

111TH CONGRESS  
1ST SESSION

# S. 1548

To improve research, diagnosis, and treatment of musculoskeletal diseases, conditions, and injuries, to conduct a longitudinal study on aging, and for other purposes.

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## IN THE SENATE OF THE UNITED STATES

JULY 30, 2009

Mr. CARDIN (for himself and Mr. BURR) introduced the following bill; which was read twice and referred to the Committee on Health, Education, Labor, and Pensions

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## A BILL

To improve research, diagnosis, and treatment of musculoskeletal diseases, conditions, and injuries, to conduct a longitudinal study on aging, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Access to America’s  
5 Orthopaedic Services Act of 2009”.

6 **SEC. 2. TABLE OF CONTENTS.**

7 The table of contents for this Act is as follows:

Sec. 1. Short title.

Sec. 2. Table of contents.

Sec. 3. Definition.

## TITLE I—MUSCULOSKELETAL HEALTH

- Sec. 101. Findings.
- Sec. 102. Musculoskeletal research.
- Sec. 103. Musculoskeletal trauma research and care.
- Sec. 104. Transplants, tissues, and replacement joints.
- Sec. 105. Traffic and workplace safety.
- Sec. 106. Public education campaign.
- Sec. 107. Orthopaedic physician workforce training study.
- Sec. 108. Bone density under the Medicare program.
- Sec. 109. Access to orthopaedic services for beneficiaries of Medicaid and SCHIP.
- Sec. 110. Age-related programs.
- Sec. 111. Minority health disparities.

## TITLE II—THIRD LONGITUDINAL STUDY ON AGING

- Sec. 201. Third longitudinal study on aging.

1 **SEC. 3. DEFINITION.**

2       In this Act, the term “Secretary” means the Sec-  
 3       retary of Health and Human Services, except as otherwise  
 4       provided.

5       **TITLE I—MUSCULOSKELETAL**  
 6       **HEALTH**

7 **SEC. 101. FINDINGS.**

8       Congress makes the following findings:

9           (1) Musculoskeletal diseases and other condi-  
 10       tions are the leading cause of disability in the  
 11       United States.

12          (2) Musculoskeletal conditions account for more  
 13       than one-half of all chronic conditions in people over  
 14       50 years of age in developed countries.

15          (3) More than 1 in 4 individuals in the United  
 16       States has a musculoskeletal condition requiring  
 17       medical attention.

1           (4) Direct and indirect costs for bone and joint  
2       health are \$849,000,000,000 per year in the United  
3       States.

4           (5) Musculoskeletal conditions are the greatest  
5       cause of total lost workdays and medical bed days in  
6       the United States.

7           (6) The 2004 Surgeon General Report on Bone  
8       Health and Osteoporosis concluded that there is a  
9       lack of awareness of bone disease among the public  
10      and health care professionals.

11          (7) Research demonstrates that there is need  
12      among ethnic and racial minorities to improve  
13      knowledge of and treatment for musculoskeletal dis-  
14      eases and other conditions.

15   **SEC. 102. MUSCULOSKELETAL RESEARCH.**

16      (a) REGULATIONS CONCERNING REPORTING CRI-  
17   TERIA FOR PERCENT OF EFFORT.—

18          (1) IN GENERAL.—The Secretary, in consulta-  
19      tion with the Director of the National Institutes of  
20      Health, shall establish, by regulation, criteria for ac-  
21      counting for and reporting the percent of effort ex-  
22      pended by researchers, with respect to research that  
23      is—

24              (A) conducted during each fiscal year be-  
25              ginning after the last day of the second full fis-

1 cal year following the date of enactment of this  
2 Act; and

3 (B) funded through research grants, on  
4 musculoskeletal health, awarded by either the  
5 Director of the National Institutes of Health or  
6 the Director of the Agency for Healthcare Re-  
7 search and Quality.

8 (2) DEADLINE FOR REGULATIONS.—Not later  
9 than the last day of the 2-year period beginning on  
10 the date of enactment of this Act, the Secretary  
11 shall issue the regulations required by paragraph  
12 (1).

