



Clinical Safety & Effectiveness Cohort # 27 Team #7

1

Decreasing the Inpatient Length of Stay of DFO Patients



DATE



The Team

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➤ Anna Taranova

➤ Case Management

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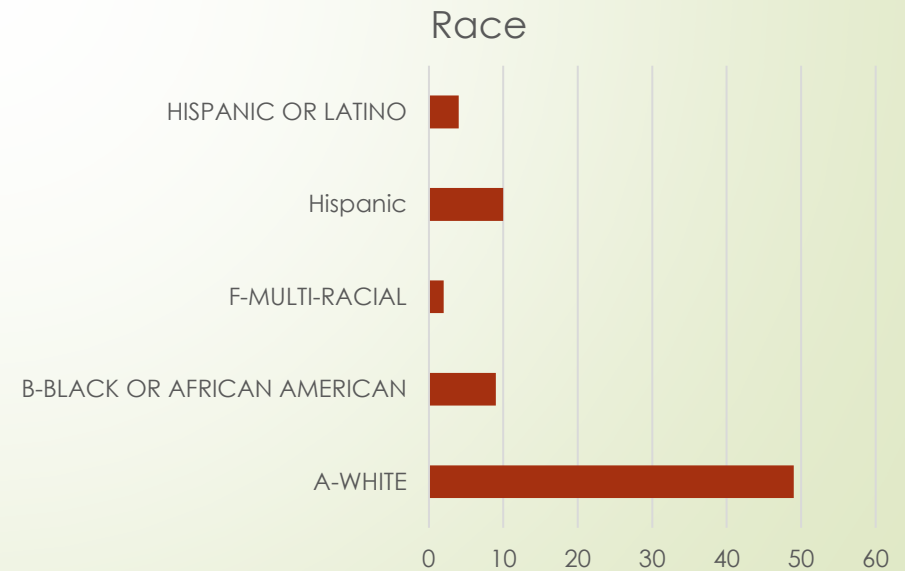
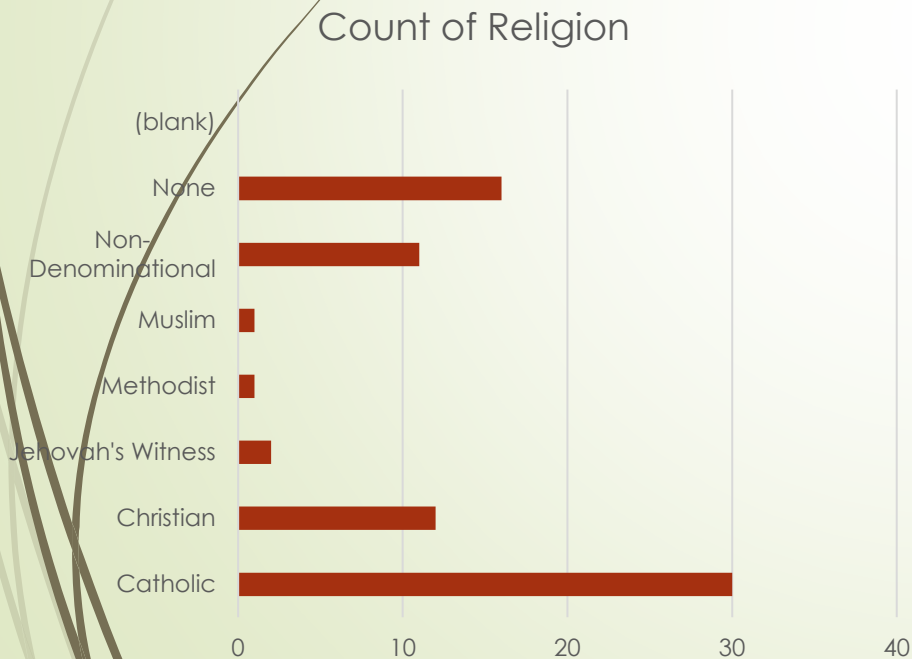
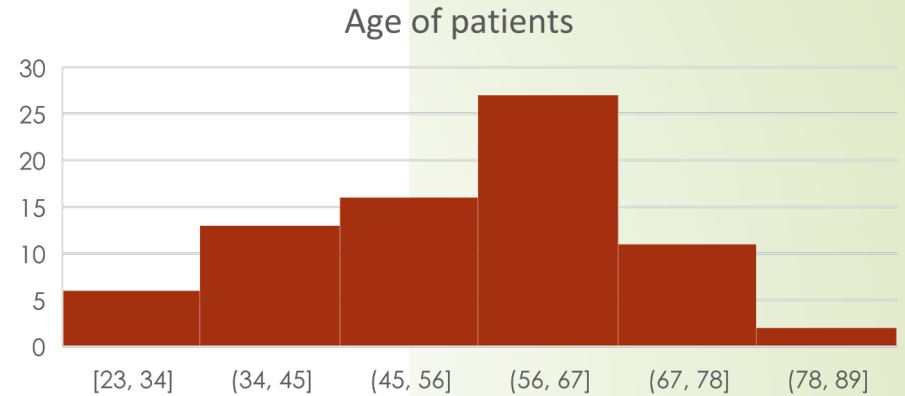
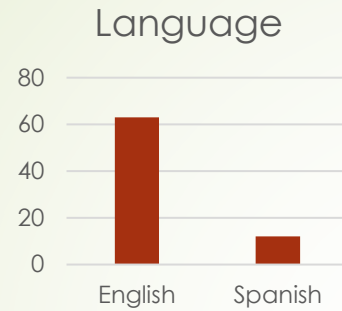
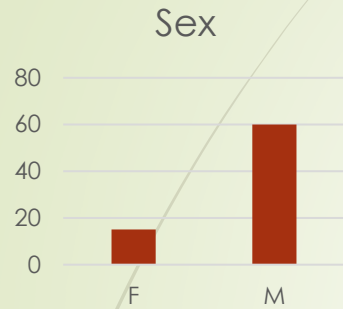
Our AIM Statement

