HOSPITAL DATA ABSTRACTION FORM

SUPPORTING STATEMENT

A. JUSTIFICATION

A1. CIRCUMSTANCES OF INFORMATION COLLECTION

Background

The Center for Mental Health Services (CMHS) within the Substance Abuse and Mental Health Services Administration (SAMHSA) is requesting a revision from OMB for the data collection associated with the Hospital Data Abstraction Form of the previously approved Evaluation of Emergency Department Crisis Center Follow-up (OMB No. 0930-0337; Expiration 09/30/2016). In recent years, building upon their experience providing follow-up services to suicidal hotline callers, crisis centers in the National Suicide Prevention Lifeline (Lifeline) have begun to engage in formal collaborations with hospitals which allow them to extend needed follow-up services to individuals who are seen in emergency departments or inpatient behavioral health units for suicidal behavior. These hospital–crisis center collaborations are designed to protect vulnerable individuals against recurrences of suicidal behavior and to facilitate linkage to ongoing mental health care. One measure of the effectiveness of these collaborations would be a reduction in readmissions for suicidal behavior on the part of individuals receiving crisis center follow-up. The current clearance request aims to assess whether crisis center follow-up of individuals seen in emergency departments and inpatient behavioral health units following a suicide attempt does in fact reduce readmissions for suicidal behavior in the subsequent year. The evaluation will involve the analysis of de-identified data extracted from electronic medical records at hospitals currently referring suicidal patients to Lifeline crisis centers for follow-up care. The hospitals will provide the research team with de-identified data on all patients seen in the emergency department following a suicide attempt during a "pre-collaboration" period prior to the commencement of crisis center follow-up, and during a "collaboration" period, following the commencement of crisis center follow-up. Each hospital and crisis center pair established its clinical collaboration prior to its participation in this evaluation. An active, ongoing clinical collaboration was an inclusion criterion for evaluation participation. The hospital-crisis center collaborations were established for purely clinical purposes, independent of the evaluation. As such, these clinical collaborations will continue after the evaluation's designated "collaboration period" ends.

The overall aim of the Hospital Data Abstraction Form is to continue/expand beyond the first cycle of data collection to a larger number of collaborations to determine the extent to which this collaboration between crisis centers and hospitals impacts readmission rates for suicidal behavior. This information will be used to advance the field of crisis center support to persons in crisis and inform future directions of the Lifeline.

Suicide is a national public health crisis, and is the tenth leading cause of death in the United States (Centers for Disease Control and Prevention, 2012). Suicide attempt survivors have the highest suicide risk of any group: people who have attempted suicide have a 12%-30% chance of further attempts and a 1%-3% chance of completing suicide within a year of their index attempt (Vaiva et al., 2006). Suicide risk is highest in the first week following discharge. For patients discharged from inpatient settings, this risk has been found to be 102 times higher in men and 246 times higher in women when compared to the general population (Qin & Nordentoft, 2005). Virtually all serious suicide attempts are initially evaluated in an emergency department setting. Emergency department visits for suicide attempt and self-injury increased by 48% during the 10 years from 1992–2001, while the number of emergency departments decreased by 15% during that time (Larkin, Smith, & Beautrais, 2008). Because of overcrowding of emergency departments and inpatient units, suicide attempt survivors are increasingly being discharged to community settings. Those discharged rarely link to ongoing care and often incur costly repeated emergency department visits. As many as 70% of suicide attempters either never attend their first appointment or drop out of treatment after a few sessions (Knesper et al., 2010). As a result of the discontinuity of mental health care for this high risk population, research has found that 45% of incurred hospital costs for suicide attempt admissions are a result of readmissions to the emergency department (Beautrais & Gibbs, 2004).

Several randomized, controlled trials have demonstrated that following up by telephone or letter with patients discharged from inpatient or emergency department settings can reduce rates of repeat suicide attempts (Vaiva et al., 2006) and of completed suicides (Fleischman et al., 2008; Motto & Bostrom, 2001). There has been less research on the impact of post-discharge follow-up on inpatient or emergency department readmission rates, an outcome of critical interest to policy makers and hospitals because of the significant healthcare costs involved. An Australian study indicated that proactive telephone support for individuals with recurrent psychiatric hospitalizations reduced the number of hospital days per patient by 45% and saved $AU895 per person during the year of the intervention, compared to the previous year (Andrews & Sunderland, 2009). This study was initiated for quality assurance purposes, and did not include a control group. Moreover, this study did not specifically address suicidal behavior. The current clearance request will examine the impact of crisis center follow up with suicidal patients seen in emergency departments and inpatient behavioral health units on subsequent readmissions for suicidal behavior, thereby assessing the capacity of follow-up to save both lives and critical hospital resources. This initiative addresses Healthy People 2020 Mental Health and Mental Disorders objective.

