

## Purpose

The purpose of the Lean Six Sigma training program, developed by the Cook Children's Process Improvement Department is to ensure common understanding and consistent educational delivery. The purpose of this approach:

- Allows for equitable access to educational experiences
- Creates a consistent understanding and application of Lean Six Sigma (LSS) tools and methodology
- Empowers employees to tackle continuous improvement (CI) engagements within their individual department/functional area
- Develop a culture of CI within the Cook Children's Healthcare System (CCHCS)

Being intentional about the development and deployment of such a program creates a culture of CI within the health care system, leading to adherence to these principles and the creation of a common language when discussing improvement opportunities.

## Methods

At Cook Children's four certification programs have been developed:

- Lean Practitioner (LP), Lean Six Sigma Yellow Belt (LSSYB), LSSYB for leaders (LSSYB-L), and Lean Six Sigma Green Belt (LSSGB).
- A master black belt oversees all programs.
- The Council for Six Sigma Certification accredits two programs (LSSYB and LSSGB).

Course layout:

- Participants of the LSSYB program complete a combination of **theory, assessment, and practical application of the LSS methodology** with support from assigned **mentors**.
- The LSSYB incorporates **simulation, case studies, and/or Gemba walks** of actual healthcare processes to integrate learning experiences into practice.
- LSSYB participants produce various **project-based deliverables** (charter, Level 1 & 2 process maps and Issue Identification & Prioritization or Value Analysis).

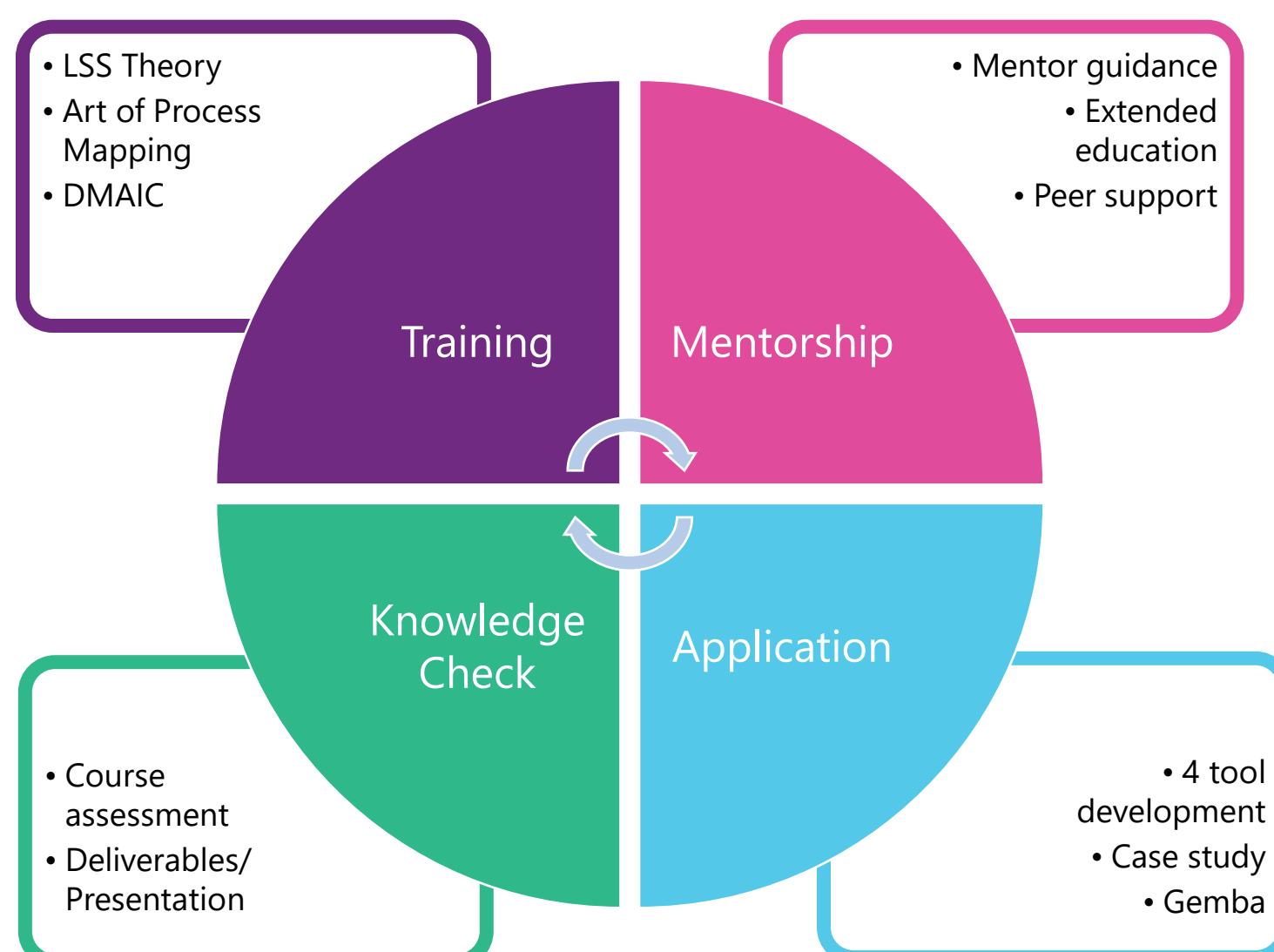


Figure 1. Comprehensive Elements of the Yellow Belt Training Program

## Results

The Process Improvement Department began offering certification programs in 2017, since that date the total number of completed employees certified are as follows (Figure 2):

- 35 employees completed their LP Certification.
- 50 completed LSSGB certification.
- **192** completed LSSYB certification (21 LSSYB-L).

