AN ANALYSIS AND STRATEGIC APPROACH TO MONITORING THE STATUS AND PROGRESS OF CHILD WELFARE REFORM IN 21 CEE/CIS COUNTRIES

NOVEMBER 2007

This report was produced for review by the Social Transition Team, Office of Democracy, Governance and Social Transition of the United States Agency for International Development (USAID/E&E/DGST). It was prepared under the SOCIAL Task Order of the Advancing Basic Education (ABE-BE) IQC by the University of Pittsburgh Office of Child Development, Creative Associates International, Inc. and Aguirre Division of JBS International, Inc.

AN ANALYSIS AND STRATEGIC APPROACH TO MONITORING THE STATUS AND PROGRESS OF CHILD WELFARE REFORM IN 21 CEE/CIS COUNTRIES

Authors: University of Pittsburgh Office of Child Development (in alphabetical order):
Alexandra Debbas, Graduate Student Researcher
Larry Fish, Research Statistician
Christina Groark, Co-Director
Junlei Li, Director, Division of Applied Research and Evaluation
Robert McCall, Co-Director
Lucas Musewe, Data Manager
Maria Townsend, Director of Child and Family Indicators

Advisors: Christine Allison, Aguirre Division of JBS International, Inc.
Maureen Black, University of Maryland
Catherine Cozzarelli, USAID/E&E/DGST
Patrice Engle, California Polytechnic State University
Victor Groza, Case Western Reserve University
Theodore Wachs, Purdue University

Contacts: Gordon Alexander, UNICEF Regional Office for CEE/CIS
Jonathan Bradshaw, University of York, UK
Daniela Buzducea, USAID/Romania
Petra Hoelscher, University of Stirling, Scotland
Eva Jespersen, UNICEF Innocenti Research Centre, Italy
Leonardo Menchini, UNICEF Innocenti Research Centre, Italy
Dominic Richardson, Organisation for Economic Co-operation, France

Acknowledgments

The authors acknowledge the hard work and support of the advisors (external experts) and contacts. The information they provided was invaluable in the analysis and methodology developed in this report. Their candor and commitment is greatly appreciated.

TABLE OF CONTENTS

Acronyms and Technical Terms
for
An Analysis and Strategic Approach to Monitoring the Status and Progress of Child Welfare Reform in 21 CEE/CIS Countries

Acronyms:

CEE/CIS – Central and Eastern Europe and the Commonwealth of Independent States
CRC – Convention on the Rights of the Child
EU – European Union
GDP-PPP – per capita Gross Domestic Product adjusted for Purchasing Power Parity
GNP-PPP – per capita Gross National Product adjusted for Purchasing Power Parity
IRC – Innocenti Research Centre
NGOs – Non-Government Organizations
NPGs – National Performance Gaps
OCD – University of Pittsburgh Office of Child Development
OVC – Orphans and Vulnerable Children
UNICEF – The United Nations Children Fund
USAID – United States Agency for International Development
WHO – World Health Organization

Technical Terms:

Causal domains – Refers to categories of social conditions that are commonly thought to produce children living without some form of permanent parents (e.g., financial inability, revocation of parental rights).

Child welfare – Refers strictly to issues that pertain to the most vulnerable children whose primary care is provided by government, social organizations, and non-kinship and guardianship extended families for reasons of financial inability to care for a child, single/two-parent abandonment, family disintegration, child abuse and neglect, mental health and drug/alcohol abuse of parents, child disability, and teenage delinquency.

Child well-being – Refers generally to the universal aspects of survival and quality of life for all children, including physical and mental health, safety, education, economical status, family structure, and perception of future.

GDP-PPP and GNP-PPP – GDP is the sum value of all goods and services produced *within* a country. GNP "is the sum value of all goods and services produced by permanent residents of a country *regardless* of their location. The important distinction between GDP and GNP rests on differences in counting production by foreigners in a country and by nationals outside of a country. For the GDP of a particular country, production by foreigners within that country is counted and production by nationals outside of that country is not counted. For GNP, production

by foreigners within a particular country is not counted and production by nationals outside of that country is counted" (Barnes & Noble, 2007).

Hague Convention – "The Convention on Protection of Children and Co-operation in Respect of Intercountry Adoption (Hague Adoption Convention)", a multilateral treaty, was approved by 66 nations on May 29, 1993 at The Hague. The Convention covers adoptions among countries that become parties to it and sets out for such adoptions certain internationally agreed-upon minimum norms and procedures. The goal of the Convention is "to protect the children, birth parents and adoptive parents involved in intercountry adoptions and to prevent abuses" (U.S. Department of State, 2007). The Hague has also led to many other negotiated conventions over the years including issues as broad as weapons in warfare, narcotic drugs, and children's rights (Wikipedia, 2007a).

Roma – "The Romani people (as a noun, singular Rom, plural Roma; sometimes *Rrom*, *Rroma*) or Romanies are an ethnic group living in many communities all over the world. The Roma are among the best known ethnic groups that appear in literature and folklore, and are often referred to as Gypsies or Gipsies, a term that is nowadays generally considered pejorative and is based on a mistaken belief of an origin in Egypt. The Roma are still thought of as wandering nomads in the popular imagination, despite the fact that today the vast majority live in permanent housing" (Wikipedia, 2007b).

TransMONEE Database – The 2007 version of the database published by UNICEF contains 154 economic and social indicators divided into ten different topics. In some cases, absolute data are available in addition to calculated rates. Data generally cover the period 1989-2005/6. Most data are collected directly from national statistical offices using a standardized template. Additional data are also obtained from other international organizations or are calculated by UNICEF IRC. Data may not correspond to those in other UNICEF publications (UNICEF IRC, 2007).

UN Convention on the Rights of the Child – The Convention on the Rights of the Child is the first legally binding international instrument to incorporate the full range of human rights—civil, cultural, economic, political, and social rights. In 1989, world leaders decided that children needed a special convention just for them because people under 18 years old often need special care and protection that adults do not.

Executive Summary

The purpose of this project is to create a methodology that will increase understanding of the status and progress in child welfare and child welfare reform of 21 Central and Eastern European/Commonwealth of Independent States (CEE/CIS) countries. This methodology will provide accurate and useful information to key audiences within U.S. government agencies and host countries' institutions. A specific request was to provide an index, preferably quantitative, that could be used to order the countries with respect to their performance on child welfare issues.

Several previous attempts to create an index for subsets of countries around the globe were reviewed and analyzed with respect to their assets and limitations and their methodologies. Nearly all of these previous attempts were focused on **child well-being**, the very general health, education, economic status, and welfare of children in the country. In contrast, the charge for this project was to focus more narrowly on **child welfare**. Child welfare refers to indicators of child welfare problems pertaining to the most vulnerable children whose primary care is provided by government and other organizations because they lack permanent parents for reasons of parental financial inability to care for a child, single/two-parent abandonment, family disintegration, child abuse and neglect, mental health and drug abuse conditions of parents, child disability, and teenage delinquency. Modern child welfare systems have these children cared for by non-relatives (foster care, group homes, etc.) and through guardianship arrangements in extended families.

A major component of this report presents an analysis of the feasibility and utility of creating a single quantitative index for child welfare. The first phase of this analysis examined the primary issue in child welfare and child welfare reform in the CEE/CIS countries, which focuses on children living without permanent parental care (e.g., institutionalization, foster care, kinship, and guardianship care). This analysis revealed that many indicators of alternative care arrangements were difficult to interpret by themselves, because they could be influenced by political and financial decisions within the country and because they were ambiguous with respect to the best interests of the child. This meant that indicators of alternative care arrangements could not simply be combined into a single index without more information, and such information would likely be qualitative.

As a result, the strategy proposed consists of three Levels of Strategic Analysis, which vary progressively from the simple to the complex, objective to subjective, inexpensive to expensive, and inter- vs. intra-country assessment. At the same time, these Levels progress from minimal to maximal utility for assessing the status of child welfare and the progress over time that each country is making in this area. Specifically:

- *Level 1 – Marker of Child Welfare*. A Marker of Child Welfare represents a single quantitative index that captures the primary current child welfare issue in the region, namely, **the percentage of children living without permanent parental care**. It can be used to compare the relative rates of non-permanent parental care in different countries. Thus, the Marker is in direct response to the charge to create an Index of Child Welfare,

and it can be used as a very general guide to targeting countries in special need of assistance.

- *Level 2 – Interpretive Indicators*. These indicators provide quantitative measures that help to characterize for each country the state of child welfare and the factors that contribute to that status in a given country. This Level of Analysis provides more detail about two major aspects of child welfare: first, indicators for several alternative care arrangements and second, indicators that represent risk factors for possible causes of children living without permanent parental care. The latter may be used as a basis for planning prevention efforts. Only some countries might be ready for this Level of Analysis.

- *Level 3 – Within-Country Analysis of Child Welfare Reform*. This analysis provides a structure for conducting more specific, expert, and subjective analyses of what a country is doing with respect to policies, services, professional personnel capacity building, and monitoring and evaluation in its effort to improve its child welfare system. Level 3 is fundamentally similar to the analysis conducted on five countries in the region by Davis (2006) and reported in *Emerging Practices in Community-Based Services for Vulnerable Group: A Study of Social Services Delivery Systems in Europe and Eurasia*. The framework for this Level of Analysis is the four-pillar model outlined by Davis, which we have modified to serve as a strategic guide for examining child welfare issues and reform in these countries. This modified framework includes approaches that increase local capacity in implementing best practices with an emphasis on the rights of children. Professionals are needed to interpret the quantitative and qualitative information to assess the status and progress in child welfare reform in each country, particularly with respect to the four pillars: 1) policy and legal framework, 2) structure and types of programs and services, 3) human capacity, and 4) outcomes and performance indicators.

This report provides Level 1 country rankings on the Marker of Child Welfare (Figure 4-2). This shows that Russia has the highest percentage of children without permanent parents in the CEE/CIS region followed by Belarus, Moldova, Kazakhstan, and Romania; Albania and Turkmenistan had the smallest percentages. Countries Markers are plotted as a function of adjusted gross domestic product (GDP) (Figure 4-3) and the Marker and GDP are plotted over years for each country (Figure 4-4). These plots tend to show that the Marker of Child Welfare is only modestly related to GDP, but when it is related, the marker tends to get worse, not better, as GDP increases. Plotting GDP/PPP and the Marker of Child Welfare across years for an individual country illustrates the limitation of between-country indices. It also provides a more accurate picture of each country's general progress in child welfare and economic change.

For Level 2, the number of children in residential care, in foster care, and those who were adopted in each year from 1989 are plotted (Figure 4-5) for each country with available data. These plots reveal which countries are reducing the number of children in residential care and increasing foster care and/or adoptions. The results reveal several themes. First, for most countries, more children are in residential care than other alternatives, but the number in foster care/guardianship arrangements was higher than or equal to the number in residential care for six countries (Bosnia, Macedonia, Romania, Russia, Serbia (in 2005), and Ukraine). Second, the

number of adoptions, which is likely the best arrangement for the child, is very small in all countries.

Several counties display general or partial progress in what seems to be a positive direction:

- *Belarus* showed recent declines in residential care coupled with increases in foster care, but adoption has remained steady.
- *Bosnia* has many more children in foster care and adoptions have increased in the 2000s.
- *Macedonia* also has more children in foster care than in residential care, and it has a relatively higher number of adoptions than many other countries.
- *Romania* showed a substantial decline in residential care and a corresponding increase in foster care since 2000, with the number of children in foster care exceeding those in residential care since 2004.
- *Russia* has displayed a progressive and long-term increase in the number of children in foster care coupled with the recent but slight drop in the number of children in residential care, but adoptions have remained relatively steady (although Russia has periodically banned international adoptions while implementing a credentialing system for adoption agencies).
- *Serbia* also has higher rates of foster care than residential care, but its most recent data are from 2001.
- *Turkmenistan* is one of the few countries to show an increasing rate of adoptions.
- *Ukraine* has more children in foster care than in residential care, and the spread between the two seems to be increasing, while adoptions were relatively stable in the 2000s but at levels lower than were seen in the 1990s.
- *Uzbekistan* shows a noticeable drop in residential care in the early 2000s and some progressive increase in foster care, while adoptions remained flat.

In contrast, some countries appear to be moving in **a less desirable direction**:

- *Albania* displayed a sharp rise in residential care in 2005 and does not report information on foster care.
- *Armenia* also showed increases in residential care and decreases in adoptions with no reported foster care figures (although a program has reportedly been started).
- *Kyrgyzstan* demonstrated a sharp increase in residential care in 2003-2005 with no corresponding changes in foster care or adoptions.

- *Moldova* also showed a sharp increase in 1999 in residential care (a pattern that perhaps reflects a difference in the definition of this measure) with a much more modest increase in foster care and maintained this pattern to 2005.

- *Tajikistan* revealed a fairly pronounced increase in residential care.

In the next phase of this project, we suggest that the risk and preventive factors of Level 2 be analyzed for their relation to the Marker of Child Welfare, that the number of indicators within each of the five domains of risk factors be reduced to a smaller and more efficient set, and a dossier of Level 1 and 2 data should be produced for each country. These data should be plotted over years and interpreted to the extent the indicator data allow. However, these dossiers should be accompanied by Level 3 analyses, which we propose be conducted after Phase 2 is completed, by an organization that has ready access to the qualitative information in each country. Collaboration is needed to ensure that Levels 1 and 2 information is appropriately interpreted and blended with Level 3 information to produce a comprehensive, insightful, and useful understanding of each country's child welfare status and progress in child welfare reform.

AN ANALYSIS AND STRATEGIC APPROACH TO MONITORING THE STATUS AND PROGRESS OF CHILD WELFARE REFORM IN 21 CEE/CIS COUNTRIES

CHAPTER I. INTRODUCTION

The purpose of this project is to create a methodology that will increase understanding of the status and progress of 21 Central and Eastern Europe/Commonwealth of Independent States (CEE/CIS) countries in child welfare and child welfare reform. This methodology frames the best available accurate and useful information to key audiences within U.S. government agencies and host country institutions. We discuss data and strategies that should be included in a review of child welfare reform *per se*, specifically tailored to issues in the CEE/CIS region, as opposed to the broader child well-being composite indices (for this region and elsewhere) that have preceded or are occurring simultaneously outside this effort. We describe how these strategies were structured, data accessibility, and problems anticipated in collecting the necessary data to evaluate the strengths and limitations of this approach. This project will assist USAID in targeting child welfare programming and provide markers for evaluating the effectiveness of the child welfare innovations in these countries.

Approach. It is important to note that the study team differentiated between the general health, education, and economic **well-being** of children and **child welfare** as a more focused criterion pertaining to child welfare reform as a process to achieve an effective system as well as broader social and economic goals for children living without permanent parental care. We review previous attempts to construct indices to monitor and measure general child well-being in these and other countries, discuss the pros and cons of different approaches, and consider which elements of these strategies can be used to monitor and evaluate child welfare and child welfare reform in these countries.

As a result of this analysis, it became apparent that while a single quantitative marker of child welfare was possible, it would be of limited use in understanding child welfare issues in the region and in guiding USAID and others in supporting child welfare reform and developing new interventions and systems. Further, a composite index of numerous indicators was technically unsound and not interpretable alone. In contrast to a one-time, between-country index, a single marker variable plus several indicators of alternative care arrangements and predictors of child welfare problems should be examined over years and within each country, supplemented with more qualitative information interpreted by local professionals. This multi-level analysis recognizes that, given the inherently qualitative characteristic of much relevant information, evaluating a country's progress in child welfare cannot rely on a few isolated indicators but requires informed judgments about the total profile of relevant indicators.

Three Levels of Analysis. More specifically, three levels of analysis are proposed.

- *Level 1* – consists of a single quantitative Marker of Child Welfare that estimates the number and percentage of children in each country who are living without permanent parents. It is composed of indicators available in most, but not all, countries in the region that specifically measure the number and percentage of children in formal and usually state-

supported non-permanent parental care arrangements (i.e., residential institutions and foster/guardianship arrangements) that can be used as a relative proxy for the number of children living without permanent parental care. This Marker, while not a composite of several indicators as has previously been done, nevertheless reflects directly one of the fundamental contemporary child welfare issues in the region. It can be used for between-country comparisons in a single year or across several years, but by itself it is too global and somewhat ambiguous to monitor and guide policies of child welfare reform within countries.

- *Level 2* – consists of within-country examinations, over years, of two types of indicators, one charting the number and percentage of children in different care arrangements and one consisting of indicators that directly and indirectly reflect potential causes or risk factors that are believed to contribute to children living without permanent parental care. It is the pattern of different care arrangements over time within a country that is likely to be most immediately useful to determine progress toward child welfare reform, and only a few countries are at a point in child welfare reform and development that they are likely to invest in prevention efforts, at least on a broad scale.

- *Level 3* – consists of much more in-depth, qualitative data, and requires in-country professional knowledge and experience, but we propose that Level 3 is necessary to interpret information from Levels 1 and 2 and is crucial to understand and assist in promoting child welfare reform in individual countries. Level 3 is fundamentally similar to the analysis conducted on five countries in the region by Davis (2006) and reported in *Emerging Practices in Community-Based Services for Vulnerable Group: A Study of Social Services Delivery Systems in Europe and Eurasia.* The framework for the third Level of Analysis is based on the four-pillar model outlined by Davis, which we have modified to serve as a strategic guide for examining child welfare issues and reform in these countries in particular. This modified framework includes approaches that increase local capacity in implementing best practices with an emphasis on the rights of children. This approach recognizes that progress in child welfare reform is uneven in the region, circumstances and events are often unique to a country, the relevant and necessary information is not found in one place but rather scattered across various sources and often requires professional judgment to interpret, and in-country professionals are needed to interpret the quantitative and qualitative information to assess the status and progress in child welfare reform in each country, particularly with respect to the four pillars of: 1) policy and legal framework, 2) structure and types of programs and services, 3) human capacity, and 4) outcomes and performance indicators.

Finally, the study includes recommendations for Phase 2 of this project, which would operationalize the blueprint developed in Phase 1 for the database infrastructure and the methodology for assessing levels of progress for each country. Phase 2 of the SOCIAL contract will include conducting Levels 1 and 2 of this methodology and creating profiles for the 21 countries targeted in this region.

Diverse perspectives. The methodology presented here is a collaborative effort of an internal team at the University of Pittsburgh Office of Child Development consisting of individuals with

expertise in social indicators, child development, psychology, education, special education, statistics, policy, and database development. In addition, it was reviewed by a group of national experts in index development, child development, and child welfare (see Chapter II). These contributors examined existing indices (e.g., Dalirazar, 2002; Bradshaw, Hoelscher, & Richardson, 2007) and interviewed several experts in the field. The team hopes these diverse perspectives help, first to point out the unique issues pertaining to charting child welfare and child welfare reform, and second, to target a strategy that is relatively uncomplicated and that permits some comparisons across countries but mainly provides a useful framework for monitoring and guiding child welfare reform within countries over time.

Project Particulars

Target Audience

The primary target audiences for this activity are USAID Missions and USAID/ Washington personnel who are interested in providing interventions related to child welfare and in Orphans and Vulnerable Children issues (OVC). Other target groups for this information include those interested in information regarding social services for vulnerable children in the CEE/CIS region (such as the U. S. Department of State, NGOs, etc.).

Countries Targeted

For the purposes of this project, the following 21 countries are included: Albania, Armenia, Azerbaijan, Belarus, Bosnia, Bulgaria, Croatia, Georgia, Kazakhstan, Kosovo, Kyrgyzstan, Macedonia, Moldova, Romania, Russian Federation, Serbia, Montenegro, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan. They will be collectively referred to as the Central and Eastern Europe/Commonwealth of Independent States or CEE/CIS.

Definition of Children

In 1989, world leaders decided that children (i.e., people under 18 years old) need special care and protection that adults do not. The United Nations Convention on the Rights of the Child is a legally binding instrument that incorporates the full range of human rights for children. Therefore, this is the age group targeted for the purposes of this project.

Task Description and Analysis

As stated previously, the purpose of this study is to establish the conceptual and methodological framework for monitoring child welfare and child welfare reform specifically tailored to the CEE/CIS region. To do this, the team began variable selection by reviewing previous attempts to create child well-being indices (see Chapter III). In addition, methodologies for aggregating data and techniques for dealing with missing data were carefully considered and analyzed for their

assets and limitations. A major outcome of this analysis was the conclusion that the methods previously used to create a single quantitative composite index for between-country comparisons of the general health, education, economic, and social well-being of children were of much more **limited use** when the task, as specified in the Technical Directions provided for this project by USAID, focused more specifically on evaluating the progress of social change and program/policy reform in child welfare.

More particularly, indices of general child well-being have already been created for the CEE/CIS region (e.g., Dalirazar, 2002) and an even more comprehensive index of child well-being is currently being constructed by Bradshaw and colleagues, in collaboration with UNICEF/CEE/CIS, following their previous index created for European Union nations (Bradshaw et al., 2007). Further, we are told informally that Bradshaw et al. will involve more variables specific to the child welfare issue in the index they are creating for the CEE/CIS countries than they had previously done for European Union countries. There is no need to repeat or duplicate these efforts.

Instead, given the limitations of previous approaches when applied specifically to child welfare, we chose to propose three levels of analyses, including: 1) a single Marker of Child Welfare, 2) indicators of more specific aspects of care arrangements and risk factors that potentially are associated with children not living with permanent parents, and 3) a structure for asking data-based questions and considering qualitative information that will help to interpret the Marker and indicators and be more useful in assessing child welfare reform *per se*.

Background

In the 21 countries selected for this study, one constancy is that child welfare issues are politically and emotionally charged and are driven as much by data as by ideology and values. Therefore, the central challenge of this study was to develop a methodology that accounts for both quantitative and qualitative information and allows for both judgments and ambiguities. This methodology must allow for a one-time snapshot as well as provide a sustainable process of gauging the progress of child welfare reform.

To interpret and assess progress on child welfare reform in the region, it is critical to understand the historical and present context surrounding this particular issue. The former communist regimes in the region enforced a system of child welfare exemplified by institutionalization that prioritized the state's role over individual families' or local communities' responsibility for vulnerable groups. The centralized control had led to unnecessary deprivation of parental rights and neglectful, even harsh, treatment for the vulnerable and delinquent. The reforms over the last 15 years at times may have swung the pendulum towards "anything but" the former model in the directions of de-institutionalization and decentralization.

It is humbling to recognize that developed countries, including the United States, United Kingdom, Canada, and Australia, whose models of child welfare serve to guide reform in this region, are themselves continuing to struggle with fundamental issues, such as the lack of permanence and continuity in foster care placements and the plight of minority or otherwise disadvantaged children rooted in poverty and discrimination. It is well to keep in mind that, even in the heat of the cold war

and amid great public apprehension and political hostility, American scholars who visited the U.S.S.R. wrote of Soviet child welfare systems with a studied ambivalence, mixing grave concerns for the Soviet ideology in child-rearing with a recognition that there may be potential for mutual learning between the west and the east (Alt & Alt, 1959; Madison, 1968).

To mark a clear shift from the rigid ideological past of child welfare systems in this region, sound evaluation of reform must strive to mark progress from the radical past while avoiding a blind "anything but" ideological swing. Such an evaluation would have to be solidly grounded in the best interests of children, as identified by the United Nations Convention on Children and demonstrated by research and experience (however limited), along with an understanding of the capacity of each of the countries involved.

The gap between a country's policies and implementation is a common element that characterizes both former regimes and present-day conditions and produces heart-wrenching stories of the plight of children living in non-permanent parental care arrangements (i.e., institutionalization, foster care, or homeless on the streets). To the general public, reports, news stories, television documentaries, and even films that portray children suffering in these non-permanent parental arrangements spur outcries for humanitarian interventions. Some of these actions have led to longer-term improvements in children's conditions and service and legal systems (e.g., increasing availability of child welfare data from most of the countries in the region and the establishment of ombudsmen for child protection). But other attempts at reform have led to ambiguous outcomes (e.g., Russia's effort in the mid-1990s to decentralize universal child benefits that produced large arrears and a central vs. local tug-of-war of financial responsibilities for child benefits).

While it is important to navigate through these troubled terrains with appreciation of the emotionally and politically-charged context, it is imperative to adhere closely to the guiding principle applicable to all who act with and on behalf of children, as described in Article 3 of the United Nations Convention on the Rights of the Child:

> "In all actions concerning children, whether undertaken by public or private social welfare institutions, courts of law, administrative authorities or legislative bodies, the **best interests of the child** [bold added] shall be a primary consideration."

Thus, for each indicator of change in the child welfare system, the proposed structure presses hard to focus on the question, "What evidence exists that such action serves the best interests of the child?" While proof, even quantitative measurement, is often difficult to obtain even in countries with advanced service and data systems, one may add to the confidence of judgment and evaluation by connecting the dots – systematically relying on multiple indicators (Levels 1 and 2) and qualitative information across policy, service, capacity, and outcome pillars (Level 3).

