Request for Approval for Registration of Individuals with Amyotrophic Lateral Sclerosis (ALS) in the National ALS Registry

Part A

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Point of Contact:
Oleg Muravov, MD, PhD
Division of Health Studies
Agency for Toxic Substances and Disease Registry
4770 Buford Highway, MS F-57
Atlanta, GA 30341
Phone: 770-488-3817
Fax: 770-488-1537
Email: oim0@cdc.gov

A. Justification

1. Circumstances Making the Collection of Information Necessary

ATDSR is authorized by the Public Health Law No: 110-373, ALS Registry Act (Attachment 1) to (1) develop a system to collect data on amyotrophic lateral sclerosis (ALS) and other motor neuron disorders that can be confused with ALS, misdiagnosed as ALS, or progress to ALS; and (2) establish a national registry for the collection and storage of such data to develop a population-based registry of cases.

This data collection activity is a result of several meetings between the stakeholders including scientists, neurologists, advocacy groups, and ethicists and ATSDR. ATSDR developed a proposal to build on work that had already been done and coordinate the extant groups and create a larger database, rather than to start from scratch. The proposal outlined a strategy for identifying people using administrative databases such as Medicare, Medicaid, the VA, and health insurance databases, and then to build on that data. ATSDR has funded four pilot projects through contracts to begin evaluating this strategy for ALS. ATSDR worked with outside agencies and organizations such as the Centers for Medicare and Medicaid Services (CMS), the Veterans Health Administration, and the Amyotrophic Lateral Sclerosis Association (ALSA) to obtain information on people with ALS to use as part of the pilot projects. All pilot projects worked with abstracting existing data and did not involve any interviews. The four geographically diverse pilot projects including tertiary care facilities for ALS, HMOs, and state based organizations. These four pilot projects matched data from Medicare, Medicaid, the Veterans Health Administration, and Veterans Benefits Administration to data available within the four pilot project sites administrative and clinical databases for a 5-year time period (January 1, 2001 – December 31, 2005). ATSDR provided the pilot projects with individual encounters with an ICD-9 code for any MND (335.2-335.29) for the specific project catchment area. Pilot projects completed a standardized spreadsheet developed by ATSDR for each individual found in any database indicating in which database(s) a record was located, ICD-9 code recorded for the encounter, as well as the years and types of providers seen. That is, existing data from multiple encounters were summarized into a single line per individual. Medical records were abstracted and diagnoses verified. A deidentified dataset was sent to ATSDR for analysis. All individuals who were identified with a possible ALS diagnosis, as indicated by ICD-9 code for any MND, and had their medical record reviewed by a neurologist from the four pilot projects were combined. Approximately 4400 medical records were reviewed. Preliminary data indicated that not all persons with ALS will be identified using existing data therefore a self-registration portion is proposed. A bill to amend the Public Health Service Act to provide for the establishment of an Amyotrophic Lateral Sclerosis Registry, S. 1382: ALS Registry Act, was signed into law on October 10, 2008 by President Bush and became Public Law No: 110-373. The activities described are part of the effort to create the National ALS Registry. As a result, a clearance package is being submitted in order to allow data collection immediately following OMB/PRA approval.

PRIVACY IMPACT ASSESSMENT INFORMATION*

Overview of the Data Collection System

The ALS registry allows for web-based collection of data on individuals with ALS. Once an individual is registered he/she can voluntarily participate in on-line surveys of risk-factors for ALS. Data collection is organized in a modular format that can be expanded as additional scientific information becomes available as well as to decrease the fatigue burden on participants.

*Note because the ALS Registry will be an online system DHS has been working with the ATSDR ISSO for more than a year on a full PIA. The PIA is part of the C&A that must be approved by the OCISO before the system goes online. We are including the usual PIA information in the supporting statement to aid OMB/PRA DC reviewers.

Individuals who register will create an account with a password and security questions. Account name and password will be necessary to access the account. Once an account is created or a survey module completed, this information will be removed from the web-based system to a secure server without Internet access. It is ready for online use as soon as OMB/PRA approval is obtained.

