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### **Developing a Federal Research Agenda for Positive Youth Development: Identifying Gaps in the Field and an Effective Consensus Building Approach**

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**Abstract:** The field of positive youth development (PYD) is at an important crossroads in terms of defining its scope and directions for future research. This paper describes an effective consensus-building process that representatives from 16 federal agencies engaged in to develop a research agenda focused on PYD and the product that resulted from using this approach. During this process, the representatives identified and refined three research domains (conceptual issues related to PYD, data sources and indicators, and program implementation and effectiveness) and key research questions that could benefit from future research. We share lessons learned from our experience to emphasize the importance of organizational systems change efforts and interagency collaborations. A major contribution of this paper is to provide specific areas for future research in PYD from the federal perspective and to describe future implications for PYD policy and interagency collaborations.

## Introduction

Data indicate that a concerning percentage of adolescents internationally and in the United States face risks such as substance abuse, teenage pregnancy, school failure, and involvement with the juvenile justice system (Centers for Disease Control & Prevention, 2013). Public investments in programs to counter these risks have grown significantly since the 1990s (Benson & Pittman 2012). These efforts mostly focus on targeting specific problems and threats (e.g., drug use, incarceration) and have led to some successes (e.g., reductions in tobacco and drug use starting in the late 1990s, Johnston, et al., 2015). Continued efforts to prevent and reduce these and other problems are still needed for young people to thrive during adolescence and adulthood. Focusing exclusively on problems, however, narrows the vision that society should have for its young people. Policy-makers, practitioners, and scholars who study adolescent development and work with young people have increasingly endorsed the belief that being problem free is not necessarily being fully prepared (Gootman & Eccles, 2002; Pittman 1991; Pittman, Irby, Tolman, Yohalem, & Ferber, 2003; Pittman & Wright, 1991). Consequently, a broader, more holistic view of helping youth to realize their full potential is gaining support and credibility in the world of policy and practice (Bowers, et al., 2015). Researchers in the field suggest that promoting positive youth development (PYD) does not necessarily eliminate risk and problems, thus they emphasize both promoting PYD and reducing risk taking simultaneously (Lerner, et al., 2012).

Developing in the early 1990s, the field of positive youth development (PYD) introduced a vision for viewing young people as resources to be developed instead of problems to be straightened out (Lerner, 2005; Pittman, et al., 2003; Roth & Brooks-Gunn, 2003). PYD approaches emphasize the unique talents, strengths, resources, and future potential of young people, and hold positive expectations regarding the contributions youth can make to society and to their environments (Durlak, et al., 2007; Lerner, et al., 2012). This theoretically grounded perspective does not replace the focus on preventing problems but creates a larger framework to promote positive outcomes for all young people (Dymnicki, Osher & Zimmerman, in press).

PYD also incorporates ideas from efforts beginning in the 1960s, when there was increasing evidence regarding the diversity of adolescent development and the nature of interrelations between individuals and their contexts (National Research Council, 1993, 1996). Furthermore, PYD approaches integrate ideas from work starting in the late 1990s that focused on developmental system theories. These theories seek to combine multiple levels of an organization, emphasize development occurring through mutually influential individual-context relations, and highlight the potential for systemic change within these relations (Lerner, et al., 2015). Public and private organizations are engaged in a wide array of activities that fall within this framework. For example, the MetLife foundation funded a series of briefs that describe the implications of mentoring research for practitioners in the field. The first of these briefs focuses on incorporating PYD into mentoring practices (Lerner, Brittan & Fay, 2007). This new direction for private organizations and in public policy places young people at the center of neighborhood and community life. There they can engage with caring adults inside and outside of their families; develop a sense of security and personal identity; and learn rules of behavior, expectations, values, morals, and skills necessary for moving into healthy and productive adulthood (National Research Council & Institute of Medicine, 2002; Sesma, et al., 2013).