Take, for example, the leading quantitative Marker of Child Welfare (Level 1) – the percent of children not living with permanent parents. If that indicator **alone** becomes disproportionately weighed in the assessment of a country without qualifications or supplementary information, one could plausibly imagine various schemes and distortions that superficially and temporarily "improve" what is being measured at the cost of the best interests of children (e.g., not admitting children who need temporary out-of-home care; prematurely dismissing children from care;

retaining children in medical care beyond necessity; rushing children into reunification, kinship, or foster care without providing adequate financial support or service infrastructure to create quality of care and monitoring). Children's welfare is very much about the quality rather than the "on paper" type of care arrangements and policies. Needless to say, although countries may be signatories to various international treaties regarding human and children's rights, the gap between such public and political gestures on the one hand and the quality of actual implementation of these policies and child welfare on the other is often enormous. Thus, any significant change in political or statistical indicators needs to be corroborated with other information on policy change, service improvement, and human capacity expansion **first** to understand the reasons for change and **then** to determine whether such change is in children's best interests.

CHAPTER II. PROJECT METHODOLOGY

Throughout the process of this study, the methodology to create the proposed analytical strategies was validated by a team of external experts including Maureen Black, University of Maryland; Patrice Engle, Cal Poly State University; Victor Groza, Case Western Reserve University; and Theodore Wachs, Purdue University, with comments and feedback from Christine Allison, Aguirre Division of JBS International, Inc. and Catherine Cozzarelli, USAID (see Attachment I for individual bios). These experts reviewed the proposed Marker and indicators, the methodological and statistical rationale, and the plausibility of obtaining the needed data. Because of the tight timeline, most of the work with the external advisory team was done by telephone conferencing and electronic mail.

However, in addition to communicating with the external advisory team members, we have corresponded actively with Bradshaw and colleagues, who have developed the child well-being index for the European Union and are collaborating with UNICEF/CEE/CIS in a similar effort targeting the CEE/CIS countries. We worked closely with key staff members from UNICEF Innocenti Research Center, who collected and currently house the TransMONEE database, the source of the most accurate and reliable data available for the CEE/CIS countries. We made attempts to contact USAID Missions in select countries and were able to connect with their child welfare officer in Romania to gather a valuable perspective regarding the history of reform in perhaps the most controversial and most intensely watched country (when it comes to child welfare issues) in the entire region.

Day-to-day work was conducted by a team of University of Pittsburgh Office of Child Development faculty and staff. This included specialists from a variety of relevant disciplines including indicator developers; professionals in child development, psychology, education, and special education; and data and policy analysis. This "internal team" included Alexandra Debbas, Graduate Student Researcher; Larry Fish, Research Statistician; Christina Groark, Office of Child Development (OCD) Co-Director; Junlei Li, Director, Division of Applied Research and Evaluation; Robert McCall, OCD Co-Director; Lucas Musewe, Data Manager; and Maria Townsend, Director of the Child and Family Indicators Project (see Attachment II for University of Pittsburgh Office of Child Development internal team).

This internal team was guided in its work scope by the Technical Directions provided by USAID (06/11/07). Team members accessed, reviewed, analyzed, and synthesized a variety of written information sources including reports, databases, websites, and other documents. They also interviewed a diverse group of relevant national and international experts in the field on all aspects of the study including statistical methodologies, missing data techniques, database development, and child welfare issues. The contributions of this diverse internal team, external advisors, and consultants have enriched this report.

CHAPTER III. PREVIOUS ATTEMPTS TO CONSTRUCT AN INDEX OF CHILD WELL-BEING

Since 1990, there have been several attempts to create indices of combinations of risk factors that could potentially be used to identify countries in need of some form of assistance to improve the well-being of children within their borders. The criterion for these indices was *general child well-being*, and the risk factors relied primarily on quantitative economic, health, and education indicators. This is in contrast to the narrower focus on *child welfare* in the current project. We describe several of these indices in historical chronological order to illustrate the types of previous efforts, and point out some of their advantages and disadvantages that may be useful in guiding the current study.

Human Development Index

The United Nations Development Program first reported the Human Development Index in its *Human Development Report* (1990), which was an attempt to move beyond measuring only wealth as a means of tracking changes in the well-being of a country's children. Using measures of key components of well-being – a long and healthy life, knowledge, and a decent standard of living—the UN now reports on four indices: *Human Development Index (HDI), Human Poverty Index* (assessed separately for developing countries [HPI-1] and other countries including the Organization for Economic Co-Operation and Development [OECD] countries, Central and Eastern Europe, and the Commonwealth of Independent States [CIS] [HPI-2]), *Gender-Related Development Index (GDI),* and *Gender Empowerment Measure (GEM)* (United Nations Development Programme, 2006).

The indicators that comprise each of the four indices are first rescaled to a range of 0 to 1.0, and then the average of the several rescaled indicators is the overall index. Specifically, three of the Human Development Indices (HPI-1, HPI-2, and GDI) weight some indicators more than others, presumably those that have the largest or most direct negative impact on overall well-being.

Three Specific Human Development Indices

Three of these Human Development Indices are most relevant to the current project.

Human Development Index (HDI). The HDI measures human development and includes the following indicators in three dimensions:

- *A long and healthy life*
  - Life expectancy at birth

- *Knowledge*
  - Adult literacy rate (with two-thirds weight in calculating this dimension)
  - Combined primary, secondary, and tertiary gross school enrollment ratio (with one-third weight in calculating this dimension)

- *A decent standard of living*
  - Gross Domestic Product per capita in purchasing power parity (PPP) expressed in U.S. dollars (GDP/PPP).

Human Poverty Index (HPI-2). The HPI-2 measures deprivation and social exclusion and includes the following indicators in three dimensions:

- *A long and healthy life*
  - Probability at birth of not surviving to age 60

- *Knowledge*
  - Percent of adults lacking functional literacy skills

- *A decent standard of living*
  - Percent of people living below the poverty line

- *Social exclusion*
  - Long-term unemployment rate

Gender-Related Development Index (GDI). The GDI modifies average achievement to reflect inequalities between the genders and includes the following indicators in three dimensions:

- *A long and healthy life*
  - Female and male life expectancy at birth
  - Equally distributed life expectancy index (adjusted for the proportion of each gender in the population)

- *Knowledge*
  - Female and male adult literacy rate
  - Female and male gross school enrollment ratio
  - Equally distributed education index (adjusted for the proportion of each gender enrolled in the population)

- *A decent standard of living*
  - Female and male estimated earned income
  - Equally distributed income index

Analysis. The Human Development Indices offer additional data beyond economic indicators to measure well-being. With multiple years of data, analyses across regions and countries, and multiple indices, the Human Development Index provides information on the past and present, and it can make predictions for future well-being. The addition of the Gender-Related Development Index in 1995 provided another measure of well-being specifically for females but with implications for the well-being of all children. Research has shown when women's equality increases, children's school completion rates, level of nutrition, and level of immunization all

increase and child mortality rates, child labor rates, and low birth weights all decrease (Kabeer, 2005).

However, analyses across countries and regions do not include all measures of well-being that are collected within each country (Kaul & Menon, 1993), therefore, the UN Human Development Report publishes regional and national reports and encourages individual countries to do the same. Another problem is the partial availability of indicators. For example, the most recent data available for a given indicator could vary more than five years. Specifically, in the 2006 report, the most recent data for the indicator of Decent Standard of Living for the HPI-2 Index ranged from 1994 to 2002 across the countries, whereas the data for Long-Term Unemployment all came from 2005 (United Nations Development Programme, 2006).

The Child Risk Measure

In 1999, UNICEF (UNICEF: The Progress of Nations, 1999) offered an index to spur discussion of defining child well-being across diverse nations using new information about child development and newly available data on risk factors. The Child Risk Measure (CRM) was identified by UNICEF as a work in progress (although it was not revised *per se*), and its authors warned that it did not include some relevant risk factors (e.g., child labor, sexual exploitation, lack of family support, latchkey loneliness, or alienation) due to missing data and some projections were based on outdated data (e.g., predicting child mortality rates in the Congo using 1974 Census data).

The CRM Indicators

The CRM is comprised of five indicators with various time frames:

- Under-five mortality rate [1997]—U5MR
- Percent of children moderately or severely underweight [period 1987-98]—UNDWT
- Percent of primary school age children not attending school [period 1987-97]—NAPSCH
- Security rating derived from UNICEF Security Advisory [1998]—CONFLICT
- HIV/AIDS prevalence rate for 15- to 49-year olds [1997]—HIV/AIDS

The indicators were rescaled so values ranged from 0 to 100, and then were entered into the weighted equation below with more weight given to the first three indicators than the last two:

$$CRM = (U5MR + UNDWT + NAPSCH)/3 + CONFLICT/4 + HIV/AIDS/4$$

CRM was calculated for 147 countries not including eight countries that had no data. The countries with missing data included five of the 21 CEE/CIS countries targeted in the current report — Armenia, Armenia, Kosovo, Moldova, Tajikistan, and Ukraine. In addition, three of the 21

targeted CEE/CIS countries—Bosnia-Herzegovina, Montenegro, and Serbia—were not assessed. See Table 3-1 for the CRM values for those CEE/CIS countries that had data available.

Table 3-1. Child Risk Measure Values by Country

Country	CMR value
Albania	17
Armenia	No data
Azerbaijan	24
Belarus	11
Bosnia	Not assessed
Bulgaria	7
Croatia	10
Georgia	27
Kazakhstan	12
Kosovo	No data
Kyrgyzstan	13
Macedonia	11
Moldova	No data
Romania	6
Russia	11
Serbia	Not assessed
Montenegro	Not assessed
Tajikistan	No data
Turkmenistan	21
Ukraine	No data
Uzbekistan	23

Analysis

Overall, the CRM discriminated between countries and regions. Values ranged from 96 (high values are **less desirable**) for Angola to less than 5 for many industrialized nations. The world average is 30, and regional averages range from 61 for Sub-Saharan Africa to 6 for Europe; Central Asia was above the world average at 41. Of the 21 CEE/CIS countries targeted in the current report, 13 had available data, and values ranged from 27 for Georgia to 6 for Romania with an average of 15.6.

Though the CRM includes indicators that are related to poverty, there is no direct indicator of poverty *per se*, nor is the index recalculated to be made relative to a country's economic status as is done by UNICEF/Dalirazar or the International Child Development Steering Group Project (see below). Unlike some other indices reviewed below, the CRM does weight the indicators, with Under-Five Mortality, Children Underweight, and Children Not in School weighted equally but somewhat more than Security and HIV/AIDS. No rationale was provided for this weighting.

UNICEF (Dalirazar) International Index of Child Well-Being

UNICEF (1993, 1995, 1996) created an index of children's well-being which was subsequently modified by Dalirazar (2002). The UNICEF indices basically identified for each of the 136 countries the positive or negative deviation from what would be predicted on the basis of the country's per capita gross national product (GNP) for each of three child welfare indicators, specifically: 1) the under-five mortality rate, 2) the percentage of students reaching grade five, and 3) the percentage of children under the age of five who are underweight.

Dalirazar's (2002) Revision

Dalirazar (2002) subsequently made several revisions to the UNICEF approach:

- *Additional indicators*. Dalirazar added two health and education indicators and thus used a set of five:
    - *Infant Mortality Rate*
    - *Under-Five Mortality Rate*
    - *Under-Five Malnutrition Rate*
    - *Primary School Enrollment Rate*
    - *Percentage Of Children Reaching Grade Five*

- *Refinement of primary school attendance*. Instead of the percentage of primary school children who subsequently reached grade five, Dalirazar calculated the percentage of **all** children (whether ever enrolled or not) who reached grade five, which seemed to be a more relevant indicator.

- *Lower income countries*. While UNICEF used countries at all income levels, Dalirazar restricted her sample to 112 countries that were low- to middle-income ($15,000 or less per capita per year), on the grounds that child well-being in high-income countries pertains to the consumption of tobacco, substance abuse, injuries and deaths from firearms, and access to health care.

- *Adjusted GNP*. Rather than using the unadjusted per capita gross national product (GNP), Dalirazar equated countries on GNP by adjusting this measure for purchasing power.

- *Relative national performance gaps (NPGs)*. Rather than simply taking the actual deviation of a country's figure from that predicted on the basis of its adjusted per capita GNP, Dalirazar took the deviation as a **percentage** of the predicted value.

- *Empirical determination of best predicting equation*. Rather than hypothesize a single prediction equation relating GNP to each indicator, Dalirazar tried five different regression models (linear, quadratic, log-linear, double-log, and log-quadratic) and found that the

double-log specification (which means that child well-being increases disproportionately with disproportionate increases in adjusted per capita GNP) predicted each of the five indicators best or nearly the best (explaining 45%-98% of the variance in the indicator).

- *Single index*. Dalirazar averaged the five deviation percentages from expected value to produce a single measure (i.e., "Welfare Index of Children in their Entirety," WINOCENT).

Analysis

Several characteristics of Dalirazar's procedure should be kept in mind when interpreting and using the National Performance Gaps for both the five indicators and the summary WINOCENT index.

- *Restricted sample of countries.* Any procedure that predicts expected indicator values on the basis of the relation between each observed indicator and the GNP/PPP of the country will likely be influenced by the specific nature of the sample of countries used to determine that relation. Dalirazar limited countries to those with an adjusted per capita GNP of $15,000 in purchasing power, arguing that child well-being in countries with higher GNPs was related to factors that were less under the influence of government procedures (e.g., substance abuse, injury and death from firearms, etc.). In any case, eliminating higher-income countries is likely to influence the estimated relation between each indicator and GNP, and this influence is likely to be one of raising the expected level for very-low-income countries relative to what it might be if all countries' incomes were represented. The result is likely to be that very-low-income countries are portrayed as having larger undesirable gaps in child welfare performance in this more restricted sample than they would have in a global sample. Further, and more to the point of the current project, the specific regression model and the numerical relation of indicators to GNP/PPP and thus the Performance Gaps produced by Dalirazar may not apply specifically to the set of 21 CEE/CIS countries that are the focus of the current report (unless they are viewed within the context of all 112 low-income countries used by Dalirazar).

- *Actual performance vs. performance from income-expected values*. The UNICEF/Dalirazar indices reflect (either in absolute or percentage terms) a country's child well-being indicator performance **relative** to that expected on the basis of their resources as measured in GNP/PPP. However, by itself, the National Performance Gap does **not** communicate the general **absolute** welfare of children in a particular country. For example, Guinea Bissau had the worst infant mortality performance of any country relative to expectation (i.e., 31 *more* deaths per 1,000 infants than expected on the basis of national income), while Mozambique had the best performance relative to expectations (i.e., 19 *fewer* deaths than expected). In this sense, Mozambique is doing much better with the resources available than is Guinea Bissau. However, both countries had extremely high infant morality rates (in excess of 100 per 1,000 births).

  Therefore, the relative and absolute level of each indicator would seem to have different and useful meanings. For example, if each country were listed on the X-axis from left to right from the worst to the best absolute infant mortality rate and their predicted and actual infant

mortality rate were plotted vertically on the Y-axis, with the actual-vs.-predicted difference highlighted in blue for those countries doing better than expected or in red for those countries doing worse, one could grasp both the absolute and relative performance of each country on a particular indicator (this strategy is illustrated in Chapter IV). It would seem that relative and absolute performance might both be useful in making different kinds of decisions with respect to support for a particular country.

- *The total country index (i.e., WINOCENT).* The average percentage deviation from expected performance represents in a single quantitative score the country's performance over all five indicators. However, while it may appear that each of the five indicators contributes equally to this total NPG index, this is not actually the case. Indicators for which the prediction of the indicator from GNP/PPP is quite accurate (e.g., Infant Mortality) contribute less to the average score because deviations from prediction for this indicator are quite small. Conversely, indicators in which countries vary substantially and where prediction is less accurate (e.g., Under Five Mortality, Under Five Malnutrition) contribute disproportionately to the average NPG. Further, very low-income countries will tend to have more extreme percentage deviations from predicted values (potentially both positive and negative) because the expected value (i.e., the denominator for the calculation of percent deviation) will be lower than for more affluent countries. Finally, countries that are missing data on one or more indicators will have a total average NPG that may be artificially higher or lower depending on which indicators are missing. Thus, the several indicators are differentially weighted in subtle and unspecified ways; using standard scores for all variables in the regression calculation would minimize these problems.

  Consequently, it seems reasonable to look at both the individual well-being indicators as well as the average National Performance Gap and to look at absolute as well as deviations from expected values to obtain a more comprehensive picture of each country on each indicator.

- *Generalizability of the indicators.* The indicators selected in the UNICEF/Dalirazar index were selected primarily because of their relation to GNP/PPP, the relative availability of quantitative information on each indicator in each country, and for their *face validity* (i.e., the indicator reflects a circumstance which itself should be improved or reduced). Certainly we can agree that infant or young child mortality and malnutrition should be minimized and enrolling children in primary school and reaching fifth grade should be maximized. Further, we might suppose that adequate early nutrition and education are likely to be related to other aspects of children's well-being, especially pertaining to health and education. Indeed, poverty (i.e., GNP/PPP) may be one of the best predictors of the broadest range of child well-being characteristics, yet it is essentially removed from the UNICEF/Dalirazar indices which constitute deviations from levels predicted by GNP/PPP.

  However, little justification or substantiation of these indicators as predictors of a great variety of aspects of child well-being was offered, so the extent to which these five indicators are the most representative, comprehensive, and generalizable to the broad spectrum of components of child well-being remains an unaddressed question. Further,

removing GNP/PPP or poverty has certain benefits but also liabilities, because it may be the single most predictive indicator of the broadest range of aspects of child well-being.

The International Child Development Steering Group (ICDSG) Project

The International Child Development Steering Group (ICDSG) Project, sponsored in part by UNICEF, the Bernard van Leer Foundation, and the UNICEF INNOCENTI Centre in Florence, Italy, adopted a different strategy for identifying potential indicators of child well-being and for identifying interventions for children five years of age and under that have the potential of improving child well-being in developing countries. The primary purpose was to guide the improvement of the development of the estimated 200 million children under five years of age who are not fulfilling their potential because of poverty, poor health and nutrition, and deficient care.

The project, described in three articles published in *The Lancet* (Grantham-McGregor et al., 2007; Walker et al., 2007; Engle et al., 2007), focused on risk factors that:

- Were collected in developing countries
- Pertained to children birth to five
- Were proximal rather than distal in having relatively direct influence on children's development
- Had substantial evidence that such factors were related to the broad array of children's current and future health, education, and welfare
- Are associated with conditions which interventions can ameliorate.

Risk Factors

The ICDSG identified a variety of biological (e.g., nutrition, infectious diseases, environmental exposures) and psychosocial (parenting and contextual factors) risk factors for which some evidence exists that such a factor was related to children's health, education, and behavioral development. However, five factors seemed most important because they had broad and substantial scientific evidence suggesting that not only did they adversely affect large percentages of young children in developing countries, but they could also be minimized through intervention programs and public policy. While other risk factors might be equally important, the scientific evidence for them is less substantial.

The most global factor was absolute poverty, and it was assumed that the percentage of adults in poverty could also be used to estimate the percentage of children in poverty, possibly as an underestimate of the actual figure. Four additional risk factors were identified that each clearly related to deficiencies in children's near and longer-term development in at least 20 to 25 percent of children in developing countries, including the stunting of physical growth, inadequate cognitive

stimulation or learning opportunities, iodine deficiency, and iron deficiency anemia. The project documented the relation between each of these risk factors and a variety of children's developmental, health, educational, and behavioral outcomes (Walker et al., 2007). The project did not create an index of indicators for each country, but did demonstrate the prevalence of such factors in developing countries around the world. Poverty and stunting of physical growth, both factors used for different purposes in the UNICEF/Dalirazar project, are likely to have indicators available in more countries than do iodine and iron deficiency and especially inadequate cognitive stimulation.

Analysis

The strength of the ICDSG lies in its review of the research evidence that the indicators identified indeed relate to the broad spectrum of characteristics of children's current and future health, education, and behavioral development, and that such indicators can be addressed with intervention programs that have been scientifically demonstrated to minimize adverse outcomes and promote positive health and educational development in young children. Further, the indicators demonstrate that early child development intervention programs that provide improved diets to pregnant women and young children combined with early childhood direct learning experiences for children and families are effective, especially if they: 1) are targeted toward younger and disadvantaged children; 2) are of longer duration, high quality, and high intensity; and 3) integrate family support, health, nutrition, and educational services. Despite this potential, the number of children and families enrolled in such programs in developing countries is quite small.

This strength of the ICDSG cannot easily be matched in the current project. The field of child welfare does not have the international research literature, especially involving developing countries, on either the validity of risk factors for a variety of child welfare conditions or the effectiveness of various prevention and treatment strategies.

European Union (EU) Index of Child Well-Being

More recently, Bradshaw, Hoelscher, and Richardson (2007) have constructed an index of child well-being, very broadly defined, for the 25 European Union (EU) countries, and the same authors, under the auspices of UNICEF, are creating a similar index for CEE/CIS countries to be completed in the fall of 2007 that is reported to contain more child welfare indicators than its predecessors. This CEE/CIS index, crafted with the same careful procedures as described below for its EIC predecessor, should be a valuable supplement to what is proposed in Chapter IV of this report.

EU Indicators and Overall Index

The EU project uses 51 specific indicators grouped into 23 domains which in turn are subsumed under 8 clusters. The 8 clusters and their associated sub-domains are as follows:

- *Material Situation* (relative child income poverty, child deprivation, parental worklessness)

- *Child Health* (health at birth, immunizations, health behavior)
- *Education* (educational attainment, educational participation, youth labor market outcomes from education)
- *Housing and Environment* (overcrowding, quality of the local environment, housing problems)
- *Children's Relationships* (family structure, relationships with parents, relationships with peers)
- *Children's Subjective Well-Being* (self-defined health, personal well-being, well-being at school)
- *Risk and Safety* (child mortality, risky behavior, experiences of violence)
- *Civic Participation* (participation in civil activities and political interest)

It is likely in the CEE/CIS index under development that *child welfare* will be one of the clusters, and thus of specific relevance to the purposes of this project.

A total of 627 indicators relevant to child well-being were initially identified, and then indicators were selected on the basis of several criteria including: 1) data that best represented a domain within the cluster, 2) data that pertained to the child (rather than family or household) as the unit of analysis, 3) data that were recent and available for enough countries (at least 70% of the countries), and 4) data that were available from the same source to promote comparability. If variables within the domain were missing for a country, the domain average was computed from the available variables within that domain (i.e., missing data were not created or imputed). Indicators came predominately from a few sources including OECD (2005, 2006), OECD/PISA (2005a, b, c), plus OECD reports by Bloendel, Field, & Girouard (2002) and Kamerman, Neuman, Waldfogel, & Brooks-Gunn (2003); the Health Behavior in School-Age Children Study (Currie et al., 2004); European School Survey Project on Alcohol and Other Drugs (Hibell et al., 2003); Eurostat (2005); the International Association for the Evaluation of Educational Achievement (IEA) Civic Education Study (Schulz & Sibberns, 2004); World Health Organization Mortality Database (2005); and World Bank World Development Indicators and Health, Nutrition, and Population Data (2005a, b, c). While some justification for the validity of indicators as representatives of child well-being was offered by Bradshaw et al. (2007), indicators were selected primarily on their face validity and the availability criteria described above.

Standardized *z* scores were calculated for each indicator (subtract the overall mean and divide by the overall standard deviation), which has the effect of producing a scale with a mean of 0 and a standard deviation of 1 for **each** of the 51 indicators. Then indicator *z* scores were averaged to give a domain score, and the average of the domains within a cluster constituted the cluster score. In this way, each of the 51 indicators was weighted equally in the calculation of domain and cluster averages. The authors regard the domain scores as the primary set of indicators, but the average of

the domain scores constituted the single index across all variables for each country. The simpler strategy of ranking countries on each indicator and averaging ranks for each domain produced nearly the same ranking of countries as the *z* scores but with somewhat greater variability from domain to domain.

Analysis

The EU project (and presumably UNICEF's extension of it to cover CEE/CIS countries) is one of the most comprehensive attempts to score countries on child well-being, which was defined mostly in terms of economic, health, and education indicators but also included indicators of children's relationships with parents and peers and their subjective feelings of well-being with respect to their health, life satisfaction, and comfort with other people and schooling. Absent from the set of 51 indicators were variables that did not have the individual child as the primary unit, such as the percentage of children living outside of their families (e.g., in institutions, foster care, homeless). Stunting of physical growth, used by UNICEF/Dalirazar and the International Child Development Steering Group Project, was also not included.

Scores for indicators within each domain were sometimes correlated and sometimes not with other indicators within the domain, and no analyses were reported that would indicate a most efficient subset of indicators or domains that might best represent the entire set of 51 indicators or 23 domains (but factor analysis and other statistical procedures could be used to determine such a subset). However, Bradshaw (2007) reports that the teenage pregnancy rate was the best single indicator representative of the general index.

The use of standardized *z* scores is the most typical way to combine variables having different scales of measurement, and this strategy largely ensures that each indicator (and each domain) is equally weighted in the calculation of ratings for each domain or across all domains (unlike Dalirazar's approach). Sensitivity analyses did show that the overall ranking of countries was quite stable in the face of various procedural and statistical alternatives.

Economic variables were used as indicators rather than taking other variables as deviations from the country's adjusted GNP, thus providing indicators and an overall index that measure the absolute status of children within each country rather than their status relative to its gross national product.

