



Response to Public Comment Request HHS TeleTracking COVID-19 Portal - 0990-New-30D Submitted to Office of the Secretary Department of Health and Human Services

Submitted by:

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A decorative graphic at the bottom of the page consisting of a complex, low-poly geometric pattern in various shades of red and pink, resembling a stylized starburst or a cluster of crystals.



Submitted via email and reginfo.gov

February 22, 2021

**Ms. Sherrette Funn
Management Analyst
Department of Health and Human Services
202.795.7714
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Reference: HHS TeleTracking COVID-19 Portal (0990-New-30D)

Dear Ms. Funn,

Thank you for the opportunity to comment on the HHS TeleTracking (COVID-19 Portal) data collection initiative; Juvare is submitting comments in response to the of Department of Health and Human Services (HHS) Agency Information Collection Request, published in the Federal Register on January 22nd, 2021.

We wish to express a) our strong support for the fundamental premise of this initiative (the necessity and utility of the a national hospital information collection initiative being essential to the operation of HHS), b) our strong disagreement with the recent historical approach to this collection, and c) to convey best practices that we believe will help minimize the hospital burden while increasing the accuracy, quality, efficiency and/or pace at which this data can be collected in the future.

Juvare Overview

As a qualified small business, for nearly 25 years Juvare has supported hospitals, health systems, care networks, hospital and healthcare associations, and state departments of health, with software technologies that provide local, state, and regional healthcare situational awareness. One of our two original technologies, launched in 1998, was designed to help local hospitals share data and resource information among each other via internet - Today, with over 31 “statewide” deployments (and numerous local and regional implementations) our platforms and technologies maintain real-time and near-real-time status, capability and availability information on greater than 70% of the inpatient



hospital capacity in the country (4,000+ hospitals), and a similar majority of long term care and non-inpatient capacity as well.

With a ground-up approach, Juvare has developed a consolidated platform and dataset, leveraging programs managed both within hospitals and by their close partners and stakeholders at local and state levels. In doing so, Juvare is the largest single contributing source of data submitted to TeleTracking – via both direct integrations on behalf of our customers, and via our customer’s choice of manually exporting data from our platform and submitting it manually to the portal.

In addition to our experiences over the past twelve months, throughout our history our organization and staff have participated in many other data and standards initiatives that are similar to the COVID-19 portal program – including the EDXL-HAVE standard and HAvBED program (discontinued in 2011), various HHS/ASPR Essential Elements of Information (EEI) queries over the years, NIEM, SANER, initial NHSN COVID-19 Pathways, and most recently the multiple iterations of the TeleTracking datasets. Our organization also holds the patent (US 2008/0046285 A1) which articulates a Method and System for Real-Time Resource Management (i.e., beds and hospital capabilities) for multiple hospitals working together in response to a disaster – with a particular focus on the ability to aggregate and subsequently share the data collected at a single facility with other partners, horizontally and vertically.

In addition to abstract experience in standards development, Juvare has significant “boots on the ground” practical experience as well – gained through having supported our customers with nearly every major disaster in the past decade or more. From wildfires on the pacific coast, spring floods in the Midwest, tornadoes in the south, and perennial gulf and Atlantic hurricanes – each has invited a slightly different utilization of our platform, and in many instances we have field-deployed staff to support our customers in their healthcare data monitoring initiatives.

In short, for 20+ years, states and local jurisdictions have relied on Juvare to provide the function that is described in this Public Comment Request; Juvare is fastidiously engaged in this initiative, given that we continue to provide germane technology and support for the majority of the country, and have perspective gained via the response to COVID-19 and other disasters which has codified our belief in the need for an enduring, national, solution to this problem.

Subject 1 - Necessity of the Proposed

Having practical experience and perspective in being a conduit for this data to reach HHS (from individual hospitals, to coalitions, to states, to the Federal Government), Juvare endorses the fundamental necessity of the federal government, via HHS and other Agencies, to maintain situational

awareness of the healthcare capacity in the country. The function is well within the remit of the agency and offices and is appropriate to the mission overall: improving care, saving lives, and protecting Americans.

