In this paper, the need for automated transportation systems for hospitals is investigated. Among other alternatives, mobile robots stand out as the most prominent means of automation of transportation tasks in hospitals. Existing transportation routines of a hospital are analyzed in order to verify the need for automation and identify possible areas of improvement. The analysis shows that most of the existing transportation is carried out manually, and hospitals can greatly benefit from automated transportation. Based on the results of the analysis, three alternatives are derived for implementing mobile service robots for transportation tasks in hospitals.