13 (b) NEW INVESTIGATORS IN MUSCULOSKELETAL RE-  
14 SEARCH.—

15 (1) REPORT.—Not later than 90 days after the  
16 last day of each fiscal year that begins more than  
17 1 year following the date of enactment of this Act,  
18 the Secretary, in consultation with the Director of  
19 the National Institutes of Health, shall prepare and  
20 submit to Congress a report on each of the fol-  
21 lowing:

22 (A) The number of new investigators who  
23 are awarded grants for musculoskeletal health  
24 research by the National Institutes of Health  
25 during the fiscal year involved.

1           (B) The total amount of funds awarded to  
2           those investigators through such grants during  
3           the fiscal year.

4           (C) The percentage of the National Insti-  
5           tutes of Health's budget for musculoskeletal  
6           health research that was awarded to those in-  
7           vestigators through such grants during the fis-  
8           cal year.

9           (D) The backgrounds of those investiga-  
10          tors who are awarded such grants during the  
11          fiscal year, analyzed by race and ethnicity.

12          (E) A description of the efforts made by  
13          the Director of the National Institutes of  
14          Health to encourage individuals from underrep-  
15          resented minority groups (as defined by the  
16          Secretary) to apply for grants for musculo-  
17          skeletal health research awarded by the Na-  
18          tional Institutes of Health during the fiscal  
19          year.

20          (2) RECOMMENDATIONS.—The first report sub-  
21          mitted under paragraph (1) shall include, and subse-  
22          quent reports may include, recommendations con-  
23          cerning additional resources that the National Insti-  
24          tutes of Health or other entities could use—

1 (A) to increase the number of new inves-  
 2 tigators awarded grants referred to in para-  
 3 graph (1)(A); and

4 (B) to increase the number of new inves-  
 5 tigators awarded such grants who are members  
 6 of underrepresented minority groups (as defined  
 7 by the Secretary).

8 (3) DEFINITIONS.—In this section:

9 (A) NEW INVESTIGATOR.—The term “new  
 10 investigator” has the meaning given the term  
 11 by the Secretary for purposes of administering  
 12 title III of the Public Health Service Act (42  
 13 U.S.C. 241 et seq.), but only with respect to  
 14 musculoskeletal health research.

15 (B) RACE; ETHNICITY.—The terms “race”  
 16 and “ethnicity” have the meanings given such  
 17 terms by the Office of Management and Budget  
 18 for purposes of Federal statistics and adminis-  
 19 trative reporting.

20 **SEC. 103. MUSCULOSKELETAL TRAUMA RESEARCH AND**  
 21 **CARE.**

22 (a) MUSCULOSKELETAL TRAUMA RESEARCH.—

23 (1) REPORT.—Not later than 2 years after the  
 24 date of enactment of this Act, the Secretary shall  
 25 prepare and submit to Congress a report on all pro-

grams and activities relating to musculoskeletal trauma care that are being conducted by the Federal Government or supported by funding made available by Federal Government.

(2) CONTENTS OF REPORT.—Such report shall include, at a minimum, each of the following:

(A) Information on the status of each Federal program and activity referred to in paragraph (1), including specific information on any research program and activity.

(B) Information on the methods being used to coordinate research being conducted under such Federal programs and activities and the effectiveness of such methods.

(3) CONSULTATION.—In preparing the report under paragraph (1), the Secretary shall consult with—

(A) the Secretary of Defense; and

(B) the heads of other Federal departments and agencies that administer programs and activities relating to musculoskeletal trauma care, as determined by the Secretary of Health and Human Services.

(b) ORTHOPAEDIC TREATMENT THROUGH TRAUMA CARE SYSTEMS.—

1           (1) STUDY.—The Secretary shall conduct a  
2           study on the impact of trauma care systems that  
3           connect hospitals with other providers of musculo-  
4           skeletal health care services (including orthopedists).

5           (2) PURPOSES OF STUDY.—The purposes of the  
6           study under paragraph (1) shall include, at a min-  
7           imum, each of the following:

8                   (A) An examination of the provision of  
9                   acute and rehabilitative care to trauma patients  
10                  with musculoskeletal injuries or other condi-  
11                  tions.

12                  (B) An examination of epidemiological  
13                  data on trauma patients with musculoskeletal  
14                  injuries or other conditions, including the num-  
15                  ber of such patients, the number of such inju-  
16                  ries and conditions, and the types of such inju-  
17                  ries and conditions.