Furthermore, supporting the premise of a national healthcare situational awareness platform directly and indirectly fosters widely held healthcare and technology industry best practices, such as:

- Adequately ensuring there is progress around developing industry data standards to support current and future collection efforts. The use of codified and widely adopted data standards is crucial to an enduring data collection initiative, and COVID-19 has proven that it is painful – though ultimately possible – to develop entirely new data standards amid a crisis.
- Supporting data standards allowing definitions to be socialized and operationalized in advance, ensuring that end users who are ultimately responsible for their implementation (i.e., gathering and reporting the data in question) are properly familiarized with the intent and context of the requests. In many instances, consistently measured data is perhaps more valuable than perfectly accurate data that is either inconsistent or inconsistently measured.
- Maintaining communication regarding the use and value of the initiative, which is key in justifying the rationale for the collection burden itself. Demonstrating that the data is being used on a frequent basis justifies the frequency and scope of the initiative.

Aside from the fundamental premise of this collection initiative, there are, however, faults in the current implementation. Recognizing that the scope of data collected from hospitals is an evolving list and has also undergone multiple major procedural changes since its inception last April, it is best to identify the thematic and systemic issues encountered by the providers and their local partners directly.

Subject 2 – Accuracy of Estimated Burden

Having practical experience supporting Hospitals users responsible for collecting HHS COVID-19 data across the country, we believe the *routine* estimated burden is likely accurate. However, the burden does not appear to account for two specific instances that would incur nontrivial additional burden on hospitals. These two scenarios have occurred multiple times in the past 12 months, and are expected to continue beyond the COVID-19 response; They include:

1. Single-time or infrequent recurring (e.g., one time only, once monthly, etc.) data collection requests. While the current Hospital Reporting Dataset generally now encompasses most routine COVID-19 related elements, it is highly unlikely that it accounts for all scenarios or

disasters, making it likely that different scenarios or threats will incur additional one-time or scenario driven data collection needs (as was done previously with Remdesivir). Even though they may be infrequent in the future, it is highly unlikely that sporadic, ad-hoc, or scenario dependent data requests of hospitals can be easily activated “on the fly” in 1.5 hours per day, as the estimated burden suggests.

2. Data schema/data definition changes are to be expected. While we assume that the changes will not continue to occur every 6-8 weeks as has been the case over the past year, healthcare institutional change management should be accounted for in the provider burden estimates; it is estimated that each substantive modification to data categorization or definition would incur a significant one-time burden, a short duration (several day) increased daily burden, and potentially an enduring (permanent) small incremental burden, should the scope of data be changed or increased significantly. In validation of this, please refer to the questions that the HHS Protect helpdesk received in the wake of historical changes; note that a question originating from a contemporary Hospital Director of Quality is likely incurred after a 60-90 minute meeting of 8-10 people on a cross-functional team, which would only be the dawn of the burden in a healthcare provider understanding the data collection change, much less implementing it.

Without the need to inspect each element within the current dataset, the data that HHS requires for proper agency function will continue to evolve – not only due to COVID-19, but future disasters, threats and events that are currently unforeseen or yet unexperienced. Whether these needs translate into one-time burdens, or ongoing ones, the effort should be accounted for in the estimated burden.

Aside from the estimated burden and potentially unaccounted for factors therein, we also must question the premise of the question and burden itself. We should consider rejecting the assumption that a consolidated National Data Portal is the appropriate mechanism in the first place, and if alternatives, such as fostering the development of appropriate data standards, funding innovation for automation, and empowering state and local coalitions, might ultimately yield better results than a Federal platform which marginalizes the local users and their cause for participating in the initiative on a daily basis.

The end goal of this project need not necessarily change – simply put, healthcare situational awareness already exists at the local, coalition and state levels in nearly all instances (it has been a funded target capability of the HPP program since inception), and rather than ignoring the nearly 20 years of effort on the part of those local stakeholders, the Government might take the position of

encouraging standardization, interoperability and uniformity – which would eliminate the one-off transactional burden of a broad federal initiative, and still allow healthcare situational awareness data to be readily and consistently aggregated by HHS Protect.

Subject 3 – Ways to Enhance Quality, Utility and Clarity

Having practical experience in working closely with the public health officials and authorities charged with making sense of large hospital datasets and collection initiatives, Juvare has identified several mechanisms that will directly increase the quality of the information collected. These include:

