IHE Work Item Proposal (Short)

# Proposed Work Item: Use $match in PDQm

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# The Problem

The use cases for PDQm and alignment with the PDQ and PDQv3 profiles suggest an MPI based search algorithm should be used. The FHIR specification says that the $match operation should be used to obtain such a response rather than a standard Patient.search query. From <http://hl7.org/fhir/patient.html>:

“The purpose of using an MPI search versus a regular search is that the MPI search is really intended to target and find a specific single patient for recording information about reducing errors through incorrectly selecting the wrong patient. Often MPIs won't return data if there is insufficient search parameter data, such as a partial surname.  
This compares to a regular search which can be used for finding lists of patients, such as to locate a group of patients that share a property in common, such as live in a specific location, or fit within an age range for performing population analysis.”

With this guidance, I think PDQm should be rewritten to use $match rather than Patient search. Doing so would also align PDQm with other industry FHIR implementations such as the [Carequality FHIR-Based Exchange IG.](https://carequality.org/wp-content/uploads/2020/12/Carequality-FHIR-Implementation-Guide.pdf)

It is challenging for a server to support both an MPI based search on the generic Patient Search API and also support the searching semantics that clients trying to generate a list of patients expect. Therefore, having separate APIs for these use cases is beneficial to interoperability.

We might decide to rewrite PDQm to use $match, or decide that both methods have utility in PDQm and thus provide optionality between the two.

# Key Use Case

The use cases listed in the current publication of PDQm should be considered for this work item.

# Standards & Systems

The primary relevant standard is the FHIR section on Patient Matching using an MPI:

http://hl7.org/fhir/patient.html#match

# Discussion

IHE should solve this because they own the PDQm integration profile. This work item was originally submitted as a CP, which was discussed on the 6/8/21 CP call. The technical committee had general consensus that this change would be beneficial, but that this is too large and complex to be handled as a CP.