Items of Information to be Collected

Registry items to be collected include information to make sure that there are no duplicates: Information in Identifiable form (IIF) include: full name, email address, city and state, last 5 digits of the social security number, month and year of birth. Survey modules to be filled out include information on known or suspected risk factors and disease progression and could include smoking, military service, occupational history, residential history, history of traumatic injury, and symptoms. Personal identifiers will be discussed in further detail, in

Section A.10. ATSDR will ensure that several safeguards remain in effect throughout the duration of the registry. These safeguards are also discussed in Section A.10. Screen shots of the web-based instrument can be found in Attachment 5 of this supporting statement.

Identification of Website and Website Content Directed at Children Under 13 Years of Age

This information collection will involve web-based data collection methods. The registry is directed to persons with ALS who are most likely to be diagnosed between the ages of 55 and 75. Cases are rarely diagnosed below the age of 30 years of age. Others who can register are family members of affected persons or researchers. No content is directed to children under 13 years of age.

2. Purpose and Use of Information Collection

The purpose of this information collection is to gather specific data related to Amyotrophic Lateral Sclerosis (ALS). The objective of this information collection is to develop a population-based surveillance system/registry for ALS. The primary goal of the surveillance system/registry is to obtain reliable information on the incidence and prevalence of ALS and to better describe the demographic characteristics (age, race, sex, and geographic location) of

those with ALS. The secondary goal of the surveillance system/registry is to collect additional information on potential risk factors for ALS including, but not limited to, family history of ALS, smoking history, and military service. These risk factors were chosen because they are the only known and consistently recognized risk factors for ALS, and we want to obtain baseline assessment of basic risk factors on the registry participants. It is hoped that additional self-administered risk factor modules will be developed and submitted to OMB for deployment as part of the National ALS Registry. The data collected will be used to describe the characteristics of the ALS Registry participants. Data can also be used to generate hypotheses which could become the subject of research studies.

Privacy Impact Assessment Information*

The information in identifiable form (IIF) will be used for the purpose of recording and clarifying information that has been provided by the registrants and obtained from existing databases and to avoid duplication of reporting of cases. There are no plans to share the IIF with anyone other than ATSDR staff and contractors working on the ALS registry.

Information that might be considered sensitive by a portion of the general public (particularly full name along with self verification of having a diagnosis of ALS) is being collected, so there would be a likely effect on the respondent's privacy if there were a breach of confidentiality. Accordingly, very stringent safeguards have been put in place as described in Section A.10.

3. Use of Improved Information Technology and Burden Reduction

This collection of information will be done using electronic techniques in lieu of paper reporting forms. Once registered, cases will have the opportunity to participate in questionnaires that collect information on risk factors. All participation is voluntary. The registration instrument requires collection of only the minimum information necessary for the purposes of the registry system.

4. Efforts to Identify Duplication and Use of Similar Information

Because ATSDR staff is in communication with The Council of State and Territorial Epidemiologists, advocacy groups, and ALS researchers, it is clear that no nationwide collection exists for this field of study. The literature describes a number of research studies on hospital or physician based cases, but there is no prior history of a national registry. Communications with experts in ALS did not bring to light any similar data collection efforts. No other collective registry exists that tracks ALS nationwide.

5. Impact on Small Businesses or Other Small Entities

No small businesses will be involved in this data collection.

6. Consequences of Collecting the Information Less Frequently

The average life expectancy for an individual after diagnosis with ALS is 2-3 years. Because of this it is necessary to allow individuals to register as soon as they are diagnosed. Without prompt registration individuals may become too ill or die before participating.

There are no legal obstacles to reduce the burden.

7. Special Circumstances Relating to the Guidelines of 5 CFR 1320.5

Special circumstances do exist which require information collection to be conducted in a manner more often than quarterly. Each individual will self-report. Because of the severity of the illness, life expectancy 2-3 years after diagnosis, it is important to allow individuals to register at their convenience.

Other than those mentioned previously, there are no other special circumstances associated with this data collection.