**Reduce the in hospital length of stay of
diabetic foot ulcer osteomyelitis of
patients admitted to hospital medicine
department from 12 days to 11 days by
March 30, 2022**

Background Data

- ▶ Important indicators of quality of care
 - Length of stay (LOS)
 - Bed occupancy
- ▶ Current average UH LOS : 7.7 days
- ▶ National average for academic organization : 5.5 days
- ▶ Diabetic foot osteomyelitis average LOS : 12 days
- ▶ Median length of stay of 10 days.

Data Findings: Patterns and Trends



Data Findings: Patterns and Trends

Sample: 75 Patient Encounters

(patients admitted under Hospital Medicine)

Average LOS:
12 Days

Median LOS: 10
Days

Standard Deviation:
7.52

Highest LOS: 36
Lowest LOS: 2

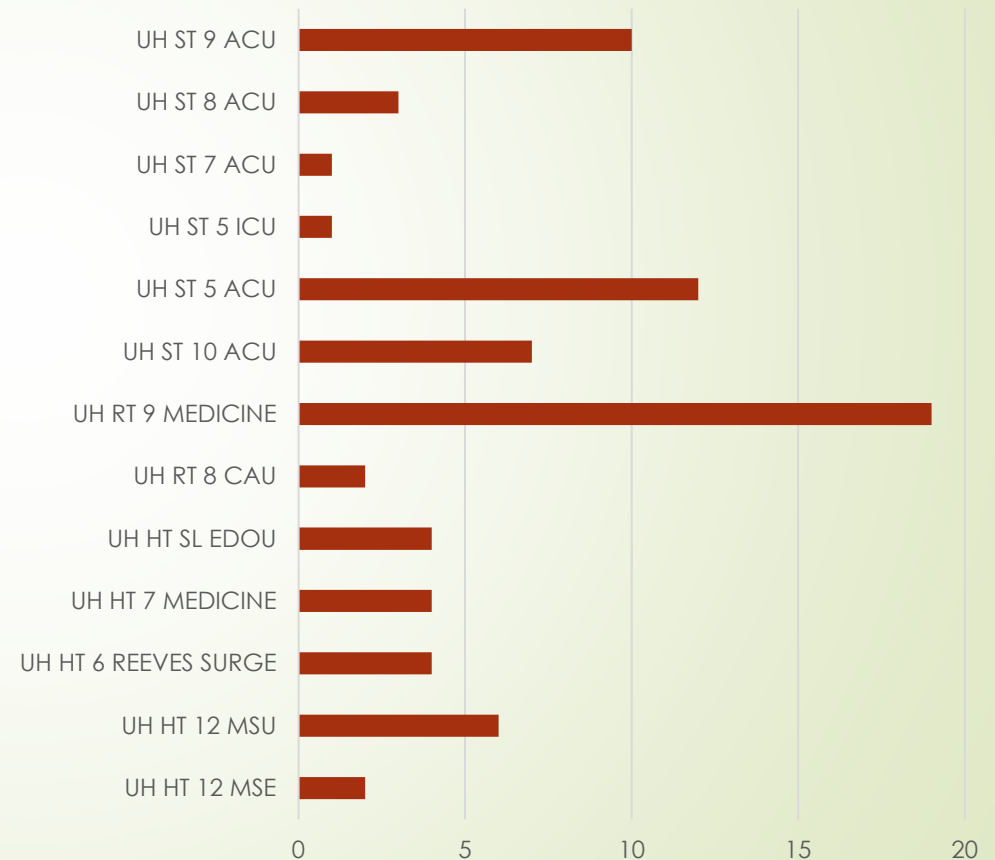