In describing the current state of the field, discussing several initiatives commissioned by federal agencies can be helpful. For instance, in 1998, the U. S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS ASPE) funded the Positive Youth Development Evaluation project to identify the way the PYD programs were defined in the literature, locate evaluations of these programs, and summarize the outcomes of these evaluations (Catalano, et al., 2002). On the basis of a systematic literature review, an operational definition of PYD was developed with 15 constructs, such as *promotes bonding; resilience; social, emotional, cognitive, behavioral, and moral competence; and opportunities for prosocial involvement*. Themes from successful programs included using methods to strengthen social, emotional, behavioral, cognitive, and moral competencies, following a structured curriculum, and attending to the quality and consistency of implementation. The authors of the report encouraged evaluations of PYD programs to use standardized youth outcome measures and include measures of positive and problem behaviors, to establish a shared language and framework for the field. This review highlighted issues related to conceptualizing PYD, evaluating programs, and monitoring and assessing program implementation.

Several years later, in 2002, the Committee on Community-Level Programs for Youth released a report that described research and findings related to program design, implementation, and evaluation of community programs for youth (National Research Council & Institute of Medicine, 2002). This two-year project, led by the National Research Council and the Institute of Medicine, was funded by a diverse group of public and private sponsors, including HHS ASPE; the Office of Juvenile Justice and Delinquency Prevention in the U.S. Department of Justice; the Office of Research, Evaluation, and Monitoring in the U.S. Department of Housing and Urban Development; the David and Lucile Packard Foundation; the William T. Grant Foundation; and the Ford Foundation. The committee reviewed and synthesized available data on community interventions and programs to promote positive outcomes for adolescent development, assessed the strengths and limitations of methodologies and approaches used to evaluate these activities, and identified gaps and central questions for a conceptual framework and research agenda to promote the healthy development of youth. Findings, conclusions, and recommendations were organized in two major categories with several subcategories (a) policy

and practice (subcategories: promoting adolescent development at the program level and serving diverse youth at the community level), and (b) research, evaluation, and data collection (subcategories: research, program evaluation, and data sources and indicators). For example, recommendations related to serving diverse youth at the community level included 'Put in place some locally appropriate mechanism for monitoring the availability, accessibility, and quality of programs for youth' (p. 304); recommendations related to research included 'Support research on whether the features of positive developmental settings identified in this report are the most important features of community programs for youth' (p. 307); and recommendations related to data sources and social indicators included 'Public and private funders should support collaboration between researchers and the practice community to develop social indicator data that build understanding of how programs are implemented and improve the ability to monitor programs' (p. 313). This seminal report presented some of the field's best thinking about research priorities and gaps at the time.

In a 2011 follow-up meeting convened by the National Academies of Science, several experts in the field, including original members of the Community-Level Programs study committee, revisited the original report and shared their ideas about the current state of the field and research priorities (Swanson, 2011). The group identified three research and evaluation questions that would serve to advance the PYD field. These were: 'What makes a difference and how do you implement it?' 'How do we measure impact and how do we use those data?' and 'Can we develop easy-to-use implementation tools for the field?' These questions helped guide the literature search and visionary meeting, discussed later.

### **DEFINING PYD**

In this article, we use the definition of *PYD* developed by the Interagency Working Group for Youth Programs (the Working Group, described in more detail in the next section): "an intentional, prosocial approach that engages youth within their families, peer groups, schools, organizations, and communities in a manner that is productive and constructive; recognizes, utilizes, and enhances youth's strengths and assets; and promotes positive outcomes for young people by providing opportunities, fostering positive relationships, and furnishing the support needed to build on their leadership strengths" (www.youth.gov). This definition reflects the contribution of different contexts, including families, peer groups, organizations, schools, and communities, in youth's development.

In addition, the definition helps to define the parameters of the field of PYD, which is a challenge for researchers and practitioners even today (Walker, et al., 2011). In a seminal piece, Hamilton, et al., (2004) highlighted three major uses of the term *youth development* (YD), which can be understood as (a) a developmental process, (b) a set of principles, and (c) instances of youth programs' and organizations' focus. First, *YD* can refer to the growing capacity of a young person to understand and act on the environment, and is thus synonymous with *child* or *adolescent development*. Second, *YD* can be applied to a set of principles, a philosophy, or an approach that emphasizes active support for the growing capacity of youth by individuals, organizations, and institutions. YD approaches reflect a commitment to enabling all young people to succeed, and this in turn reflects the universal nature of the approach and its focus on thriving (vs. being problem free). Third, *YD* can describe a range of practices in programs, organizations, and initiatives. In this use, *YD* refers to applying the principles to a planned set of practices or activities that foster the developmental process in young people.