Hospitals collaborating with two cohorts (cohorts IV and V) of Lifeline crisis centers will participate in this expanded initiative. In total, 30 hospitals will participate. Each hospital will submit data at two points in time across the three-year data collection period. Hospital staff respondents for 15 hospitals collaborating with Cohort IV centers will begin submitting data upon the receipt of OMB clearance (expected early FY2016). It is expected that another cohort of Lifeline centers (Cohort V) will receive funding in FY2017, resulting in an additional 15 collaborating hospitals. Hospital staff respondents for hospitals collaborating with Cohort V crisis centers will begin submitting data in FY2017.

Evaluation data provide the information necessary for shaping and influencing program and policy development. Without follow-up data on suicidal persons seen in emergency departments

and inpatient behavioral health units, the efficacy and outcomes of the collaboration between crisis centers and hospitals cannot be understood, and policies and programs cannot be enhanced as needed to improve critical services to suicidal persons. The goal of this data collection effort is to inform and respond to SAMHSA's first strategic initiative—Prevention of Substance Abuse and Mental Illness—and to Goal 1.3 in particular: *Prevent suicides and attempted suicide among populations at high risk, especially military families, youth, and American Indians and Alaska Natives.*

Clearance Request

SAMHSA is requesting approval for the Hospital Data Abstraction Form specifically to continue/expand the first cycle of data collection for this program. The program is operated under authorization of Section 520A of the Public Health Service Act as amended (42USC290bb-32). Each year, beginning with the 2001 appropriations bill, Congress directed that funding be provided for the Suicide Prevention Hotline program. In addition to the Suicide Prevention Hotline Program, funds have been continually allocated for the evaluation of the program. The proposed collection of hospital data on patients admitted to an emergency department or inpatient behavioral health unit following a suicide attempt, and either followed or not followed by a collaborating crisis center is critical to ensuring continued feedback on hotline interventions and to enabling enhancements of these efforts. Over 36,000 persons died by suicide in 2009 (CDC, 2012). Information on the outcomes of persons who received services following an emergency department or inpatient admission for a suicide attempt is critical to improving services for this high-risk population. By understanding the impact of follow-up services, crisis centers and hospitals can better allocate resources and identify appropriate services to strive to reduce this preventable cause of death.

Crisis hotline counselors have been identified by SAMHSA as being uniquely qualified and positioned to provide effective telephone follow-up services to individuals at risk for suicide, including patients discharged from hospital emergency departments and inpatient behavioral health units. The goals of follow-up with these patients are to provide a safety net for suicidal individuals during the high-risk period following discharge and to promote and facilitate linkages to ongoing mental health treatment. Meeting these goals will ultimately result in a reduction of subsequent suicide attempts, emergency department readmissions, and completed suicides. The Hospital Data Abstraction Form represents the continued and expanded effort by SAMHSA to improve the methods and standards of service delivery to suicidal persons. The revised data collection effort examines the impact of crisis center follow-up with suicidal patients seen in emergency departments and inpatient behavioral health units on readmissions for suicidal behavior—enabling an assessment of the capacity of follow-up to save lives and resources based on a reduction of the number of admissions per patient during the year of the follow-up intervention. Data will be transmitted to the evaluation team at two points of time for each hospital—once at the end of the pre-collaboration period and once after the end of the collaboration period defined by the evaluation. Hospitals were chosen because of their existing collaborations with SAMHSA-funded Lifeline crisis centers. The clinical relationships between the hospitals and the crisis centers will continue beyond the end of the "collaboration period" which has been defined for data abstraction purposes.

This revision request is for continuation and expansion of the already-approved collection of hospital data on patients admitted to emergency departments or inpatient behavioral health units following a suicide attempt or serious suicidal ideation.