Financial Class

53 Funded
9 Obligated
8 Unfunded

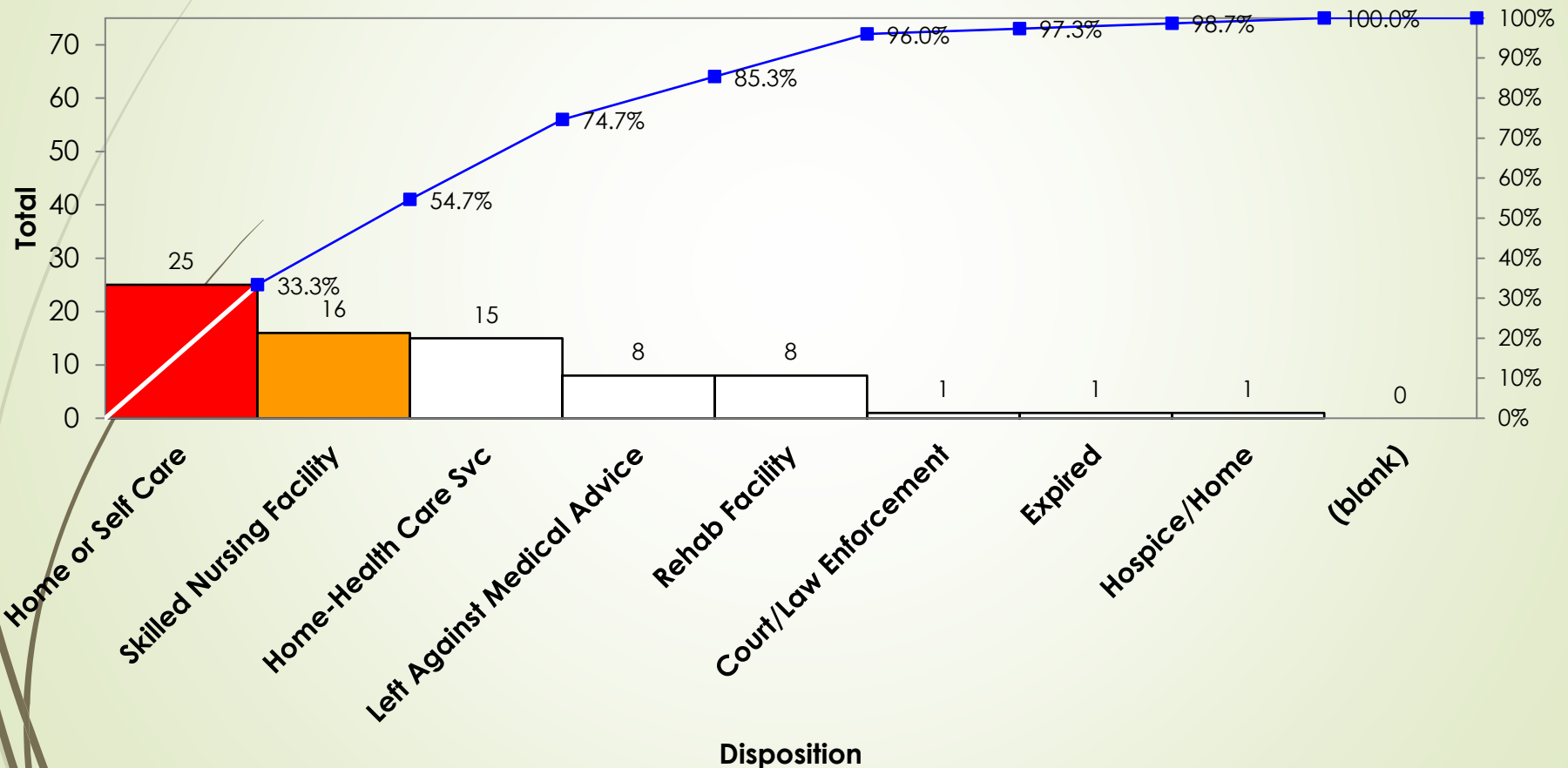
Payor

38 Medicare/Medicare Managed Care
11 Medicaid/Medicaid Managed Care
9 Carelink
9 Commercial
8 Unfunded (Self-Pay)

Location of patients

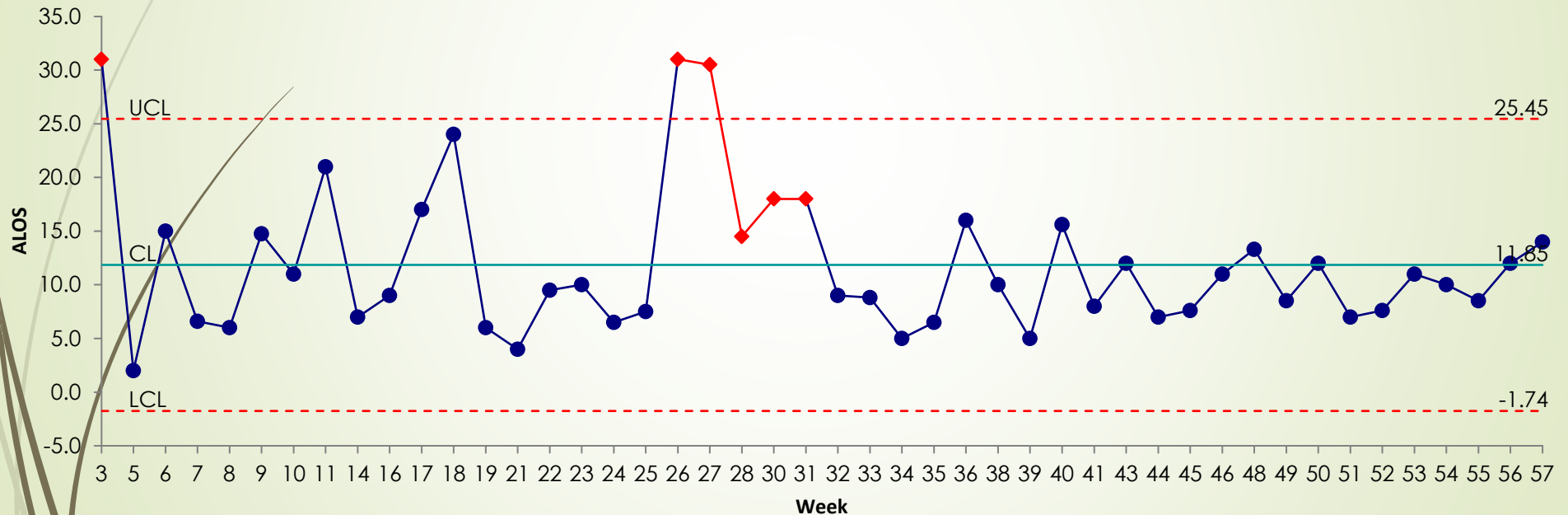


Disposition Data January 2021 to December 2021

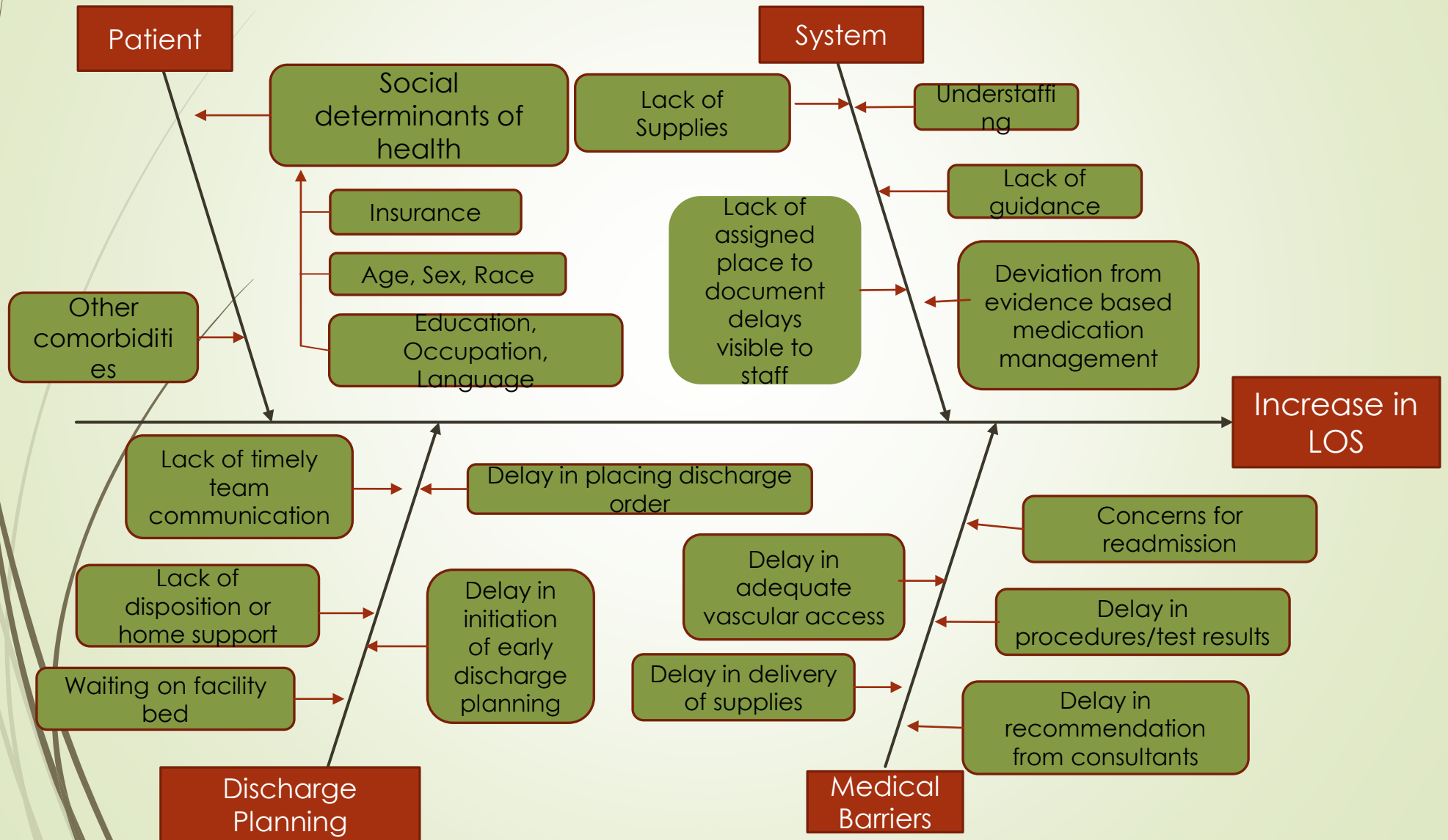