18                  (C) An evaluation of the ability of a pa-  
19                  tient with an orthopaedic injury or other condi-  
20                  tion originating from musculoskeletal trauma to  
21                  access specialty care relevant to that injury or  
22                  condition.

23                  (D) An examination of the impact of trau-  
24                  ma rehabilitation care on musculoskeletal  
25                  health and the ability of trauma patients with



1           musculoskeletal injuries or other conditions to  
2           access postacute rehabilitative services.

3           (3) REPORT.—Not later than 2 years after the  
4           date of enactment of this Act, the Secretary shall  
5           submit to Congress a report on the results of the  
6           study conducted under paragraph (1), including rec-  
7           ommendations for improving the treatment of trau-  
8           ma patients with musculoskeletal injuries or other  
9           conditions.

10 **SEC. 104. TRANSPLANTS, TISSUES, AND REPLACEMENT**  
11 **JOINTS.**

12           (a) TRANSPLANTATION TRANSMISSION SENTINEL  
13 NETWORK.—Section 372(b)(2) of the Public Health Serv-  
14 ice Act (42 U.S.C. 274(b)(2)) is amended—

15           (1) in subparagraph (N), by striking “and” at  
16           the end;

17           (2) in subparagraph (O), by striking the period  
18           at the end and inserting “, and”; and

19           (3) by adding at the end the following:

20           “(P) establish and operate a national web-based  
21           system, to be known as the ‘Transplantation Trans-  
22           mission Sentinel Network’, for the detection, report-  
23           ing, and tracking of disease transmission from  
24           organ, tissue, or eye donors to organ, tissue or eye  
25           transplant recipients.”.

1 (b) ACCREDITATION OF ESTABLISHMENTS AND PER-  
2 SONNEL ENGAGED IN THE MANUFACTURE OF HUMAN  
3 CELLS, TISSUES, OR CELLULAR OR TISSUE-BASED PROD-  
4 UCTS.—

5 (1) IN GENERAL.—The Secretary shall issue  
6 regulations relating to the accreditation of—

7 (A) establishments; and

8 (B) personnel who participate in the recov-  
9 ery, processing, storage, labeling, packaging, or  
10 distribution of human cells, tissues, or cellular  
11 or tissue-based products for such establish-  
12 ments.

13 (2) AUTHORITY OF SECRETARY.—In issuing the  
14 regulations under paragraph (1), the Secretary  
15 shall—

16 (A) establish an accreditation process mod-  
17 eled after the process used by the Joint Com-  
18 mission (previously known as the Joint Com-  
19 mission on Accreditation of Healthcare Organi-  
20 zations); or

21 (B) adopt an accreditation process, estab-  
22 lished by a private entity, that is in effect on  
23 the date of enactment of this Act.

24 (3) DEFINITIONS.—In this subsection:

1 (A) ESTABLISHMENT.—The term “estab-  
2 lishment” has the meaning given such term in  
3 section 1271.3 of title 21, Code of Federal Reg-  
4 ulations (or any corresponding similar regula-  
5 tion or ruling).

6 (B) HUMAN CELLS, TISSUES, OR CEL-  
7 LULAR OR TISSUE-BASED PRODUCTS.—The  
8 term “human cells, tissues, or cellular or tissue-  
9 based products” has the meaning given such  
10 term in section 1271.3 of title 21, Code of Fed-  
11 eral Regulations (or any corresponding similar  
12 regulation or ruling).

13 (c) NATIONAL JOINT REPLACEMENT REGISTRY  
14 STUDY.—

15 (1) STUDY.—The Secretary shall conduct a  
16 study evaluating the advantages and disadvantages  
17 of establishing a national registry for the purpose of  
18 tracking the safety and effectiveness of artificial  
19 joints used to replace joints in beneficiaries of the  
20 Medicare program under title XVIII of the Social  
21 Security Act (42 U.S.C. 1395 et seq.).

22 (2) CONTENTS OF PROPOSED REGISTRY.—In  
23 evaluating the proposed registry under paragraph  
24 (1), the Secretary shall assume that the registry in-  
25 cludes, at a minimum, information on—

1 (A) the type of joint replaced;

2 (B) the side of the body on which the joint  
3 is replaced;

4 (C) whether more than 1 operation was re-  
5 quired in replacing a joint with an artificial  
6 joint; and

7 (D) uniform identifiers (including the de-  
8 vice lot number and catalog number) for the ar-  
9 tificial joint involved.