8. Comments in Response to the Federal Register Notice and Efforts to Consult Outside the Agency

A. A 60-day Federal Register Notice was published in the *Federal Register* on May 28, 2009, vol. 74, No.101, pp. 25552-25553 (Attachment 2). We received comments from two advocacy groups, the ALS Association (ALSA) and the Muscular Dystrophy Association (MDA) (Attachments 3a and 3c). The responses can be found in Attachments 3b and 3d. In general, the comments were supportive of a National ALS Registry and a self-registration option. Both groups offered to assist ATSDR with publicizing the Registry which will be important to maximize participation. No comments were made regarding costs or burden.

B. The following individuals were consulted to obtain their views on the availability of data, the clarity of instructions, disclosure, and on the data elements to be recorded and reported. A meeting was held in Atlanta, Georgia, June 24-25, 2009.

Michael Benatar, MD
Neurologist, Emory Department of Neurology
Woodruff Memorial Building
101 Woodruff Circle, Suite 6000
Atlanta, GA 30344
Phone: 404-727-3507
Fax: 404-727-3157
Email: michael.benatar@emory.edu

Lucie Bruijn, PhD

Science Director and Vice President
Amyotrophic Lateral Sclerosis Association
27001 Agoura Road, Suite 150
Calabasas Hills, CA 31301-5104
Phone: 727-942-8949
Fax: 818-880-9006
Email: lucie@alsa-national.org

William Culpepper II, MA
Baltimore Veterans Affairs Medical Center
100 N. Green Street, Lower Leve
Baltimore, MD 21201
Phone: 410-706-0071
Fax: 410-606-0098
Email: William.Culpepper@va.gov

Valerie Cwik, MD
Medical Director
Muscular Dystrophy Association
3300 East Sunrise Drive
Tucson, AZ 85718
Phone: 520-529-5496
Fax: 520-529-5454
Email: vcwik@mdausa.org

Stevan Gibson
Vice President, Government Relations & Public Affairs
Amyotrophic Lateral Sclerosis Association
601 Pennsylvania Avenue NW
Suite 900-South
Washington, DC 20004
Phone: 202-638-6997
Fax: 202-638-6316
Email: steve@alsa-national.org

Mark C. Hornbrook, PhD
Chief Scientist, The Center for Health Research
Northwest/Hawai'i/Southeast
Kaiser Permanente Northwest
3800 North Interstate Avenue
Portland, OR 97227-1110
Email: Mark.C.Hornbrook@kpchr.org

Edward Kasarskis, MD, PhD

Co-Principal Investigator, VA Neurology Service
VA ALS Registry
Cooper Drive Division (127)
Lexington, KY 40511
Phone: 859-281-4920
Fax: 859-281-4817
Email: ejkas@email.uky.edu

Wendy Kaye, PhD
Senior Epidemiologist
McKing Consulting Corporation
4770 Buford Highway, MS F-57
Atlanta, GA 30341
Phone: 770-488-3699
Email: wek1@cdc.gov

Annie Kennedy
Vice President – Advocacy
Muscular Dystrophy Association
National Advocacy Office
1025 Connecticut Ave. NW, Suite 907
Washington, DC 20036
Phone: 703-342-9059
Fax: 520-529-5454
Email: akennedy@mdausa.org

Jay Mandrekar, PhD
Statistician
Mayo Clinic
200 First Street SW
Plummer 6-56
Rochester, MN 55905
Phone: 507-266-0573
Fax: 507-284-9542
Email: Mandrekar.Jay@mayo.edu

Sharon Matland, RN, MBA
Vice President, Patient Services
Amyotrophic Lateral Sclerosis Association
27001 Agoura Road, Suite 150
Calabasas Hills, CA 91301-5104
Phone: 818-880-9007, ext. 217
Fax: 818-880-9006
Email: smatland@alsa-national.org

Lorene Nelson, PhD
Associate Profession & Chief
Division of Epidemiology
Department of Health Research & Policy
Standford University School of Medicine
Pasteur Drive, Room T233
Stanford, CA 94305-5405
Phone: 650-723-6854
Fax: 650-725-6951
Email: lnelson@stanford.edu

Julie Royer, MSPH
Statistician, Office of Research and Statistics
South Carolina Budget and Control Board
1919 Blanding Street
Columbia, SC 29201
Phone: 803-898-9701
Fax: 803-898-9972
Email: julie.royer@ors.sc.gov

