# TABLE OF CONTENTS

- PREFACE ........................................................................................................................................... i
- TABLE OF CONTENTS ......................................................................................................................... iii
- LIST OF TABLES ................................................................................................................................. iv
- LIST OF FIGURES ............................................................................................................................... v
- I. EXECUTIVE SUMMARY ................................................................................................................... 1
- II. INTRODUCTION ............................................................................................................................... 3
- III. TECHNICAL NOTES ....................................................................................................................... 5
- IV. CANCER INCIDENCE ..................................................................................................................... 8
- V. CANCER CASES AND DEATHS BY RANK .................................................................................. 13
- VI. STAGE AT DIAGNOSIS ................................................................................................................ 16
- VII. CANCER MORTALITY .................................................................................................................. 18
- VIII. YEARS OF POTENTIAL LIFE LOST ......................................................................................... 23
- IX. AVERAGE YEARS OF LIFE LOST ............................................................................................... 25
- X. SELECTED CANCER SITES INCIDENCE AND MORTALITY .................................................... 27
  - Bladder .......................................................................................................................................... 28
  - Breast (Female) ............................................................................................................................. 30
  - Cervix Uteri ................................................................................................................................. 32
  - Colorectal ...................................................................................................................................... 34
  - Corpus and Uterus ........................................................................................................................ 36
  - Kidney and Renal Pelvis .............................................................................................................. 38
  - Leukemia ...................................................................................................................................... 40
  - Lung and Bronchus ...................................................................................................................... 42
  - Melanoma (Skin) .......................................................................................................................... 44
  - Myeloma ....................................................................................................................................... 46
  - Non-Hodgkin’s Lymphoma ......................................................................................................... 48
  - Ovary ............................................................................................................................................ 50
  - Pancreas ....................................................................................................................................... 52
  - Prostate ......................................................................................................................................... 54
  - Stomach ........................................................................................................................................ 56
  - Thyroid ......................................................................................................................................... 58
- XI. APPENDICES
  - Appendix B: 2008-2017 South Dakota Estimated Population ..................................................... 60
  - Appendix C: Race in South Dakota by County, 2017 Estimated Population ............................... 61
  - Appendix D: SEER Incidence Site Analysis Categories .............................................................. 62-64
  - Appendix E: SEER Cancer Cause of Death Analysis Categories .............................................. 65-66
- REFERENCES ..................................................................................................................................... 67
LIST OF TABLES

Table 1: Cancer Cases and Incidence Rates by County, South Dakota, 2017 and 2013-2017 Average .............................................................. 8
Table 2: Age-adjusted Incidence Rates by County for Selected Sites, 2017 .......................................................... 9
Table 3: Age-adjusted Incidence Rates by Site, Gender, and Race, South Dakota, 2017 ...................................................... 10
Table 4: Percentage of Selected Cancers by Age Groups in South Dakota, 2017 ................................................. 12
Table 5: South Dakota Stage at Diagnosis, All Cases, 2017 .......................................................... 16
Table 6: Stage at Diagnosis for Selected Sites by Race, South Dakota, 2017 ................................................. 17
Table 7: Cancer Mortality and Rates by County, South Dakota, 2017 and 2013-2017 ................................................. 18
Table 8: Age-adjusted Mortality Rates by County for Selected Sites, South Dakota, 2017 ................................................. 19
Table 9: Age-adjusted Mortality Rates by Site, Gender, and Race, South Dakota, 2017 ................................................. 20
Table 10: Percentage of Cancer Deaths by Age Groups and Selected Primary Sites, South Dakota, 2017 ......................................................... 22
Table 11: Leading Causes of Years of Potential Life Lost (to age 75), South Dakota, 2017 ......................................................... 23
Table 12: Bladder Incidence and Mortality Summary, 2017 .......................................................... 28
Table 13: Breast (Female) Incidence and Mortality Summary, 2017 .......................................................... 30
Table 14: Cervix Uteri Incidence and Mortality Summary, 2017 .......................................................... 32
Table 15: Colorectal Incidence and Mortality Summary, 2017 .......................................................... 34
Table 16: Corpus and Uterus, NOS Incidence and Mortality Summary, 2017 ......................................................... 36
Table 17: Kidney and Renal Pelvis Incidence and Mortality Summary, 2017 ......................................................... 38
Table 18: Leukemia Incidence and Mortality Summary, 2017 .......................................................... 40
Table 19: Lung and Bronchus Incidence and Mortality Summary, 2017 ......................................................... 42
Table 20: Melanoma Incidence and Mortality Summary, 2017 .......................................................... 44
Table 21: Myeloma Incidence and Mortality Summary, 2017 .......................................................... 46
Table 22: Non-Hodgkin’s Lymphoma Incidence and Mortality Summary, 2017 ......................................................... 48
Table 23: Ovarian Incidence and Mortality Summary, 2017 .......................................................... 50
Table 24: Pancreas Incidence and Mortality Summary, 2017 .......................................................... 52
Table 25: Prostate Incidence and Mortality Summary, 2017 .......................................................... 54
Table 26: Stomach Incidence and Mortality Summary, 2017 .......................................................... 56
Table 27: Thyroid Incidence and Mortality Summary, 2017 .......................................................... 58
LIST OF FIGURES