10 (3) REPORT.—Not later than 2 years after the  
11 date of enactment of this Act, the Secretary shall  
12 submit to Congress a report on the results of the  
13 study under paragraph (1) and recommendation for  
14 changes to the Medicare program, including any nec-  
15 essary changes to the Medicare claims form, to allow  
16 for the collection of information required for the reg-  
17 istry.

18 **SEC. 105. TRAFFIC AND WORKPLACE SAFETY.**

19 (a) TRAFFIC SAFETY STUDY.—

20 (1) STUDY.—The Secretary, in consultation  
21 with the Secretary of Transportation, shall conduct  
22 a study, using epidemiological methods, on the fre-  
23 quency, severity, and likely causes of severe trauma  
24 to extremities resulting from motor vehicle crashes.

1           (2) REPORT.—Not later than 2 years after the  
2       date of enactment of this Act, the Secretary of  
3       Health and Human Services shall submit to Con-  
4       gress a report on the results of the study conducted  
5       under paragraph (1).

6           (3) MOTOR VEHICLE DEFINED.—In this sub-  
7       section, the term “motor vehicle” has the meaning  
8       given such term in section 405 of title 23, United  
9       States Code.

10       (b) WORKPLACE SAFETY STUDY.—

11           (1) IN GENERAL.—The Secretary, in consulta-  
12       tion with the Secretary of Labor, shall conduct a  
13       study, within the research framework of the Na-  
14       tional Occupational Research Agenda coordinated by  
15       the National Institute for Occupational Safety and  
16       Health, on—

17                (A) the number of workplace-related mus-  
18       culoskeletal injuries and other conditions; and

19                (B) medical treatments provided to individ-  
20       uals to treat such injuries and conditions.

21           (2) COLLECTION METHODOLOGY.—In con-  
22       ducting the study under paragraph (1), the Sec-  
23       retary of Health and Human Services shall collect  
24       information in a manner that allows such informa-  
25       tion to be reported and analyzed on the basis of the

1 type of musculoskeletal injury or condition involved  
2 and the race and ethnicity of the individual with  
3 such injury or condition.

4 (3) REQUEST FOR INFORMATION FROM STATE  
5 WORKERS COMPENSATION BOARDS.—The Secretary  
6 may request that the head of each State agency that  
7 has jurisdiction over workers compensation submit  
8 information relevant to the study under paragraph  
9 (1) to the Secretary.

10 (4) REPORT.—Not later than 2 years after the  
11 date of enactment of this Act, the Secretary shall  
12 submit to Congress a report on the results of the  
13 study under paragraph (1), analyzed by type of in-  
14 jury or condition, and race and ethnicity.

15 **SEC. 106. PUBLIC EDUCATION CAMPAIGN.**

16 (a) IN GENERAL.—The Secretary, in consultation  
17 with the Secretary of Education, the Secretary of Trans-  
18 portation, the Chairman of the Consumer Product Safety  
19 Commission, and the Chair of the President’s Council on  
20 Physical Fitness and Sports, shall conduct a national pub-  
21 lic awareness program on musculoskeletal health.

22 (b) CONTENTS OF PROGRAM.—The program shall in-  
23 clude, at a minimum, each of the following components:

24 (1) GENERAL INFORMATION FOR THE PUB-  
25 LIC.—A component providing education to the gen-

1        eral public on musculoskeletal health, including edu-  
 2        cation on healthy lifestyle practices relating to mus-  
 3        culoskeletal health.

4            (2)    EDUCATION    FOR    HEALTH    PROFES-  
 5        SIONALS.—A component providing education to  
 6        health professionals on musculoskeletal health, in-  
 7        cluding—

8            (A) specific information on musculoskeletal  
 9        health in medically underserved populations (as  
 10       defined in section 330(b)(3) of the Public  
 11       Health Service Act (42 U.S.C. 254b(b)(3)));  
 12       and

13           (B) information of the impact of musculo-  
 14       skeletal diseases and other conditions on racial  
 15       and ethnic minority populations.