Eric Sorenson, MD
Neurologist
Mayo Clinic
200 First Street SW
Plummer 6-56
Rochester, MN 55905
Phone: 507-284-8729
Fax: 507-284-1013
Email: Sorenson.Eric@mayo.edu

Anne Sowell, PhD
Agency for Toxic Substances and Disease Registry
4770 Buford Highway, MS F-57
Atlanta, GA 30341
Phone: 770-488-3667
Email: asowell@cdc.gov

David Stickler, MD
Assistant Professor of Neurology
Director, ALS Clinic
Medical University of South Carolina
96 Jonathan Lucas St, 307 CSB
Charleston, SC 29425

Phone: 843-792-3221
Email: stickle@musc.edu

David Thurman, MD
Centers for Disease Control and Prevention
4770 Buford Highway, NE MS K-51
Atlanta, GA 30341
Phone: 770-488-6090
Fax: 770-488-5486
Email: DThurman@cdc.gov

Stephen Van Den Eeden, PhD
Senior Epidemiologist, Division of Research
Kaiser Permanente Northern California
2000 Broadway
Oakland, CA 94612
Phone: 510 891-3718
Fax: 510 891-3761
Email: Stephen.Vandeneeden@kp.org

Patrick Wildman
Director, Communications and Public Policy
Amyotrophic Lateral Sclerosis Association
601 Pennsylvania Ave., NW
Suite 900, South Building
Washington, DC 20004
Ph: (202) 638-6997
Fax: (202) 638-6316
E-mail: pwildman@alsa-national.org

9. Explanation of Any Payment or Gift to Respondents

Participants will not receive any cash payment or gift for participating.

10. Assurance of Confidentiality Provided to Respondents

Registration questions include full name, city and state, email address, month and year of birth and last five digits of the Social security numbers. This information is necessary because case information will be collected from a number of sources and it is imperative that duplicates be identified and consolidated. The primary goal of the registry is to provide accurate estimates of incidence and prevalence which cannot be done without removing duplicate entries. Although information about disease is needed to verify eligibility, the individual responses other than date of diagnosis will not be stored.

PRIVACY IMPACT ASSESSMENT INFORMATION*

This submission has been reviewed by the NCEH/ATSDR Privacy and Confidentiality Officer who determined that the Privacy Act does apply. The applicable Systems of Records Notice is 09-19-0001, "Records of Persons Exposed or Potentially Exposed to Hazardous or Toxic Substances."

Data security is of paramount importance and technical, physical, and administrative safeguards are outlined below.

Creating an account

External Users (ALS Patients / External Researchers) must self-register before accessing the ALS Web Portal. Personal information is collected during this registration process and users are allowed to create their own unique username and password. Users are also required to answer security questions which are used as alternative authentication credentials if their password is forgotten. Upon successful registration, users are required to login into their account using their username and password. External Users are authenticated against a backend SQL encrypted database.

Internal Users (CDC Employees / System Administrators) are required to be pre-approved by ATSDR management before accessing the ALS Intranet Web Portal. Once a user is approved, ATSDR management sends a request to the System Administrator to create a user account. The request must include the user's CDC User ID, First Name, Last Name, Gender, City, State, Country, and Email in order for the System Administrator to add the user to the ALS System. Users must first log into the CDC network to access the ALS Intranet Web Portal and are authenticated using Active Directory. No login is required.

The ALS system creates a sequential unique identifier in the database every time a user account is created. This unique identifier identifies each user and is used to link user information inside the system. Another unique identifier (Last 5 digits of SSN) will be used to verify patient data outside of the ALS system.

Login procedures

For authentication purposes, users will be verified using their unique username along with their password. External Users are allowed to self-register online and create their own username. Duplicate checks are implemented during registration to ensure uniqueness of usernames and emails.

Password management

External users are allowed to change or reset their passwords, but are not allowed to retrieve their password. Passwords can be changed via the user's account after the user has been authenticated by providing the old password and can only be changed once every 6 days. If a user forgets his/her password, the password can be reset by providing alternate authentication credentials. These credentials include the user's username, registered email

address, and a security question. Passwords are required to be reset every 60 days. Users will be given a 2 week email notice before their password expires. Users will be directed to reset their expired password if they attempt to login after their password has expired.