The certification programs are available to all employees of CCHCS, participants represent 105 individual departments and 5 companies within CCHCS, of the approximate 10,000 employees. (Figure 3):

- Over 7 years, PI education touchpoints have **grown 367%** - from 330 to 1544.
- Certification participants achieved over **\$2.4 million** in validated financial impact plus over **\$3.6 million** in estimated financial impact.
- Examples of documented certification project outcomes include: improvement in inventory waste, time savings, staff wellness, patient satisfaction, patient throughput, and patient outcomes.
- Former participants have continued to participate in and lead project work within their departments and develop departmental process improvement tactical crews, engraining continuous improvement through the healthcare system.

## Conclusion

Through an intentional certification program deployment, Cook Children's has seen many staff that have pursued certification, resulting in a large contingent of certified staff members who lead and participate in engagements within their own functional area, resulting in a more **streamlined** and **comprehensive** CI culture at Cook Children's.

All LSSYB participants who earn the certification will retain their certification in perpetuity. The PI Department has seen a consistent increase in the involvement of certification programs, leading to a large contingent of certified staff members, many of which began their CI experience through the LSSYB program. It is evident in the numbers that the accessibility associated with the LSSYB program is responsible for the large and quick proliferation of CI tools to be disseminated throughout CCHCS.

Through the intentional development and deployment of the PI Certification programs, a substantial increase in overall participation, involvement in CI efforts across the system and increased demand for program participation have been recognized. Creating a robust LSSYB program has been identified as a foundational platform, from which the certification program has developed.

**Acknowledgements:** Collin Kidd, MHA, LSSBB; Vincent Do, BSIE, MBA, MCA, LSSMBB, CLSSBB; Rahim Akbar, BSIE, LSSGB; Aubrey Blackburn, MSN, RN, CPHQ, CSSBB