While YD takes place within various contexts and the specific practices that adults use to create or sustain such settings vary, the principles remain consistent.

## **The Development of the Federal Research Agenda**

### ***Partners Involved***

The Working Group, which generated the research agenda, was created by Executive Order 13459 in February 2008 to address the need to improve the coordination and effectiveness of youth programs. While the Working Group currently includes a collaboration among 12 federal departments and 7 agencies, 12 federal departments/agencies were initially identified to be involved: the U.S. Departments of Agriculture, Commerce, Defense, Education, HHS, Housing and Urban Development, Interior, Justice, Labor, and Transportation; the Corporation for National and Community Service, and the Office of National Drug Control Policy. The Working Group's current membership has grown with the addition of the U.S. Departments of Homeland Security and State, the Consumer Financial Protection Bureau, the National Science Foundation, the U.S. Environmental Protection Agency, the U. S. Small Business Administration, and the U.S. Social Security Administration. HHS ASPE serves as the chair of this Working Group, and the U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention serves as its vice-chair. The Working Group is a staff-level group that meets monthly to share information and promote collaboration. Since 2009, The American Institutes for Research (AIR) has supported the efforts of the Working Group through a contract. This support includes (a) conducting listening sessions and convening meetings to inform a strategic plan for federal collaboration, (b) re-envisioning, relaunching, and managing youth.gov, and (c) providing support to specific subcommittees, including one on PYD.

The Executive Order identified the functions of the working group as (a) identify and engage key government and private or nonprofit organizations that can play a role in improving the coordination and effectiveness of programs serving and engaging youth, (b) encourage all youth-serving federal and state agencies, communities, and organizations to adopt high standards for assessing program results, and (c) identify and promote initiatives and activities that merit strong interagency collaboration because of their potential to offer cost-effective solutions to achieve better results for at-risk youth. One of the Working Group's functions is to develop and maintain a cross-agency website in order to promote positive results for youth. The Working Group's website, youth.gov, disseminates resources and tools to help organizations that serve youth in an effort to promote positive, healthy outcomes. Youth.gov also identifies and disseminates promising and effective strategies, and promotes enhanced collaboration among youth-serving organizations. An extension of the website is Youth Engaged 4 Change (engage.youth.gov), a youth-focused website that encourages youth and young adults to shape programs, policies, and services that affect them, and connects young people to opportunities funded by the federal government.

The Working Group recognized the importance of Positive Youth Development and formed a subcommittee focusing on PYD. Co-led by ASPE and 4-H National Headquarters within the U. S. Department of Agriculture, the subgroup worked to ensure that current research-based content was included on the youth.gov page and to identify resources that would support federal efforts in promoting youth engagement. The PYD subcommittee also wanted to further the goals of the Working Group by creating a national Research Agenda on PYD, thus giving researchers, practitioners, and policy-makers a point of reference for future policies, programs, and

research, including evaluations. This Research Agenda on PYD could also be used to stimulate conversations and increase attention to this topic area across agencies. In addition, the research agenda could serve to increase funding support for research and serve as a guide for university scholars and students. A subsequent subgroup on research was also formed to stimulate cross-agency collaboration. This subgroup included representatives from extramural funding agencies with the potential to support new initiatives in the area of PYD research.

The Working Group developed a strategic plan for federal collaboration called *Pathways for Youth* and a framework to gather input on the strategic plan. This framework provided the rationale for the topics reviewed in the literature search and framed the convening meeting, discussed later. The framework describes the way the YD approaches that are focused on a variety of programs and practices (e.g., physical and mental health and wellness, education, violence prevention, service learning) can be delivered to different populations (e.g., youth involved in criminal justice systems), and promote positive outcomes and reduce risk in several areas. These areas include health, safety, and wellness; school, family, and community engagement and connections; and education, training, employment, transitions, and readiness for jobs, careers, and adulthood. Key to this approach is a focus on youth as active agents across developmental stages and considering youth in various contexts (including their families, schools, and neighborhoods, and cultural and linguistic environments). In addition, themes of this agenda include an emphasis on collaboration, common metrics, and issues that are consistent with PYD.

