

Evaluation of A Two-Dose Series Vaccine at An Academic Medical Center



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BACKGROUND and OBJECTIVES

The University of Kansas Health System (TUKHS) is a 700+ bed institution that serves a variety of patients in Kansas City metropolitan area. Ongoing quality assurance is a standard at TUKHS which includes vaccination compliance. Shingrix vaccine protects against the Varicella-Zoster Virus. The vaccine was FDA approved in October 2017 and is preferred over the original single-dose Zoster vaccine product. Shingrix is a two-dose vaccine series with recommendations to administer the second dose two to six months after receiving the first. The purpose of this study was to:

- Assess compliance rates of patients receiving both doses of a double dose vaccine series within an academic medical institution.
- Evaluate compliance with the recommended two to six month administration time frame.

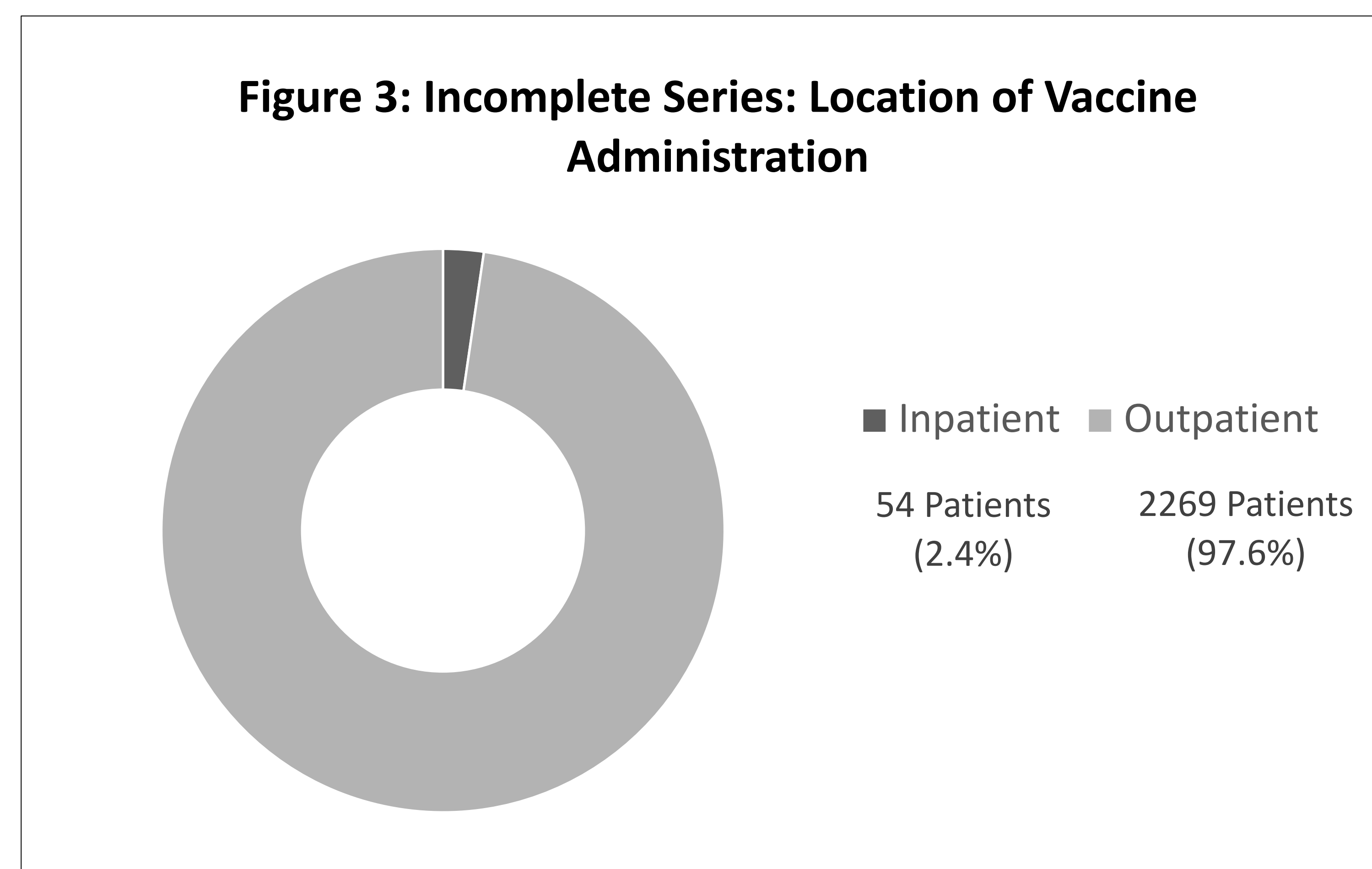
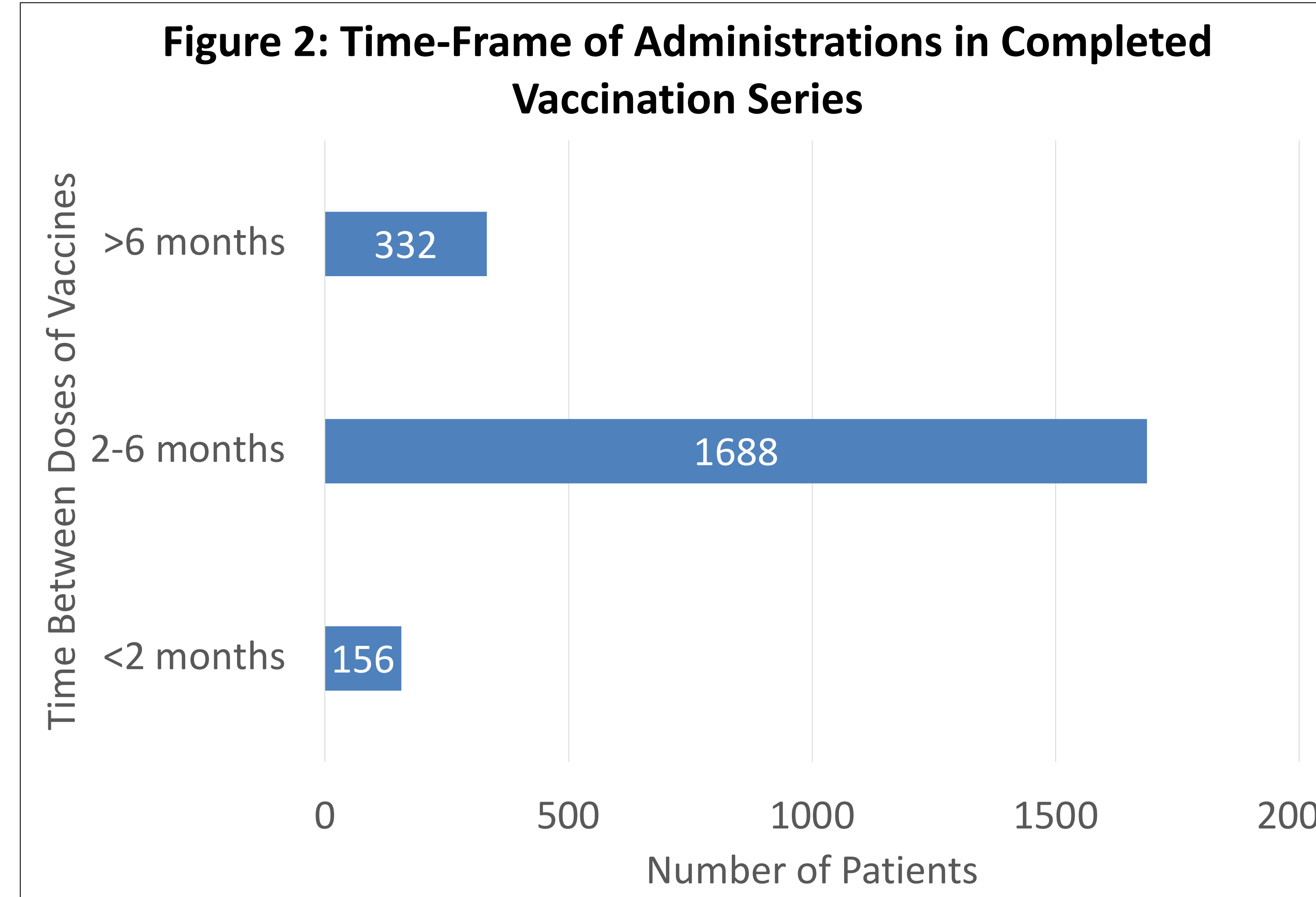
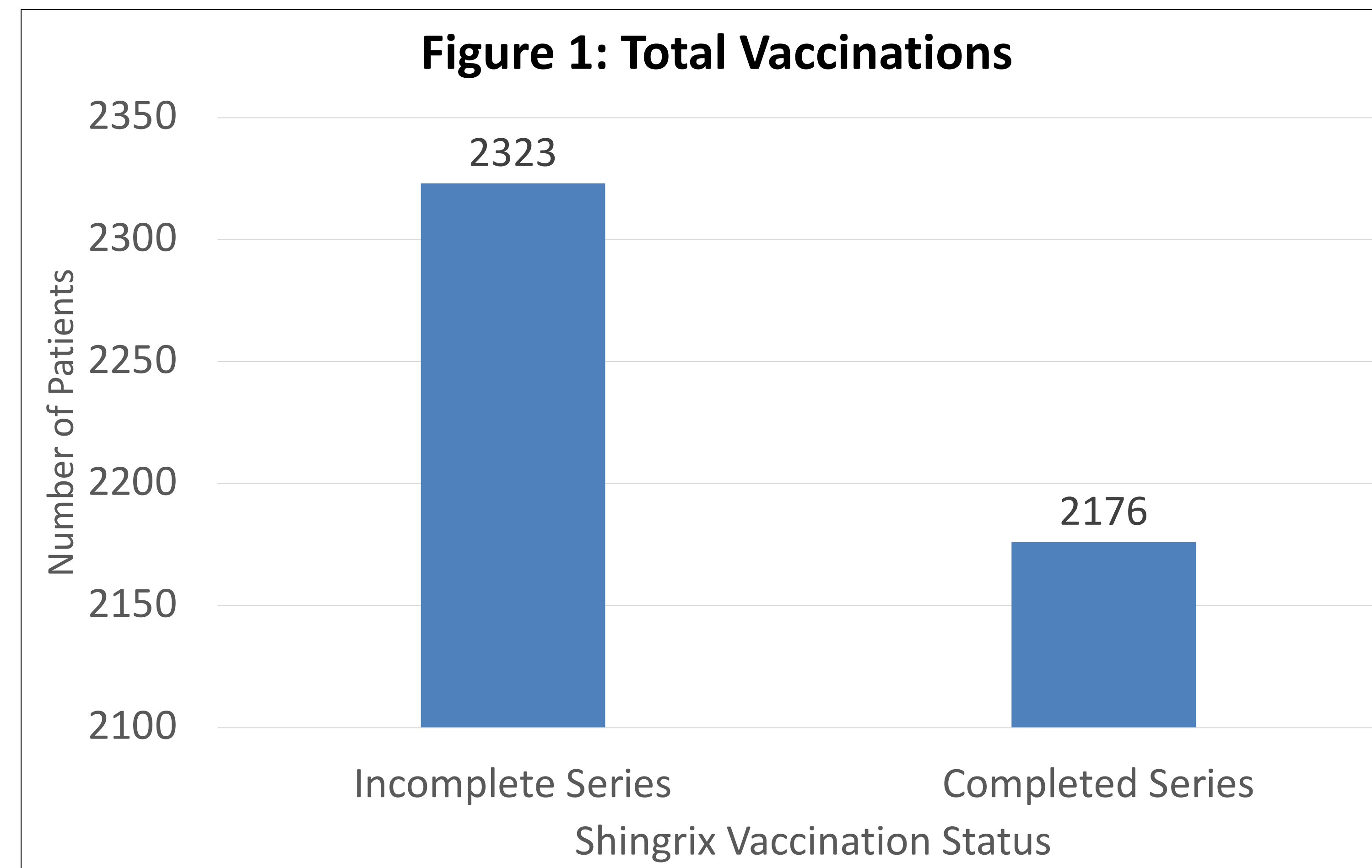
METHODS