Usernames are unique and can not be changed. Users must contact the System Administrator by phone to retrieve their username. The System Administrator is required to ask verification questions before releasing any information to the user; which can include the user's first and last name, month & day of birth, City, State, Country, and two security questions.

The status of an account will change to inactive if the user has not logged into his/her account in 6 or more months. Users will be given a 2 week email notice before their account is inactivated. Users will be required to contact the System Administrator by phone to re-activate their account. The System Administrator will be required to verify the user by asking verification questions which include the user's First and Last Name, Date of Birth: Month & Year (ALS Patients only), Address: City, Province/State, Country, and 2 security questions.

No personal information or credentials can be sent to a user's email, only notices or confirmations.

User accounts can not be removed and remain in the database permanently. Only the account status can change.

Encryption

Information in Identifiable Form (IIF) fields will be masked on the Graphical User Interface because of the sensitivity of the data. For example, month and year of birth will be masked.

All Personally Identifying Information (PII) data which includes the last 5 digits of the SSN will be encrypted using AES_256 (Advance Encryption Standard 256 bit) encryption, the strongest encryption standard supported by SQL Server 2005.

To encrypt/decrypt data in database columns designed to hold PII data, a user must be given access to open and close a symmetric key. _

Minimize collection of identifiable information

The information required for registration has been limited to only that needed to make sure that an individual truly has ALS and is not already part of the registry. Address information has been limited to city and state, and email address; birth information has been limited to month and year of birth, and only the last five digits of the SSN will be collected.

Physical Controls

Production and test servers are stored in a server room secured by the CDC. Access tools are in place to secure entry into CDC buildings (Guards, ID Badges, Key Card, Cipher Locks, and Closed Circuit TV).

Data management

On a quarterly basis, data will be downloaded from the web-based portal and provided to ATSDR. ATSDR will merge the self-identified individuals into the registry after first checking for duplicates. The registry will be maintained on a secure server or stand-alone hard-drive. Access to the data will be limited to approved study personnel. Deidentified data sets will be used for data analysis.

There will be an opportunity for respondent consent. A screen providing Privacy Act information will appear prior to the registration screen on the website (Attachment 7). A copy of the consent document is included (Attachment 8) outlining the intended uses of the information collection and that there are no plans for identifiable data sharing other than with ATSDR staff and contractors working on the ALS registry. The CDC IRB has granted a waiver of consent for possible participants to complete the validation questions because these questions just determine eligibility and the data are not stored unless the person is eligible for the registry. Consent will be sought prior to registering or completing any surveys.

CDC/ATSDR IRB approval for the ALS registry protocol was obtained on 10/26/09. Documentation is included (Attachment 9).

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11. Justification for Sensitive Questions

Registration questions that might be considered sensitive by a portion of the general population include full name, month and year of birth, last five digits of the Social security numbers, and self verification of diagnosis of ALS. This information is necessary because case information will be collected from a number of sources and it is imperative that duplicates be identified and consolidated.

The National Registry is a combination of individuals identified through existing datasets and self-registration. The administrative data sets, Medicare, Medicaid, VHA, and VBA use SSN as a unique identifier. It will be necessary to use the SSN to make sure that there are no duplicates in the ALS registry. This is true for eliminating duplicates between the VA data and the Medicare data, for example, and adding the individuals self-identified via the web portal.

After analyzing approximately 362,000 unique patient records, ATSDR found that using the last four digits of the SSN and last name returned many duplicate matches. Month and year of birth cannot be used for verification because most of the patients fall within a narrow age range and Medicare data are known to contain many inaccuracies in these fields. An additional analysis of the data showed that using the First Initial, Full Last Name and last 5 digits of the SSN returned no duplicate matches for the available file.