LOS Data of DFO patients January 2021 to December 2021 Patterns and Trends

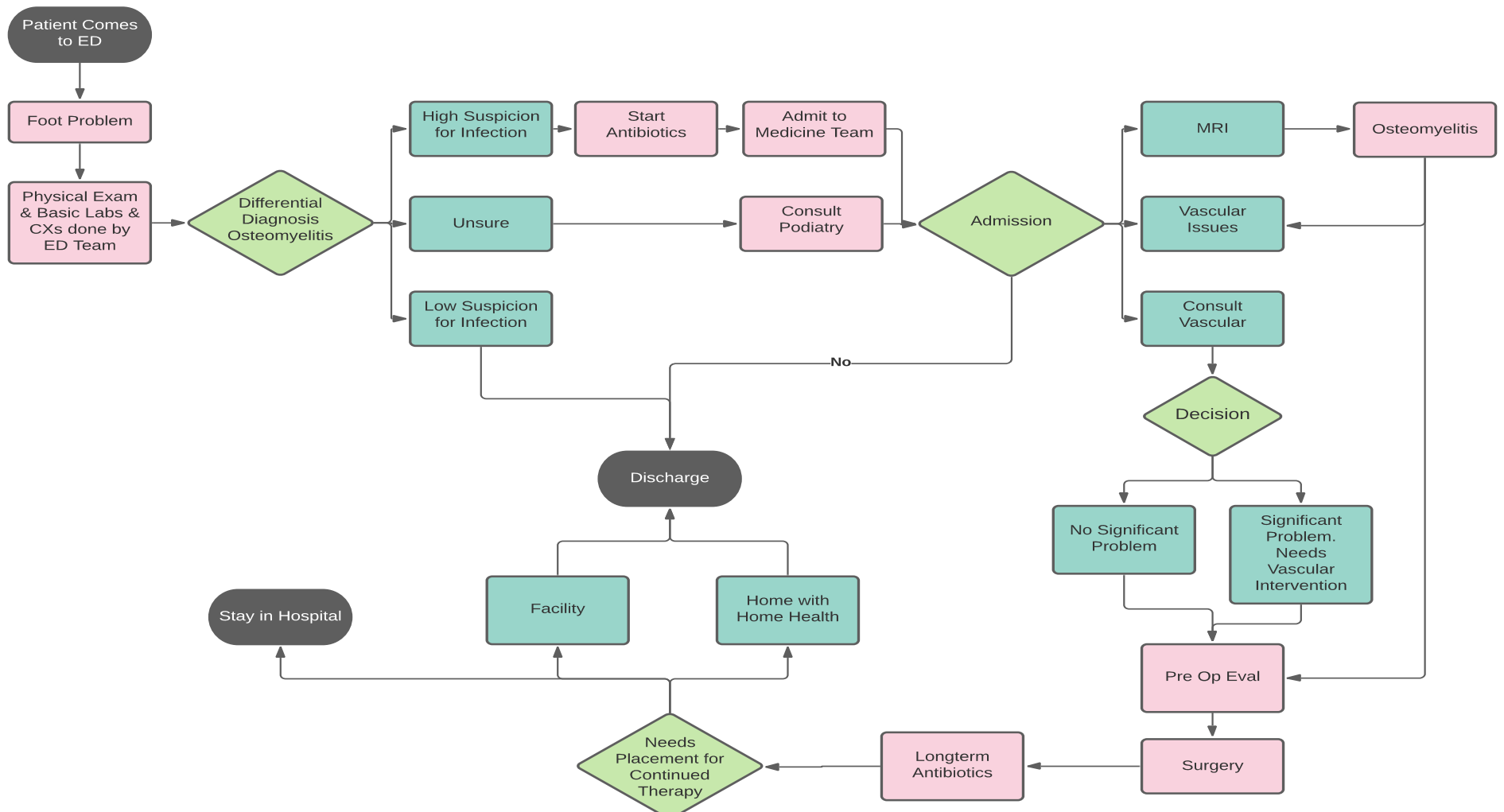
ALOS diabetic foot osteo - X Chart



Root Cause Analysis



Process Flow



Delay in Process Flow

- Delay in Radiology imaging needs
- Delay with consultants
- Delay with bone biopsy
- Surgical Delays
- Delay in placement of PICC line
- Discharge delays