Project for Monitoring and Measuring Children's Well-Being

The multi-national Project for Monitoring and Measuring Children's Well-Being (Chapin Hall, 2007) coordinated by Asher Ben-Arieh of the National Council for the Child and the Hebrew University and Robert M. Goerge of Chapin Hall Center for Children at the University of Chicago, is a similar attempt to assemble a comprehensive set of indicators of children's well-being for many countries of the world that is still under development. Using up to 80 experts from a variety of disciplines and organizations in 28 countries, the project attempts to identify indicator measures and create a reliable and valid scientific protocol for collecting new data on children's well-being,

build a collaborative multi-national network of partners, archive data collected in national and local studies, and develop a strategic plan for disseminating the information and building partnerships of potential users of the data.

The indicators tend to be more social and behavioral than the more traditional health, education, and economic variables, and fall into four domains each with several sub-domains, including safety and physical status (safety, physical status), personal life (interpersonal skills and resources, intra-personal skills and resources, academic skills and resources), civic life (civic and community activities; opportunities for civic and community activities; civic and community values, awareness, and perception), children's economic resources and contribution (macro-economic and intergenerational distributive justice, children's contribution autonomy indicators, expenditure on children, access to resources), and children's activities. To the extent that this project includes most of the CEE/CIS countries, USAID should consider it along with the Bradshaw index as sources of information about general child well-being in the CEE/CIS region.

Analysis

Broad-based projects, such as this and the EU effort, must wrestle with the cultural definition of variables (e.g., what is considered overcrowding), the fact that some indicators pertain only to certain ages of children, the question of whether some indicators should be weighted more than others and how should this be decided, whether measures devised in some countries are appropriate to apply to other countries, etc. It is a difficult task.

Conclusions

The UNICEF/Dalirazar and the International Child Development Steering Group Project point to two major risk factors for children's development, specifically the absolute rates of children in poverty and stunting of children's physical growth. Additional potential indicators include infant and early childhood mortality, early rates of school attendance and completion of schooling to a certain level, and iodine and iron deficiency rates. Presenting absolute rates of these indicators as well as deviations from rates expected on the basis of gross national product provide different types of information that may be used to make decisions regarding aid and support. Further, evidence suggests that integrated programs of prenatal and early childhood nutritional supplements, early care and education programs for young children, and other support services for families with young children can be effective at reducing the consequences of these risk factors.

The European Union project (currently also being adapted to CEE/CIS countries for UNICEF) is one of the most ambitious attempts to rank countries by using 51 indicators clustered within 23 domains. The indicators were selected largely on their face validity, have varying degrees of relationship to one another across countries, and were combined using standard scores which weigh each indicator and domain equally in domain and overall country averages. Absolute rather than relative values were used, and measures of a country's economic well-being were included as indicators rather than as the basis for making other indicators relative to GNP. No attempt was made to determine (e.g., perhaps through factor analysis or other statistical means) the most

efficient subset of indicators that might accurately reflect the ranking based upon all 51 indicators, which would simplify the data collection task when this approach is applied to other countries.

An unresolved issue in the calculation of indices is whether to weight each indicator (or domain) equally or unequally and how to do this mathematically. If equal weighting is desired, use of standard scores is a preferred strategy. The decision as to whether to weight unequally depends partly on whether a criterion exists, either some independent measure (e.g., GNP/PPP) or the total index itself, in which case multivariate statistical methods can be used to minimize prediction errors and/or minimize the numbers of indicators necessary to achieve essentially the same level of prediction. However, if no standard exists, weighting indicators differentially is largely done *a priori* with some rationale or outright "gut hunch."

Child Welfare Indicators and Reform

The attempts reviewed above have focused on health, education, and economic indicators of children's general *well-being*, and quantitative indices that rank countries with respect to child *well-being*. However, the current project is charged with looking primarily at *child welfare*, such as children not living with permanent parents and alternative care arrangements (i.e., institutionalization, foster care, adoption), child abuse and neglect, child abandonment, substance use and abuse in parents and adolescents, violence and aggressiveness among parents and children, etc. Further, the current project is to focus on signs of progress in reform for each country with respect to: 1) policy and legal framework, 2) structure and types of programs and services, 3) human capacity, and 4) performance outcome and measures (i.e., the "four pillars," Davis, 2005). Thus, we will need indicators that are more closely tied to the narrower definition of *child welfare* as well as information pertaining to the policies, services, human capacity, and monitoring and evaluation strategies and the implementation of these components adopted by each country.

In this more focused sphere, three previous studies are useful. First, Davis (2005) authored a report produced for the Social Transition Team of USAID by Aguirre International that provided a framework for understanding promising practices in community-based social services in the CEE/CIS/Baltic States. This report identified reform trends in child welfare policies, services, human capacity, and monitoring and evaluation and deals with a variety of challenges and issues in achieving such reform.

Second, the Development Researchers' Network in association with the Institute for Policy Studies (2006) produced an evaluation report for UNICEF of two demonstration projects aimed at stimulating policy change and enacting improvements in services, human capacity, and monitoring and evaluation in Georgia. In particular, the evaluation report covers two projects, the Family Support and Foster Care Project (FS&FC) and the Prevention of Infant Abandonment and Deinstitutionalization Project (PIAD).

Third, Davis (2006), on behalf of the Social Transition Team of USAID, studied the progress five nations (Armenia, Azerbaijan, Bosnia, Romania, and Russia) had made specifically with respect to the four pillars of policy and legal framework, structure and types of programs and services, human capacity, and performance outcome and measures. The latter project, based in part on Davis (2005),

provides a first-stage demonstration project in five nations that can be the basis for the third level of analysis in the current project conducted for each CEE/CIS country (see Chapter IV).

USAID Social Transition Team Project

Using the four pillars as a general framework, Davis (2006) sought to identify and compare promising practices emerging in the CEE/CIS region that are consistent with international standards of best practice in community-based social services for vulnerable groups. The report described in particular how five countries in the region are moving from residential care to family-focused, community care models using internationally recognized standards for children and youth and elderly, disabled, and minority groups (with an emphasis on Roma). Data collection methods were largely qualitative and included individual and group interviews of donors, implementers, and beneficiaries; document review; and focus groups (in the case of Armenia). These activities were guided by an *In-Country Study Guide* that provided a common framework of assessment and analysis across different data collection procedures and different countries.

The main objectives were to: 1) describe country-specific examples of the shift from residential to community care for vulnerable groups with an emphasis on current thinking about and experiences with the transformation process, 2) identify examples of best practices that reflect internationally recognized standards, and 3) inform stakeholders about best practices that could be employed to further the development of social services within each country. The five countries were selected because their USAID Missions expressed interest in identifying and describing emerging best practices in community care for vulnerable groups. In addition, the countries were selected to represent different stages of implementation of community care policies and programs, and in some cases the USAID Mission specifically requested technical assistance in designing program activities.

The report first identified a range of practices indicative of progress and reform in each of the four pillars, and then discussed areas needing improvement and a general framework for analysis of best practices. This was followed by reports of the status of each of the five countries with respect to the four pillars.

Analysis

This initial demonstration project pertaining to progress in reforming child welfare in the region provides a rich basis for the current project's proposal that covers both child welfare indicators as well as a structured framework for evaluating progress in child welfare policies, services, professional capacity, and monitoring and evaluation. Some lessons learned in both the USAID and UNICEF projects are instructive for the proposal that follows in Chapter IV of this report.

- *Quantitative and qualitative information*. All of the demonstration projects cited in this section relied heavily on qualitative data, specifically on interviews with policy makers, educational and institutional professionals, social workers and psychologists, and participants in services. The emphasis on qualitative information stems from several factors,

including the sparse availability of indicators of four-pillar characteristics, the difficulty in creating quantitative indices for many of the four-pillar characteristics, and the unlikelihood that indices appropriate for one country will be defined similarly and be equally appropriate in another country.

- *Ambiguous meaning of some indicators*. Generally, economic, health, and education indicators used in the country indices described above can be interpreted clearly and unambiguously—that is, it is unequivocally good to have lower infant mortality, more years of education, less stunting of physical growth, and less malnutrition. When it comes to indicators of child welfare, some possible indicators are similarly unambiguous; for example, it is better to have lower rates of children not living with their parents, lower rates of child abandonment, abuse, and neglect, etc. But other indicators, especially those reflecting policies and services, are **not unequivocally interpretable**. For example, the simple quantitative rates of the number of children in institutions, foster care, and other services cannot on their own provide information about whether these situations/services are beneficial for children unless they are accompanied by information on the **quality** of institutions, foster care, and other services. For example, foster care is generally preferred over institutionalization. However, multiple placements in foster homes with four to six children with little hope of permanent adoption should be examined for improvement. Similarly, an overriding conclusion from previous reports was that while policies were passed that were consistent with international standards of reform, the beneficial effect of policies could not be evaluated without information about the **extent and quality of implementation** of those policies, and the perceived gap between policy and implementation was often very large.

- *Missing information and prevalence rates.* Because many **qualitative** aspects of reform are not measured, there will not be **quantitative** indices for many of the crucial components of reform in most countries. Further, while examples of promising programs and practices are exceedingly useful, it will be difficult to assess how prevalent such programs are and exactly how many people benefit from them.

- *Incomparability of reform efforts.* Different countries, because of contrasting histories and how recently they have begun reform efforts, take qualitatively different strategies and adopt different emphases towards reform that cannot simply be "**averaged**" to obtain a general index. For example, if a country emphasized family support to keep children out of institutions, the number of children in institutions might decline but the number of children adopted and in foster care might not change for many years. How does one combine these numbers in a meaningful way to say progress is being made? Further, the world's literature on how effective a given strategy is for the "**best interests of the child**" tends to show that the strategy itself is less important than how well it is implemented, including the commitment, professionalism, and quality of the service workers and the services (see Chapter IV for sources).

- *Judgment and interpretation will be required.* Because of the above issues, the nature of the task of identifying child welfare risk factors and especially progress towards reform cannot be neatly charted with a few readily available quantitative indicators. Rather, more global

and qualitative scales that represent major dimensions of reform need to be identified that will provide structure to the assessment process, but judgment by knowledgeable people will be required to deal with situations in which insufficient information is available and to come to a general conclusion across all sources of information regarding the country's general progress (see Chapter IV).

- *Within, not between, country analysis*. The indices reviewed in the first part of this chapter are designed to rank countries at a particular point in time with respect to child well-being. They are basically **between-country** calculations. How countries rank with respect to one another can provide some information regarding which are experiencing more problems – and thus presumably in need of more assistance – than others. But the current task of charting child welfare reform is, by definition, one that requires **data over time** to be able to chart change, and it must be conducted **within individual countries**. Relations among indicators determined between countries may not accurately describe the relations among those same indicators within a country over time. For example, the relation between GDP/PPP and an index of child well-being may be positive (i.e., richer countries have better child well-being) when examined between countries, but as an individual country becomes more affluent, child well-being may actually decrease over time. This same principle will be vividly illustrated in Chapter IV. Thus, the most accurate approach to measuring child welfare is within, not between, countries, and over time, not in a single year.

CHAPTER IV. STRATEGIES FOR TARGETING RESOURCES AND UNDERSTANDING CHILD WELFARE REFORM IN EUROPE AND EURASIA

The purpose of this chapter is to provide strategies that will advance understanding of child welfare issues and provide a concise synopsis of available information related to child welfare and reform in the 21 CEE/CIS countries.

Rather than provide a single index composed of a combination of several indicators, we argue that special problems arise when trying to create such an index for child welfare *per se*. Even when feasible and interpretable, such an index has some, but limited, utility for estimating one vs. another country's general child welfare status. Further, such an index is of nearly no use in understanding a country's child welfare status, problems, and reform efforts and progress. Consequently, we propose three Levels of Analysis that include: (Level 1) a single Marker of child welfare status that can be used for limited between-country comparisons; (Level 2) indicators of more specific child welfare practices and potential causes of child welfare problems that can be examined across years within each country to help understand the child welfare status and reform of each individual country; and (Level 3) a structure for a much deeper understanding of the four pillars of child welfare reform that might be most useful in crafting wise, sensitive, and effective assistance to a country.

While previous efforts to create an index have used the more general child well-being as an implied criterion, the current effort focuses on the narrower concept of "child welfare" as the concept to be estimated and analyzed. Moreover, child welfare will be honed further to mean children living without some form of permanent parents.

We recognize that "child welfare" is often conceptualized much more broadly than "children living without permanent parental care" to include all vulnerable children – those who are abused and neglected, living with dysfunctional parents, victims of violence, used for commercial interests (e.g., child labor, child trafficking), and made vulnerable because of severe poverty, unhealthy environments, and lack of good education. "All vulnerable children" becomes close to the general "child well-being" that has been the aim of previous studies and those ongoing (e.g., EU CEE/CIS project). Instead, the current report focuses on children living without some form of permanent parents.

Three Levels of Strategic Analysis. This chapter presents three Strategic Levels of Analysis.

- *Level 1 – Marker of Child Welfare*. The Marker of Child Welfare represents a single quantitative index that captures one of the primary global child welfare problems in the region, namely, **the percentage of children without permanent parental care**. The Marker can be used to compare the relative rates of non-permanent parental care in different countries as well as indicate which countries are doing relatively better or worse than might be expected relative to their economic resources. Thus, the Marker can be used as a very general guide to targeting countries in special need of assistance as well as to provide a global benchmark for progress in child welfare.

- *Level 2 – Interpretive Indicators*. These indicators provide quantitative measures that help to characterize in more detail for each country the state of child welfare and the factors that contribute to that status in a given country. While countries could be compared with one another on these indicators, the primary purpose of this Level of Analysis is to provide more detail about two major aspects of child welfare. First, interpretive indicators for several alternative care arrangements should be examined to assist in understanding what the country is doing to address the issue of children without permanent parental care. For many countries, this is the most pressing current need and nearly the only domain of public child welfare activity. Second, prevention indicators can be used to help diagnose the possible sources of children living without permanent parental care, suggest target areas in which prevention efforts might be directed, and help to move thinking about child welfare toward its broader definition of vulnerable children.

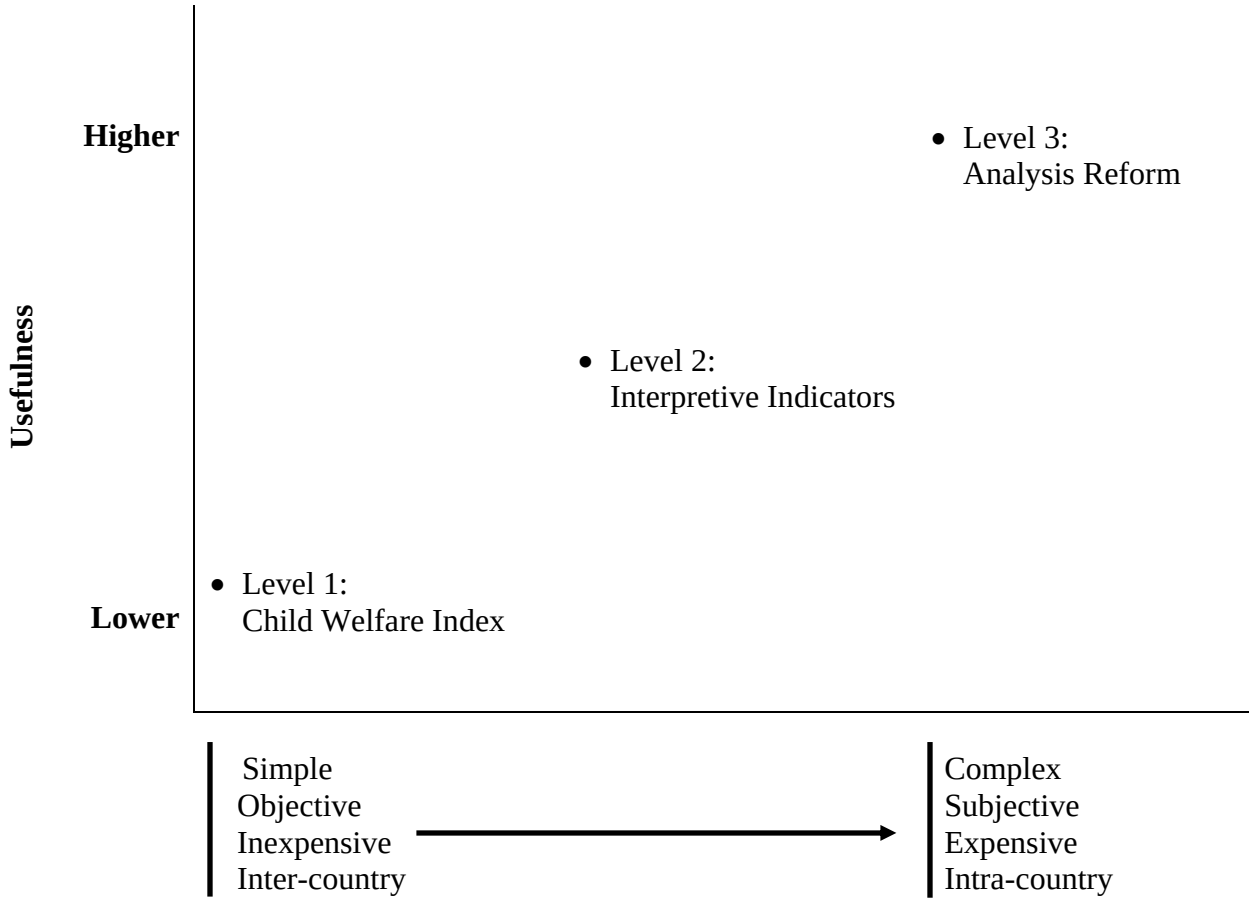
- *Level 3 – Within-Country Analysis of Child Welfare Reform*. This analysis provides a structure for conducting more specific, expert, and subjective analyses of what the country is doing with respect to policies, services, professional personnel capacity, and monitoring and evaluation (i.e., the Four Pillars) in its effort to improve its child welfare system.

These three Levels of Strategic Analysis serve a common purpose but vary along several dimensions which are diagrammed in Figure 4-1. The Levels share the purpose of contributing information toward the goal of targeting resources between and within countries in an effort to improve child welfare in the region generally and within countries in particular, and they may provide diagnostic information regarding the nature of the child welfare problem as well as the country's attempted solutions. Within this common broad purpose, however, the Levels progress from Level 1 to Level 3 in terms of simplicity to complexity, objectivity to subjectivity, inexpensiveness to expensiveness, and inter- vs. intra-country analysis. The accumulation of information across the three Levels provides the most comprehensive and deepest understanding of an individual country's circumstance thus providing the most insightful assistance. Of course, not all countries may be at a developmental stage that warrants conducting all three Levels of Strategic Analysis.

Level 1. Marker of Child Welfare

Despite limitations, a between-country measure of child welfare is possible. "Child welfare," as characterized in major textbooks (e.g., Kadushin & Martin, 1988) and previous attempts to create child welfare indicators in a single country (e.g., Trocmé, Nutter, MacLaurin, & Fallon, 1999) focus primarily on children who are without a form of permanent parental care because of child abuse and neglect, parental incapacity, the child's own deviant behavior, etc. Fortunately, the ***percentage of children without a form of permanent parental* care** can be estimated from the TransMONEE database (UNICEF IRC, 2007). In contrast to indicators of how children are being cared for (e.g., residential institutional care, foster care/guardianships, adoptions), the percentage of children without permanent parental care can be unambiguously interpreted: fewer children without a form of permanent parental care is in the best interests of children and the country.

Figure 4-1. Levels of Strategic Analysis Plotted As a Function of Their Usefulness As Well As Their Simplicity, Objectivity, Expense, and Relevance For Inter- Vs. Intra-Country Analysis



Other indicators that pertain to how children are cared for or are potential causes and risk factors related to the percentage of children without permanent parental care are more ambiguously or indirectly interpreted and appear in Level 2.

Methodology

Variable. We searched nearly all available credible databases and reports created by international organizations for indicators of child welfare, including TransMONEE, Worldwide Governance Indicators, Human Development Indices, World Bank database, World Health Organization database, State of the World's Children Reports and Progress of Nations Reports of UNICEF, and others used by previous attempts to create international children's well-being indices.

The percentage of children without permanent parental care can be estimated from the TransMONEE database by adding the number of children in institutionalized/residential care (Variable 8.2) plus the number in foster care/guardianship arrangements (Variable 8.7) and dividing this sum by the population of children birth to 17 years of age (Variable 1.5).

This measure includes infants and children plus children with disabilities who are in orphanages or other residential care plus infants and children in the foster-care/guardianship system. Since these children may be any age from birth to 17 years, the appropriate denominator is the number of children birth to 17 in the country. This produces a percentage that can be compared across countries without further statistical manipulation.

Limitations. Of course, this is a fallible and limited measure. It represents only one aspect of "vulnerable children" and even the broader definition of "child welfare." It does not include children who are without permanent parental care but not under the auspices of public or private agencies or systems where they could be counted (e.g., street children, older children who run away to live with relatives and friends, etc.). Unfortunately, there are no uniform or reliable estimates of these children living without permanent parents. Thus, the estimate is a more accurate reflection of "children in formal or state-related, non-permanent parental care," which is likely the best proxy we are able to obtain of "children without permanent parental care." It will underestimate the actual number, so the absolute value is less useful than changes over time.

This Marker, as with most indicators collected in different countries, is not ideal (e.g., Moore, 1997) and suffers from a variety of common limitations (e.g., see Goerge, 1997). For example, countries may differ in whether children in guardianship arrangements are included in foster care, the definition of a guardianship may vary, some countries may include children in boarding schools as being in residential institutions whether or not they are fully state supported, individuals 18 years of age or older may be included especially if they have disabilities and still reside in an institution, the definition of "institution" can vary from country to country, and countries may also differ in whether children in non-public residential care are or are not included (Gordon Alexander, personal email communications, July 23, 27, 2007; Leonardo Menchini, personal email communication, July 31, 2007; Helen Moestue, personal email communication, August 18, 2007; Judita Reichenberg, personal email communication, August 9, 2007).

Finally, countries sometimes pass new policies (e.g., infants will not be sent to orphanages) and then no longer monitor how many infants are in institutions because they are not supposed to be there – a case of fitting the data to the policy rather than the policy to the data. These variations between countries make between-country analyses inaccurate to an unknown extent, which is another reason why we emphasize in this report within-country analyses across years, recognizing that even in this case, countries occasionally change the definition of a measure, which can produce an artificial inflection in a trend line.

Despite these limitations, this Marker has utility. That is, it is a fairly direct estimate of one of the current focal concerns in child welfare in the CEE/CIS region today (Davis, 2005, 2006). To supplement this with less direct indicators seems superfluous, because such indicators would be validated by their correlation with the proportion of children without some form of permanent parents (although such indicators may have interpretive utility; see Level 2). Further, indicators of care arrangements for children without permanent parental care are somewhat ambiguous reflections of the best interests of children, a topic to be considered in Level 2.

Calculation. One indicator is used for the Marker of Child Welfare which is available for most countries in the CEE/CIS region in the TransMONEE database. This Marker is unaffected by

problems involved in combining several indicators. Missing data, however, still represent something of a problem. Countries do not change radically from year to year in the number of children in residential/institutional care or in the foster care/guardianship care system, in part because children do not move in and out of these care arrangements very rapidly and because a very substantial percentage of children in these care arrangements in one year were in the same arrangements the previous year. Thus, it is possible to use a "six-year window," for example, in which data from 2005 are used, but if that is missing, data from the next available year within the six-year window can be substituted. Other more complicated procedures could be invoked (e.g., calculating a trend line using data available over years and extrapolating that trend to the year 2005), but it is not clear that the interpretability and utility of this Marker warrants such approaches. The absence of data itself may hold some interpretive significance.

