**Appendix 1: Syntax Utilized for Literature Search**

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| **Question/Topic 1: What microbiotas are not transferred to children who are born by C-section?** |
| **PubMed Search Strategy 1** | **Results** |
| (((((Cesarean Section[MeSH Major Topic]) OR (("Cesarean Section"[Title/Abstract] OR "Cesarean Sections"[Title/Abstract] OR c-section\*[Title/Abstract])))) AND ((microbiota[MeSH Terms]) OR ((microbiota\*[Title/Abstract] OR microbiome[Title/Abstract] OR microbial[Title/Abstract] OR microbe\*[Title/Abstract] OR bacteria[Title/Abstract] OR microflora[Title/Abstract] OR bacteroides[Title/Abstract]))))) AND ((((((child\*[Title/Abstract]) OR infant\*[Title/Abstract])) OR "Infant, Newborn"[Mesh])) OR ((neonate\*[Title/Abstract] OR baby[Title/Abstract] OR babies[Title/Abstract]))) | 70 |
| **PubMed Search Strategy 2** | **Results** |
| (((((("Delivery, Obstetric"[Mesh]) OR ((childbirth[Title/Abstract] OR "mode of delivery"[Title/Abstract] OR "method of delivery"[Title/Abstract] OR "methods of delivery"[Title/Abstract])))) AND ((microbiota[MeSH Terms]) OR ((microbiota\*[Title/Abstract] OR microbiome[Title/Abstract] OR microbial[Title/Abstract] OR microbe\*[Title/Abstract] OR bacteria[Title/Abstract] OR microflora[Title/Abstract] OR bacteroides[Title/Abstract])))) AND ((((((child\*[Title/Abstract]) OR infant\*[Title/Abstract])) OR "Infant, Newborn"[Mesh])) OR ((neonate\*[Title/Abstract] OR baby[Title/Abstract] OR babies[Title/Abstract]))))) NOT ((((((Cesarean Section[MeSH Major Topic]) OR (("Cesarean Section"[Title/Abstract] OR "Cesarean Sections"[Title/Abstract] OR c-section\*[Title/Abstract])))) AND ((microbiota[MeSH Terms]) OR ((microbiota\*[Title/Abstract] OR microbiome[Title/Abstract] OR microbial[Title/Abstract] OR microbe\*[Title/Abstract] OR bacteria[Title/Abstract] OR microflora[Title/Abstract] OR bacteroides[Title/Abstract]))))) AND ((((((child\*[Title/Abstract]) OR infant\*[Title/Abstract])) OR "Infant, Newborn"[Mesh])) OR ((neonate\*[Title/Abstract] OR baby[Title/Abstract] OR babies[Title/Abstract])))) | 100 |
| **Question/Topic 2: How are those specific microbiota connected to health (obesity, diabetes, allergies, asthma and other)? How long are those health consequences sustained?** |
| **PubMed Search Strategy 1** | **Results** |
| ((((microbiota[MeSH Terms]) OR ((microbiota\*[Title/Abstract] OR microbiome[Title/Abstract] OR microbial[Title/Abstract] OR microbe\*[Title/Abstract] OR bacteria[Title/Abstract] OR microflora[Title/Abstract] OR bacteroides[Title/Abstract])))) AND (("Delivery, Obstetric"[Mesh]) OR ((childbirth[Title/Abstract] OR "mode of delivery"[Title/Abstract] OR "method of delivery"[Title/Abstract] OR "methods of delivery"[Title/Abstract])))) AND (((((("Patient Outcome Assessment"[Mesh:NoExp]) OR "Treatment Outcome"[Mesh])) AND ((child\*[Title/Abstract]) OR infant\*[Title/Abstract]))) OR ((((((((Diabetes Mellitus[MeSH Terms]) OR diabet\*[Title/Abstract]) OR Hypersensitivity[MeSH Terms]) OR allerg\*[Title/Abstract]) OR asthma[MeSH Terms]) OR asthma\*[Title/Abstract]) OR Obesity[MeSH Terms]) OR obes\*[Title/Abstract])) | 61 |
| **Question/Topic 3: Have vaginal microbiota been successfully transferred to babies born by C-section? If not, in what other contexts has microbiota restoration been successful? What mechanisms are typically used? And what factors make for a successful restoration (e.g. timing of restoration, length of time the bacteria remain in place, etc.)?** |
| **PubMed Search Strategy 1** | **Results** |
| ((((((restor\*[Title/Abstract] OR establish\*[Title/Abstract] OR transfer\*[Title/Abstract] OR rebuild\*[Title/Abstract] OR rebuilt[Title/Abstract]))) OR ((transplant\*[Title/Abstract] OR recoloniz\*[Title/Abstract])))) AND ((microbiota[MeSH Terms]) OR ((microbiota\*[Title/Abstract] OR microbiome[Title/Abstract] OR microbial[Title/Abstract] OR microbe\*[Title/Abstract] OR bacteria[Title/Abstract] OR microflora[Title/Abstract] OR bacteroides[Title/Abstract])))) AND (("Delivery, Obstetric"[Mesh]) OR ((childbirth[Title/Abstract] OR "mode of delivery"[Title/Abstract] OR "method of delivery"[Title/Abstract] OR "methods of delivery"[Title/Abstract]))) | 34 |
| **[Additional search by different librarian]** |
| **PubMed Strategy 1** | **Results** |
| infant OR infants OR newborn\* OR neonat\* | 45 |
| Immunologic Adjuvants OR Immunotherapy OR Immunomodulation OR Immunization OR Microbiota OR Probiotics OR probiotic\* OR Prebiotics OR prebiotic\* OR Lactobacillus OR bacteroidetes OR bacteria OR Bifidobacterium OR commensal OR Dysbiosis [mh] OR dysbios\* [tiab] OR disbios\* [tiab] OR dys-symbios\* [tiab] OR dysbacterios\* [tiab] OR disbacterios\* [tiab] |   |
| Therapy OR therapeutic use OR ad [sh] OR Dietary Supplements |   |