Figure 1: All Sites Cancer Incidence Rates by Race and Gender, South Dakota, 2017...... 12
Figure 2: Percent Distribution of Cancer Cases and Deaths by Rank and Gender, South Dakota, 2017 .......................................................................................................................... 13
Figure 3: Cancer Incidence Rates by County, South Dakota, 2017 (Map) .......... 14
Figure 4: Cancer Mortality Rates by County, South Dakota, 2017 (Map) .......... 15
Figure 5: Stage at Diagnosis, All Sites, South Dakota, 2017................................. 16
Figure 6: Stage at Diagnosis in South Dakota, White, 2017 .................................... 17
Figure 7: Stage at Diagnosis in South Dakota, American Indian, 2017 ................. 17
Figure 8: All Sites Cancer Mortality Rates by Race and Gender, South Dakota, 2017 .... 22
Figure 9: Years of Potential Life Lost (YPLL) Before Age 75 for Leading Causes of Death, by Race, South Dakota, 2017............................................................................... 23
Figure 10: Years of Potential Life Lost (YPLL) Before Age 75 for Leading Causes of Death, by Race, South Dakota, 2013-2017 .................................................. 23
Figure 11: YPLL for Selected Cancers Among Whites, South Dakota, 2017 ............ 24
Figure 12: YPLL for Selected Cancers Among American Indians, South Dakota, 2017 .... 24
Figure 13: AYLL for Selected Cancers Among Whites, South Dakota, 2017 .......... 25
Figure 14: AYLL for Selected Cancers Among American Indians, South Dakota, 2017 .... 25
Figure 15: Bladder Cancer Stage at Diagnosis, South Dakota, 2017 ..................... 28
Figure 16: Bladder Cancer Number of Cases and Deaths by Age, South Dakota, 2017 .... 29
Figure 17: Bladder Cancer Cases and Deaths by Year, South Dakota, 2001-2017 ........ 29
Figure 18: Bladder Cancer Age-Adjusted Rates, Cases, and Deaths by Year, South Dakota, 2001-2017 .................................................................................. 29
Figure 19: Female Breast Cancer Stage at Diagnosis, South Dakota, 2017 .......... 30
Figure 20: Female Breast Cancer Number of Cases and Deaths by Age, South Dakota, 2017 .................................................................................................................. 31
Figure 21: Female Breast Cancer Cases and Deaths by Year, South Dakota, 2001-2017 .... 31
Figure 22: Female Breast Cancer Age-Adjusted Rates, Cases, and Deaths by Year, South Dakota, 2001-2017 .................................................................................. 31
Figure 23: Cervix Uteri Cancer Stage at Diagnosis, South Dakota, 2017 ............... 32
Figure 24: Cervix Uteri Cancer Number of Cases and Deaths by Age, South Dakota, 2017 .. 33
Figure 25: Cervix Uteri Cancer Cases and Deaths by Year, South Dakota, 2001-2017 ... 33
Figure 26: Cervix Uteri Cancer Age-Adjusted Rates, Cases, and Deaths by Year, South Dakota, 2001-2017 .................................................................................. 33
Figure 27: Colorectal Cancer Stage at Diagnosis, South Dakota, 2017 .................. 34
Figure 28: Colorectal Cancer Number of Cases and Deaths by Age, South Dakota, 2017 ... 35
Figure 29: Colorectal Cancer Cases and Deaths by Year, South Dakota, 2001-2017 .... 35
Figure 30: Colorectal Cancer Age-Adjusted Rates, Cases, and Deaths by Year, South Dakota, 2001-2017 .................................................................................. 35
Figure 31: Corpus and Uterus, NOS Cancer Stage at Diagnosis, South Dakota, 2017 .... 36
Figure 32: Corpus and Uterus, NOS Cancer Number of Cases and Deaths by Age, South Dakota, 2017 .................................................................................. 37
Figure 33: Corpus and Uterus, NOS Cancer Cases and Deaths by Year, South Dakota, 2001-2017 .................................................................................. 37
Figure 34: Corpus and Uterus, NOS Cancer Age-Adjusted Rates, Cases, and Deaths by Year, South Dakota, 2001-2017 .................................................................................. 37
Figure 35: Kidney and Renal Pelvis Cancer Stage at Diagnosis, South Dakota, 2017 .... 38
Figure 36: Kidney and Renal Pelvis Cancer Number of Cases and Deaths by Age, South Dakota, 2017 .................................................................................. 39
LIST OF FIGURES (cont’d)