The Marker of Child Welfare is calculated as follows:

$$\text{Marker of Child Welfare} = \text{Percentage of Children Birth to 17 Years Living without Some Form of Permanent Parental Care (i.e., in "formal care arrangements")}$$

$$\text{Marker of Child Welfare} = \frac{\text{(Number in Institutionalized/Residential Care + Number in Foster Care/Guardianship Care)}}{\text{Population of Birth-17 Years}}$$

$$\text{Marker of Child Welfare} = \frac{\text{(TransMONEE Variable 8.2 + Variable 8.7)}}{\text{TransMONEE Variable 1.5}}$$

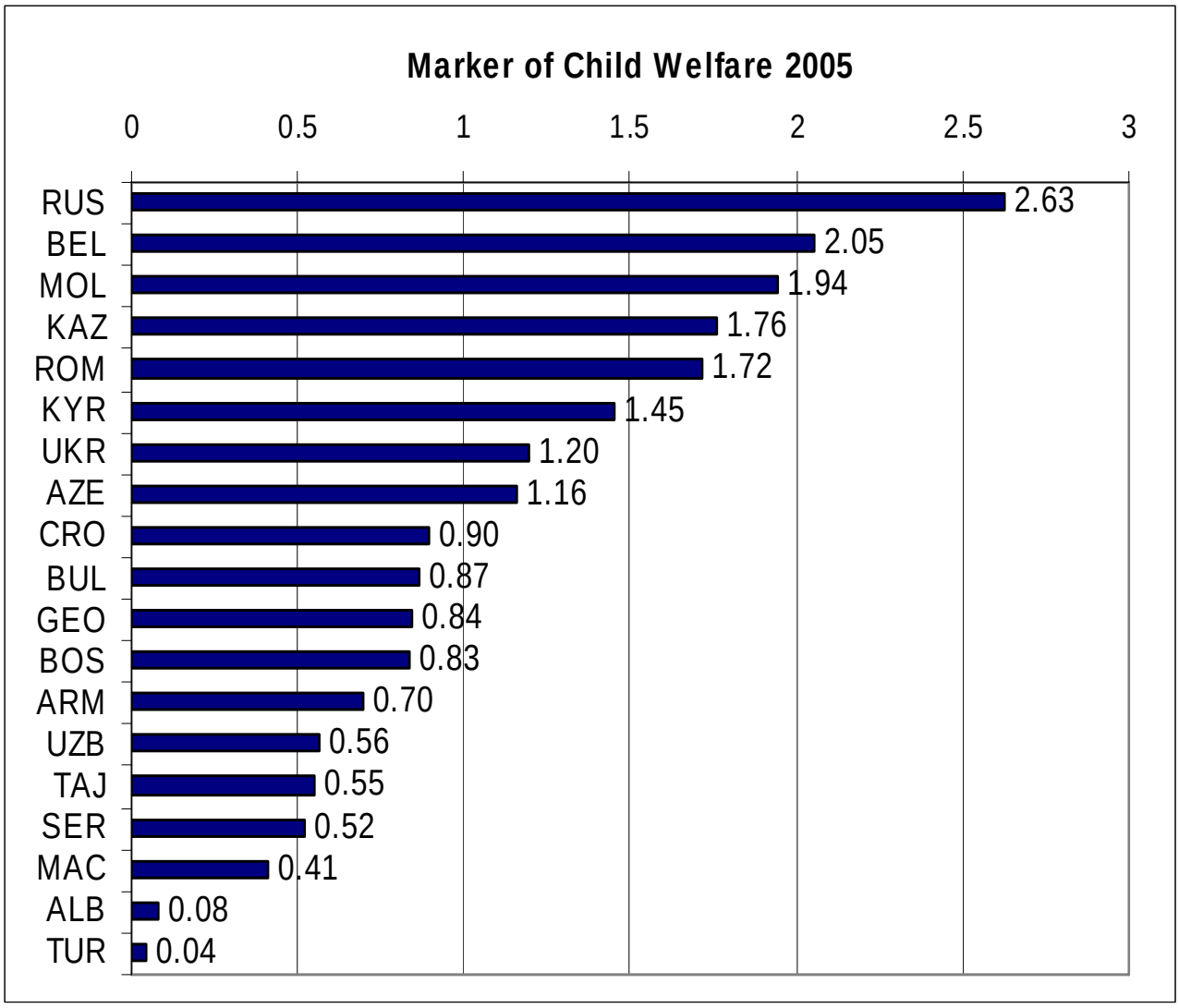
Notice that low values are desirable (i.e., low rates of children living without parents) and high values are undesirable (higher percentages of children living without parents)**.**

Presentation. There are several ways this information can be presented.

- *Order of countries by Marker of Child Welfare*. A simple and direct presentation of between-country differences in this Marker of Child Welfare is presented in Figure 4-2, which presents countries from relatively worst (top) to relatively better (bottom) according to the value of the Marker of Child Welfare, using the most recent data available during the five-year period 2000-2004. From this simple presentation, one can see that Russia, Belarus, Moldova, Kazakhstan, and Romania have the highest rates of children without some form of permanent parental care whereas Albania and Turkmenistan have the lowest percentage of children living without permanent parents, at least according to the indicators used. Note that 19 countries are represented in Figure 4-2; Montenegro was not separated from Serbia before 2006 and Kosovo is technically not independent.

Figure 4-2 seems to imply that Russia, Belarus, Moldova, Kazakhstan, and Romania are "worse" and Albania and Turkmenistan are the "best" in the region with respect to child welfare. But these countries may not be "worse" or "best" with respect to the ways they are coping with these children, or to the progress they are making in reforming their care systems.

Figure 4-2. The Marker of Child Welfare (i.e., Percentage of Children without Permanent Parental Care) for Countries in the CEE/CIS Region



Marker of Child Welfare Relative to Economic Resources. The Marker of Child Welfare can be presented relative to the country's economic resources, partly in the manner of Dalirazar (2002). That is, in allocating resources to countries, USAID may be interested in how well a country is doing in child welfare relative to its resources, because it might be expected that a country with limited resources is relatively unable to enact policies and services that might minimize the number of children living without some form of permanent parents. A useful way to display both the absolute value of the Marker of Child Welfare (as displayed in Figure 4-2) and its position relative to the country's economic resources is to plot the Marker of Child Welfare (percentage of children living without permanent parents) as a function of the country's GDP/PPP which, for this project, came from TransMONEE but also can be obtained from the World Bank database.[1] Specifically,

[1] GDP per capita based on purchasing power parity (PPP) "is gross domestic product divided by midyear population converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing

Figure 4-3 presents those CEE/CIS countries with available data as points on the graph that represent the intersection of its GDP/PPP on the horizontal axis and its Marker of Child Welfare on the vertical axis. Serbia did not have adjusted GDP data available, and Montenegro (until 2006) and Kosovo were not separate countries.

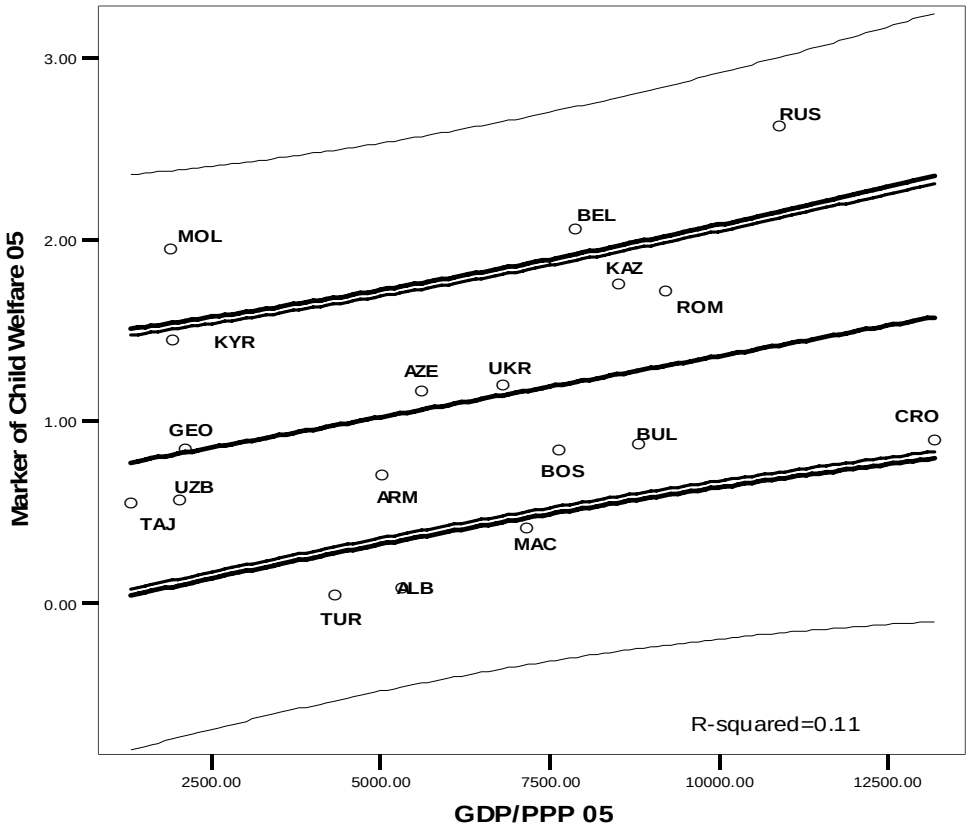
Note first that the higher a country is in the vertical direction, the higher its Marker of Child Welfare and the **greater** the percentage of its children who are living without some form of permanent parental care. The further a country is located horizontally to the right, the **larger** its GDP. Of the three bold lines, the middle line (boldest) represents the best estimate of a country's Marker of Child Welfare based on the relation between the Marker and GDP/PPP for the set of CEE/CIS countries with available data represented in the graph. Technically, it is the linear regression line that best fits these data. Notice that this line runs upward from left to right, which indicates that countries with **higher** GDP/PPP have **worse/higher** values of the Marker of Child Welfare (i.e., a higher percentage of children living without some form of permanent parents; see below for a discussion and qualification of this result).

The bold lines above and below this central bold line mark off a range of values around the expected Marker value that on average would include approximately two-thirds of the countries, with only approximately 16 percent of the countries expected to be above the top bold line (i.e., substantially worse in their Marker of Child Welfare than would be expected on the basis of their economic resources) and approximately 16 percent below the bottom bold line (i.e., better values of the Marker of Child Welfare than one would expect on the basis of their economic resources). Notice that Russia, Moldova, and Belarus are above the upper line, indicating that they have worse than expected child welfare, whereas Turkmenistan, Albania, and Macedonia have somewhat better Markers of Child Welfare than one would expect on the basis of their economic resources. Further, we would expect 95 percent of the countries to fall between the two thin lines above and below the bold lines, so that only approximately 2.5 percent of the countries would be above (i.e., worse) and 2.5 percent below (i.e., better) than expected, and no country was this extreme.

This plot has the advantage of communicating three pieces of information simultaneously. First, countries on the left side of the graph are relatively poorer financially than countries on the right side of the graph. Second, countries relatively high on the graph are doing worse with respect to child welfare whereas those near the bottom of the graph are doing better. Third, countries above the top bold line are doing worse whereas countries below the bottom bold line are doing relatively better with respect to child welfare than one would expect on the basis of their economic resources; countries between the bold lines have Markers of Child Welfare that are consistent with what would be expected on the basis of their economic resources. Similar plots were made for data from 2004 and from 2003, and the general results are very similar.

power over GDP as the U.S. dollar has in the United States. GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in constant 2000 international dollars." (Data Source: The World Bank).

Figure 4-3. The Marker of Child Welfare (i.e., Percent Children in State Care) for Each CEE/CIS Country as a Function of Adjusted Gross Domestic Product (GDP/PPP)



Notes:

1. This graph represents the relation **between countries** of the Marker of Child Welfare and an estimate of that country's economic resources (i.e., GDP/PPP). Notice that child welfare is slightly **worse** in countries with **higher** GDP/PPP (but see Figure 4-4 for trends over years **within** countries).

2. The bold central line in the graph represents this general relation, and the double bold lines above and below the central bold line define the region within which approximately two-thirds of the countries can be expected to be located (i.e., plus and minus one standard error). Thus, only approximately 16 percent of countries are expected to be above the top double bold line and have substantially worse child welfare relative to their economic resources and only approximately 16 percent of countries are expected to be below the bottom double bold line and have substantially better child welfare relative to their economic resources. The thin lines represent the range within 95 percent of the countries can be expected to be located, and no country lies outside (i.e., more extreme) this range.

3. If a country was missing data for 2005, the next most recent year in the last six years in which data were available was used.

The most startling thing about this graph is the fact that countries do worse in child welfare the more resources they have, a result that contradicts Dalirazar's (2002) results for general children's well-being and also appears to contradict common sense.[2] Is one to suppose that as these countries improve economically that they deteriorate in child welfare status, or should one suppose that countries with more resources provide more opportunities for non-permanent parental care for high-risk children, or is there just better monitoring and reporting in these countries (see Figure 4-4 below)? Also, the relation between the Marker and GDP/PPP is not very strong; specifically, only 11 percent of the differences between countries in their Marker value is associated with differences in their GDP/PPP. Further, if Russia is removed from the set of countries, the relation almost disappears entirely (only 3% of the differences in the Marker among the remaining countries are associated with differences in their GDP/PPP).

Similarly, is it the case that Russia, Moldova, and Belarus are doing worse whereas Turkmenistan, Albania, and Macedonia are doing better in child welfare because they deviate from expected levels based on economic resources? Notice that because the relation between the Marker and GDP/PPP is quite weak, these countries are at the top and at the bottom of the list of countries (Figure 4-2) regardless of their GDP/PPP. Even so, within-country analyses (see below) do not always confirm these interpretations. It is for these and other reasons that we believe between-country indices, including our own Marker of Child Welfare, have limited utility, can be misleading reflections of a country's status, and tell us little or nothing about a country's progress over time in child welfare reform.

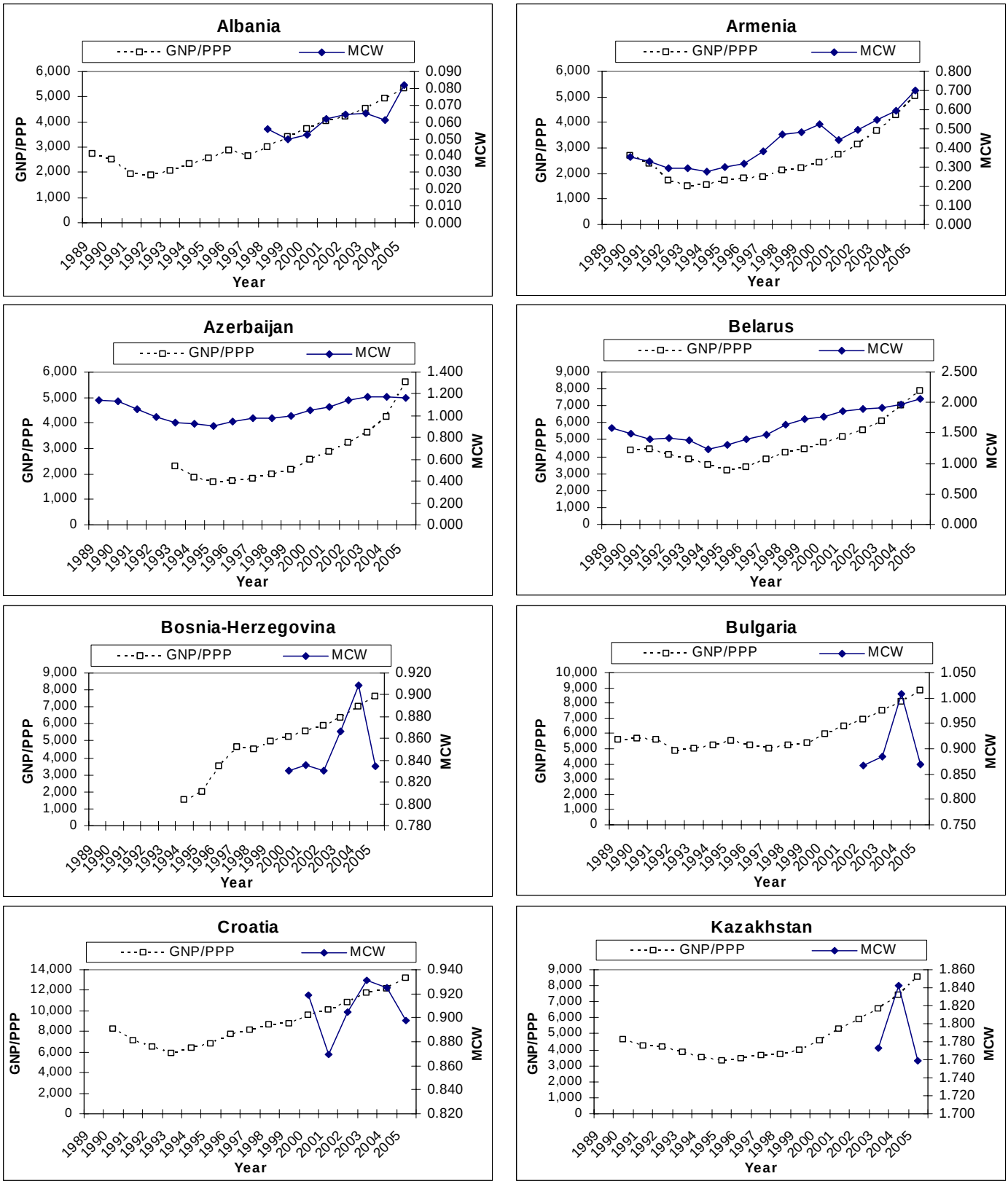
- *GDP/PPP and the Marker plotted over years for individual countries.* Plotting GDP/PPP and the Marker of Child Welfare across years for an individual country illustrates the limitation of between-country indices but provides a more accurate and useful picture of each country's general progress in child welfare as compared against economic change.

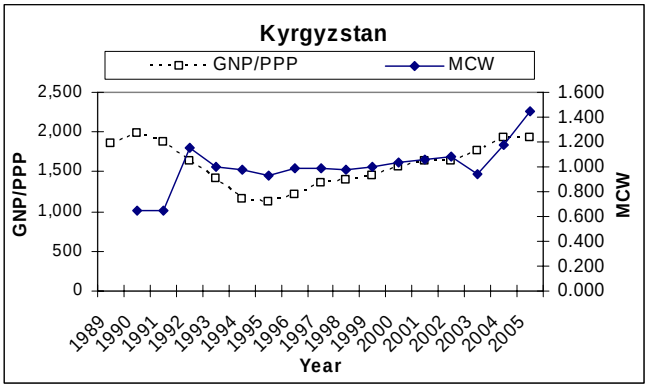
Specifically, Figure 4-4 presents these within-country longitudinal plots for the 16 countries with available data for these two measures (Georgia and Tajikistan have insufficient data). In each case, the dashed line connecting open squares displays the country's GDP/PPP over the years between 1989 and 2005 according to the vertical axis scale at the left. Similarly, the solid line connecting filled diamonds represents the country's Marker of Child Welfare across the years of available data according to the scale on the vertical axis at the right.

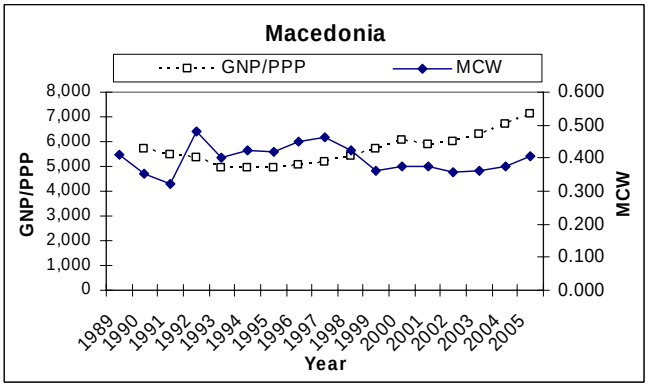
Relative performance by different countries cannot be compared based on the lines on the graph because the scales in the graph for one country are not the same as for another country. Instead, one should concentrate on the up-down trend for each variable individually as well as the similarity or difference in the trends for the two variables within a single country.

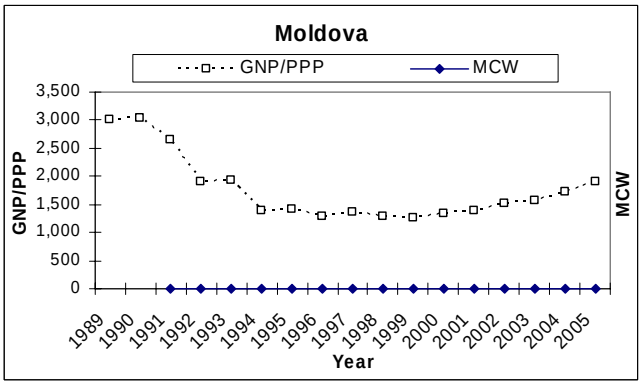
[2] Notice these deviations, which are analogous to Dalirazar's (2002) National Performance Gaps, are expressed in raw percentages of children living without parents rather than Dalirazar's practice of expressing this deviation as a percentage of the expected value, for reasons discussed in Chapter III.

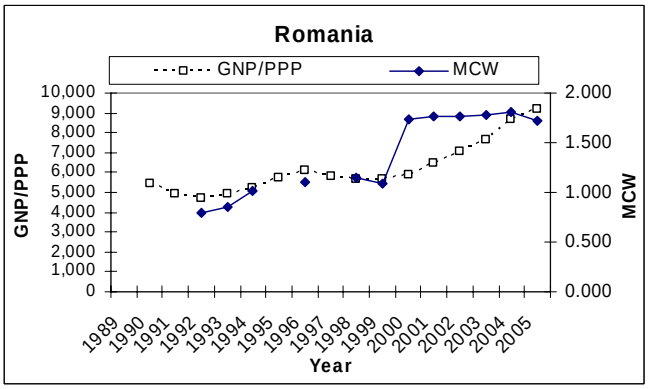
Figure 4-4. Graphs for Each Country of Adjusted Gross Domestic Product (left axis = GDP/PPP) and Marker of Child Welfare (right axis = MCW) Over Years

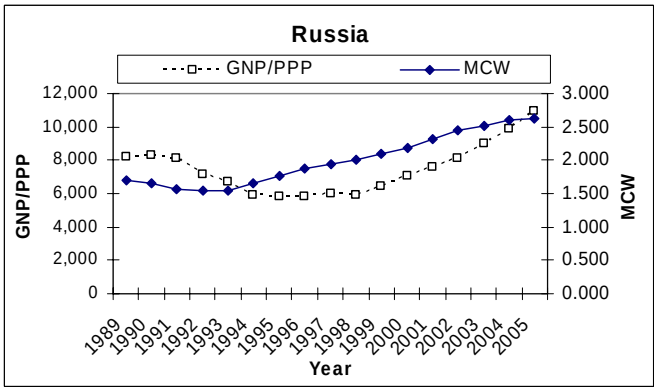


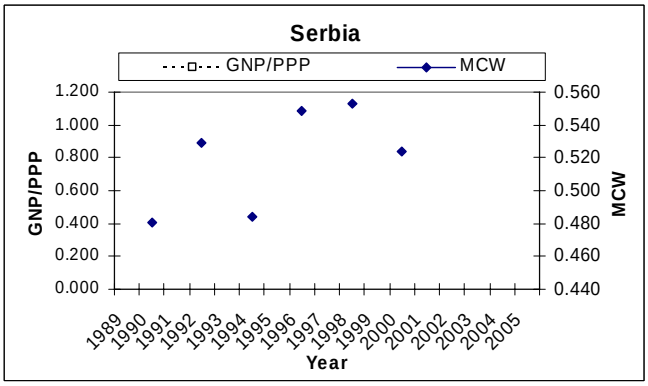

Kyrgyzstan
GNP/PPP
MCW
GNP/PPP
MCW
Year

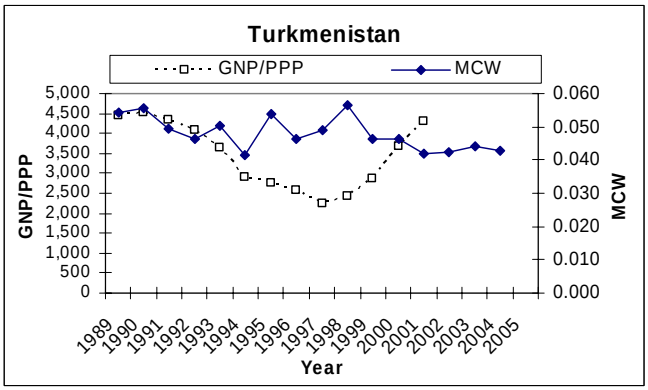

Macedonia
GNP/PPP
MCW
GNP/PPP
MCW
Year

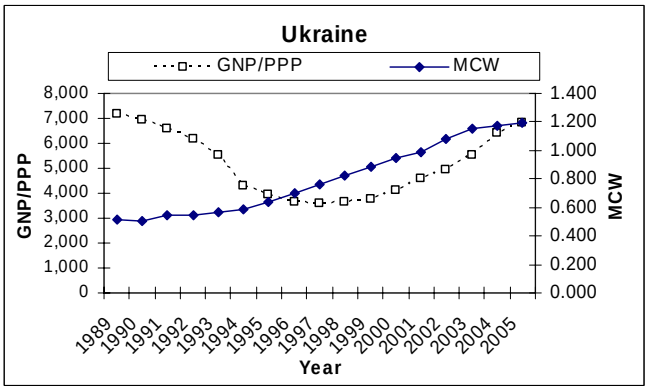

Moldova
GNP/PPP
MCW
GNP/PPP
MCW
Year

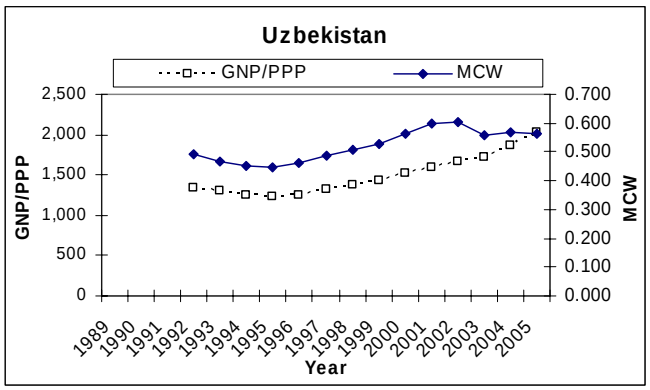

Romania
GNP/PPP
MCW
GNP/PPP
MCW
Year


Russia
GNP/PPP
MCW
GNP/PPP
MCW
Year


Serbia
GNP/PPP
MCW
GNP/PPP
MCW
Year


Turkmenistan
GNP/PPP
MCW
GNP/PPP
MCW
Year


Ukraine
GNP/PPP
MCW
GNP/PPP
MCW
Year



Broken (discontinuous) lines indicate once or more years of data were missing.

