mass index, modeled using linear splines with knots at 20 , 25,30 , and $35 \mathrm{~kg} / \mathrm{m}^{2}$, with a reference point at $25 \mathrm{~kg} / \mathrm{m}^{2}$ in each subgroup.
eFigure 5. Sensitivity Analyses Excluding the First 3 Years of Follow-up (A), ESKD as the Sole Outcome (B), Competing Risk of Death (C), and Adjusting for Potential Mediators (D) for BMI in High CVD Risk Cohorts


Panels demonstrates the meta-analyzed hazard ratio and $95 \%$ confidence interval related to body-mass index, modeled using linear splines with knots at $20,25,30$, and $35 \mathrm{~kg} / \mathrm{m}^{2}$, with solid circles indicating points in which there are significant differences in risk from the reference point at $25 \mathrm{~kg} / \mathrm{m}^{2}$. Panel D is additionally adjustment for SBP , eGFR, diabetes, total cholesterol, and history of CVD beyond the demographic characteristics of age, sex, and race.
eFigure 6. Sensitivity Analyses Excluding the First 3 Years of Follow-up (A), ESKD as the Sole Outcome (B), Competing Risk of Death (C), and Adjusting for Potential Mediators (D) for BMI in CKD Cohorts


Panels demonstrates the meta-analyzed hazard ratio and $95 \%$ confidence interval related to body-mass index, modeled using linear splines with knots at $20,25,30$, and $35 \mathrm{~kg} / \mathrm{m}^{2}$, with solid circles indicating points in which there are significant differences in risk from the reference point at $25 \mathrm{~kg} / \mathrm{m}^{2}$. Panel D is additionally adjustment for SBP, eGFR, diabetes, total cholesterol, and history of CVD beyond the demographic characteristics of age, sex, and race.
eFigure 7. Association of Waist Circumference (A and C) and Waist-Height Ratio (B and D) with GFR Decline in High CVD Risk (A and B) and CKD (C and D) Cohorts


Panels demonstrate the meta-analyzed hazard ratio and $95 \%$ confidence interval related to waist circumference or waist-height ratio, modeled using linear splines with knots at $82 \mathrm{~cm} / 68 \mathrm{~cm}, 92 \mathrm{~cm} / 78 \mathrm{~cm}, 102 \mathrm{~cm} / 88 \mathrm{~cm}, 112 \mathrm{~cm} / 108 \mathrm{~cm}$ in men and women, respectively, for waist circumference and $0.44,0.5,0.56,0.62$ for waist-height ratio, with solid circles indicating points in which there are significant differences in risk from the reference point at 92 cm in men $/ 78 \mathrm{~cm}$ in women for waist circumference and .5 for waist-height ratio.
eFigure 8. Association of Adiposity Measures with All-Cause Mortality in General Population Cohorts




Panels demonstrates the meta-analyzed hazard ratio and $95 \%$ confidence interval related to body mass index, waist circumference, or waist-height ratio with solid circles indicating points in which there are significant differences in risk from the reference point at $25 \mathrm{~kg} / \mathrm{m}^{2}$ for body mass index, 92 cm in men $/ 78 \mathrm{~cm}$ in women for waist circumference, and .5 for waist-height ratio.
eFigure 9. Interaction of eGFR on BMI and Association with All-Cause Mortality in General Population Cohorts


Panel demonstrates the meta-analyzed hazard ratio and $95 \%$ confidence interval related to body-mass index, modeled using linear splines with knots at $20,25,30$, and $35 \mathrm{~kg} / \mathrm{m}^{2}$, with a reference point at $25 \mathrm{~kg} / \mathrm{m}^{2}$ in each subgroup.
eFigure 10. Sensitivity Analyses Excluding the First 3 Years of Follow-up (A) and Adjusting for Potential Mediators (B) for BMI and All-Cause Mortality in General Population Cohorts



Panels demonstrates the meta-analyzed hazard ratio and $95 \%$ confidence interval related to body-mass index, modeled using linear splines with knots at $20,25,30$, and $35 \mathrm{~kg} / \mathrm{m}^{2}$, with solid circles indicating points in which there are significant differences in risk from the reference point at $25 \mathrm{~kg} / \mathrm{m}^{2}$. Panel B is additionally adjustment for SBP, eGFR, diabetes, total cholesterol, and history of CVD beyond the demographic characteristics of age, sex, and race
eFigure 11. Association of Adiposity Measures with All-Cause Mortality in High Cardiovascular Risk Cohorts



Panels demonstrates the meta-analyzed hazard ratio and $95 \%$ confidence interval related to body mass index, waist circumference, or waist-height ratio with solid circles indicating points in which there are significant differences in risk from the reference point at $25 \mathrm{~kg} / \mathrm{m}^{2}$ for body mass index, 92 cm in men $/ 78 \mathrm{~cm}$ in women for waist circumference, and .5 for waist-height ratio.
eFigure 12. Sensitivity Analyses Excluding the First 3 Years of Follow-up (A) and Adjusting for Potential Mediators (B) for BMI and All-Cause Mortality in High Cardiovascular Risk Cohorts



Panels demonstrates the meta-analyzed hazard ratio and $95 \%$ confidence interval related to body-mass index, modeled using linear splines with knots at $20,25,30$, and $35 \mathrm{~kg} / \mathrm{m}^{2}$, with solid circles indicating points in which there are significant differences in risk from the reference point at $25 \mathrm{~kg} / \mathrm{m}^{2}$. Panel B is additionally adjustment for SBP, eGFR, diabetes, total cholesterol, and history of CVD beyond the demographic characteristics of age, sex, and race.
eFigure 13. Association of Adiposity Measures with All-Cause Mortality in CKD Cohorts


Panels demonstrates the meta-analyzed hazard ratio and $95 \%$ confidence interval related to body mass index, waist circumference, or waist-height ratio with solid circles indicating points in which there are significant differences in risk from the reference point at $25 \mathrm{~kg} / \mathrm{m}^{2}$ for body mass index, 92 cm in men/78 cm in women for waist circumference, and .5 for waist-height ratio.
eFigure 14. Sensitivity Analyses Excluding the First 3 Years of Follow-up (A) and Adjusting for Potential Mediators (B) for BMI and All-Cause Mortality in CKD Cohorts



Panels demonstrates the meta-analyzed hazard ratio and $95 \%$ confidence interval related to body-mass index, modeled using linear splines with knots at $20,25,30$, and $35 \mathrm{~kg} / \mathrm{m}^{2}$, with solid circles indicating points in which there are significant differences in risk from the reference point at $25 \mathrm{~kg} / \mathrm{m}^{2}$. Panel B is additionally adjustment for SBP, eGFR, diabetes, total cholesterol, and history of CVD beyond the demographic characteristics of age, sex, and race.

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