- A retrospective chart review was performed on patients at TUKHS from October 2017-September 2019.
- Inclusion criteria: All patients who had a documented administration of Shingrix vaccine during the study period were included.
- Exclusion criteria: none
- Complete series was defined as two administrations for the vaccine in TUKHS records.
- Incomplete series was defined as only one record of administration in TUKHS records.

RESULTS

- A total of 4,499 patients received at least one dose of Shingrix between October 2017- September 2019
- 2,323 (51.6%) patients received an incomplete vaccine series (1 dose)
 - 2,176 (48.4%) patients received a complete vaccine series (2 doses)
 - 156 (7.2%) of vaccines were administered less than two months apart
 - 1,688 (77.6%) of vaccines were administered within the recommended time frame of two to six months apart
 - 332 (15.3%) of vaccines were administered greater than six months apart

RESULTS



DISCUSSION

- Overall, 48.4% of patients received a complete Shingrix series.
- Of the completed series 77.6% are within the recommended two to six month administration time frame.
- An additional 15% of patients received the complete series more than 6 months apart. The CDC confirms that if a patient receives the second dose of Shingrix greater than six months after the first dose, the series is still considered complete and it is not recommended to restart the vaccination series. It is undetermined if this recommendation is based on the history of vaccine supply shortage or on research efficacy data.
- The data was unable to confirm completion of the Shingrix series in the remaining 51.6% of patients. However, it is difficult to determine if the single record of administration is a true incomplete series because the patient may have received a dose at another facility.
- The data revealed that a majority, 97.6%, of incomplete Shingrix series were found in patients from the outpatient clinics, whether truly incomplete or falsely incomplete due to lack of documentation it is important to acknowledge.
- Limitations of the study include: no documentation on administration distinguishing if it was the first dose or the second dose of the series, ongoing vaccine shortage during the study period, changes to vaccine documentation methods in the HER during the study period.
- Moreover, it's unknown if patients received an administration at an offsite location.

FUTURE DIRECTIONS

- Potential areas of opportunity:
- Development of patient follow up protocols.
 - Implementing a function in the patient chart to document the administration number for vaccines that require a series of administrations.
 - Development of a patient/caregiver vaccination status notification program

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