The Interagency Autism Coordinating Committee (IACC) launched its first *Strategic Plan for Autism Spectrum Disorder Research* in 2009, providing a framework to guide the autism research efforts of Federal and private funders. The *IACC Strategic Plan* organizes research priorities around seven general topic areas represented as consumer-focused "questions." The questions are divided further into research objectives that address key research needs, gaps, and opportunities identified by the Committee. Prior to the *2016-2017 IACC Strategic Plan,* the most recent update to the *IACC Strategic Plan's* objectives occurred in 2011, leading to a total of 78 objectives for autism research.

The *2015 IACC ASD Research Portfolio Analysis* provides the most recent progress on the previous *IACC Strategic Plan* objectives. In 2015, significant progress was made toward completing the objectives in the *2011 Strategic Plan*, with 97% (76 objectives) of the 78 objectives either partially or fully completed – meaning objectives had all or some of the required funded projects. Considering the period from 2008-2015, only 3% (2 objectives) of the *2011 Strategic Plan* objectives were not active at any point across this eight-year window. This indicates that the vast majority of priority areas identified by the IACC in the *Strategic Plan* objectives were deemed by Federal and private research funders to be worthy of investment and were implemented either partially or fully. However, many areas of partial funding in autism research initiatives still left significant gaps that were not filled over this period.

In 2015, ASD research funding supported projects relevant to all seven questions in the *IACC Strategic Plan for ASD Research,* however some questions received greater proportions of funding than others due to the activities of the funders included in the analysis. As in previous years, Question 2 (Biology) received the largest portion of funding (32%) in 2015, encompassing projects supported by nine funders. Research in this field focuses on identifying the biological differences and mechanisms in early development and throughout life that contribute to ASD, as well as the characterization of the behavioral and cognitive aspects of ASD; projects ranged from basic neuroscience using cellular and animal models to clinical studies. Question 3, research aimed at identifying potential causes and risk factors for the disorder, had the second largest portion of funding (18%). Question 3 research projects address topics such as developing improved approaches to study environmental exposures and gene-environment interactions, and to explore the potential roles of the microbiome and epigenetics on etiology. Treatments and interventions (Question 4) followed closely with 17% of total funding, which included research on behavioral therapies, pharmacological treatments, and technology-based interventions. Research projects in Question 4 encompass the development of new treatments using model systems and small-scale experiments as well as full-scale clinical trials. Investment in research infrastructure and surveillance (Question 7) had a significant proportion of funding at 16%. Projects in Question 7 cover data sharing, workforce development, ASD surveillance, and

communication/dissemination of research findings and evidence-based practices. Research to improve screening and diagnosis (Question 1) of ASD was 9% of funding in 2013. Question 1 objectives focused on research to develop biomarkers, screening tools, and diagnostic instruments to aid in early identification. Research focused on services (Question 5) and lifespan issues (Question 6) remained the smallest areas of funding (6% and 2%, respectively). Question 5 objectives addressed issues surrounding access to services, coordination of community-based supports, assessment of health and safety, and improving efficacy, cost-effectiveness, and dissemination of evidence-based practices. Research projects within Question 6 attempt to identify and address gaps in transition to adulthood and long-term outcomes in quality of life for people on the autism spectrum.

While each question's funding amount varied throughout the eight-year span, the overall ASD funding proportions remained relatively the same from 2008-2015. The underlying biology (Question 2) of ASD, the presence of risk factors (Question 3), and the development of treatments & interventions (Question 4) consistently received the greatest investments in research. Research focused on services (Question 5) and lifespan issues (Question 6) remained relatively low in funding throughout the years. Question 2

