Proposal: Informatics Data Quality Metrics on Production C-CDAs

Our **findings** make a case for lightweight, automated reporting to assess the aggregate quality of clinical documents in real-world use. We recommend starting with an existing assessment tool such as Model-Driven Health Tools or the SMART C-CDA Scorecard. This tool would form the basis of an open-source **data-quality service** that would:

- Run within a provider firewall or at a trusted cloud provider
- Automatically process documents posted by an EHR
- Assess each document to identify errors and yield a summary score
- Generate interval reports to summarize bulk data coverage and quality
- Expose reports through an information dashboard
- Facilitate MU attestation

We recognize that MU2 rules impose an administrative burden on providers, including a range of burdensome quality reporting requirements that are not always of direct clinical utility. Here we propose something distinctly different:

1. **ONC's EHR Certification Program.** We propose two laser-focused requirements:
   a. Any C-CDA generated by an EHR as part of the certification testing process must be saved and shared with ONC, as a condition of certification.
   b. In production, any certified EHR must be able to perform "fire-and-forget" routing of inbound and outbound C-CDAs, posting to a **data quality service.**
2. **CMS's MU Attestation Requirements.** We propose a minimal, straightforward, copy/paste reporting requirement. The PHI-free report is directly generated by the **data quality service** and simply passed along to CMS for attestation.

These two steps constitute a minimal yet effective path for empowering providers to work with EHR vendors to assess, discuss, and ultimately improve data quality.

At a technical level, the following components are required to support the initiative:

- A data-quality service that leverages existing C-CDA validation technology
- EHRs that route inbound and outbound C-CDAs to the data-quality service
- A dashboard web application that generates simple reports enabling a Provider, Hospital, or IT staff to monitor C-CDA data quality and perform MU attestation