Driver Diagram

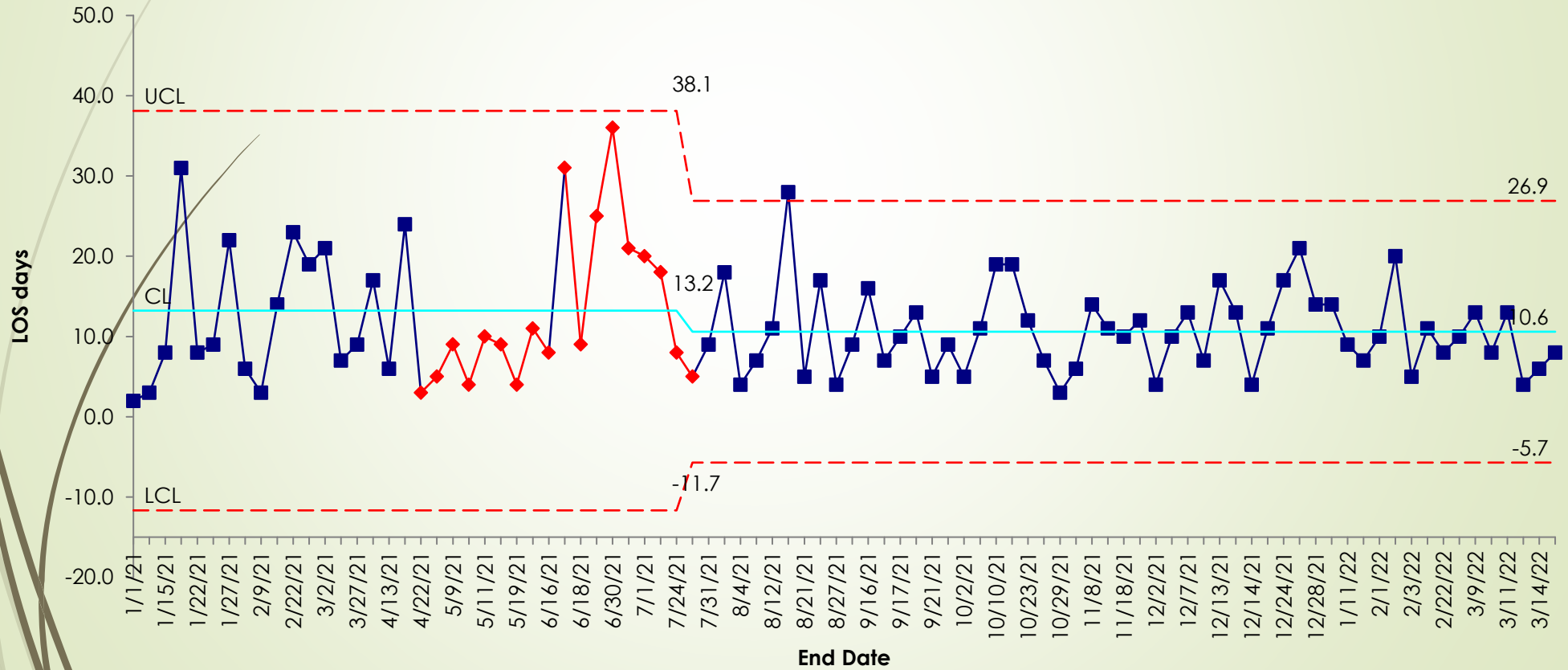
GOAL	DRIVERS	INTERVENTIONS	MEASURE	RESPONSIBLE
To reduce the in hospital length of stay of diabetic foot ulcer osteomyelitis patients from 12 days to 11 days by 3/1/2022	Delivery of routine care.	Survey developed to identify key perceived issues for providers	Early Identification of necessary care teams / consults Education of staff	Providers, Nurses
		Share weekly targeted emails to working hospital groups		
	Disposition Barriers	Early engagement of care coordination and nursing teams on potential modifiable barriers	Length of stay of patients DC with Hospital at Home	Hospitalist, Infectious Disease Dept, Hospital at Home Program
		SBAR introduced to Care Coordination and Providers to identify applicable candidates for HaH transition		Social Workers, Case Manager Discharge Expeditor