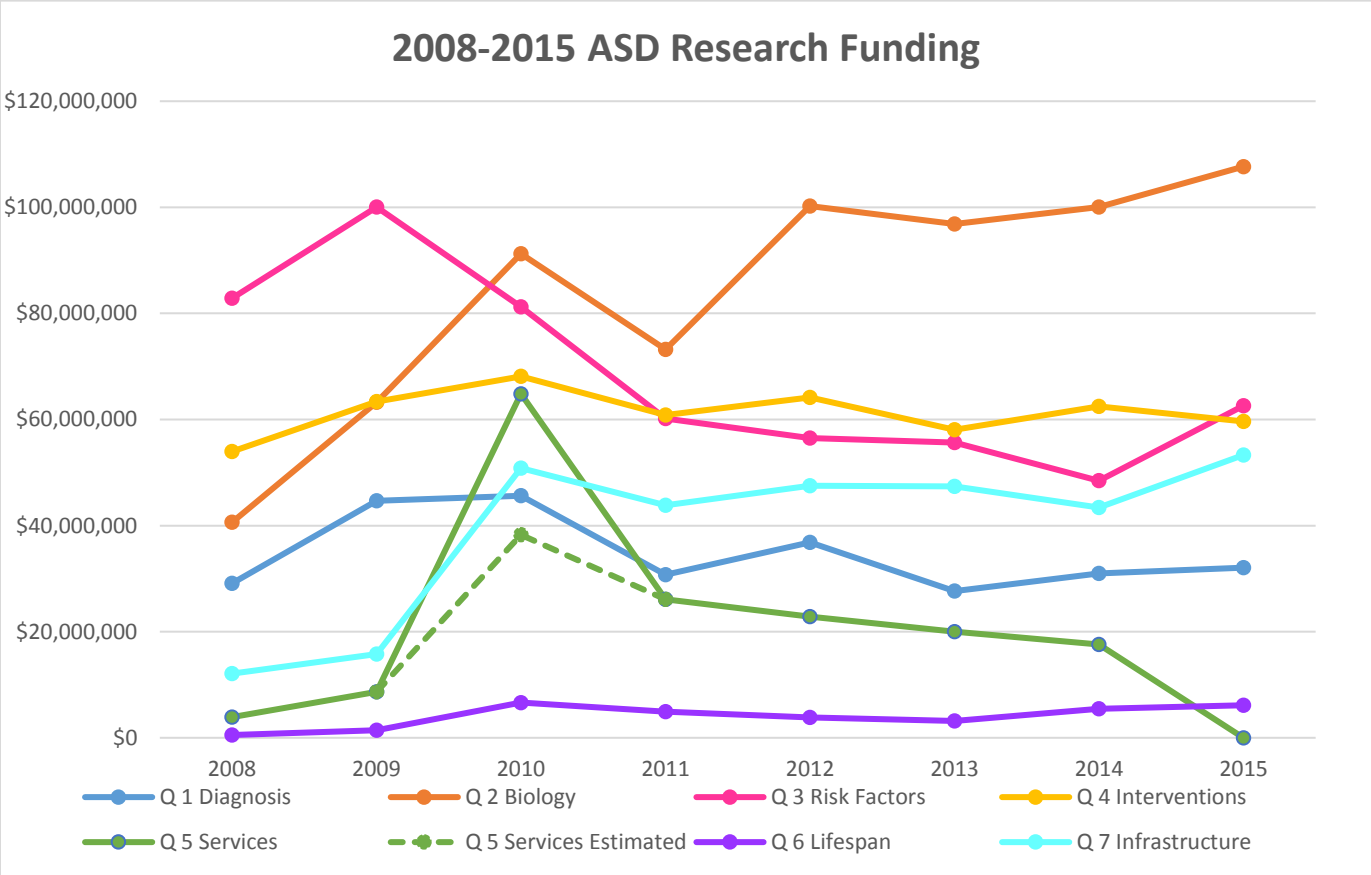

Figure 1. ASD research funding from 2008-2015 by Strategic Plan Question area.

(Underlying Biology) is the only research area that received significant increases in funding over most of the time period from 2008-2015.

In 2008, the reported autism research funding for Federal agencies and private organizations was $222.2 million and 745 projects. In 2015, funding for ASD research among both Federal and private funders totaled $342.6 million and spanned 1,373 research projects. Over the eight years, autism research showed a general upward trend in funding, increasing by 35% since 2008. Looking over the last eight years, significant advances have been made in autism research in each of the question areas prioritized by the Committee. But, there are still some areas of research that lack the support needed to foster significant progress. Since the development of the last *IACC Strategic Plan*, we have reached milestones in our discoveries in autism research, but have also uncovered emerging areas in need of investments. This next edition of the *IACC Strategic Plan* builds on the priorities established in the previous Strategic Plans, identifies the gaps in research, and provides recommendations for future research and services endeavors so that we continue to make a difference in the lives of people with ASD and their families.