First, we examine the dashed line connecting the open squares (GDP/PPP). All countries show increasing GDP/PPP across time, especially from 2000 to the present. Simultaneously, most countries are showing an increase (i.e., worsening) in their Markers of Child Welfare. The simultaneous increase in both the Marker and GDP/PPP is quite striking within many countries, even more than the between-country graph (Figure 4-2) conveys. Only Bosnia, Bulgaria, Croatia, and Kazakhstan show a decrease in their Marker, but all four of these countries are returning to previous levels from isolated peaks in 2003-2004. These peaks are exaggerated because these countries have relatively low percentages of children living without permanent parents and small changes can be exaggerated in these plots. A few other countries show little change in their Marker, including Macedonia (slight rise in 2005), Romania (slight decline in 2005), Turkmenistan, and Uzbekistan.

Why are most countries showing negative trends in child welfare, that is, having increased numbers of children living without permanent parents, especially as their economies increase? One would have thought that as the economies increase, fewer parents would give up their children for economic reasons. However, in developing countries, as the economy improves, the state may make greater efforts to provide for children living without permanent parents, either more orphanages or more programs that provide for foster care/guardianship arrangements and perhaps adoptions. As a result, more children may be placed into state systems and/or state systems may be taking care of more children than before. Another explanation may be that this Marker combines foster care with institutionalization and that it is primarily increases in foster care placement (which are considered to be an indicator of progress in child welfare reform in many E&E countries) that are driving the upward trends in scores on the Marker. Consequently, when viewed within countries, the CEE/CIS region is generally improving in economic resources, but more and more children are living without permanent parents or at least enrolled in state-supported programs. Whether this is improvement requires more information, such as proposed in Levels 2 and 3 below.

Conclusion. The Marker of Child Welfare is a simple, relatively direct index of one of the central issues in child welfare in general and perhaps the primary child welfare issue in the CEE/CIS region today, namely, an estimate of the percentage of children living outside the care of their parents. It can be relatively unambiguously interpreted (i.e., lower is better), and comparisons can be made between countries, both in terms of the unmodified Index itself as well as countries' deviations from what would be expected on the basis of economic resources (GDP/PPP). While the current Marker of Child Welfare is focused specifically on child welfare and one possible aspect of

child welfare, Bradshaw et al. (personal communication, July 2007) are creating a comprehensive index of child well-being specifically for countries in the CEE/CIS region that is based on their European Union index that originally used 51 indicators (Bradshaw et al., 2007). It is expected that the CEE/CIS well-being index will involve some child welfare indicators (see Level 2 below). We expect these two indices for this region will be complementary, and will not necessarily rank countries in the same order.

In any case, the Marker of Child Welfare must be plotted over years and supplemented with other indicators that describe the extent and nature of types of alternative care and risk factors that cannot always be clearly interpreted without additional information which is often fragmented, qualitative, and requires expert interpretation. This is the focus of Level 2 and Level 3 strategic analyses.

Level 2. Interpretive Indicators

The Marker of Child Welfare provides a measure of the extent of each country's child welfare problem (at least in terms of the percent of children living without permanent parents), but it does not provide much detail about two important aspects of the problem: 1) how the country is caring for children living without permanent parents and 2) the extent to which various factors in society cause, or at least predict, the problem and thus point to possible areas of future prevention.

Care arrangements. Currently, most countries in the region are attempting to care for children living without permanent parents (e.g., Davis 2005, 2006), and it is helpful to know whether the percentage of children in each alternative care arrangement ranks high or low relative to other countries and whether it is increasing or decreasing over time for each country. Such measures describe the nature and progress of a country's attempt to deal with children living without permanent parents, but they cannot be combined mathematically to give a single index that is readily interpretable; rather, the **pattern** of these data across time reflects trends and hypotheses about what is transpiring within a country, but more knowledge and expertise are required to properly interpret these data, which is part of Level 3 analysis.

Indicators of risk and areas of prevention. Five Casual Domains help explain why children might live without permanent parents: 1) financial inability to care for the child, 2) single, teenage parents who are unable to care for the child, 3) revocation of parental rights, 4) children with disabilities or diseases, and 5) adolescent problem behavior. Certain factors constitute risks that may be associated with each of these five domains and may indicate areas in which future services may help prevent children from living without permanent parents.

Alternative Care Arrangements for Children Living Without Permanent Parents

Countries can attempt to provide or encourage four kinds of care arrangements:

- *Children may live in residential institutional arrangements.*
- *They may be placed in a foster care or guardianship situation.*

- *They may be adopted.*

- *They may be reunited with their biological parents.*

Indicators of the frequency and rate are available for the first three of these alternatives for many countries in the CEE/CIS region; data on the number of children reunited with their families may be available within countries but are generally not available from international organizations. This may be the case because these children are living with parents, and they are not counted as being "in the system" because they receive no special services or monitoring once reunion has occurred. Of course, family support services could be enacted to try to help families keep their children rather than relinquish them to orphanages (see Level 3), but no international data are available on this alternative.

Ideal preferences for certain care arrangements. Many child advocates vigorously insist that institutions are the worst place for children to grow up and the following alternatives are preferred in the order listed (consistent with the UN Convention on the Rights of the Child, Hague Convention on Intercountry Adoption, and UNICEF):

1. Children should be returned to their biological family or relatives of their biological parents if safe to do so,

2. Adopted into a permanent domestic family,

3. Entered into a foster-care system until a permanent domestic placement can be found,

4. Adopted internationally if the preceding efforts cannot accommodate this child in a permanent family in a timely and safe manner.

This implies a rather clear hierarchy of preferences and desired direction of indicators for alternative placements, mainly that institutional/residential care should be as rare as possible, returns to biological parents or relatives should be as frequent as possible, high rates of domestic adoption and foster care that is monitored are preferred, international adoption should be minimized to the extent domestic adoption is encouraged, and trends over time should be headed in these directions.

However, if the criterion of "the best interests of the children" is invoked, which is the basis of the aforementioned international agreements, it is not clear that children are always, or even usually, better off in one type of care environment or another, especially in developing countries because the best interests of children are served not only by the **type of care** but also by its **quality – how that type of care is implemented**.

Conclusion. While certain alternative care arrangements can be categorically preferred in the ideal, in practice they need to be considered in the context of the quality of all the alternative care options and a variety of other political, service, professional personnel capacity, and monitoring and evaluation circumstances (Level 3). This discussion also illustrates why several indicators of

alternative care arrangements cannot be combined into a single index to provide unambiguous interpretations of what is best for a child.

Measures

The TransMONEE database contains measures of most of the alternative care arrangements for most but not all the CEE/CIS countries, although no database from an international organization contains the number of children reunited with their biological parents. The measures and certain derived variables relevant to alternative care arrangements are summarized in Table 4-1, and are presented and discussed below:

- *Children in residential institutions*. TransMONEE Variable 8.2 provides the number of children of all ages birth to 17 years, with or without disabilities, in residential institutions and Variable 8.3 gives the rate. This total number of children in residential institutions can be broken down into three component groups:

  - *Infants (birth to 4 years) in infant homes.* TransMONEE Variable 8.4 gives the number and Variable 8.5 gives the rate of infants (birth to four years) in infant homes (although some definitions of infants vary from birth to five years).

  - *Children (5-17 years) in residential institutions*. This variable is calculated by taking the total number of children in residential care (Variable 8.2) and subtracting the number of children in infant homes (Variable 8.4) to get the number, and then dividing this difference by the difference between the population birth to 17 years (Variable 1.5) minus the population (birth to four years) (Variable 1.3). These formulas are:

Number of Children (5-17 Years) in Residential Institutions = Total Number of Children (Birth to 17 Years) in Residential Care minus Number of Infants (Birth to 4 Years) in Infant Homes

Number of Children (5-17 Years) in Residential Institutions = Variable 8.2 – Variable 8.4

$$\text{Rate of Children (5-17 Years) in Residential Institutions} = \frac{\text{Total Number of Children (5 to 17 Years) in Residential Institutions}}{\text{(Number of Children Birth to 17 Years – Number of Children Birth to 4 Years)}}$$

$$\text{Rate of Children (5-17 Years) in Residential Institutions} = \frac{\text{(Variable 8.2 – Variable 8.4)}}{\text{(Variable 1.5 – Variable 1.3)}}$$

  - *Children with disabilities in residential care*. Only the number of these children is available (Variable 8.6), perhaps because no accurate count of the total number of children with disabilities is available (there is little agreement about what constitutes a disability) and so few children with serious disabilities are cared for by their parents in some countries. The number of children with disabilities is typically included in the residential totals listed above.

The number of children in residential institutions plus the number of infants and children with disabilities can be plotted across years to determine both the relative numbers of each of the three age and disability groups as well as trends over years. Since the raw numbers of children may be influenced by changes in the size of the population, rates for these four measures should also be plotted over years. For example, it is possible for the numbers of children in residential institutions to be increasing in a country, but the rate may actually be decreasing because of increased population.

- *Children in foster care/guardianship***.** The number of children in foster care/guardianships is given in TransMONEE Variable 8.7 and the rate in Variable 8.8. Again, a plot of the number and separately of the rate of children in foster care/guardianship can reflect changes in policy and practice within a country.

    - *The percentage of all children living without permanent parental care who are in foster care/guardianship arrangements*. This is Variable 8.7 divided by the sum of Variables 8.2 + 8.7. This variable reflects the proportion of children living without permanent parents who are in foster care/guardianship arrangements rather than in institutions. Presumably, the higher this percentage (i.e., the more children in foster care or guardianship arrangements and the fewer in institutions), the better, although whether it is better and how much better depends on the quality of the foster care system and the quality of the residential institutions.

- *Adoption.* The total number adopted is given in Variable 8.9 and the rate in Variable 8.10. Again, the total number and the rate of adoptions should be plotted across years to detect trends.

    - *The ratio of children adopted to the number of children in infant homes*. This ratio is Variable 8.9 divided by Variable 8.4. This ratio assumes that most children are birth to four years old at the time of adoption, and it reflects the extent to which children are adopted relative to being in residential institutions. Presumably, this ratio reflects the extent to which the country is successful at getting children adopted relative to those who reside in institutions, so the higher this ratio, the better.

Presentation. As a basic first strategy, it is helpful to plot over years, separately for number and rate, the three major care alternatives: children in residential institutions, children in foster care/guardianship arrangements, and children who are domestically and internationally adopted. This will illustrate the relative contribution of each of these alternative care arrangements over years to the total number of children without permanent parents. Additional plots over years of the other indicators outlined above can provide additional detail and understanding of a country's alternative care situation.

Country examples of basic portrayal of alternative care arrangements. Figure 4-5 presents graphs for each country in the region having available information on the number of children in residential institutional care, foster care, and the total number of adoptions (domestic plus international) over the years between 1989 and 2005. If available, the graph for each country presents the number of

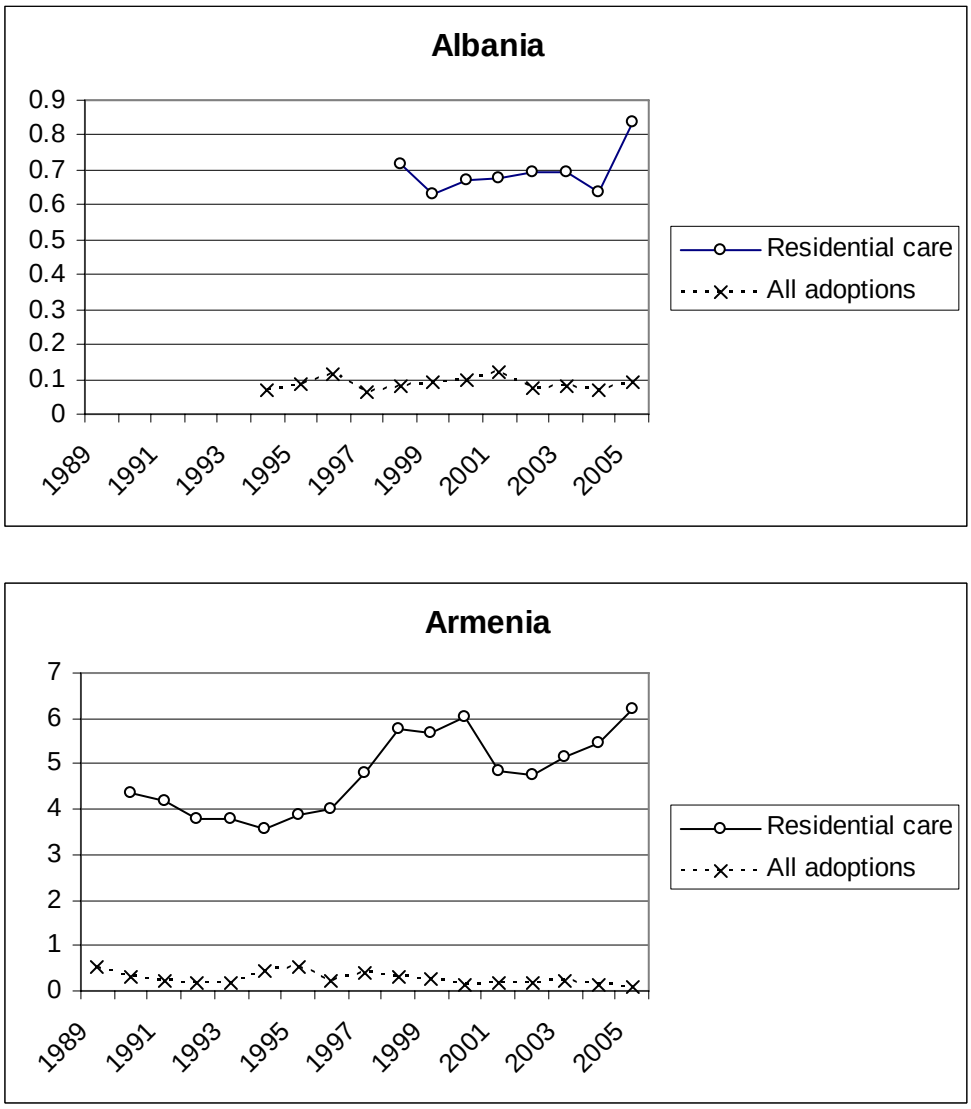
children in thousands in the three alternative care arrangements (residential, foster, adoption). Note that Figures 4-2 and 4-3 plotted the Marker, which was the **percent** of all children who were residential or foster care, not the actual **number** of children. Trend lines are connected only for adjacent years; breaks in a line occur when data are missing for one or more years. The fact that not all variables are pictured for each country illustrates the extent of missing data for countries in the region. There is simply no way to accurately estimate such missing data for the intended purpose as there is for a multi-indicator index.

If all of the graphs are laid out side by side, several general themes for the region as well as for specific countries can be perceived. First, for most countries, more children are in residential institutional care than any other alternative, reflecting the historical tendency of children living without permanent parents to be raised in state institutions. The number of children housed in residential institutions increased in the last few years in Albania (2005 only), Armenia, Bosnia (slightly), Kyrgyzstan, and Tajikistan, but the recent numbers are decreasing in Belarus, Bulgaria, Romania, Russia, and Uzbekistan (but to previous levels after a rise in 1995-2003). The number of children adopted is a very small fraction of those in residential institutions or foster/guardianship care in all countries.

Second, the number of children in foster/guardianship care was greater than or equal to the number in residential care in recent years in six countries, including Bosnia, Macedonia, Romania, Russia, Serbia (2005), and Ukraine, and the number of children in foster care was increasing in the 2000s in Belarus, Georgia (slightly), Macedonia (2005 only), Romania, and Russia, but decreasing in Azerbaijan (2005 only), Bosnia (2005 only), and Croatia (slightly). Trends were essentially flat or nonsystematic in other countries. No foster care data were available for Albania, Armenia, Kazakhstan, and Turkmenistan, which in fact may (or may not) indicate that their foster systems are not well established.

Third, adoption represents a very small fraction of the children in formal care in all countries and it is not increasing very substantially in any country except Turkmenistan. Generally, then, institutionalization is still the predominant mode in most countries. Foster care is the largest alternative in a few countries, but it is increasing noticeably in only three countries.

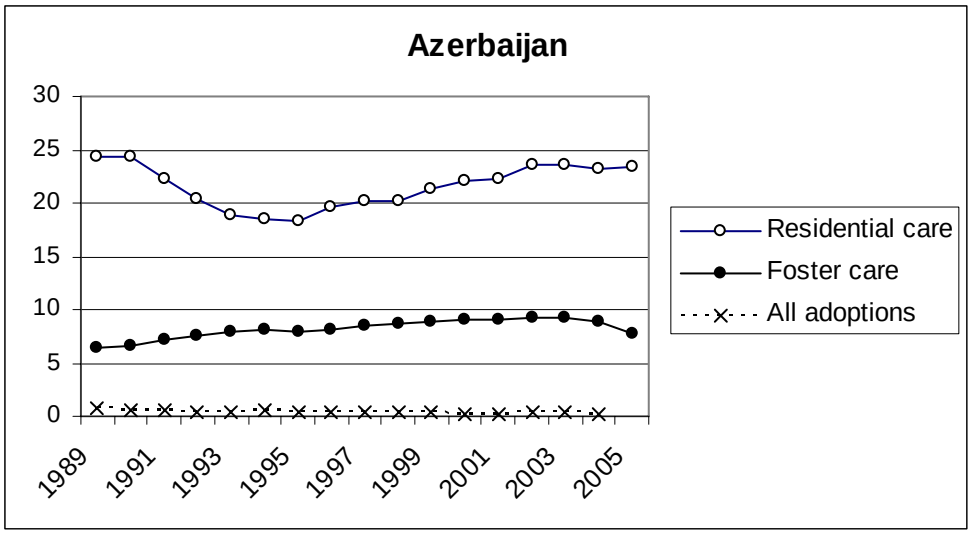
Figure 4-5. Graphs for Each Country of the Number of Children in Residential Care, Foster Care, and Total Adoption Over Years

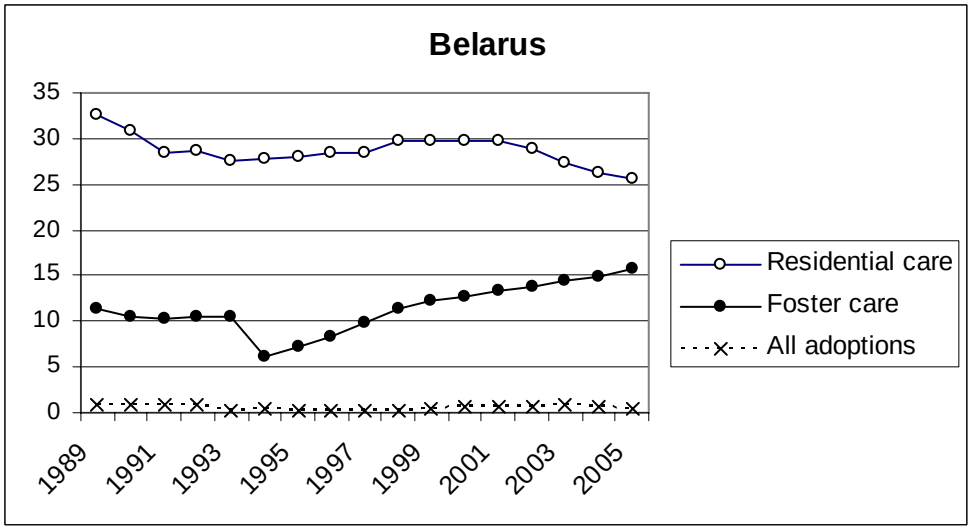


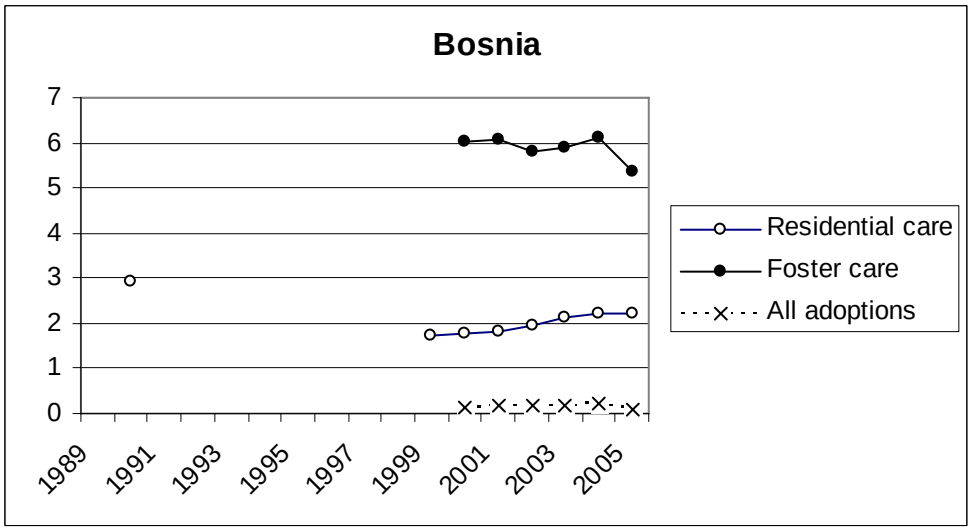
Notes:

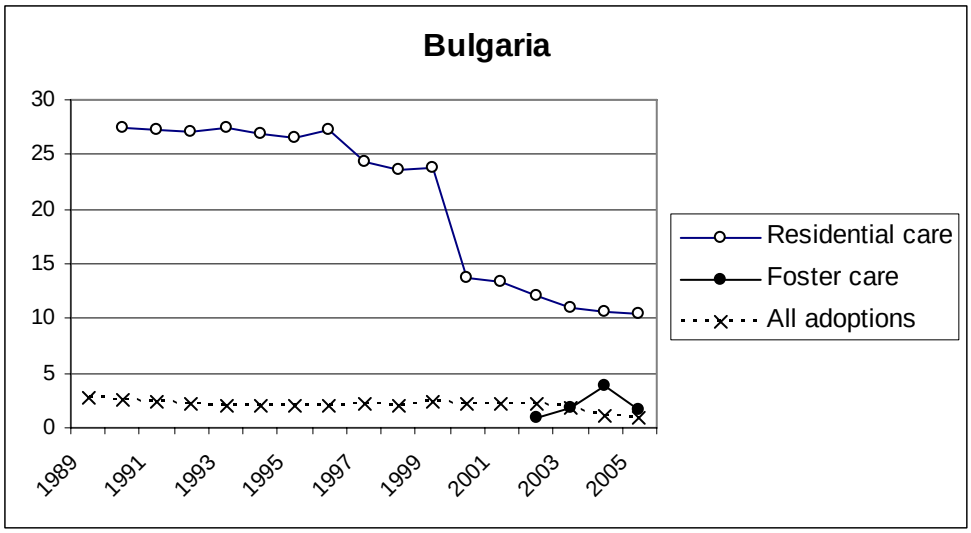
1. All counts come directly from TransMONEE database (represented by the vertical axis) and are in 1000s.

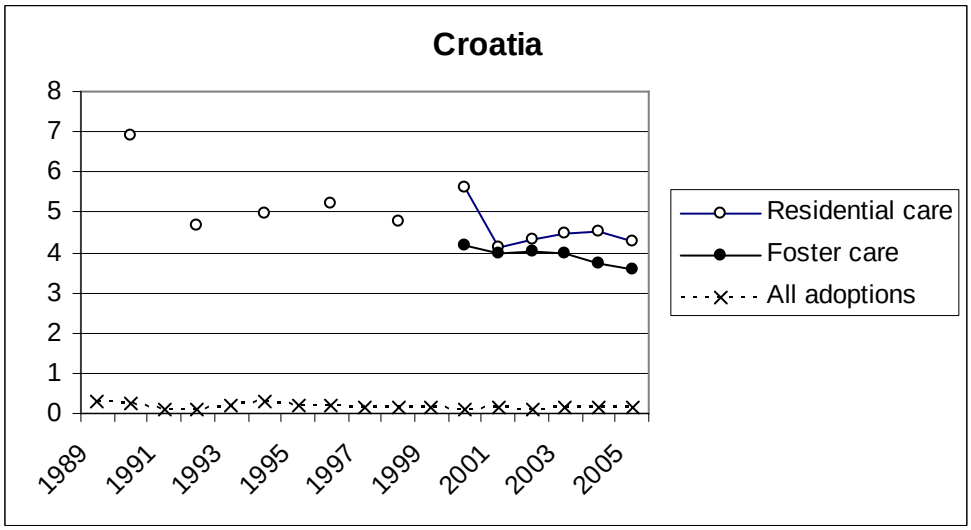
2. All missing data in the TransMONEE database are treated as truly missing (not as zeroes). Note that sometimes countries did not report any numbers for foster care, international adoptions, etc. In these cases, the true number may be zero, but since we do not know that, these cases are reported as missing.