16           (3) EDUCATION FOR GIRLS.—A component that  
 17       utilizes the program popularly known as “powerful  
 18       bones, powerful girls” to educate girls ages 9  
 19       through 12 on optimal bone health and the methods  
 20       to achieve such health, with a focus on reducing the  
 21       risk that such girls will develop osteoporosis as  
 22       adults.

23           (4) EDUCATION FOR SPECIAL POPULATIONS.—  
 24       A component providing education to each of the fol-

1       lowing populations, that addresses the specific needs  
2       of those populations:

3               (A) Populations of the United States that  
4               have disproportionately high levels of musculo-  
5               skeletal disease and injury and other conditions.

6               (B) Populations of the United States that  
7               have disproportionally low levels of access to  
8               orthopaedic services.

9               (C) Racial and ethnic minority populations  
10              of the United States.

11 **SEC. 107. ORTHOPAEDIC PHYSICIAN WORKFORCE TRAIN-**  
12 **ING STUDY.**

13       (a) STUDY.—The Secretary, acting through the Ad-  
14 ministrator of the Health Resources and Services Admin-  
15 istration, shall conduct a study on the amount of funding  
16 available, from all sources, for graduate medical education  
17 in orthopaedics and the impact of that amount of funding  
18 on the availability of physicians trained in orthopaedics.

19       (b) REPORT.—Not later than 2 years after the date  
20 of enactment of this Act, the Secretary shall submit to  
21 Congress a report on the results of the study conducted  
22 under subsection (a).

23 **SEC. 108. BONE DENSITY UNDER THE MEDICARE PROGRAM.**

24       (a) STANDARD MEASUREMENT TOOL FOR BONE  
25 DENSITY STUDY.—



1           (1) STUDY.—The Secretary, in consultation  
2           with the Director of the Agency for Healthcare Re-  
3           search and Quality, the Director of the National In-  
4           stitute of Biomedical Imaging and Bioengineering,  
5           and the Administrator of the Centers for Medicare  
6           & Medicaid Services, shall conduct a study on—

7                   (A) the cost-effectiveness of all available  
8                   methods for measuring bone mass in bene-  
9                   ficiaries of the Medicare program under title  
10                  XVIII of the Social Security Act (42 U.S.C.  
11                  1395 et seq.) for the purpose of identifying the  
12                  most cost-effective method;

13                  (B) the cost-effectiveness of different time  
14                  intervals between bone mass screenings for such  
15                  beneficiaries for the purpose of identifying the  
16                  most cost-effective interval; and

17                  (C) the frequency with which the cost-ef-  
18                  fectiveness of such methods and intervals  
19                  should be reviewed based on anticipated  
20                  changes in technology.

21           (2) REPORT.—

22                   (A) IN GENERAL.—Not later than 2 years  
23                  after the date of enactment of this Act, the Sec-  
24                  retary shall submit to Congress and the Sec-

retary of Commerce a report on the results of the study under paragraph (1).

(B) CONTENTS OF REPORT.—The report submitted under subparagraph (A) shall include, at a minimum, information on each of the following:

(i) The most cost-effective method for measuring bone mass in beneficiaries of the Medicare program and a recommendation for the adoption of such method by the Medicare program.

(ii) The most cost-effective interval between bone mass screenings for such beneficiaries and recommendation for the adoption of such interval by the Medicare program.

(3) UNITED STATES PREVENTIVE SERVICES TASK FORCE.—In making the recommendations under paragraph (2)(B), the Secretary shall take into consideration any relevant guidelines in the most recent Guide to Clinical Preventive Services issued by the United States Preventive Services Task Force.

(4) REVISIONS TO RECOMMENDATIONS.—The Secretary shall monitor developments in technology

1       used to measure bone density and prepare and sub-  
2       mit to Congress and the Secretary of Commerce re-  
3       ports updating the recommendations made under  
4       paragraph (2)(B), as needed.

5       (b) STANDARD UNIT FOR MEASURING BONE DEN-  
6       SITY.—

7               (1) REPORT.—Not later than 3 years after the  
8       date of enactment of this Act, the Secretary of Com-  
9       merce, acting through the Director of the National  
10      Institute of Standards and Technology, shall prepare  
11      and submit to Congress a report containing rec-  
12      ommendations concerning a standard unit for the  
13      measurement of bone mass for use by the Medicare  
14      program under title XVIII of the Social Security Act  
15      (42 U.S.C. 1395 et seq.).