### ***Goals for This Effort***

There were three main objectives for this work. First, we wanted to develop a federal research agenda that was relevant to people and agencies with various backgrounds. Staff members representing the various federal agencies brought diverse points of view and perspectives to this work according to their individual agency's focus on human services, education, juvenile justice, public health, labor, or data use and accountability. Some of these staff have backgrounds in fields that are far more deficit focused; they may have difficulties in seeing the alignment between their usual mode of operation and approaches in incorporating PYD into agency practice and policies, whereas others have extensive training in PYD or mental health promotion and strong agency support. Second, we wanted to use this federal research agenda to advance the field of PYD by identifying important research priorities and a limited number of questions to address within each priority. Our hope was that this concise document would stimulate conversations among federal agencies, and between federal agencies and the broader research and policy community. Third, we wanted to engage federal colleagues in a consensus-building process that was not burdensome, given their limited time and competing demands, but was effective for soliciting meaningful feedback at multiple stages of development. Specifically, we wanted to solicit input about bigger picture aspects, such as the vision for this research agenda, and more narrowly defined aspects, such as the wording of the questions that should be included.

### ***Steps Implemented in the Consensus-Building Approach***

AIR staff supported members of the Working Group in a multistage consensus-building approach. This Delphi process involved (a) developing, administering, and describing findings from a survey designed to solicit input from federal staff about what a PYD research agenda should include; (b) conducting a systematic literature review guided by participant responses to inform a two-day visionary meeting; (c) convening a two-day working meeting with federal staff



to develop the foundation and framework for the research agenda; (d) developing and administering a second survey to solicit feedback on the draft research agenda and refining the research agenda on the basis of this feedback; (e) convening meetings with a smaller group (comprising the coauthors of the present manuscript, hereafter referred to as *coauthors*) and developing a revised document based on these discussions; and (f) presenting this research agenda at a national conference and incorporating feedback from experts in the field into the current working version.

### ***Soliciting Initial Feedback from a Brief Survey***

All members of the Working Group PYD and Research subgroups were invited to complete a survey and encouraged to discuss the survey with colleagues within their agencies in order to fill out the survey on behalf of their agency. Questions designed to understand an individual's response and his or her agency's response, asked individuals about (a) priorities related to PYD (aligned with the programs and practices in the framework for the Working Group's *Pathways for Youth* strategic plan), (b) importance of PYD previously and going forward, (c) what an effective and actionable research agenda should include, (d) challenges to incorporating PYD into an agency's work, and (e) key resources that should be reviewed. Twenty-nine people began this feedback form, and 25 individuals provided answers to most questions. Results of this form indicated the wide range of priorities related to PYD that various federal agencies focused on and the growing importance of this work for a range of federal agencies. Multiple respondents suggested including the following content in the PYD research agenda: research gaps that require understanding and implementation of models across diverse environments; vulnerable or diverse youth; ecological factors and changes across the course of development; common PYD indicators; PYD action steps, goals, and outcomes developed from a youth perspective; an analysis of effective PYD principles; and clear definitions of outcomes related to PYD programs or practices.

### ***Conducting a Systematic Literature Review***

On the basis of the survey findings, the AIR team conducted a systematic literature review to identify gaps in the PYD field and emerging priorities that could inform the development of the research agenda during a two-day working meeting. The coauthors developed five questions that emerged from the National Research Council and Institute of Medicine report (2002), 10-year follow-up meeting, and more recent research to frame the literature search. These questions were (a) What do we need to know to promote PYD at the program level? (b) What do we need to know to serve diverse youth at the community level? (c) What types of research can help us develop a deeper understanding of PYD? (d) How can we effectively evaluate PYD in ways that contribute to program quality and scale-up? and (e) What are the most important data sources and social indicators? The end products that resulted from this review included a presentation made at the convening meeting, described below; an annotated bibliography that identified PYD articles and resources meeting the search criteria; and a document compiling PYD indicators for several program and practice areas across federal agencies.