Specifically, SAMHSA is requesting OMB approval for the continuation and expansion of data collection associated with the previously-approved **Hospital Data Abstraction Form** (see Attachment A). Across two funding cohorts, 30 hospitals will participate in the evaluation. Respondents for Cohort IV collaborating hospitals will submit data in FY2016 and FY2017. Respondents for Cohort V collaborating hospitals will submit data in FY2017 and FY2018.

A2. Purpose and Use of Information

Hospitals collaborating with two cohorts of Lifeline crisis centers will participate in this data collection across the three-year OMB clearance period. Fifteen hospitals per cohort will participate. Respondents for hospitals collaborating with Cohort IV crisis centers will submit data in FY2016 (or upon the receipt of OMB clearance) and FY2017. Cohort V is expected to receive funding in FY2017. Thus, respondents for hospitals collaborating with Cohort V crisis centers will submit data in FY2017 and FY2018.

This revision involves an expansion of data collection to hospitals collaborating with cohort IV and V crisis centers about patients admitted to emergency departments and inpatient behavioral health units for suicide attempt or serious suicidal ideation.

The data to be collected will contribute to understanding the impact of crisis center follow-up with suicidal patients seen in the participating hospitals' emergency departments and inpatient behavioral health units on readmissions for suicidal behavior. Information and findings from data on subsequent readmissions for suicidal behavior can help SAMHSA, crisis centers, and hospitals plan and implement efforts to meet the needs of suicidal patients related to their aftercare. SAMHSA also can use the findings from this evaluation to provide objective measures of its progress toward meeting targets of key performance indicators put forward in its annual performance plans as required by law under GPRA.

Findings can be used by crisis centers to improve their services, processes, and functions and enhance targeted and coordinated services for hospital patients presenting with suicidal behavior.

The fields of suicidology and mental health services research will benefit in a number of ways from the information gathered. Previous randomized controlled trials have demonstrated improved outcomes for suicidal patients seen in emergency departments and inpatient behavioral health settings and referred for post-discharge follow-up; however, there is limited data on the impact of post-discharge follow-up of these patients on readmission for suicidal behavior—a key priority for policy makers and hospital administrators due to increased resources involved.

The **Hospital Data Abstraction Form** will be used to collect data on patients seen in participating hospitals' emergency departments and/or inpatient behavioral health units following a suicide attempt or serious suicidal ideation. De-identified data extracted from hospitals' electronic medical records on suicidal patients will be collected for index admissions during a two-year period prior to the crisis center hospital collaboration and during a two-year

period following the establishment of the crisis center hospital collaboration. Relevant patient records will be identified by hospital staff, de-identified, and provided to the evaluation team. Items 1, 2 and 11 are used to link the hospital data with crisis center data (please note that crisis center data abstraction is covered under a separate OMB package, OMB #0930-0274, exp. July 2016); items 3–5 are potentially modifying demographic factors; items 6–8 provide a measure of the lethality of the suicide attempt and can be used as matching variables for the nested analyses described in section A16; and items 9 and 10 will be used in the analyses as a covariate and outcome measure, respectively. The first data extraction from the hospitals will cover the two-year pre-collaboration period. Each hospital will provide approximately 250 records for each year of the pre-collaboration period. The second data extraction from the hospitals will cover the collaboration period. Each hospital will provide approximately 250 records for each year of the collaboration period. Our sample size was determined based on what the hospitals participating in our first cycle of data collection indicated would be feasible, as well as on calculations using Fleiss (1981) for a simple analysis of the difference between proportions. Subgroup analyses using demographic and lethality variables will be performed on an exploratory basis, to the extent permitted by the data available to us.

SAMHSA will not examine factors related to the collaboration process, except whether a patient was referred for crisis center follow-up, whether follow up contact was made, and the date(s) of follow-up contact, if any (please note that whether follow-up contact was made, and date(s) of follow-up contact, if any, are collected from the crisis centers under a separate OMB package, OMB #0930-0274, exp. July 2016; the current request covers hospital data collection only). SAMHSA plans to examine differences in rates of readmission for suicidal behavior, and the length of time between admission and readmission, by these three variables. Our main comparison will be between persons admitted to the ED or an inpatient behavioral health unit for suicidal behavior in the pre-collaboration period versus the collaboration period, and, within the collaboration group, between those that received follow-up contact versus those that did not. For the subgroup of patients in the collaboration period who are referred for crisis center follow-up, SAMHSA will also examine the impact of the length of time between ED admission and follow-up contact, and the length of time between follow-up contact and readmission for suicidal behavior. Finally, exploratory subgroup analyses will be performed using gender, age, and diagnosis code.