- Providing clear, unambiguous, and clinically validated data element definition. Many early elements in the COVID-19 schema were written in a manner which was overly scientific, and ultimately impractical or shortsighted, confusing, or incomplete. Specific examples early in COVID-19 included the definitions and data scope for ICU beds, and of ventilators – and specifically how they related to pediatric and neonatal version of the same. Ensuring that data definitions are complete and reviewed by on-the-ground clinical stakeholders for both practicality and feasibility of implementation are key to ultimately yielding consistent and quality data outputs. Once clear and unambiguous data definition has been validated by proper stakeholders, definitions should (ideally) be widely circulated in advance of implementation, providing time for users to fully understand them before being compelled – which is not always reasonable in times of crisis.
- Validating data at the original point of entry – or as close as practical to that point – is an essential mechanism to ensure that simple errors that bely complex discrepancies can be caught and corrected quickly. Validating data at the original point of entry – or as close as practical to that point – is an essential mechanism to ensure that simple errors and omissions that bely complex discrepancies can be caught and corrected quickly. Whether data is being provided by a manual report (and the user is prompted to confirm they actually are experiencing theoretically impossible scenarios in their facility, or that their census has actually increased by an order of magnitude since the last report), or when an automatic data report with validation concerns is processed (and the administrator is notified as to the concerns promptly), providing immediate, clear, and decisive guidance is crucial for mitigating downstream effects. Given that CMS has also leveled the threat of fines for missing and/or invalid data, it is only fair to ensure that these are surfaced promptly to providers.
- Similarly, increasing the consistency in which data is collected can dramatically improve data quality – for example, the well-described phenomenon of wide variation between data reported by hospitals during the week, versus on weekends, has proven the impact that

variation in staff has (whether it is staffing ratios, time, or another factor). Ultimately this effect further validates the need for clear understanding, and the benefits of reducing the human factor in data reporting (as discussed in Subject 4).

- Given the relationships among healthcare providers that are fostered at a local and regional level – via both operational necessity and the ASPR HPP Coalition model – Local, Regional/Coalition, and State partners must be afforded access to the real-time data that is being submitted by their constituents and/or coalition participants. These coalitions and agencies are best positioned to make additional use of the data, to rapidly identify and surface data integrity or quality incongruities (given their daily on-the-ground perspective and awareness), to help navigate issue to resolution and ultimately operationalizing them in an enduring and durable manner. Lack of real-time access inhibits the ability to make rapid adjustments, and operational context is lost when they are granted access hours or days after.
- Increasing data clarity in the context of output (versus clarity of definition when data is being input, discussed previously) can be improved by increasing the context in which the resulting data is presented. For example, understanding *where* a specific bed, resource, or asset exists might be as important as the item itself (context of how a critical access hospital uses a resource, versus how it could be deployed in an urban setting); knowing that specific bed capabilities are temporary vs permanent (e.g., retrofitted modular or temporary isolation rooms); and as noted previously, understanding the context in which the data was reported (during the day in the middle of the week, or on the Saturday/Sunday overnight shift).
- We must recognize that no one person is single-handedly responsible for collecting all data, but the current TeleTracking system requires the update to be provided entirely within one entry form, which is incongruous with the on-the-ground user persona. If this initiative is to be successful in the long-term, and outside of narrow scenarios, the software accessed via end users must accommodate for the fact that different data are input by different stakeholders, in virtually all complex modern healthcare settings.

If summarized, most of these recommendations are derived from encouraging timely, accurate, and detailed communications, that are delivered to the appropriate stakeholders, with adequate time for proper review and comprehension – which is no small feat in the midst of providing actual patient care which they are foremost called to provide.

Subject 4 – Opportunities to Increase Efficiency and Minimize Burden

As a provider of technology solutions that are used to capture hospital capacity data and relay it to

states and federal partners on behalf of hospitals, it is our duty and should be the joint mission of this initiative to ensure that the exchange can occur as easily and efficiently as possible – while maintaining the accuracy and quality of the underlying data.

While fundamentally simple – data can be obtained from purposely entered manually data reports, or automatically retrieved and/or processed from an existing source – there remain sources, methods and approaches that can substantially improve the efficiency while maintaining the integrity. These may include:

- Confirming that continual/daily data is not needed in many circumstances. At the peak of the COVID-19 response continual daily (+) data is essential, but in “blue sky” times, it may be overly burdensome, and a reduced frequency (e.g., weekly, monthly, ad-hoc) could reasonably be accommodated and perfectly adequate to support the current and future mission of HHS. Mature products that are designed to capture (as such) a configurable and episodic (i.e., scenario specific) dataset are also fully capable of providing integrated prompted and alerting features that engage end users and data stewards when their response is called for.
- Discrepancies in reporting medium and process warrant work to ensure they are uniform and able to leverage economies of cross-functional stakeholders. Today, different provider types continue to report the same types of categorical data, differently. For example, the country’s Long Term Care facilities report their patient capacity, staffing and supply levels to the NHSN provided by CDC, whereas hospitals are obligated to effectively report the same datasets to the TeleTracking portal which is supported directly HHS. The future approach should ensure that healthcare enterprise stakeholders – those who have reporting responsibility for multiple providers and often multiple provider types – are supported with tools and practices that are aligned with their responsibilities and are empowered to scale efficiently (and are not called to maintain a litany of different credentials, system proficiencies and operational skills correlated with different workflows to do so).
- With the continued commercialization of healthcare in the United States and because of HITECH and meaningful use, vanishingly few healthcare providers now lack reasonably sophisticated information technology assets that support their care operations. As a result, many institutions have independently turned to data technologies as a mechanism to increase their efficiency, insights, and productivity – leveraging the procedures they already have in place. This industry trend has created the capability – if not the actual capacity – to source, aggregate and automatically transmit much of the necessary data. However, these