Figure 37: Kidney and Renal Pelvis Cancer Cases and Deaths by Year, South Dakota, 2001-2017 ................................................................. 39
Figure 38: Kidney and Renal Pelvis Cancer Age-Adjusted Rates, Cases, and Deaths by Year, South Dakota, 2001-2017 ................................. 39
Figure 39: Leukemia Number of Cases and Deaths by Age, South Dakota, 2017 ................................................................. 41
Figure 40: Leukemia Cases and Deaths by Year, South Dakota, 2001-2017 ................................................................. 41
Figure 41: Leukemia Age-Adjusted Rates, Cases, and Deaths by Year, South Dakota, 2001-2017 ................................................................. 41
Figure 42: Lung and Bronchus Cancer Stage at Diagnosis, South Dakota, 2017 ................................................................. 42
Figure 43: Lung and Bronchus Cancer Number of Cases and Deaths by Age, South Dakota, 2017 ................................................................. 43
Figure 44: Lung and Bronchus Cancer Cases and Deaths by Year, South Dakota, 2001-2017 ................................................................. 43
Figure 45: Lung and Bronchus Cancer Age-Adjusted Rates, Cases, and Deaths by Year, South Dakota, 2001-2017 ................................................................. 43
Figure 46: Melanoma of the Skin Stage at Diagnosis, South Dakota, 2017 ................................................................. 44
Figure 47: Melanoma of the Skin Number of Cases and Deaths by Age, South Dakota, 2017 ................................................................. 45
Figure 48: Melanoma of the Skin Cases and Deaths by Year, South Dakota, 2001-2017 ................................................................. 45
Figure 49: Melanoma of the Skin Age-Adjusted Rates, Cases, and Deaths by Year, South Dakota, 2001-2017 ................................................................. 45
Figure 50: Myeloma Number of Cases and Deaths by Age, South Dakota, 2017 ................................................................. 47
Figure 51: Myeloma Cases and Deaths by Year, South Dakota, 2001-2017 ................................................................. 47
Figure 52: Myeloma Age-Adjusted Rates, Cases, and Deaths by Year, South Dakota, 2001-2017 ................................................................. 47
Figure 53: Non-Hodgkin’s Lymphoma Stage at Diagnosis, South Dakota, 2017 ................................................................. 48
Figure 54: Non-Hodgkin’s Lymphoma Number of Cases and Deaths by Age, South Dakota, 2017 ................................................................. 49
Figure 55: Non-Hodgkin’s Lymphoma Cases and Deaths by Year, South Dakota, 2001-2017 ................................................................. 49
Figure 56: Non-Hodgkin’s Lymphoma Age-Adjusted Rates, Cases, and Deaths by Year, South Dakota, 2001-2017 ................................................................. 49
Figure 57: Ovarian Cancer Stage at Diagnosis, South Dakota, 2017 ................................................................. 50
Figure 58: Ovarian Cancer Number of Cases and Deaths by Age, South Dakota, 2017 ................................................................. 51
Figure 59: Ovarian Cancer Cases and Deaths by Year, South Dakota, 2001-2017 ................................................................. 51
Figure 60: Ovarian Cancer Age-Adjusted Rates, Cases, and Deaths by Year, South Dakota, 2001-2017 ................................................................. 51
Figure 61: Pancreatic Cancer Stage at Diagnosis, South Dakota, 2017 ................................................................. 52
Figure 62: Pancreatic Cancer Number of Cases and Deaths by Age, South Dakota, 2017 ................................................................. 53
Figure 63: Pancreatic Cancer Cases and Deaths by Year, South Dakota, 2001-2017 ................................................................. 53
Figure 64: Pancreatic Cancer Age-Adjusted Rates, Cases, and Deaths by Year, South Dakota, 2001-2017 ................................................................. 53
Figure 65: Prostate Cancer Stage at Diagnosis, South Dakota, 2017 ................................................................. 54
Figure 66: Prostate Cancer Number of Cases and Deaths by Age, South Dakota, 2017 ................................................................. 55
Figure 67: Prostate Cancer Cases and Deaths by Year, South Dakota, 2001-2017 ................................................................. 55
LIST OF FIGURES (cont'd)

Figure 68: Prostate Cancer Age-Adjusted Rates, Cases, and Deaths by Year, South Dakota, 2001-2017 .................................................. 55
Figure 69: Stomach Cancer Stage at Diagnosis, South Dakota, 2017 .................. 56
Figure 70: Stomach Cancer Number of Cases and Deaths by Age, South Dakota, 2017 ...... 57
Figure 71: Stomach Cancer Cases and Deaths by Year, South Dakota, 2001-2017 .......... 57
Figure 72: Stomach Cancer Age-Adjusted Rates, Cases, and Deaths by Year, South Dakota, 2001-2017 .................................................. 57
Figure 73: Thyroid Cancer Stage at Diagnosis, South Dakota, 2017 .................. 58
Figure 74: Thyroid Cancer Number of Cases and Deaths by Age, South Dakota, 2017 ...... 59
Figure 75: Thyroid Cancer Cases and Deaths by Year, South Dakota, 2001-2017 .......... 59
Figure 76: Thyroid Cancer Age-Adjusted Rates, Cases, and Deaths by Year, South Dakota, 2001-2017 .................................................. 59