### ***Convening Representatives from Federal Agencies***

The main thrust of the visionary work to develop the research agenda took place during a two-day in-person meeting that 36 people from 12 federal agencies attended. This working meeting was designed to provide an opportunity for federal staff to engage in small-group work and collaboratively begin to develop the foundation and framework for the research agenda. The first day started with presentations by several federal staff, including three of the coauthors,

about the purpose and expected goals of the two-day working meeting, the Working Group's *Pathways for Youth* strategic plan, and findings from the systematic literature review. The presentation describing the systematic literature review was framed by presenting the 11 recommendations from the 2002 National Research Council and Institute of Medicine report and describing ways in which advancements had been made in the field during the past 10 years. For instance, we presented the draft work sheet summarizing data indicators used in various federal agencies when discussing the recommendation to "support collaboration between researchers and the practice community to develop social indicator data that build understanding of how programs are implemented and improve the ability to monitor programs.' Then research needs related to each of the five research questions presented above were described. This included research priorities that emerged from the literature search to address the question 'What do we need to know to promote PYD at the program level?' included 'How, when, why, where, and which PYD programs work?' 'What is the cost-effectiveness of particular programs?' and 'How do we transfer this work into professional development?'

Following a large-group discussion of these findings, participants split into small groups and discussed how the five questions that guided the literature search were relevant to the outcome areas of 'health, safety, and wellness,' 'school, family, and community engagement and connections,' and 'education, training, employment, transitions, and readiness for jobs, careers, and adulthood.' For example, one breakout session focused on how the five questions related to health, safety, and wellness outcomes, after which everyone reported back to the larger group. At the end of the first day, the coauthors met to discuss the research domains that were emerging from the small- and large-group discussions. Three domains were identified: conceptual issues of PYD, data sources and indicators, and program implementation and effectiveness.

At the start of the second day, the coauthors asked their colleagues if these research domains resonated with them, and after general group consensus, people met in small and large groups to further flesh out the research priorities within each of these domains. The large group identified the following research priorities related to conceptual issues of PYD: revising the definition of PYD to delineate the relationship between PYD and other fields (e.g., prevention and promotion); identifying effective PYD approaches that are embedded within programs; understanding how PYD aligns with federal frameworks; and measuring PYD at different levels of implementation (e.g., school, community). They also identified the following research priorities related to data sources and indicators: identifying, measuring, and operationalizing the core components of PYD; determining the characteristics of an effective PYD environment; and identifying a set of PYD indicators that could be used and collected across studies undertaken by various federal agencies. Finally, they identified the following research priorities related to program implementation and effectiveness: providing effective and high-quality training for facilitators of PYD programs; understanding the extent to which implementation factors and subgroup membership moderate program effectiveness, and incorporating outcomes from the perspectives of youth and adults participating in PYD programs. At the end of this meeting, the large group had agreed on a draft list of 26 questions that described these research priorities.

### ***Soliciting and Incorporating Subsequent Rounds of Feedback***

Four more rounds of feedback were solicited from federal colleagues and from experts in the field. A second survey was sent to all the members of the Working Group research and PYD subgroups; this survey included the 26 draft questions within the three research domains.



Survey respondents were asked to indicate, for each question, whether the question should be modified or dropped and why, and were also asked to suggest additional questions that were missing. For instance, this set of questions developed during the working group meeting: 'What are measures of thriving versus not being at risk? Don't we want to promote the development of "thriving" youth?' was revised to be: 'What measures capture thriving (well-being, appropriate social and emotional development, etc.), as well as risk factors?' There was consensus among respondents about which questions to keep; however, there was less consensus about how to revise particular questions. AIR staff reviewed the results of this survey and, on the basis of all feedback, developed a revised set of questions and four action steps for the Working Group to pursue. The revised set of questions reflected AIR's efforts to avoid double-barreled questions and to identify overlap between questions in different research domains. AIR also identified questions that were associated with action steps for the Working Group versus questions that should be included in a research agenda. Thus the question 'What is missing from the current definition of *PYD* developed by the working group?' became this action step for the Working Group: 'Revise current working definition of *PYD*.' The coauthors and other federal colleagues presented and discussed this version of the research agenda in a series of small group meetings and a third version of the research agenda, containing 17 questions, was developed. The third version of the research agenda was presented in a roundtable discussion at the 2013 Society for Research on Adolescence annual conference. Three experts in the field, Drs. Jacquelynne Eccles, Richard Lerner, and David Osher, provided input on the research agenda as discussants for this session. One suggestion that the experts recommended making included removing a question about the relative effectiveness of *PYD* practices that focus solely on promoting assets versus *PYD* practices that focus on promoting assets and preventing risk. The experts said that the field had established that the most effective programs focused on both. The coauthors then met to discuss their feedback and developed a fourth version of the research agenda, which was sent to the all members of the Working Group for final review. As in the second survey, survey respondents were asked to indicate, for each question, whether the question should be modified or dropped and why. AIR presented feedback from these survey findings, and subsequent small-group discussions among the coauthors led to what is the current version of the federal research agenda.