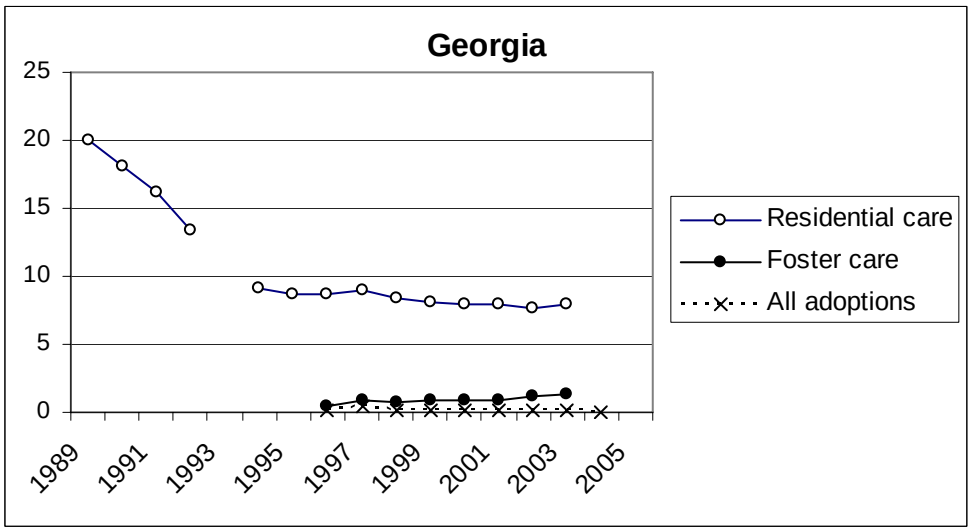

Azerbaijan
30
25
20
15
10
5
0
1989
1991
1993
1995
1997
1999
2001
2003
2005
Residential care
Foster care
All adoptions

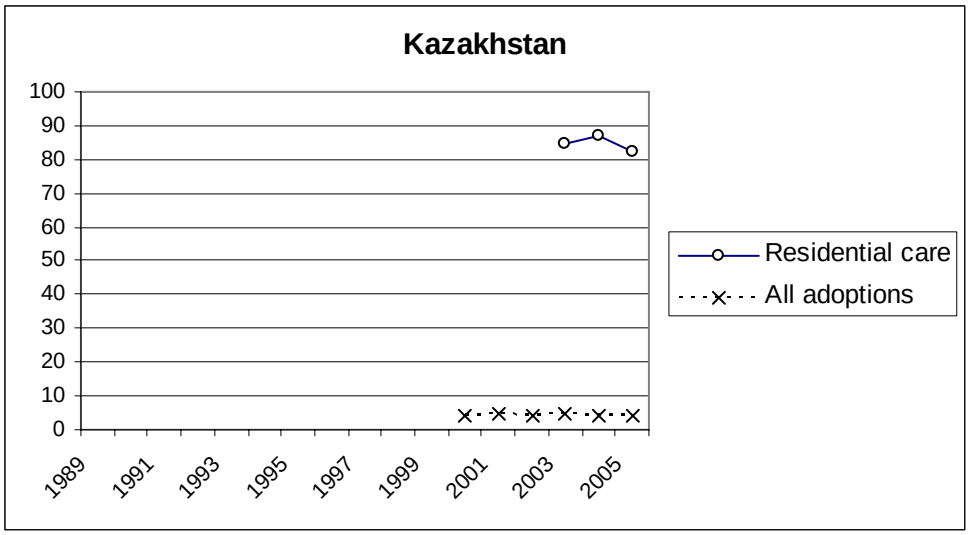

Belarus
35
30
25
20
15
10
5
0
1989
1991
1993
1995
1997
1999
2001
2003
2005
Residential care
Foster care
All adoptions

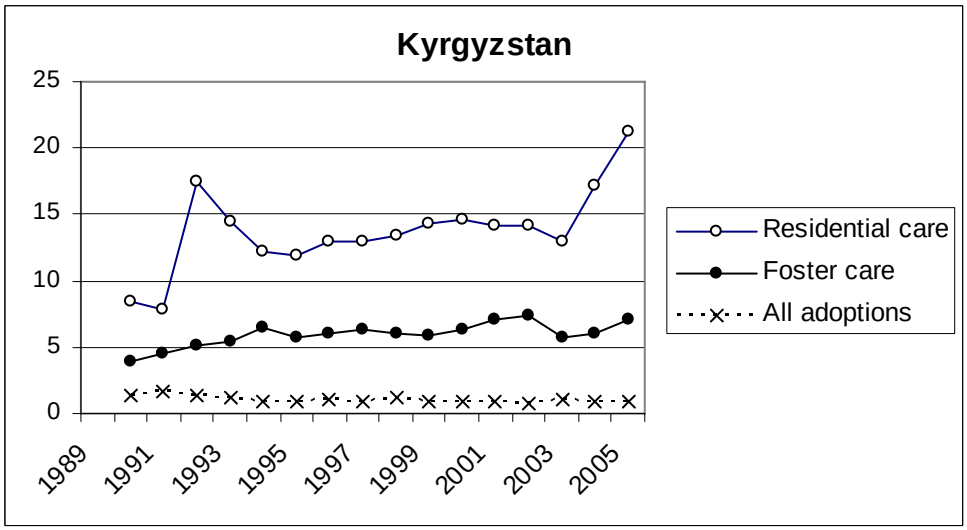

Bosnia
7
6
5
4
3
2
1
0
1989
1991
1993
1995
1997
1999
2001
2003
2005
Residential care
Foster care
All adoptions

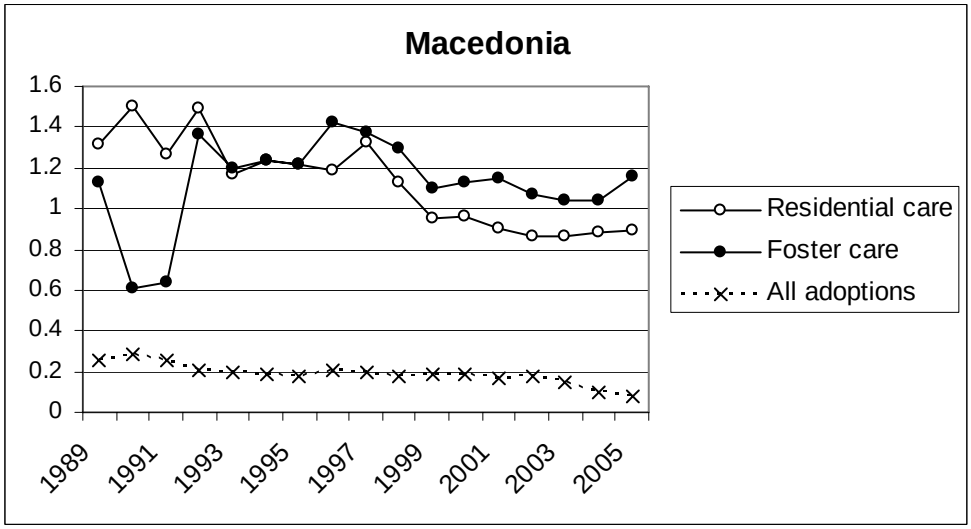

Bulgaria
30
25
20
15
10
5
0
1989
1991
1993
1995
1997
1999
2001
2003
2005
Residential care
Foster care
All adoptions

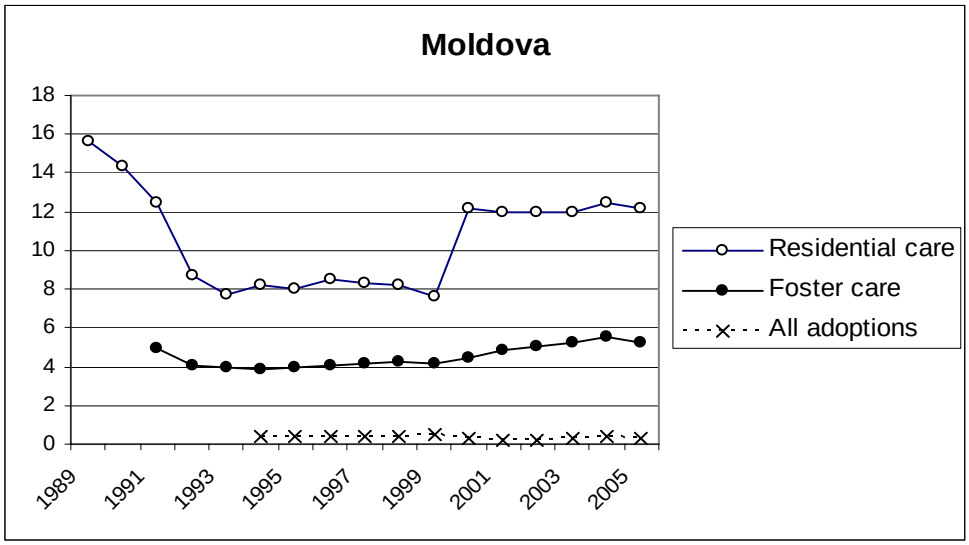

Croatia
8
7
6
5
4
3
2
1
0
1989
1991
1993
1995
1997
1999
2001
2003
2005
Residential care
Foster care
All adoptions

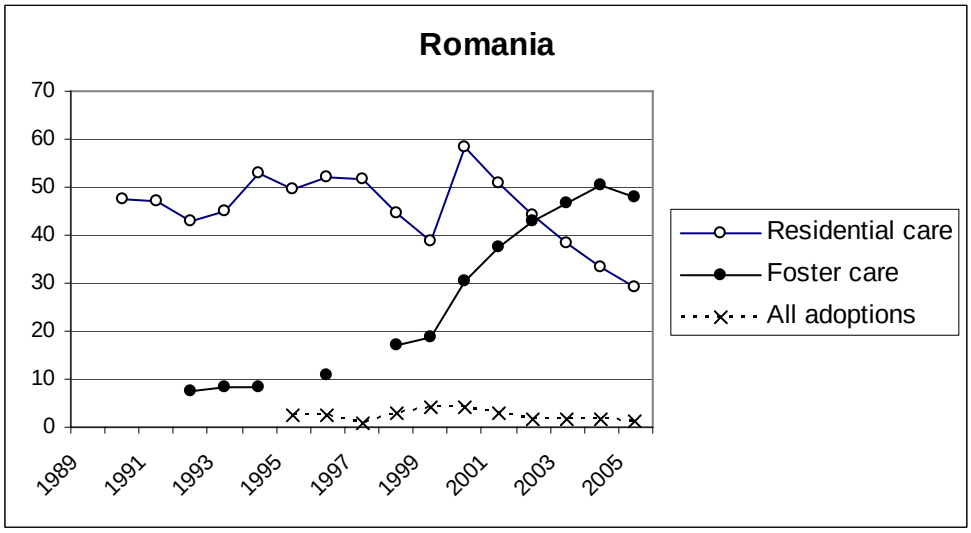

Georgia
25
20
15
10
5
0
1989
1991
1993
1995
1997
1999
2001
2003
2005
Residential care
Foster care
All adoptions

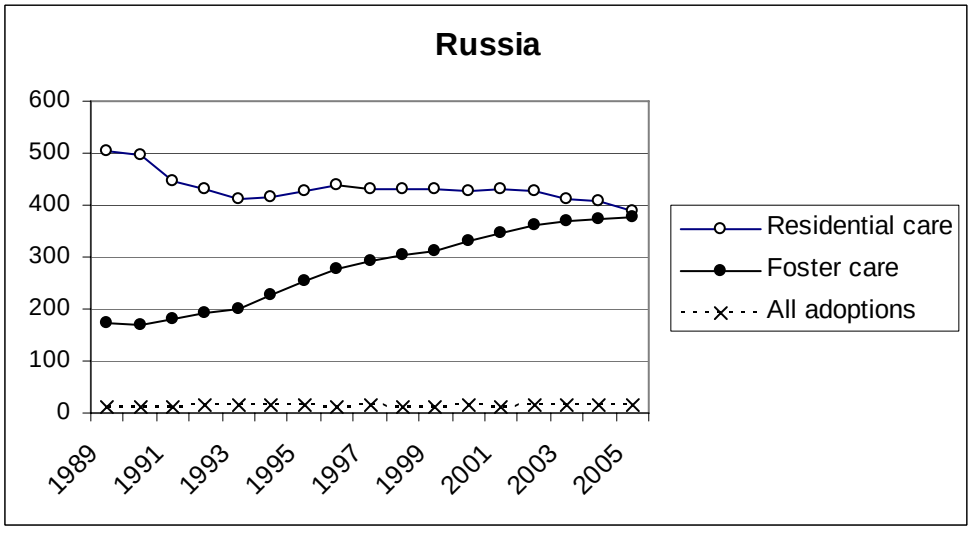

Kazakhstan
100
90
80
70
60
50
40
30
20
10
0
1989
1991
1993
1995
1997
1999
2001
2003
2005
Residential care
All adoptions

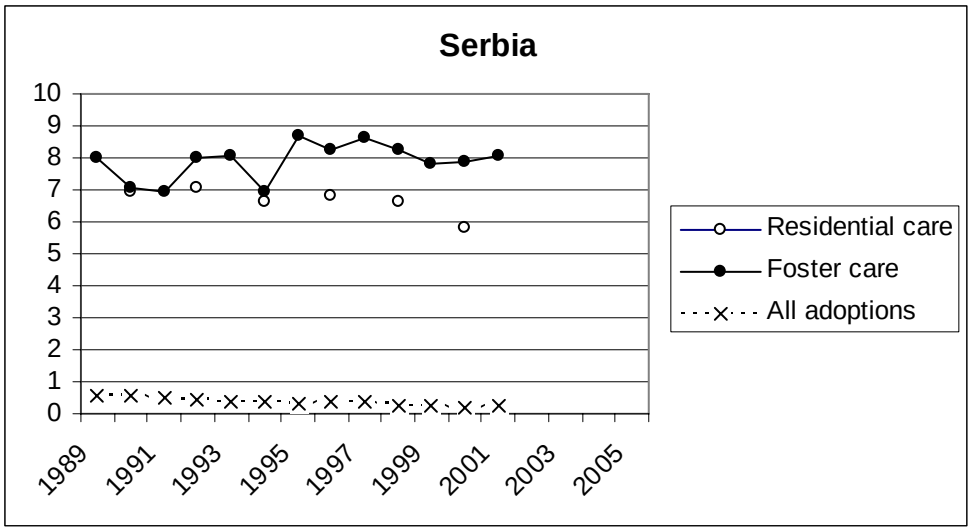

Kyrgyzstan
25
20
15
10
5
0
1989
1991
1993
1995
1997
1999
2001
2003
2005
Residential care
Foster care
All adoptions

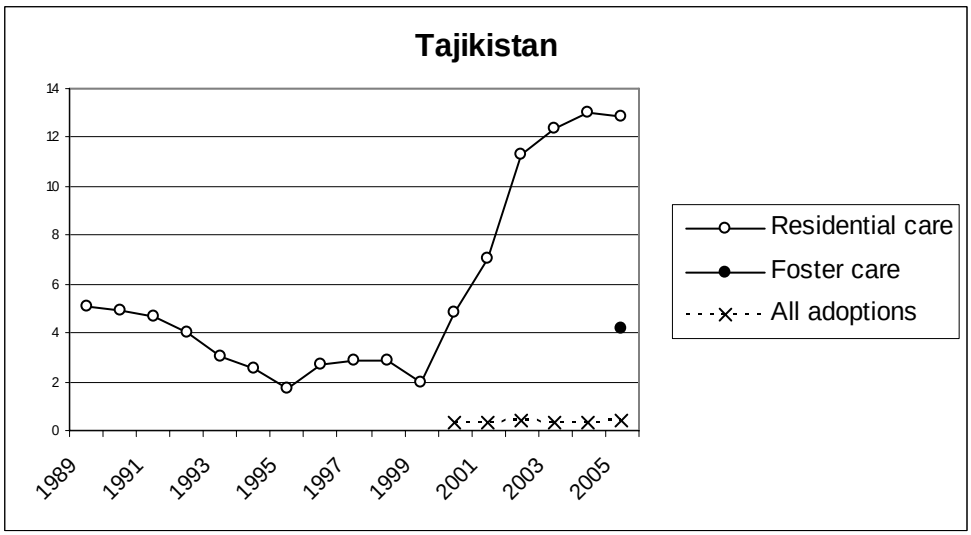

Macedonia
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
1989
1991
1993
1995
1997
1999
2001
2003
2005
Residential care
Foster care
All adoptions

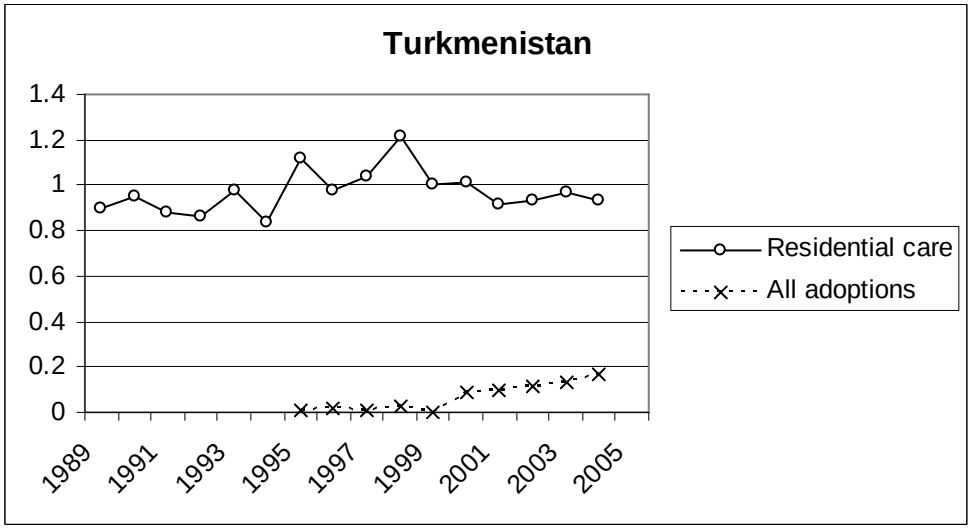

Moldova
18
16
14
12
10
8
6
4
2
0
1989
1991
1993
1995
1997
1999
2001
2003
2005
Residential care
Foster care
All adoptions

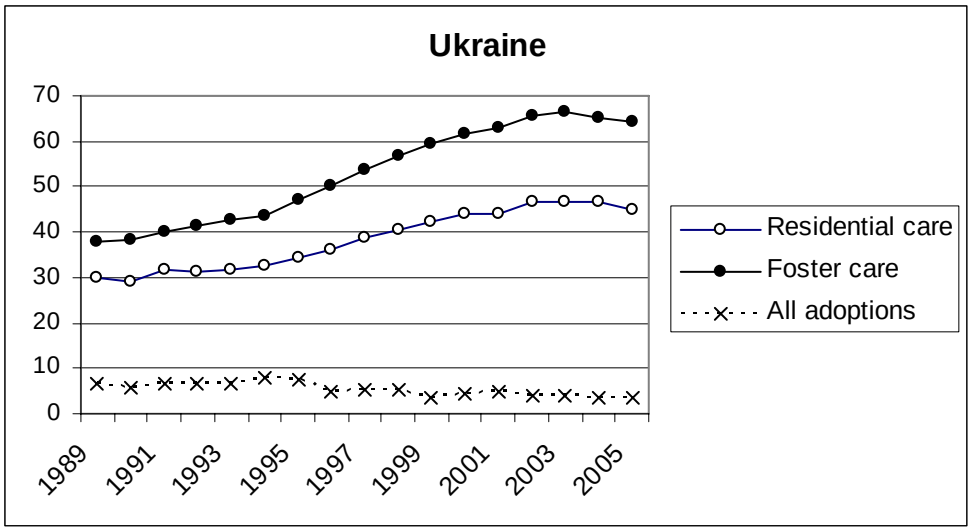

Romania
70
60
50
40
30
20
10
0
1989
1991
1993
1995
1997
1999
2001
2003
2005
Residential care
Foster care
All adoptions

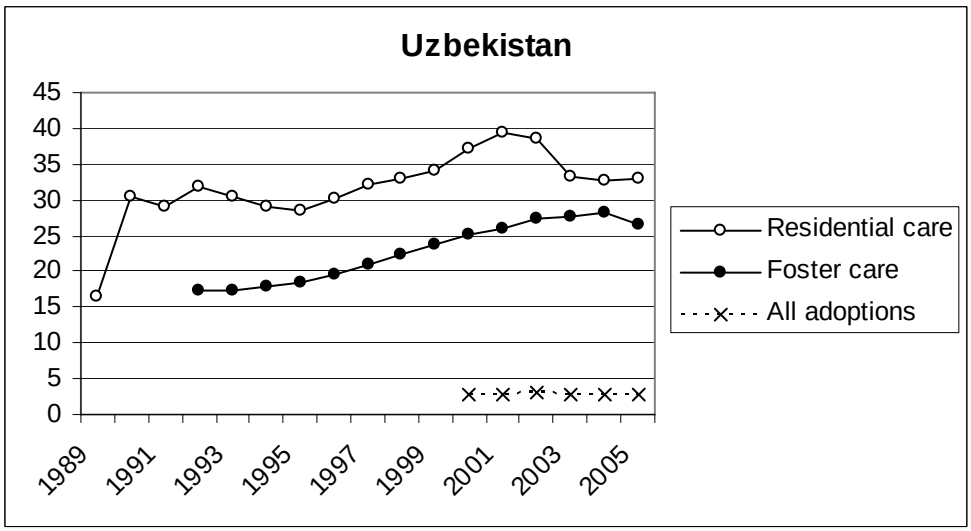

Russia
600
500
400
300
200
100
0
1989
1991
1993
1995
1997
1999
2001
2003
2005
Residential care
Foster care
All adoptions


Serbia
10
9
8
7
6
5
4
3
2
1
0
1989
1991
1993
1995
1997
1999
2001
2003
2005
Residential care
Foster care
All adoptions


Tajikistan
14
12
10
8
6
4
2
0
1989
1991
1993
1995
1997
1999
2001
2003
2005
Residential care
Foster care
All adoptions


Turkmenistan
1.4
1.2
1
0.8
0.6
0.4
0.2
0
1989
1991
1993
1995
1997
1999
2001
2003
2005
Residential care
All adoptions





Broken (discontinuous) lines indicate once or more years of data were missing.

Positive and negative patterns. Simply looking at individual indicators does not provide a complete or integrated picture of a country with respect to alternative care arrangements, partly because some of the indicators seem to be progressing in a positive direction whereas other indicators for the same country are changing in a negative direction. For example, several countries show general or partial progress in what seems to be a **desirable direction**:

- *Belarus* showed recent declines in residential care coupled with increases in foster care, but adoption has remained steady.

- *Bosnia* has many more children in foster care and adoptions have increased in the 2000s.

- *Macedonia* also has more children in foster than in residential care and it has a relatively higher number of adoptions than many other countries.

- *Romania* showed a substantial decline in residential care and a corresponding increase in foster care since 2000, with the number of children in foster care exceeding those in residential care since 2004.

- *Russia* has displayed a progressive and long-term increase in the number of children in foster care coupled with a recent but slight drop in the number of children in residential care, but adoptions have remained relatively steady (although Russia has periodically banned international adoptions while implementing a credentialing system for adoption agencies).

- *Serbia* also has higher rates of foster care than residential care, but its most recent data are from 2001.

- *Turkmenistan* is one of the few countries to show an increasing rate of adoptions.

- *Ukraine* has more children in foster care than in residential care, and the spread between the two seems to be increasing, while adoptions were relatively stable in the 2000s but at levels lower than were seen in the 1990s.

- *Uzbekistan* shows a noticeable drop in residential care in the early 2000s and some progressive increase in foster care, while adoptions remained flat.

In contrast, some countries appear to be moving in **a less desirable direction**:

- *Albania* displayed a sharp rise in residential care in 2005 and does not report information on foster care.

- *Armenia* also showed increases in residential care and decreases in adoptions with no reported foster care figures (although a program has reportedly been started).

- *Kyrgyzstan* demonstrated a sharp increase in residential care in 2003-2005 with no corresponding changes in foster care or adoptions.

- *Moldova* also showed a sharp increase in 1999 in residential care (a pattern that perhaps reflects a difference in the definition of this measure) with a much more modest increase in foster care and maintained this pattern to 2005.

- *Tajikistan* revealed a fairly pronounced increase in residential care.

It should be clear from these plots that a simple combination of indicators would not be very interpretable and that the total pattern of alternative care arrangements over years is more informative. At the same time, these plots alone reveal nothing about the quality of these care arrangements, and many changes over time cannot be explained without additional information about the policies, processes, and other circumstances in the country (see Level 3).

Risk and Prevention Indicators

Some countries are only beginning to deal with alternative care arrangements for children living with permanent parents. For them, the Level 1 and Level 2 analyses for alternative care arrangements may be appropriate and sufficient at this point in their development. Other countries may have made substantial progress in care arrangements and are ready to devote an increasing amount of energy and resources toward attempting to prevent children from living without permanent parents. Prevention, of course, is a much more difficult, complex, uncertain, and expensive undertaking than is providing care arrangements; correspondingly, the indicators are less direct, less certain, and less accurately predictive of the number of children living without permanent parents. Nevertheless, we provide below suggestions for risk factors, direct and indirect, of possible causes of children living outside the care of their parents. Each hypothesized **Causal Domain** contains three to six indicators that were selected from the above databases as having the most apparent relevance to that Causal Domain (other indicators are available and could be explored to determine which indicators within each Causal Domain predict best the number of children living without permanent parents).

Causal Domains. There are five hypothesized reasons associated with the separation of children from their parents: 1) **Financial inability** of the family to care for the child; 2) **single/teenage mothers** who may be ill-equipped behaviorally and financially to care for a child; 3) **revocation of parental rights**, perhaps because of parental mental health and substance use problems, as well as child abuse and neglect; 4) **children with disabilities and certain diseases**, especially in cultures in which these children have traditionally been cared for by the state rather than by parents; and 5) **adolescent problem behavior**, which may produce an ungovernable and undesirable child who is removed from or relinquished by the family. Notice these domains are not independent or mutually exclusive (e.g., teenage single mothers may be behaviorally ill-equipped or financially unable to care for the child). Also, some represent nearly direct causes of children living without permanent parents (revocation of parental rights), whereas others constitute risk factors that may or may not be causal but are presumed to be predictive of a portion of the number of children living without permanent parents as well as other aspects of child welfare.