Interventions

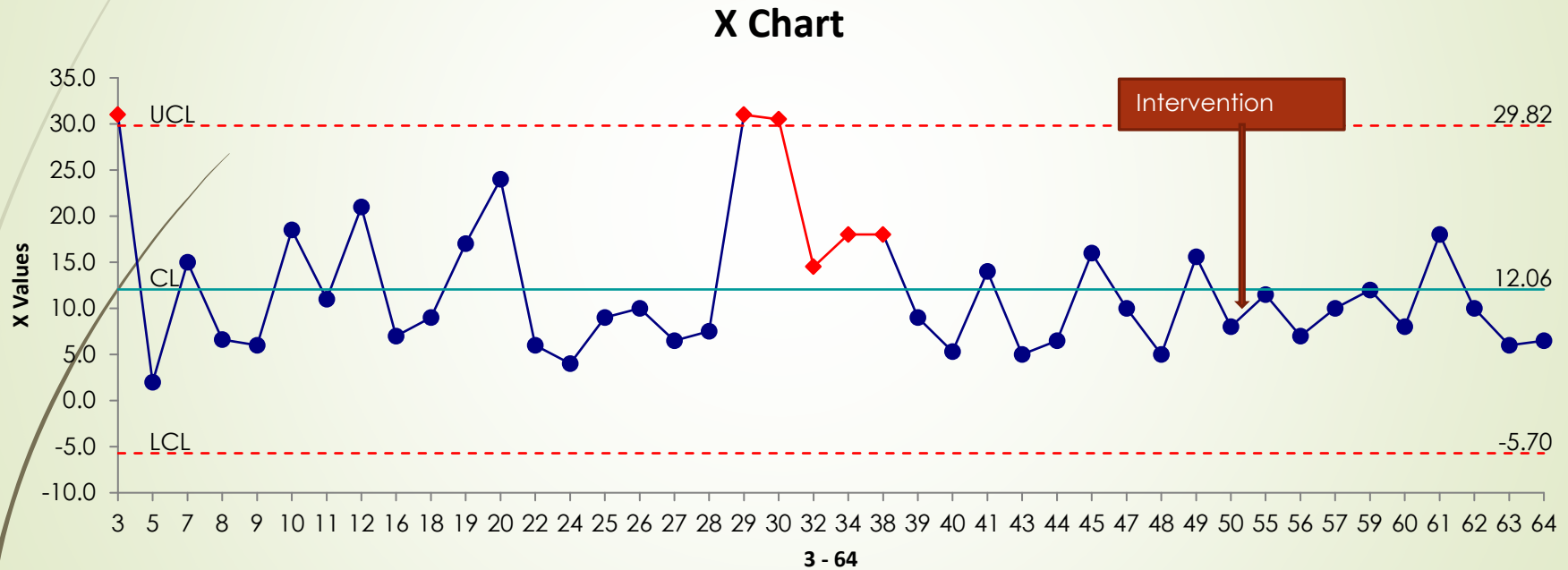
- Communication with stake holders
HaH, Hospitalist, ID, CM
- Education with Hospitalist team
 - Survey
 - Sharing information during division meeting
 - Presentation by HaH
 - Weekly email

Results

LOS 2021-2022 (X Chart)



Results



Data Collection Plan

Type of Measure	Measure	Data Elements	Data Category		Data Source	Data Frequency	Data Steward
Outcome	Hospital Length of Stay	Disposition destination, Length of Stay	Existing	Automated	Medical Records, EPIC	Weekly	Providers, Care Coordination
Process	Hospital at Home Utilization	Number of patients transferred to Hospital at Home program	Existing	Manual	EPIC	Daily	Providers, Care Coordination, Nursing, other interdisciplinary dept.
Balance	Readmission	Hospital re-admission for same dx	Existing	Automated	Patient Satisfaction Survey returns, EPIC	Monthly	

Return On Investment

- Financial data for IP/Obs patients with Osteomyelitis diagnosis and diabetes diagnosis admitted to Medicine Services (January 2021 – December 2021)
 - Sample size: 75 Encounters Avg LOS: 12 days
 - Avg cost for hospital per encounter: \$19,700.13
 - Avg cost per day for hospital (assuming Avg LOS is 12) is estimated at \$1,641.68

- Financial Summary for the Hospital at Home program from July 2021 – November 2021**
 - Avg cost per encounter: \$14,117.00

** Financial Performance data includes only months July – November of 2021 due to in progress collections for the last 90 days that would reflect an incorrect negative variance

Project Conclusion

- ▶ Results show HaH has not been utilized
 - ▶ *one patient utilized Hospital at Home program during interval of project*
- ▶ Interventions ongoing to continue provider education

Future of this project / Sustainability

- Measure metrics quarterly
- Early Interdisciplinary involvement to identify candidates
- Including Podiatry
- Include all acute osteomyelitis diagnosis

What we learned

- Communication with stakeholders is key
- Sample focus is important – guides direction of project
- Data management & Collection
 - Coding issues
- Populate teams with right members

Thank you!