Hospital data abstraction for the pre-collaboration period can take place as soon as OMB clearance has been received and data transmission protocols have been finalized with the participating hospitals. The hospital data abstraction for the collaboration period will take place as soon as the collaboration period, as defined by the evaluation, has ended.

Changes

The revisions to this data collection involves an increase in the number of participating hospital respondents and burden associated with the continuation/expansion of the already-approved Hospital Data Abstraction Form, as well as the discontinuation of data collection and burden associated with the Crisis Center Data Abstraction Form. No other changes are being made.

A3. Use of Information Technology

The Hospital Data Abstraction Form lists data elements to be extracted by hospital staff from appropriate patient records. Data will be provided to the evaluation team in electronic format.

A4. Efforts to Identify Duplication

The information will be collected only for the purposes of this program and is not available elsewhere.

A5. Involvement of Small Entities

The information collected will not have a significant impact on small entities.

A6. Consequences if Information Is Collected Less Frequently

The current request represents data collection to be used by SAMHSA to assess progress and process of a potentially lifesaving crisis intervention program involving collaboration between hospitals and crisis centers.

A7. Consistency With Guidelines of 5 CFR 1320.5

This information collection fully complies with 5 CFR 1320.5 (d) (2.)

A8. Consultation Outside the Agency

SAMHSA published a 60-day notice in the *Federal Register* on July 13, 2015 (80 FRN 40073), soliciting public comment on this study. SAMHSA received no comments on the planned data collection.

Consultation on the design, instrumentation, data availability and products, and statistical aspects of the evaluation occurred throughout the development of the evaluation design process. Although this data collection does not directly affect current initiatives in any other Federal agency, a number of Federal agencies are concerned about suicide prevention. CMHS briefed representatives from the following agencies on the evaluation's design and goals:

- Centers for Disease Control and Prevention
- Indian Health Service
- National Institute of Mental Health
- Health Resources and Services Administration
- Veterans Administration

A9. Payment to Respondents

There are no direct respondents involved in data collection. As such, no financial incentives will be provided as part of this data collection effort.

The participating hospitals will receive a stipend of $5,000 as a financial incentive through the evaluation.

A10. Assurance of Confidentiality

All data to be analyzed will be de-identified before it is provided to the evaluation team by the hospitals. It will not be possible for the evaluation team to link the data to identifiable information. Please note that consent for contact by the evaluation is being requested on a small number of patients who receive crisis center follow-up services; this is being requested in order for the evaluation team to approach these patients for potential participation in a follow-up interview and that interview is not a part of this OMB clearance request.

A11. Questions of a Sensitive Nature

Because this project concerns suicide prevention, it is necessary to analyze patient data that is potentially sensitive. All data provided by the participating hospitals are collected on a routine basis for clinical purposes unrelated to this data collection request. These data will be de-identified before they are shared with the evaluation team.

A12. Estimates of Annualized Hour Burden

Burden estimates presented in Table 1 are based on information supplied by hospitals. The Hospital Data Abstraction Form was developed and piloted by the contractor to determine average burden estimates. Hospitals collaborating with two cohorts of Lifeline centers will participate in this data collection. Fifteen hospitals per cohort will participate. Each of the 30 participant hospitals will submit 1,000 patient records across the three-year period.

One staff member from each participant hospital will serve as the respondent; respondents will review and identify the appropriate patient data and complete the Hospital Data Abstraction Form. In total, data on 30,000 patients will be submitted across the three-year data collection period. On average, each of the 30 respondents will submit data on 334 patients annually, resulting in an annual burden of 401 hours.

Table 1

Evaluation of Emergency Department Crisis Center Follow-up—New

Estimated Annual Burden

Note: Total burden is annualized over the 3-year clearance period.