Measures

Possible risk factors within each domain have been selected predominately from the TransMONEE database. Risk factors are indicators that may be correlated with the domain's reason for children living without permanent parents. They may actually cause child abandonment or they may be related to another factor (not measured) that does cause it. The risk factors selected are often used for this purpose in the USA, but it is likely that some will and some will not be related to the domain's hypothesized cause and thus to the Marker in CEE/CIS countries, which can be investigated in Phase 2 (See Chapter V). A domain index (Phase 2) correlating these risk factors, when plotted over years and compared with the Marker, may provide clues regarding which possible causes are influencing the size of the problem (i.e., Marker) and possible domains in which to try to prevent children from living without permanent parents. These domains and indicators are summarized in Table 4-2. The set of indicators within domains are not exhaustive; other indicators

may be available that could be used. Further, some indicators will not be available for all CEE/CIS countries. Notice that essentially all of the indicators within each domain are undesirable, so lower numbers and rates are better.

- *Financial inability.* One of the possible reasons parents relinquish their children is because of financial inability to provide for them, and this path may be relatively easy to take because of a legal system that allows parents to relinquish their children for this reason and does not impose excessive bureaucratic entanglements to do so. Severe poverty is also related to most other aspects of a broader concept of child welfare. Three indicators may reflect the extent of impoverished circumstances pertaining directly or indirectly to women of childbearing age.

    - *Per capita gross national product adjusted for purchasing power* (GNP-PPP; Variable 10.2).

    - *Unemployment among individuals 15-24 years of age* (Variable 10.5).

    - *Poverty rate in the population* (World Bank database).

- *Single/teenage mothers.* Single and teenage mothers frequently do not have the behavioral or financial ability to care for a young child. The number and rate of non-marital pregnancies among teenagers is influenced by a great variety of circumstances, including poverty, the young woman's immaturity, and the global perception that a decent future is not a realistic prospect for the young woman. In turn, teenage pregnancy is often associated with poor birth outcomes and poor developmental outcomes for the child. Not surprisingly, then, the rate of non-marital births to teenagers was found by the European Union study (Bradshaw et al., 2007) to be the single best predictor of general child well being among 51 financial, health, and educational indicators (Bradshaw, 2007).

    - *Non-marital births to mothers under 20 years of age* (Variable 2.13).

    - *Rate of children affected by parental divorce* (Variable 5.10).

    - *Gender-Related Developmental Index* (see Chapter III; United Nations Human Development Indicators). The extent to which the society is biased against women in terms of their access to education, health care, and other opportunities can contribute to the perception among young women that their future is bleak and there is little benefit in restraining themselves from premarital sexual activity and other adolescent problem behaviors. Likewise, adult single women who are caring for their children may suffer financial hardships due to gender inequality in pay and education levels which may also result in lower rates of pay.

    - *Contraceptive prevalence* (UNICEF). Presumably, low contraceptive prevalence in the population will be similarly related to its lack of availability and use by teenagers and women.

- *Revocation of parental rights.* Parental rights are likely to be revoked if the parents suffer from mental health issues, substance use and abuse, or have abused or severely neglected their children. Generally, frequencies of mental health issues, substance use and abuse, and child abuse and neglect are not available from international sources, although some may be available within individual countries from local sources. Consequently, more general and indirect risk factors are included as indicators in this category, although their relation to revocation of parental rights is not assured (to be investigated in Phase 2).

    - *Children deprived of parental care* (Variable 8.1). This figure is given by countries in response to the question: "Total number of children who were left to live without permanent parental care." It is not the same as our Marker, and it is unclear to us if it represents abandonment, revocation of parental rights, or other circumstances.

    - *Crimes against children* (Variable 9.2), may include criminal abuse but also non-kinship personal and property crimes in which a child was at least one of the victims. It may reflect more general social values regarding the safety of children.

    - *Per capita adult (older than 15 years) alcohol consumption* (WHO), which indicates the propensity of the society to use (and perhaps abuse) alcohol which may instigate or exacerbate child abuse and irresponsible or incompetent parenting.

- *Children with disabilities.* In some countries, children with disabilities are not generally accepted in society and are typically given up to the state, most often to residential institutional facilities. Indicators consist of a variety of circumstances that are considered risk factors for infant mortality and morbidity, premature birth, and other circumstances that cause, dispose, or are non-causal markers for disabilities in children.

    - *Children with disabilities in residential care* (Variable 8.6). In countries in which children with disabilities are routinely and nearly uniformly given to the state, this indicator will reflect an approximation (minus the few children who are raised by their parents) of the number of children born with disabilities and given over to the state, although the definition of disabilities is somewhat ambiguous. The following three indicators represent risk factors for poor birth outcomes:

        - *The rate of low-birth-weight births* (Variable 2.15).

        - *Infant mortality rate* (Variable 3.1).

        - *Percent of births attended by skilled professionals* (Variable 6.1 divided by Variable 2.1).

    - *Percent of children under five years of age physically stunted for their age* (WHO). Physical growth stunting is often concomitant to severe abuse and neglect as well as a variety of other disabling nutritional and health conditions, some clearly diagnosable and some not.

- *Teenage problem behavior*. Generally, it is not known how many children are relinquished to the state after having resided with their parents for several years. Further, adolescents who are extreme behavioral problems and who are likely to leave home, as runaways or because parents force them out, may live on the street, with friends, or with relatives and not be registered in the state system of children living without permanent parental care. Nevertheless, these children are likely to represent problems for society as juveniles and later as adults. No direct indicators are available, but some indicators reflect serious teenage problem behavior and may be related to the general frequency of adolescents living without permanent parental care.

    - *Number of juveniles in correctional institutions* (Variable 9.11)
    - *Homicides committed by or with juveniles* (Variable 9.7).
    - *Registered juvenile crime rate* (Variable 9.4).
    - *Suicide rate among 15-19 year olds* (Variable 3.22).
    - *Prevalence of tobacco use in 13-15 year olds* (WHO).
    - *Child labor among 5-14 year olds* (UNICEF).

Methodology

Since it is likely that only a few countries would be ready to consider policies and services aimed at preventing substantial numbers of children from living without permanent parents, we have chosen to reserve extensive analyses of these indicators for Phase 2 of this project. They have not been included in a multi-indicator index of child welfare because a single direct measure of child welfare (children living without permanent parental care) is available and each of these indices would be validated against that criterion if such a multi-indicator index were created (i.e., why have proxy variables when the most direct measure is available?). However, they can be used to diagnose the possible causes of children living without permanent parents as a means of targeting resources and innovative policies and services toward specific areas of risk for the purpose of preventing children from living without permanent parents.

The number and rate of each indicator could be plotted across years within each of the Causal Domains and compared with the year-by-year trend for the Marker of Child Welfare. To the extent that a country ranks high among countries on an indicator and there are parallel trends for the indicator and the Marker of Child Welfare, one may hypothesize that the Causal Domain is operating, and this can be followed by a Level 3 analysis of that domain (see Chapter V). Of course, parallel trends between risk factors and the Marker may not occur, but this is an empirical question that should be answered by actually graphing the trends (Phase 2).

Level 3. Within-Country Analysis of Child Welfare Reform

Level 1 gives a general Marker of Child Welfare and Level 2 provides more specific data on different types of care arrangements as well as risk factors for the causes of children living without permanent parents. While this information may identify areas of strength and weakness as well as domains in which progress has been made or not made, it provides little information directly pertinent to the steps the country could take to prevent children from living without permanent parents, improve care arrangements for children living without permanent parents, or improve other aspects of child welfare.

The Four Pillars Strategy (e.g., Davis, 2005, 2006) provides a very general structure to guide action and reform, and the detailed analyses conducted by Davis seem necessary and appropriate. They are necessary because indicators of policies, services, personnel preparation, programs, and monitoring and evaluation procedures – the Four Pillars – are crucial to describing progress and reform in a country, but few quantitative indicators are available for any of the aspects of the Pillars. Further, each country's situation is somewhat unique and cannot easily be fit into a single set of indicators, a single formula, or a single set of recommendations. Further, political, economic, and social events occur in countries – often uniquely to individual countries – that affect their progress and the strategies they use. Consequently, a country's progress in child welfare cannot be distilled into a few indicators or even rated subjectively in a reliable manner; instead, informed judgments need to be made by experienced individuals with the best information available, which may be fragmented and anecdotal.

As indicated in Figure 4-1, this Level 3 approach has the maximum utility for understanding a country's efforts at child welfare reform and guiding USAID investments, but it is also the most complex, subjective, and expensive, and its products are limited to each individual country. It is complex because many dimensions need to be considered, some advances compensate for other limitations, and many strategies are limited by social, political, cultural, and economic circumstances that may be unique to the country. It is subjective because few indicators are available, and informed professional opinion is required to deal with the inevitable gaps in information, the lack of knowledge about the prevalence of services and training programs, and the anecdotal nature of much of the information. It can be expensive if a systematic set of interviews are conducted within a country in the manner of Davis (2006). It is also limited to intra-country analysis because there is little basis for comparing one country to another.

Methodology

We suggest that informed professionals in each country, with the help of as much information gathering as they deem necessary and affordable, conduct an analysis following the Four Pillars, which have been modified in this report from those presented by Davis (2005, 2006) and specifically tailored to the tasks of considering alternative care arrangements and preventive services for children living without permanent parents. The resulting set of questions presented in Table 4-3 should be used to guide a unique analysis in each country, and the product would be a report similar in form to Davis (2006).

Occasionally, a quantitative index may be an appropriate supplement to these questions, such as the World Governance Indicators produced by the World Bank. These indicators reflect a variety of general aspects of democratic, effective, legal-based government, which could provide a general standard for the more specific questions in Pillar I (Table 4-3). Level 3 analyses should be informed, guided, and disciplined by Levels 1 and 2, but it should go beyond them in dealing directly with the Four Pillars of reform and progress in child welfare. In our opinion, wise judgments about which countries should be supported and what child welfare practices should be encouraged require an integration of information from all three Levels of Strategic Analysis.

Example. The most comprehensive, systematic, and intensive Level 3 analysis was conducted by Davis (2005, 2006). However, we shared a Level 1 and 2 analysis with the USAID Mission child welfare expert. This constituted an exceedingly simple and limited exploration of the need for and possible benefits of a Level 3 analysis as a supplement to Levels 1 and 2.

It was a mutually illuminating experience. The in-country expert had the opportunity to confirm or modify her less quantitative knowledge and experience with the broader statistical trends that Levels 1 and 2 provided, and such information helped the professional to identify new questions and priorities for the next step of child welfare reform in that country. Conversely, we were informed about several possible explanations and qualifiers, some unique to Romania, that helped us all to understand trends in care arrangements over years. In some cases, a trend that appeared undesirable was not when considered in its context, and several mysterious circumstances were explained. For example, Romania's count of institutionalized infants stopped around 1998-1999, which we learned was a consequence of legislation prohibiting institutionalization of children under the age of three. We asked what happened to these children, and the local professionals speculated that they may be kept in children's hospitals beyond medical necessity, go to foster care, be adopted, or actually go to institutions apparently in violation of the policy – but there were no data readily available to verify these speculations. Similarly, a dramatic increase occurred in the total number of children in institutions from 2000 to 2001 (see Figure 4-4, Romania). Rather than being a sign of a worsening condition, in-country professionals interpreted this sudden rise to the change in legislation to "count" children with disabilities among the children in residential care, which had not been done previously. Such an inclusion of an especially at-risk population in the country's indicators is clearly a step forward in monitoring, even though the data initially appeared to incorrectly reflect an increased use of institutionalization.

Even these few instances show that simple composite indices and even trends within a country over time are not readily interpretable, or useful for providing aid to a developing country in child welfare, without being imbedded in a Level 3 analysis by knowledgeable professionals within that country.

Table 4-1. Summary of Indicators of Alternative Care Arrangements for Children Living Without Permanent Parental Care (variables are from the TransMONEE Database except if indicated)

Children Without Permanent Parental Care (Marker of Child Welfare)

Number = Children in Institutional/Residential Care + Children in Foster Care/Guardianship Care

= Variable 8.2 + Variable 8.7

Rate = $\frac{\text{(Children in Institutional/Residential Care + Children in Foster Care/Guardianship Care)}}{\text{Population of Children Birth to 17 Years}}$

= $\frac{\text{(Variable 8.2 + Variable 8.7)}}{\text{Variable 1.5}}$

---

1. Children in Residential Institutions

Number = Variable 8.2

Rate = Variable 8.3

A. Infants (Birth to 4 Years) in Infant Homes

Number = Variable 8.4

Rate = Variable 8.5

B. Children (5-17 Years) in Residential Institutions

Number = Total Number of Children (Birth to 17 Years) in Residential Care minus Number of Infants (Birth-4 Years) in Infant Homes

= Variable 8.2 – Variable 8.4

Rate = $\frac{\text{Total Number of Children (5-7 Years) in Residential Institutions}}{\text{(Number of Children Birth to 17 Years – Number of Children Birth to 4 Years)}}$

= $\frac{\text{(Variable 8.2 – Variable 8.4)}}{\text{(Variable 1.5 – Variable 1.3)}}$

C. Children with Disabilities in Residential Care

Number = Variable 8.6

Rate = Not Available (no meaningful denominator)

2. Children in Foster Care/Guardianship

Number = Variable 8.7

Rate = Variable 8.8

A. Percentage of All Children without Permanent Parental Care Who Are in Foster Care/Guardianships

$$\text{Percentage} = \frac{\text{Number in Foster Care/Guardianship}}{\text{Number of Children without Permanent Parental Care}}$$

$$= \frac{\text{Variable 8.7}}{(\text{Variable 8.2} + \text{Variable 8.7})}$$

Presumably, the higher this percentage (i.e., the more children in foster care/guardianship arrangements and the fewer in institutions), the better, although whether it is better and how much better depends on the quality of the foster care system and the quality of the residential institutions.

3. Children Who Are Adopted

Number = Variable 8.9

Rate = Variable 8.10

A. Ratio of Children Adopted to Children in Infant Homes

$$\text{Ratio} = \frac{\text{Variable 8.9}}{\text{Variable 8.4}}$$

Presumably, this ratio reflects the extent to which the country is successful at getting children adopted relative to those who reside in institutions, so the higher this ratio, the better.

Table 4-2. Summary of Causal Domains and Indicators Pertaining to the Prevention of Children Living Without Permanent Parental Care

Causal Domain	Indicators
1. Financial inability	*A. Per capita gross national product adjusted for purchasing power* (GNP-PPP; Variable 10.2) *B. Unemployment among individuals 15-24 years of age* (Variable 10.5) *C. Poverty rate in the population* (World Bank database)
2. Single/teenage mothers	*A. Non-marital births to mothers under 20 years of age* (Variable 2.13) *B. Rate of children affected by divorce* (Variable 5.10) *C. Gender-Related Developmental Index* (United Nations Human Development Indicators) *D. Contraceptive prevalence* (UNICEF)
3. Revocation of parental rights	*A. Children deprived of permanent parental care* (Variable 8.1) *B. Crimes against children* (Variable 9.2) *C. Per capita adult (older than 15 years) alcohol consumption* (WHO)
4. Children with disabilities and certain diseases	*A. Children with disabilities in residential care* (Variable 8.6) *B. Children orphaned by AIDS* (UNICEF) *C. The rate of low-birth-weight births* (Variable 2.15) *D. Infant mortality rate* (Variable 3.1) *E. Percent births attended by skilled professionals* (Variable 6.1 divided by Variable 2.1) *F. Percent of children under five years of age physically stunted for their age* (WHO)
5. Teenage problem behavior	*A. Number of juveniles in correctional institutions* (Variable 9.11) *B. Homicides committed by or with juveniles* (Variable 9.7) *C. Registered juvenile crime rate* (Variable 9.4) *D. Suicide rate among 15-19 year olds* (Variable 3.22) *E. Prevalence in tobacco use in 13-15 year olds* (WHO) *F. Child labor among 5-14 year olds* (UNICEF)

Table 4-3. Four Pillars Analysis of Alternative Care Arrangements for and Prevention of Children Living Without Permanent Parents

I. Policy and Legal Structure

A. Do policies exist pertaining to care alternatives? Pertaining to prevention?

B. Do they identify and define priority groups at risk?

C. Do they promote family and community care over residential institutional care?
   1. Are administration, operation, and financial responsibility decentralized?
   2. Do policies promote collaboration and engagement with NGOs, consumers, and advocacy groups?

D. With respect to care arrangements, do policies provide:
   1. Adequate incentives for adoption, foster care, guardianship, and reunification with biological parents?
   2. Screening and support of adoptive, foster, and biological parents?

E. With respect to prevention, do policies provide prevention services that:
   1. Support families to keep, rather than relinquish, their children?
   2. Minimize unwanted pregnancies?
   3. Prevent and treat parental mental health problems, drug and alcohol abuse, and child abuse and neglect?
   4. Minimize unhealthy behavior during pregnancy that may lead to birth defects and disabilities?

F. Are international standards promoted, including accountability, enforcement, and sanctioning?

G. Is adequate funding provided for full implementation?

H. Are the policies implemented adequately and fairly for all groups in need?

II. Structure and Types of Programs and Services

A. Do services that promote care alternatives, protection, and prevention exist and with sufficient capacity and funding?

B. With respect to care alternatives:
   1. Do they involve screening, support, and monitoring of foster, biological, and adoptive parents?
   2. Do services promote permanent care for children?

C. With respect to prevention, to what extent are the following services available, adequate to need, and appropriately implemented?
   1. Family support services to help families keep their children, both typically developing and with disabilities.
   2. Family planning and AIDS prevention services to minimize unwanted births.
   3. Family preservation services to minimize family dissolutions.
   4. Mental health, substance abuse, and parent education services.
   5. Prenatal care and efforts to minimize unhealthy prenatal behavior (i.e., smoking, drug and alcohol use, caffeine, abusive treatment).

D. Are services up to international standards of practice and care?

E. Are assessment mechanisms in place to adequately target groups most in need?

F. Do services represent an integrated approach and involve participation of community and at-risk groups and collaboration across agencies and service types?

G. Is public education and outreach, especially to all at-risk groups, adequate?

III. Human Capacity

A. Do training programs exist to prepare:
   1. Professionals (social workers, psychologists, special education teachers, early childhood professionals) to help staff and institutions provide prevention and therapeutic services to difficult parents and children and to prepare and support parents?
   2. Parents for adoption, fostering, and reunification?

B. Do professional preparation programs emphasize community care, prevention, capacity building, assessment, planning, intervention, and follow-up?

C. Do curricula promote international standards of professional practice?

D. Are practitioners regulated through clear and appropriate licensing and certification procedures?

E. Is continuing education and professional development available and encouraged or required?

F. Do professional associations promote continuing education, standards of quality practice, and monitoring of professional practice?

G. Do universities, advocacy groups, and agencies collaborate, integrate services, and promote workforce development and quality services?

IV. Performance Outcomes and Monitoring

A. Do monitoring and evaluation systems exist?
   1. At national, regional, local, and agency levels?
   2. Do they monitor services delivered, client characteristics, target groups, gender of clients, and quality of services?
   3. Do they assess client risk, progress, and outcome?

B. Is the quality of information sufficient to be useful?

C. Are data entered into a searchable computerized system that generates reports and provides useful information to policy makers, regulators, agencies, service providers, and clients?

CHAPTER V: CONCLUSIONS AND RECOMMENDATIONS

This project focuses on the concept of child welfare for the purpose of increasing understanding of the status and progress of child welfare reform in 21 CEE/CIS countries for audiences within U.S. Government agencies and the host countries' institutions.

The initial phase of this project was to provide an analysis of existing efforts and to develop a strategic methodology that measures child welfare and child welfare reform in the targeted countries. The purpose of this chapter is to provide recommendations for Phase 2 of this work, a phase that will implement the methods developed in Phase 1.

Summary of Current Project

After careful analysis of existing indices and other attempts to provide information regarding child well-being, the team proposes a three-level analysis methodology for assessing child welfare status and reform. This methodology has significant advantages over a single index composed of several indicators. The three Levels progress in terms of simplicity, objectivity, cost, and utility.

For instance, Level 1 presents a single quantitative Marker of Child Welfare that captures the primary child welfare concern in the region, specifically, children living without permanent parental care. This Marker can be used as a guide to target countries in special need of assistance. Level 2 analyzes quantitative indicators that provide more detail regarding two aspects of child welfare. The first aspect is alternative care arrangements; the second aspect includes prevention indicators that can be used to help understand the factors contributing to the number of children living without permanent parental care and provide a basis for preventive action. Level 3 uses a structure for conducting more qualitative analyses that will help interpret the Marker in Level 1 and indicators in Level 2 and assess child welfare reform. The information is different at each level, but it is the accumulation of information across the three Levels that provides the most comprehensive understanding of an individual country's progress toward child welfare reform. However, not all countries may be ready to provide all of the data or information that is necessary to implement all three Levels of the strategic analysis.

The Plan for Phase 2

Ideally, the follow-on project in Phase 2 of the SOCIAL contract would include testing all three Levels of this methodology and creating profiles for the 21 countries in the CEE/CIS region. However, this comprehensive strategy would take 12-18 months to complete. Since Phase 2 work must be completed by March 31, 2008 (four to five months after Phase 1 completion), we propose that Levels 1 and 2 be completed with consideration in the future for implementation of Level 3. Specifically, relationships among quantitative indicators will be presented in Phase 2 in a variety of useful formats for Levels 1 and 2 and could serve as a framework for posing more in-depth questions for Level 3.

Level 1 – Marker of Child Welfare. There are several ways to present the information in this Level. First, countries can be listed from relatively worse to relatively better according to the value of the Marker of Child Welfare (see Figure 4-2). The Marker of Child Welfare will be presented relative to the country's economic resources by plotting it as a function of the country's per capita GNP/PPP and expressed in American dollars (see Figure 4-3). In addition, when it comes to understanding a country's child welfare reform progress, which would occur over years, the Marker must be plotted over years (see Figure 4-4). Thus, some of the proposed Level 1 analysis has been started and is presented in this report. These are just some examples of how Level 1 information can be analyzed across countries. However, Level 1 information alone is quite limited. Its advantage of providing a bird's-eye view of 21 countries at one glance comes at the cost of glossing over country-specific contexts. It documents the problem (children living without permanent parental care), but does not assess what may have caused the problem and what is being done to deal with the consequences of the problem. It necessarily provides more information about how countries compare, rather than what to do for each individual country. It makes some assumptions about the comparability of the same Marker across countries, which may or may not be productive for policy decisions. While it may account for broad factors such as GDP per capita, it does not provide sufficient context to interpret and understand within-country trends. Further levels of analysis are needed.

Level 2 – Interpretive indicators. Level 2 of the strategic analysis provides indicators of two important aspects of the primary child welfare problem in this region.

- *Alternative care*. As a basic first step in Level 2, three major care alternatives for children in non-home placements (i.e., residential institutions, foster/guardianship, adoption) must be plotted over years. The number of children and the rates of each of these alternative care arrangements over years relative to the total number of children without permanent parents must be determined. In Chapter IV, Figure 4-5 presents each country in the region having available information on the number of children in alternative placements between 1989 and 2005. These graphs must be supplemented in Phase 2 with graphs of the other indicators of alternative care proposed in Chapter IV, and the total collection of trends, general and specific, must be integrated and analyzed to determine general themes for the region and for specific countries. Some countries are only beginning to deal with these alternative care arrangements. For them, Level 1 and 2 analyses of alternative care arrangements may be sufficient at this point in their development. At this Level of analysis, the data are not "qualified." There is very little information available to interpret or explain a rise, fall, or sudden turn in data trends, whether they are due to policy change, program change, data definition change, or change in monitoring systems. This Level of analysis suggests questions to be explored further, but is not sufficient for any strong conclusions regarding the state of child welfare reform.

- *Causal domains of risk*. For other countries, the indicators of risk and potential causes of children living without permanent parents should be examined. These indicators are predominantly from the TransMONEE database and are summarized in Chapter IV, Table 4-2. We propose to reserve the extensive analysis of these indicators for Phase 2 of the project. This analysis will be used to diagnose the most predominant causes of children living without permanent parents as a means of targeting resources and creating policies and services that target these specific areas of risk.

Several steps might be taken in Phase 2 to reduce the number of indicators in Level 2 and refine this process. For example, within each of the Causal Domains, the indicators might be correlated with the Marker of Child Welfare across the 21 countries by using multiple and step-wise regression that will reveal whether all of the indicators within a Causal Domain are necessary to represent that domain. Indicators that do contribute to the prediction of the Marker could then be standardized (i.e., transformed to a single common scale having a mean of 0 and a standard deviation of 1.00) so that they can be averaged to yield a single standardized score for that Causal Domain. Standard scores permit each measure to be weighted equally in the calculation of the average Causal Domain score. Once each Causal Domain has a standardized score, the five Causal Domains can be used to predict the Marker (using the same kind of regression and stepwise multiple regression techniques) to determine if some domains are more important for this prediction than others. In this way, the several indicators and domains may be reduced to a much smaller set, thus presumably simplifying this endeavor to describe causal and preventable factors.