It is estimated that there are approximately 30,000 people currently living with ALS and

6,000 people are diagnosed with ALS each year. All of these individuals would be eligible to join the registry which will increase the likelihood for duplicate matches as the number of cases increases. ATSDR wants to be proactive in eliminating verification issues that may appear in the future. We elected to request last five digits of the SSN for verification instead of the entire SSN to request the least amount of information necessary. ATSDR has gotten sign-off from the IT security for last five digits of the SSN pending OMB approval. In addition, ATSDR will submit the application for full C&A review after OMB approval.

The primary goal of the registry is to provide accurate estimates of incidence and prevalence which cannot be done without removing duplicate entries. Name alone is not sufficient to remove duplicates. Epidemiologic characteristics such as sex and geographic location are routinely collected because of their significance in describing effected populations and evaluating resource allocation.

12. Estimates of Annualized Burden Hours and Costs

A. Burden hours are included in Table 1. Approximately 6,000 individuals are expected to participate. The initial screening questions which determine eligibility are expected to take 2 minutes and registration to take 7 minutes. Registered individuals will have the opportunity to complete short surveys related to risk factors for ALS and demographic characteristics. There are 6 such surveys which take approximately 5 minutes each to complete and are completed only once. There is one survey related to progression of disease that can be completed twice a year which also takes approximately 5 minutes. If an individual was eligible, registered in the National ALS Registry, and completed all the surveys, the total burden would be 49 minutes.

Table 1: ESTIMATE OF ANNUALIZED BURDEN HOURS

Data Collection Instruments	No. of Respondents	No. of Responses per Respondent	Average Burden per Response (in hours)	Total Burden (in hours)
Validation questions (Screener) for suspected ALS cases	6,000	1	2/60	200
Registration Form of ALS cases	4,667	1	7/60	544
Cases of ALS completing 1-time surveys	2,334	6	5/60	1167
Cases of ALS completing twice yearly surveys	2,334	2	5/60	389
Total				2300

B. Burden costs are included in Table 2. The ALS cases will be members of the general

public. The hourly wage rate of $17.42 is based on the US Department of Labor, Bureau of Labor Statistics 2007 annual average hourly earning of private sector employees (http://www.bls.gov/ro3/fax_9250.htm).

Table 2: ESTIMATE OF ANNUALIZED BURDEN COSTS			
Type of Respondents	**Total Burden Hours**	**Hourly Wage Rate**	**Total Burden Costs ($)**
ALS Cases	2300	$17.42	$40,066

13. Estimates of Other Total Annual Cost Burden to Respondents or Record Keepers

There are no capital or maintenance costs incurred by respondents because the information will be entered via the Internet from any location. There are no costs or burden to respondents for recordkeeping.

14. Annualized Cost to the Government

Data analysis by ATSDR may result in action taken by the Division of Health Studies in response to the required CDC mandate in maintaining preventive health activities and surveillance systems. The action taken will vary, depending on the analysis.

The total cost to the federal government for the collection of this information for the three year ongoing project is $2,400,000 as itemized below.

Annual ATSDR personnel costs $220,000

Additional expenses will be incurred by ATSDR in order to operate a successful surveillance program/registry. Four staff will contribute to this program: a Senior Scientist (25% contribution=$40,000), and a program analyst (25% contribution = $35,000) A contractor will be used to maintain the web portal for case registration and participation in surveys in addition to providing public user support 40 hours per week ($500,000). Lesser expenses may include computer resources, telephone calls, and training materials (approximately $5,000).

The estimated annual cost to the government is $800,000.

15. Explanation for Program Changes or Adjustments

This is a new surveillance data collection.

16. Plans for Tabulation and Publication and Project Time Schedule

Statistical Analysis Plan:

CDC will aggregate the data provided by the registrants on a yearly basis.

A. 16-1	
Activity	**Time Schedule**
Activation	1 - 2 months after OMB approval
Surveillance Activity	Ongoing data collection
Summary Reports	Every year after OMB approval
Yearly Evaluation	Each year after OMB approval

We also plan to publish selected summary reports on CDC's website during the second year of this project.

17. Reason(s) Display of OMB Expiration Date is Inappropriate

Exemption from displaying the expiration date for the OMB approval of forms is not being requested.

18. Exceptions to Certification for Paperwork Reduction Act Submissions

There are no exceptions to the certification.