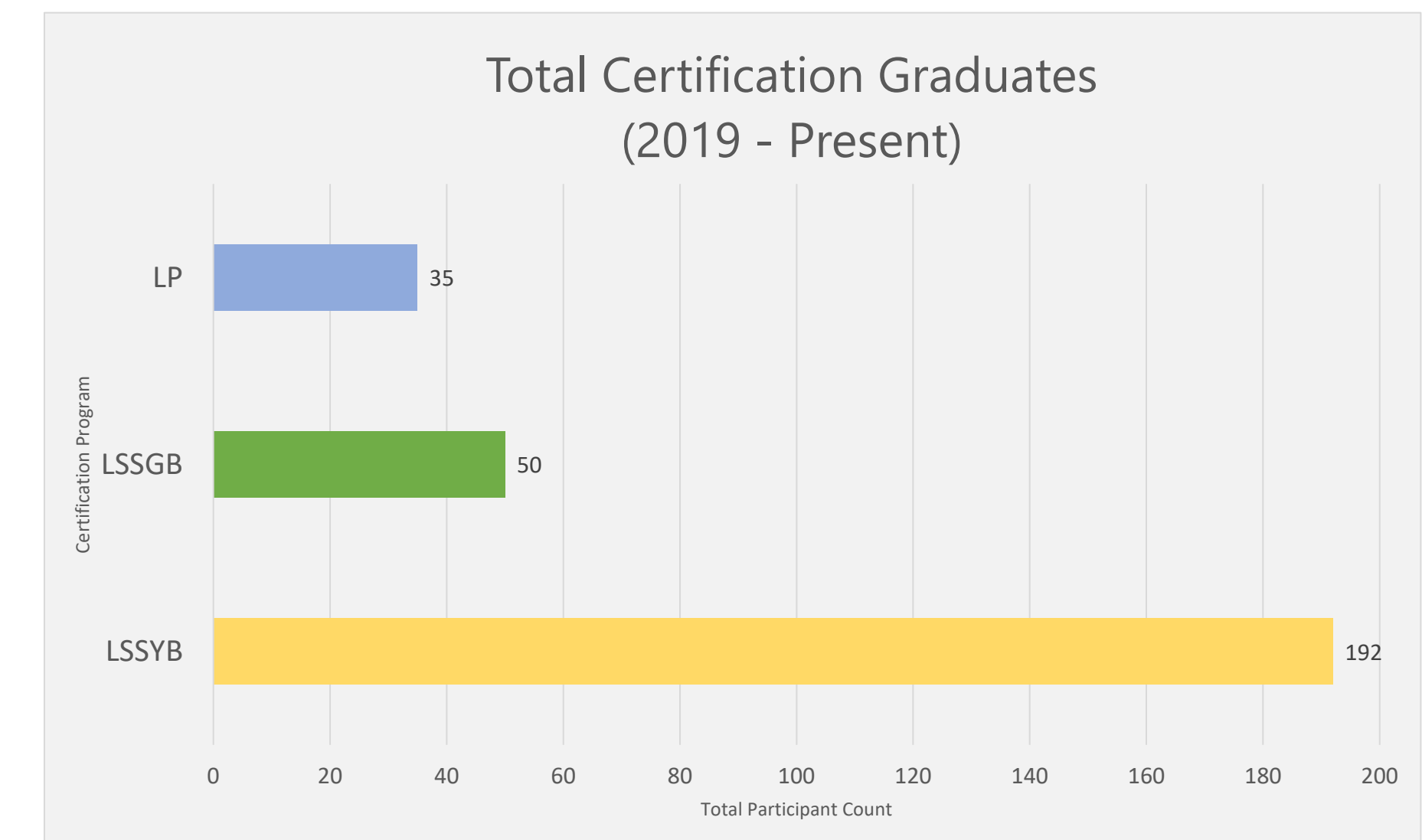


Figure 2. Total Certification Graduates

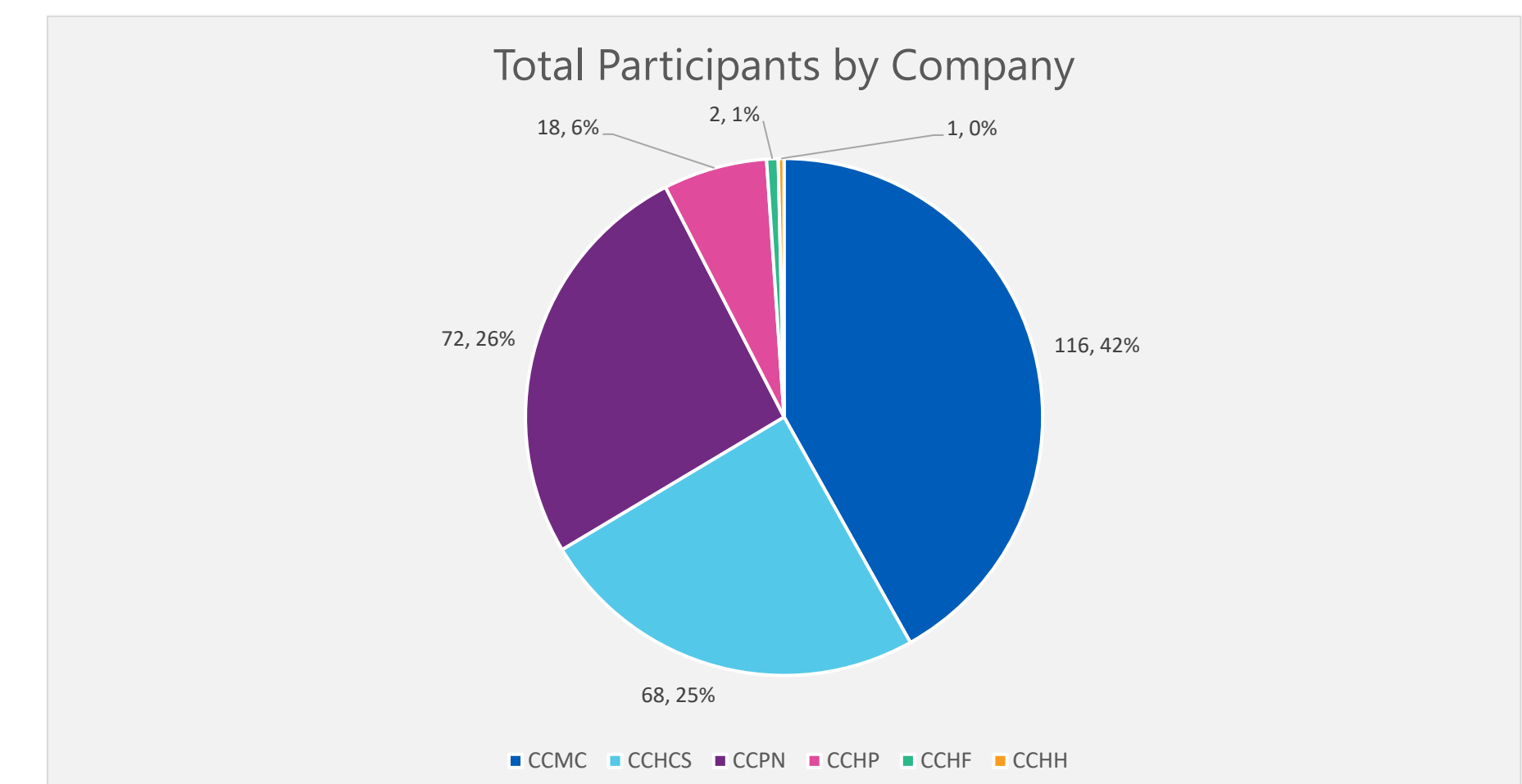


Figure 3. Distribution by Company