### STRENGTHS
- The topic of Clinical Genomics is timely, relevant, and international in scope. There is a growing appreciation for the need to develop standards for Clinical Genomics.
- The topic is critical to support precision medicine initiatives.
- Outstanding mix of organizational expertise and perspectives: healthcare organizations, national resources, commercial companies, government, and academic research environments - covering a broad set of uses for clinical genomics including family history, hereditary disease, cancer, well-being and HLA typing for donor matching.
- Access to broad array of health care domain experts, including clinical, research, informatics, and technical expertise.
- Experienced group with proven track record, strong connections within HL7 and key external organizations.
- Cross membership in other Standard Development Organizations, such as ISO and IHE, terminology owners, and clinical/research consortia.
- Member involvement in regional, national & international projects.

### WEAKNESSES
- Overlapping specifications in various HL7 flavors (including v2, v3, CDA and FHIR) have been developed with no guaranteed semantic consistency.
- Within HL7 there is limited understanding of the domain and scope of the workgroup.
- While having broad expertise, we have gaps in depth: long-term representation and engagement is often inconsistent and sporadic (e.g., pharma, sequencing companies, LIMS, direct-to-consumer testing).
- Great demand for many projects, but have limited availability of resources (people and time) to do the work at a sufficient level of detail.
- As group gets larger, it becomes more difficult to achieve consensus.
- Limited coordination to avoid duplication with external groups.
- Steep learning curve to navigate all of our materials and processes.
- Work is largely driven by US programs – but the workgroup needs to include the international perspective.

### OPPORTUNITIES
- Provide education within HL7 concerning Clinical Genomics and with external audiences regarding the electronic standards to capture and exchange high quality genetic/genomic information.
- Advocate for the need for standards (terminology and message models).
- Facilitate integration of genomic data with other clinical data in provider-facing clinical systems through the development of comprehensive standards (e.g., patient genomic data, family health history).
- Collaborate with other HL7 workgroups (e.g. CDS, CO, SD, BRR) and external clinical genomic stakeholders, in order to achieve strategic alignment of goals and the harmonization of work products.
- Support the exchange of clinical genomics data from its generation to its use within clinical practice (e.g., bench-to-bedside, or lab-to-CDS).
- Enhance data models used for clinical genomics to accommodate requirements of translational research and medicine.
- Expand international participation and engagement.
- Expand scope into long-term domains and technologies, including cytogenetics, epigenetics, and proteomics, and expand membership by recruiting SMEs in these areas.

### THREATS
- Standards for Clinical Genomics are emerging by external groups and changing as technology and clinical understanding matures.
- Large volume of work to be completed, but have limited resources.
- Speed required for standard development to support emerging need but need to balance with a standardizable approach.
- Keeping pace in a quickly changing landscape, including technology, regulatory requirements, and ethical considerations.
- The complexity, variety and large number of use cases potentially sets the stage for more complex implementations, significantly lowering the potential for adoption and a path for success.
- Lack of a common genomics information model and continued harmonization between products will make interoperability in the future more difficult.