initiatives are often complicated by brittle existing processes that have been derived from high-regimented clinical processes and regulation, and the fact that many smaller providers lack enduring staff and funding for non-patient-care related (and therefore non-revenue generating) technical initiatives. These projects are complicated by the need to develop connections to fluid data requirements and definitions, which are inherently one-offs to core functionality in clinical data applications.

- Nascent and less hypothetical each day, sophisticated machine learning (ML) and artificial intelligence (AI) technologies hold promise for the future of automating the aggregation of healthcare situational awareness data. With up-and-coming frameworks such as SANER, Juvare and other organizations are applying emerging technologies to existing industry standard datasets and frameworks - such as ADT feeds and FHIR resources - in order to further reduce the provider burden by using frameworks and datasets/data feeds that already exist, in a more intelligent manner. While promising, these initiatives are often fraught with challenges, given that data can be incomplete, and certain elements must be either procedurally inferred/computed, or painstakingly created. For example, a specific bed % utilization can be calculated from a numerator (number of beds currently occupied, easily tabulated by continually monitoring a clinical ADT feed), and a denominator (i.e., a “bed master” which could be inferred by analytical processing to determine the maximum level of use of a facility resource type - but is not always possible to impute automatically – and may need to revert to a manual process to capture and maintain).
- Keeping both data quality and end users in mind, it is essential to continue to offer a “manual report” option. Healthcare providers simply may not be capable of providing quality and consistent data in an automated fashion – or large enterprises may prefer to ensure there is a ‘human element’ to their data reports. For these reasons, should the national framework expect to endure with a high rate of compliance and participation, the technologies supporting it must provide an optimized end user experience, including a purposeful user interface, capabilities for delegation and division of data reporting (within and among organizations), and best practices that ensure data standards for quality and consistency are evenly applied, regardless of data source.

Conclusion

For the reasons discussed in these comments, Juvare is broadly in support of the generalized mission and intent, regarding the efforts of HHS and the Federal Government to maintain accurate, meaningful, consistent, and efficient situational awareness of the healthcare capacity of the country.



However, we strongly disagree with the government's approach of the last 10 months, in which we have seen a newly fabricated layer of bureaucracy and burden on providers - the TeleTracking Portal. The approach to the program, which has compelled the participation of virtually all providers in the country, has raised the ire and chagrin of the hundreds of local coalitions, hospital associations and state and local agencies that have performed this exact function as a fiduciary obligation of their participation in grants that HHS itself awards to them (the HHS ASPR Hospital Preparedness Program (HPP) and the CDC Public Health Emergency Preparedness (PHEP) Cooperative Agreements). By superseding and undermining their historical participation and stated requirements of these programs – which acknowledge that these capabilities are first-and-foremost local challenges before they become national issues – HHS has done a disservice to those on the front lines of this response.

There is a key role which HHS can play in the future but is it not one of developing a monolithic platform for data collection; it is one of fostering collaboration, encouraging data standards, public/private partnerships, and funding technology innovation, rather than the technologies themselves. Instead of regulatorily compelled participation, threatening the Conditions of Participation (CfCs and CoPs) and whiplash standards development, HHS should be developing cross-functional workgroups and building upon the “local” foundations that carried the HPP program for the first 17 years, in order to ensure that its mission will endure and grow – with full support of its constituents and stewards – for years to come.

Given our longstanding participation in this, and similar initiatives, across local, state, and national levels, Juvare eagerly anticipates the next phase of this initiative, and in particular, supporting the Federal Government in openly identifying and sourcing partners to help create enduring methods for maintaining situational awareness in the country.

Thank you for the opportunity to submit comments on the HHS TeleTracking COVID-19 Portal and please do not hesitate to contact us to provide further information.

Respectfully submitted,

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