### **Content of the Current Research Agenda**

Figure 1 presents the ten questions included in the current version of federal research agenda, related to the three conceptual domains previously described. The smaller number of questions in the working version reflects the intention to include only questions that resonated with and were relevant to staff across a range of federal agencies. Research questions related to conceptual issues of *PYD* focused on how *PYD* principles increased the effectiveness of programs and practices, and measurement of *PYD* at the individual and contextual levels. Research questions related to data sources and indicators focused on valid and reliable measures of *PYD* and core competencies needed by staff to implement *PYD* practices or programs. Research questions related to program implementation and effectiveness focused on measuring fidelity of *PYD*, assessing to what extent fidelity related to program effectiveness, how to reliably measure dosage, features of settings in which *PYD* programs contributed to positive outcomes, modifications to programs to meet the needs of diverse youth, and incorporating input from youth and staff into the design and implementation of *PYD* program evaluations.

## Figure 1. Questions Included in the Federal Research Agenda

### Research Questions Related to Conceptual Issues of PYD

1. To what extent do PYD principles increase the likelihood that practices or programs lead to improved outcomes for youth and adults?
2. How can PYD be measured at both the individual and contextual (e.g., relationship, community, society, and system) levels?

### Research Questions Related to Data Sources and Indicators

3. What are valid and reliable measures of PYD?
4. What are the core competencies needed by staff (e.g., practitioners, providers) to implement PYD practices or programs?

### Research Questions Related to Program Implementation and Effectiveness

5. How can we measure the fidelity of PYD programs as they are being implemented?
6. How can we assess the extent to which fidelity is related to PYD program effectiveness?
7. How can we reliably measure dosage (frequency, duration, and intensity) of PYD programs? To what extent do these elements moderate program effectiveness and outcomes?
8. What are the features of the settings in which PYD programs are delivered that contribute to positive outcomes?
9. What modifications may need to be made to PYD programs to best serve the needs of diverse (e.g., age, race/ethnicity, poverty level, risk level) youth?
10. How can input from participating youth and staff be incorporated into the design and implementation of PYD program evaluations?

## Implications and Next Steps

The research in the learning and sharing of knowledge suggests that dominant paradigms of the time, culture, and social structure constrain knowledge development. In other words, both intellectual and social historical contingencies affect what knowledge is produced, disseminated, and used (Kuhn, 1970; Mannheim, 1936; Merton, 1968, 1973). The scientific knowledge that is generated, disseminated, and accessed is moderated by the priorities of public and private funders and the frameworks that they apply to these priorities. The development of the research agenda for PYD reflects both conceptual changes in how some scholars, practitioners, and policy-makers view intervention and how research is being aligned. Conceptually, PYD reflects a paradigm shift. To use language from Butterfield (1948) and Kuhn (1970), researchers and practitioners have put on a new thinking cap, examined data on risk and protection in new ways, and collected and analysed new data (e.g., on assets). The agenda also builds on the interdisciplinary and interagency strategic plan, *Pathways for Youth*, which provides a base on which federal efforts can be aligned.