16              (2) CONSIDERATIONS FOR RECOMMENDA-  
17      TIONS.—In proposing the recommendations under  
18      paragraph (1), the Secretary of Commerce shall take  
19      into consideration the recommendations made under  
20      subsection (a)(2)(B), including any applicable up-  
21      dates to such recommendations made under sub-  
22      section (a)(4), and the accuracy and utility of the  
23      recommended standard measurement unit as a diag-  
24      nostic tool.

1 **SEC. 109. ACCESS TO ORTHOPAEDIC SERVICES FOR BENE-**  
 2 **FICIARIES OF MEDICAID AND SCHIP.**

3 (a) REPORT.—Not later than 2 years after the date  
 4 of enactment of this Act, the Comptroller General of the  
 5 United States shall prepare and submit a report to Con-  
 6 gress on access to orthopaedic services—

7 (1) by beneficiaries of the Medicaid program  
 8 under title XIX of the Social Security Act (42  
 9 U.S.C. 1396 et seq.); and

10 (2) by beneficiaries of the State children’s  
 11 health insurance program under title XXI of the So-  
 12 cial Security Act (42 U.S.C. 1397aa et seq.).

13 (b) FOCUS ON BARRIERS TO ACCESS AFFECTING  
 14 CHILDREN.—The report prepared under this section shall  
 15 include, at a minimum, information on barriers to access  
 16 to orthopaedic services that disproportionately affect chil-  
 17 dren who are beneficiaries of the Medicaid program or the  
 18 State children’s health insurance program.

19 **SEC. 110. AGE-RELATED PROGRAMS.**

20 (a) STATE-BASED EXAMPLES OF NETWORK INNOVA-  
 21 TION, OPPORTUNITY, AND REPLICATION GRANT PRO-  
 22 GRAM.—The Secretary shall award grants to State agen-  
 23 cies in a manner similar to the manner in which grants  
 24 were awarded under the program of the Department of  
 25 Health and Human Services popularly known as the  
 26 “State-based Examples of Network Innovation, Oppor-

1 tunity, and Replication Grant Program” for the purpose  
 2 of allowing such State agencies to establish or expand  
 3 health and aging activities for seniors in the areas of clin-  
 4 ical preventive services, physical activity, chronic disease  
 5 self-management, and oral health.

6 (b) CHILDHOOD MUSCULOSKELETAL DISEASES,  
 7 CONDITIONS, AND INJURIES REPORT.—Not later than 2  
 8 years after the date of enactment of this Act, the Surgeon  
 9 General shall prepare and submit to Congress a report on  
 10 the burdens and costs associated with childhood musculo-  
 11 skeletal diseases, conditions, and injuries in the United  
 12 States.

13 **SEC. 111. MINORITY HEALTH DISPARITIES.**

14 The Secretary, acting through the Deputy Assistant  
 15 Secretary for Minority Health, shall treat musculoskeletal  
 16 diseases and conditions as a priority for programs and  
 17 grants affiliated with the Office of Minority Health and  
 18 may incorporate initiatives related to musculoskeletal dis-  
 19 eases and conditions into the initiatives of such Office.

20 **TITLE II—THIRD LONGITUDINAL**  
 21 **STUDY ON AGING**

22 **SEC. 201. THIRD LONGITUDINAL STUDY ON AGING.**

23 (a) IN GENERAL.—The Secretary, acting through the  
 24 Director of the National Center for Health Statistics and  
 25 in consultation with the Director of the National Institute

1 on Aging, shall conduct a third longitudinal study on  
2 aging in the United States in a manner similar to the  
3 manner in which the second longitudinal study on aging  
4 was conducted.

5 (b) DURATION.—The duration of the third longitu-  
6 dinal study under subsection (a) shall be at least 6 years.

7 (c) AVAILABILITY OF DATA.—Data collected through  
8 the third longitudinal study under subsection (a) shall be  
9 made available to the public in a time and manner similar  
10 to the time and manner in which data from the second  
11 longitudinal study on aging was made available to the pub-  
12 lic.