Instrument	Number of Respondents	Responses per Respondent[1]	Total Number of Responses	Burden per Response (hours)	Annual Burden (hours)	Hourly Wages	Total Hourly Costs[1]
Hospital Data Abstraction Form	30	334	10,020	.04	401	$37.19[2]	$14,913

1. Rounded to the nearest whole number.
2. Assuming mean hourly wage of database administrators taken from Bureau of Labor Statistics, *Occupational Employment and Wages, 2011*. http://www.bls.gov/oes/current/oes151141.htm

A13. Estimates of Annualized Cost Burden to Respondents

There are no direct respondents associated with this data collection no capital, startup, operational, or maintenance costs.

A14. Estimates of Annualized Costs to the Government

SAMHSA has planned and allocated resources for the management, processing, and use of the collected information in a manner that enhances its utility to agencies and the public. Including the Federal contribution that funds the evaluation team and Government staff to oversee the effort, the annualized cost to the Government is estimated at $253,112 that includes the evaluation costs and the cost of Federal staff. These two costs are described below.

Approximately $245,912 per federal fiscal year for three of the next three years has been awarded to fund the expenses related to developing and implementing the Evaluation of Emergency Department Crisis Center Follow-up. Awards or plans for future awards have been made to cover the continuation of the annualized cost. An estimated 72 hours per year of a senior GS-14 level federal staff member will be required for oversight to the data collection efforts for an annualized cost of $2,400.

A15. Changes in Burden

Currently there are 40 burden hours in the OMB inventory. SAMHSA is requesting 401 total burden hours, and increase of 361. This increase is due to a program change of the expansion of data collection for the Hospital Data Abstraction Form from two to thirty hospital staff respondents (one respondent per hospital). The resulting estimated annual burden is 401 hours, an increase from the original estimated annual burden of 27 hours for the form.

Data collection associated with the Crisis Center Data Abstraction Form is being discontinued, resulting in the removal of an estimated annual burden of 13 hours.

A16. Time Schedule, Publication, and Analysis Plans

Time Schedule

The time schedule for the proposed data collection is summarized in Table 2. A three year clearance is requested for this project.

Table 2
Time Schedule

Activity	Timeline
Receive OMB approval for study	October 2015
Data collection	October 2015 to October 2018
Ongoing analysis	November 2018-
Final Report	Not to exceed one annually

Publication Plan

A final report will be submitted to SAMHSA with anticipated subsequent dissemination to other interested parties, such as researchers, policymakers, and program administrators at the Federal, State, and local levels. Although not required under the evaluation contract, it is also anticipated that results from this data collection will be published and disseminated in peer-reviewed publications such as *Suicide and Life Threatening Behavior*, similar to the published articles from prior phases of the hotline evaluation efforts (i.e., Kalafat et al., 2007; Gould et al., 2007; and Gould et al., 2012).

Data Analysis Plan

All of the data collection and analytic strategies detailed in this package are linked to the questions of interest.

CMHS expects to be able to answer the following questions from the proposed monitoring and data collection:

What is the impact of crisis center follow-up with suicidal patients on hospital readmissions?

Nested comparison of 1-year readmission rates for individuals in the collaboration period who received crisis center follow-up calls, and for a matched sample of individuals in the pre-collaboration period, will be performed. This analysis will provide an assessment of the impact of the hospital–crisis center collaboration on those individuals who receive follow-up calls. In addition, global comparison of 1-year readmission rates during the pre-collaboration and collaboration periods will provide an assessment of the impact of the hospital–crisis center collaboration on hospital readmissions for suicidal behavior overall. Whether or not a patient had a prior admission (within the 365 days prior to the index admission) will be analyzed as a possible covariate of subsequent readmissions (within the 365 days following the index admission). Whether or not a patient had a subsequent hospital admission (within the 365 days following the index admission) is the primary outcome measure. The length of time between admission and readmission will be examined as an additional outcome. For the subset of patients referred for crisis center follow-up, the length of time between hospital admission and follow-up contact, and the length of time between follow-up contact and readmission for suicidal behavior (if any) will be considered as additional independent variables. Finally, exploratory subgroup analyses will be performed using gender, age, and diagnosis code, to the extent that available data allows.

A17. Display of Expiration Date

The expiration date for OMB approval will be displayed on the data collection form which approval is being sought.

A18. Exceptions to Certification Statement

This collection of information involves no exceptions to the Certification for Paperwork Reduction Act Submissions. The certifications are included in this submission.