More concretely, the research domains and questions within each domain reflect several themes that the field of PYD can focus on to advance research, policy, and practice. First, there is a need to understand more about how context influences the effectiveness of PYD programs or practices and what setting characteristics must be present to promote positive outcomes. While PYD research in the 1960s identified the important role that context played and later work established the transactional nature of interactions between individuals and their context (Lerner, et al., 2015), there is still more work to be done to understand how to appropriately

measure and alter contexts to promote PYD principles, practices, and programs. Second, while accumulating evidence in the field has established that the quality of implementation matters (Durlak & DuPre, 2008), there are still questions about how to measure aspects of implementation, the extent to which fidelity relates to outcomes, and how incorporating PYD principles (versus a more formalized practice or program) may lead to improved outcomes.

Third, the need for additional measurement work is clear (Arnold, et al., 2012). Several questions focused on creating valid and reliable measures of PYD and approaches to appropriately measure aspects of implementation, including dosage and fidelity. Fourth, there is interest in understanding more about the perspective of youth and adults participating in the programs—to incorporate their input into the design and implementation of programs, to know what skills youth and adults need to deliver programs, and to learn how to effectively tailor programs to serve the needs of diverse populations (Shernoff, 2012). Addressing these questions will increase understanding about how and for whom programs are leading to changes, and what training needs to be provided to successfully implement PYD programs and practices.

A critical ingredient to sustaining these types of efforts is building the appropriate infrastructure to support long-term change. The development and discussion of the federal research agenda has sparked considerable interest and conversations among federal agencies. Several steps have been taken to develop processes and structures to continue this work as part of cross-agency efforts. First, the federal research agenda and resources about PYD have been posted to a publically available website (youth.gov). Second, the Working Group is in the early stages of developing an action team to focus on dissemination of the agenda. This will help to increase visibility and awareness of this research agenda to federal staff not involved in the Working Group and to others in the field of PYD. Presentations of this research agenda have been made to the Working Group.

Third, several federal agencies are exploring ways to integrate PYD into existing institutional practices, such as incorporating a set of PYD indicators in interim and end-of-project reviews. At USDA's 4-H National Headquarters, there is a program-quality working group that has incorporated PYD into its thinking about research theories, data sources and indicators, and replicability and scalability. This effort harnesses resources from the National Institute of Food and Agriculture's Cooperative Extension's land-grant universities for work with community-based programming efforts. Specific initiatives, such as the Coordinating Council on Juvenile Justice and Delinquency Prevention, a federal advisory committee established by the Juvenile Justice and Delinquency Prevention Act, incorporate PYD approaches with two focused efforts in mentorship and family and youth engagement (Coordinating Council on Juvenile Justice and Delinquency Prevention n.d.).

Fourth, the Working Group representatives have made presentations to other interagency working groups about this agenda and have held follow-up discussions. This includes a working group focused on PYD from an international perspective that involves partners from the U.S. Department of State, USAID, USDA's Center for International Programs, USDA's 4-H National Headquarters, and the Peace Corps. This interest between domestic and international federal agencies on PYD will further discussion among federal agencies to consider common definitions, metrics, and program best practices, and will thereby leverage resources. This could lead to broader dissemination and subsequent action steps. In addition, colleagues made a

presentation to the Adolescent Health Working Group, an interagency work group of HHS agency representatives convened by the Office of Adolescent Health (OAH) at HHS. The PYD approach helped shape the OAH's Think, Act, Grow—a national call to action to improve adolescent health in the United States, which identified 'Five Essentials for Adolescent Health' (Office of Adolescent Health, n.d.). This successful collaborative process and intentional, repeated engagement of federal officials who work on a variety of issues related to youth and young adults led to the creation of this research agenda. Having a consensus and shared terminology has opened the door to better knowledge transfer among federal staff within and between agencies and more visibility of PYD, which has the potential to ultimately improve the lives of youth and their families.

### Notes

1. PYD programs had to address one or more of the PYD constructs identified in the review, involve youth between the ages of 6 and 20, include programming for the general population, and address a PYD construct in multiple socialization domains or multiple PYD constructs in one socialization domain.
2. AIR provided a range of background materials for participants so that people would have a shared language and understanding, including the definition of PYD developed by the Interagency Working Group for Youth Programs, a description of the three uses of PYD from Hamilton, et al. (2004), and a memo summarizing the survey feedback from federal colleagues.

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