It should, however, be noted that the Causal Domains and indicators were selected on the basis of **what is known within countries**, sometimes based on research from countries other than those in the CEE/CIS set; whereas these data-reduction techniques are based upon **between-country predictions**. As we have seen above, indicators may not operate in the same way within countries as between countries. Therefore, the number of indicators using between-country techniques should be reduced and interpreted cautiously when applied to within-country dynamics. Thus, it would be extremely informative if in the near future the statistical selection and elimination of indicators are checked and balanced with what is known within the countries qualitatively in a Level 3 analysis. The confidence in variable selection is directly related to the extent qualitative accounts and quantitative processes converge on the same set of indicators. However, this step would take more time than is available for Phase 2.

Once the risk indicators have been reduced to an efficient set, they can be combined to predict not only the Marker but also the other indices of more general child well-being currently being constructed for the region (i.e., Bradshaw) as well as indices of other aspects of the country that are currently available (e.g., Human Development Index, Gender-Related Development Index, Gender Empowerment Measure, Governance Matters VI: Governance Indicators for 1996-2006). Also, plots of the domain scores, indicators within domains across years, the Marker, and indicators of care arrangements will compose a set of data that can be examined to produce an integrated data profile for each country.

For Future Consideration (Beyond Phase 2)

Level 3 – Within-Country Analysis of Child Welfare Reform. While information from Levels 1 and 2 identifies countries with weaknesses in the global Marker of Child Welfare Reform and provides more specific data on care arrangements and possible prevention tactics, Level 3 of this strategy provides a general structure to help interpret these data, understand the situation, and guide action on reform within countries. The Four Pillars to be examined in Level 3 provide information on policies, services, personnel preparation, programs, and monitoring and evaluation procedures that describe progress on child welfare reform in a country. Very few quantitative indicators are

available that reflect these aspects of the Pillars. Informed judgments need to be made by professionals in the field who are familiar with individual countries. We suggest that if/when Level 3 is begun, informed professionals in each country (or a subset) be identified who would respond to a set of questions (presented in Chapter IV, Table 4-3) to supplement the Level 1 and 2 profiles. It is our recommendation that the USAID policy decisions regarding each country be supported by an integration of information from all three Levels of this strategic analysis. While Levels 1 and 2 are relatively easy to derive, they are most likely to open up, rather than conclusively address, the most interesting and relevant policy questions.

Implementation. For any "entity" (agency/unit) to lead such a Phase 2 analysis, it must develop strategic partnerships. We propose such partners as USAID Missions, UNICEF CEE/CIS Regional Office (Geneva), and UNICEF Innocenti Research Center because of their experience in the area of child welfare, their infrastructure of contacts and associates, and the overall need to coordinate data, analysis, and understanding across important global partners. Together, these partners have access to the best available quantitative (Levels 1 and 2) and qualitative (Level 3) data in every country of our focus. The UNICEF Innocenti Research Center maintains and updates the TransMONEE database that was used as the main data source in Phase 1 of this project. These same data would be used in Phase 2 in the analysis of each of the 21 countries for Levels 1 and 2.

To further analyze each country using Level 3, the selected "entity" will have to employ staff who work directly with informed professionals who have a good understanding of each country. These professionals should include the USAID Mission officers and other professionals (e.g., UNICEF, NGOs, etc.) who have spent considerable time in each of the 21 countries (or a selected subset). We envision that this post-Phase 2 work (Level 3) would involve funding certain partners as collaborators to provide context to data and convene human contacts as well as employing/contracting staff to research additional questions from within countries. If necessary, key staff would travel to convening locations to better organize and facilitate the collaborations and discussions among the key partners. We envision such collaborations to be substantive and require formal funding rather than the as-needed, pro-bono consultations we fortunately have been able to obtain for Phase 1 deliberations (thanks largely to the generosity of the advisors and other UNICEF and USAID experts we consulted).

Database. The team suggests a flat database for this project using an Excel spreadsheet in organizing the data in a usable manner. This will allow for others to use the data without needing high-proficiency computer skills. This technique would make the Level 1 Marker and Level 2 indicators available for field workers, nonprofits, and other human service personnel. A flat database can give a snapshot in time of a country's status of child welfare as well as plots of indicators over years.

However, a guided but interactive database would give USAID more flexibility when analyzing their data. It would provide the overall common framework for most relevant policy and program questions while allowing some freedom for Missions to conduct their own inquiry or update country-specific profiles. If such an interactive database is desired, then a host agency will be needed to maintain the database with both technological and human resources. This host agency could be the same "entity" conducting the first two Levels of this methodology, or one of the partners who already has developed technological infrastructure to house and collect data.

Additional personnel and timeline. The team estimates that Levels 1 and 2 of Phase 2 will be conducted over four to five months. Several factors will be important to make this happen in such a short time. The first is a partnership with UNICEF and the second would be the hiring of a full-time, skill-based project director. This person would be responsible for creating and following the specified timeline, contacting appropriate people in the various Missions, maintaining data, working with consultants in data analysis, working with the statistician, and producing the deliverables. The statistician can be hired on a half-time basis to complete the necessary data entry, organization, analyses, and to create country profiles documenting both absolute figures and trends and statistical relationships among indicators. The team also recommends that a graduate student researcher be hired at half time to help with project tasks, and that consultants be added as needed.

A similar staffing pattern would be necessary to conduct Level 3 analysis; however, that would require an additional eight to 14 months.

Conclusion

In 2006, Creative Associates International, Inc. and the Aguirre Division of JBS International submitted an application to USAID's Bureau for Europe and Eurasia, Office of Democracy, Governance and Social Transition (E&E/DGST) to provide technical assistance for the Social Transition team through several analytic activities. Creative Associates then subcontracted with the University of Pittsburgh Office of Child Development (OCD) to conduct one of these activities. This specific activity would advance understanding of child welfare issues in 21 CEE/CIS countries of that region, guide USAID in developing interventions, and provide benchmarks for evaluating the effectiveness of interventions across countries.

Phase 1 of this project was to be a methodology paper that discusses key issues and makes recommendations for Phase 2. This included a review of previous attempts to construct indices and an exploration of existing data. The charge was to create a methodology that would consider relevant quantitative and qualitative information in determining the status of child welfare and the progress of child welfare reform in the 21 targeted countries.

The University of Pittsburgh Office of Child Development created a team of six interdisciplinary senior researchers and consulted with a group of external experts in deciding on the components of a strategic methodology that could provide markers for evaluating the effectiveness of the child welfare efforts in these countries. The methodology described here includes three Levels of data, information gathering, and analysis with each Level progressing in complexity and utility.

In addition to developing a three-Level strategic methodology, the project team completed, for all 21 countries, their Marker of Child Welfare relative to other countries and relative to their GDP/PPP (Level 1). The "entity" selected to conduct Phase 2 of this project (due March 31, 2008) should interpret Level 1 data from Phase 1 and complete Level 2 analysis on all countries. This team strongly recommends that this work be continued beyond Phase 2 by determining which countries should participate in Level 3 analysis and implement that analysis on the selected countries.

References

Alt, H., & Alt, E. (1959). *Russia's children: A first report on child welfare in the Soviet Union.* New York: Bookman Associates.

Barnes & Noble (2007). Retrieved September 13, 2007 from http://www.sparknotes.com/economics/macro/measuring1/section1.html

Bloendel, S., Field, S., & Girouard, N. (2002). Investment in human capital through post-compulsory education and training: Selected efficiency and equity aspects. Economic Department Working Paper No. 333. Paris, France: OECD.

Bradshaw, J. (2007, June 27). The UNICEF Innocenti Report Card 7: Child poverty in perspective. Paper presented at the International Society of Child Indicators Conference, Chicago, IL.

Bradshaw, J., Hoelscher, P., & Richardson, D. (2007). An index of child well-being in the European Union. *Social Indicators Research, 80,* 133-177.

Chapin Hall (2007). Multi-national project for monitoring and measuring children's well being. http://multinational-indicators.chapinhall.org/

Currie, C., Roberts, C., Morgan, A., Smith, R., Settertobulte, W., Samdal, O., & Barnekow Rasmussen, V. (Eds.). (2004). Young people's health in context. Health Behaviour in School-aged Children (HBSC) study: international report from the 2001/2002 survey. WHO Regional Office for Europe: http://www.euro.who.int/eprise/main/who/InformationSources/Publications/Catalogue/20040601_1

Dalirazar, N. (2002). An international index of child welfare. Amherst, MA: Political Economy Research Institute, Working Paper Series (No. 40).

Davis, R. T. (2005, October). Promising practices in community-based social services in CEE/CIS/Baltics: A framework for analysis. Washington, DC: Aguirre Division of JBS International, Inc. for USAID

Davis, R. T. (2006). Emerging practices in community-based services for vulnerable group: A study of social services delivery systems in Europe and Eurasia. Washington, DC: Aguirre Division of JBS International, Inc. for USAID.

Engle, P. L., Black, N. N., Behrman, J. R., De Mello, M. C., Gertler, P. J., Kapiriri, L., Martorell, R., Young, M. E., & the International Child Development Steering Group (2007). Child development in developing countries 3: Strategies to avoid the loss of developmental potential in more than 200 million children in the developing world. *The Lancet, 369,* 229-242.

Eurostat. (2005). Populations and social conditions: living conditions and welfare statistics: http://epp.eurostat.cec.eu.int/portal/ddis.go-home?p_language-en

Goerge, R. M. (1997). Potential and problems in developing indicators on child well-being from administrative data. In R. M. Hauser, B. V. Braun, and W. R. Prosser (Eds.). *Indicators of children's well-being* (pp. 457-471). New York: Russell Sage Foundation.

Grantham-McGregor, S., Cheung, Y. B., Cueto, S., Glewwe, P., Richter, L., Strupp, B., & the International Child Development Steering Group (2007). Child development in developing countries 1: Developmental potential in the first five years for children in developing countries. *The Lancet, 369*, 60-70.

Hibell, B. et al. (2003). European school survey project on alcohol and other drugs (ESPAD): http://www.espad.org/sa/node.asp?node=637&id=42&sa_content_url=/plugins/literature/view.asp

Institute for Policy Studies (2006). Evaluation of the Family Support and Foster Care Project (FS&FC) and Prevention of Infant Abandonment and Deinstitutionalization Project (PIAD). Rome, Italy: Development Researchers Network.

Kabeer, N. (2005). Gender equality and human development: The instrumental rationale. Occasional Paper 31. New York, NY: United Nations Development Program, Human Development Office.

Kadushin, E., & Martin, J. A. (1988). *Child welfare services, 4th Ed*. New York: Macmillan Publishing.

Kamerman, S. B., Neuman, M., Waldfogel, J., & Brooks-Gunn, J. (2003). Social policies, family types and child outcomes in selected OECD countries. OECD Social, Employment and Migration Working Papers No. 6. Paris, France: Organisation for Economic Co-operation and Development.

Kaul, I., & Menon, S. (1993) Human development: From concept to action 10-point agenda. Occasional Paper 7. New York, NY: United Nations Development Program, Human Development Office.

Madison, B. Q. (1968). *Social welfare in the Soviet Union*. Palo Alto, CA: Stanford.

Miller, L., Chan, W., Comfort, K., & Tirella, L. (2005). Health of children adopted from Guatamala: Comparison of orphanage and foster care. *Pediatrics, 115*(6), 710-717.

Moore, K. A. (1997). Criteria for indicators of child well-being. In R. M. Hauser, B. V. Braun, and W. R. Prosser (Eds.). *Indicators of children's well-being* (pp. 36-44). New York: Russell Sage Foundation.

Organisation for Economic Co-operation and Development. (2005). Education at a glance 2005: http://www.oecd.org/document/34/0,3343,en_2649_34515_35289570_1_1_1_1,00.html

Organisation for Economic Co-operation and Development. (2006). Health data: http://www.oecd.org/document/56/0,2340,en_2649_34631_12968734_1_1_1_1,00.html

Organisation for Economic Co-operation and Development/PISA. (2005a). OECD PISA 2000 Database: http://pisaweb.acer.edu.au/oecd/oecd_pisa_data.html

Organisation for Economic Co-operation and Development/PISA. (2005b). OECD PISA 2003 Database: http://pisaweb.acer.edu.au/oecd_2003/oecd_pisa_data.html

Organisation for Economic Co-operation and Development/PISA. (2005c). Student questionnaire: http://www.oecd.org/dataoecd/34/7/37617728.pdf

Schulz, W., & Sibberns, H. (2004). IEA civic education study: Technical report. Amsterdam: The International Association for the Evaluation of Educational Achievement.

Trocmé, N., Nutter, B., MacLaurin, B., & Fallon, B. (1999, October). Child Welfare Outcome Indicator Matrix. Toronto, Canada: Bell Canada Child Welfare Research Unit.

UNICEF. (1993). *Progress of nations 1993*. NY:UNICEF.

UNICEF. (1995). *Progress of nations 1995*. NY:UNICEF.

UNICEF. (1996). *Progress of nations 1996*. NY:UNICEF.

UNICEF. (1999). P*rogress of nations 1999*. NY: UNICEF.

UNICEF Innocenti Research Centre. (2007). TransMONEE Database. Florence, Italy: UNICEF Innocenti Research Centre.

United Nations Development Programme. (1990). Concept and measurement of human development. *Human Development Report*. New York: UNDP.

United Nations Development Programme. (2006). Beyond scarcity: Power, poverty and the global water crisis. *Human Development Report.* New York: UNDP.

USAID Bureau for Europe and Eurasia Office of Democracy, Governance and Social Transition. (2006, June). Europe and Eurasia Bureau Social Transition Strategy. Washington, DC: USAID/E & E/DGST Social Transition Strategy.

U.S Department of State. (2007). *Hague Convention on Intercountry Adoption and the Intercountry Adoption Act of 2000: Background***.** Retrieved on November 6, 2007 from http://travel.state.gov/family/adoption/convention/convention_2290.html.

Walker, S. T., Wachs, T. D., Gardner, J.N., Lozoff, B., Wasserman, G. A., Pollitt, E., Carter, J. A., & the International Child Development Steering Group (2007). Child development in developing countries 2: Child development: Risk factors for adverse outcomes in developing countries. *The Lancet*, *369*, 145-157.

Wikipedia (2007a). Hague Conventions. Retrieved August 17, 2007 from http://en.wikipedia.org/wiki/Hague_Conventions

Wikipedia (2007b). Romani People. Retrieved August 17, 2007 from http://en.wikipedia.org/wiki/Romani_people

World Bank World Development Indicators. (2005a). Health. Retrieved July 2007 from http://devdata.worldbank.org/wdi2005/Table2_14.htm and http://devdata.worldbank.org/wdi2005/Table2_18.htm

World Bank World Development Indicators. (2005b). Nutrition. Retrieved July 2007 from http://devdata.worldbank.org/wdi2005/Table2_17.htm

World Bank World Development Indicators. (2005c). Population dynamics. Retrieved July 2007 from http://devdata.worldbank.org/wdi2005/Table2_1.htm

World Health Organization (2005). Mortality database website: http://www.who.int/healthinfo/morttables/en/index.html

Attachment I. External Team Consultants

Christine Allison

Ms. Allison is a Principal at Aguirre/JBS specializing in social service delivery and democracy issues. She participated in several studies, including current studies on labor markets and social service delivery systems throughout Europe and Eurasia. She has lived in Ukraine and Bosnia-Herzegovina, and has field experience in Hungary, Poland, Russia, Ukraine, Armenia, Azerbaijan, Kazakhstan, Kyrgyzstan, Uzbekistan, and Egypt, among others. For the State Department, she has worked on various program evaluations across Europe, Eurasia, and South Asia. Ms. Allison holds a Master's Degree in policy studies from the John Hopkins University.

Maureen Black

Maureen Black is the John A. Scholl Professor of Pediatrics at the University of Maryland School of Medicine and is a Licensed Psychologist. She received her M.A. in Occupational Therapy from the University of Southern California and her Ph.D. in Psychology from Emory University. Her interests include child abuse, failure to thrive, high-risk parenting, developmental delays, and adolescent risk behavior. She is the author of more than 150 publications related to children's health and development. Dr. Black is the director of the Growth and Nutrition Clinic and chief of the Consortium on Child Development and Neurosciences. She has worked on projects in Bangladesh, India, Peru, and Ethiopia. She is an associate editor of the *Journal of Pediatric Psychology*, on the editorial board of four other journals, and was a researcher on the three-part *Early Childhood Development: The Global Challenge* that was published by *The Lancet*.

Catherine Cozzarelli

Catherine Cozzarelli is a Senior Social Scientist for USAID. She is on the Social Transition (ST) Team in the Democracy, Governance and Social Transition Office of the Bureau for Europe and Eurasia and was a main contact for this study. Her primary responsibilities for the ST team are to cover issues related to vulnerable groups (including children, the elderly, disabled persons, and minorities) and social services; poverty and social assistance; and gender. She was a professor in the Department of Psychology at Kansas State University from 1991-2002 and is the author or co-author of over 25 peer-reviewed papers. In 2002, Dr. Cozzarelli spent a year as an American Psychological Association Congressional Fellow working on the staff of U. S. Senator Jeff Bingaman (D-NM) where she was responsible for issues related to social assistance programs, education, and women's reproductive issues. In 2004, Dr. Cozzarelli first arrived at USAID as a recipient of an American Association for the Advancement of Science (AAAS) Diplomacy Fellowship.

Patrice Engle

Since 1980, Patrice Engle has been teaching psychology at California Polytechnic State University in San Luis Obispo. During her time as a professor she also consulted with UNICEF, the World Health Organization, World Bank, and other organizations in programs for child development around the world. Dr. Engle received her Ph.D. in Child Development/Psychological Studies from Stanford University. Dr. Engle began working for UNICEF in 1999 as chief of child development and nutrition. She began her work with them in India where she supported many programs that incorporated psychosocial care into programs for young children. In 2002 UNICEF moved her to New York where she became the senior advisor for early child development. She was responsible for supporting UNICEF's results-based programming in 158 countries. Under her guidance, UNICEF developed capacity-building materials, resource materials on parenting, case studies, an evaluation of the integrated approach to early child development, annual reviews, and assessments of country programming. Dr. Engle is one of the lead researchers in the three-part *Early Childhood Development: The Global Challenge* that was published by *The Lancet*. She has also returned to her teaching position at Cal Poly.

Victor Groza

Victor Groza is a Professor of Social Work at the Mandel School of Applied Social Sciences, Case Western Reserve University in Cleveland, Ohio. Dr. Groza also works as a Licensed Independent Social Worker. He received his M.S.W. in Social Work Administration and his Ph.D. in Sociology, both from the University of Oklahoma. In addition to his teaching, his research and writing is predominantly in child welfare. His interests in child welfare focus on two areas: (1) an examination of the institutional care of children, ways to improve the care of children who must reside in institutions, and the negative impact on child development from early trauma due to institutionalization; and (2) family, children, and service system issues in domestic, older-child adoption and international adoption. His interest in the institutional care of children began in the mid seventies when he was working in a psychiatric residential facility for adolescents. He later became involved in the Romanian orphanages in the early 1990's when USAID and the Romanian Ministry of the Handicapped funded a team of social workers to research the problem.

Theodore Wachs

Theodore Wachs Received his Ph.D. from George Peabody College in Nashville, Tennessee. He is a Professor of Psychological Sciences at Purdue University. Dr. Wachs was a Golestan Fellow for the Netherlands Institute for Advanced Study in the Humanities and Social Sciences from September 1995 to June 1996. He was a main researcher for *Child Development: Risk Factors for Adverse Outcomes in Developing Countries*. This is the second of the three-part *Early Childhood Development: The Global Challenge* that was published by *The Lancet*. Most of his research focuses on infant and child development and emphasizes the role of physical and social environmental factors.

Attachment II. University of Pittsburgh Office of Child Development Internal Team

Alexandra Debbas

Currently a graduate student at the University of Pittsburgh, Pennsylvania, Alexandra Debbas is studying Applied Developmental Psychology with an emphasis on Leadership and Program Design. She has her B.A. in Psychology from California State University, Fresno. Alexandra is an intern for Christina Groark at the Office of Child Development, University of Pittsburgh. She has volunteered for Foursquare Children of Promise, the Cambodian branch of Warm Blankets.

Larry Fish

Larry Fish received his M.A. from the University of New Orleans and his Ph.D. in Education Research from the University of California, Los Angeles. During his time at UCLA he received the President's Fellowship. His post-doctoral work was in Health Behavior Research at the University of Alabama, Birmingham. He is a Research Statistician for the University of Pittsburgh Office of Child Development. In the past he has worked as a consultant in research and statistics and as an evaluation specialist.

Christina J. Groark

For the past 20 years, Christina J. Groark, Ph.D., Associate Professor of Education and Co-Director of the University of Pittsburgh Office of Child Development (OCD), has provided administrative oversight, management, and practical and scholarly guidance for international, national, and local interdisciplinary projects. Her expertise includes applied issues of children, youth, and families, especially those in developing countries and domestic urban and low-income communities. Her extensive career has been devoted to improving the lives of all children, including institutionalized children, children with severe mental and physical disabilities, and at-risk children, and helping children by focusing on the entire family and caregiving environment. Her specific interests are in the areas of early care and education, early intervention, orphanage care, nonprofit management, and program development. Dr. Groark has designed and implemented innovative service demonstration programs, policy initiatives, needs assessments, experimental interventions, program evaluations, and research studies. Internationally, she is working on examining orphanages through projects in the Russian Federation, El Salvador, and Nicaragua. In addition, Dr. Groark has been a consultant to many national and international programs, funders, policy makers, and universities. She is the author of many articles and book chapters in the areas of university-community collaborations, improved interventions in orphanages, applied developmental psychology, and early intervention and is a consulting editor of the *Journal of the International Association of Special Education*. Dr. Groark is the recipient of the University of Pittsburgh's 2005 Chancellor's Award for Public Service.

Junlei Li

Junlei Li is the Director of Applied Research and Evaluation at the Office of Child Development, University of Pittsburgh. Born in China, he immigrated to the United States at age 16. Junlei received his B.S. in Computer Science from the University of Notre Dame. Following his five years of professional experience at Procter & Gamble, he attended Carnegie Mellon University to complete his M.A. in Instructional Science and his Ph.D. in Cognitive and Developmental Psychology. Since 1999, Junlei has regularly spent his time observing and teaching in urban classrooms to better understand the real-world challenges and implement standards-based science reform. He conducted his dissertation research and later became co-principal investigator on two consecutive (three-year each) U.S. Department of Education research grants to improve science achievement in urban schools. He was a recipient of the American Psychological Association Dissertation Award and was nominated by the National Academy of Sciences as a Young Scientist delegate to the 28th International Congress of Psychology.

Robert B. McCall

Robert B. McCall received his doctorate from the University of Illinois and is Co-Director of the University of Pittsburgh Office of Child Development and Professor of Psychology. His prior positions include Assistant to the Director for Program Planning and Evaluation at Father Flanagan's Boys Town and Chairman of Psychology at Fels Research Institute. His scholarly interests include attention and memory in infants, developmental changes in mental performance, kinship similarities in IQ, play and imitation, design and analysis in developmental psychology, the dissemination of developmental research through the media, program evaluation, university-community partnerships, and policy. He has received awards and commendations for media and public service from APA, Divisions 7 and 46 of APA, the National Council on Family Relations, the American Academy of Pediatrics, and the University of Pittsburgh, plus the Chancellor's Award for Research from the University of Pittsburgh. He has been on SRCD's Social Policy and Public Information Committees; APA's Public Information Committee and *Psychology Today* Board of Directors; and Division 7's Executive, Credential, Convention Program, Public Information, and Policy and Planning Committees. He is also a member of the Governing Council of SRCD.

Lucas Musewe

Lucas Musewe is the Director for the Partnerships for Family Support Management Information System Program of the University of Pittsburgh Office of Child Development. He has a Dr.P.H. degree in Public Health and a Master's degree in Public Administration/Health Services Administration. He has over 15 years of experience in the design, development, and implementation of management information systems, program evaluation, policy analysis, data analysis, database management, decision support systems, application of geographic information systems in social/health services and research, and teaching experience in spatial data analysis. He also has over 10 years of experience working with community-based healthcare services in Kenya sponsored by the Government, WHO, USAID, and UNICEF in different capacities as a program information systems coordinator, data analyst, and as an evaluator.

Maria Zeglen Townsend

Maria Zeglen Townsend is the Director of the Child and Family Welfare Indicators Project at the University of Pittsburgh Office of Child Development. In this capacity, Dr. Townsend conducts needs assessments and evaluations, provides baseline data for grants, and answers data requests from agencies, students, funders, and the media. Dr. Townsend has trained staff from local and county human service agencies in Western Pennsylvania, county and state Mental Health and Developmental Disability providers, and countywide childcare planning committees from across Pennsylvania on evaluation methodology. Some current projects Dr. Townsend is evaluating include a Western Pennsylvania pilot for a statewide infant/toddler mental health initiative, a multiple county project to strengthen early learning supports, and a technical assistance program for childcare centers in Western Pennsylvania. She received her Master's Degree in Child Development from Michigan State University and her Doctorate in Developmental Psychology with a specialization in infant studies from Michigan State University.