

**Lexington-Fayette Urban County  
Extreme Heat  
Incident-Specific Plan**

**Lexington-Fayette Urban County  
Division of Emergency Management**

## Table of Contents

Introduction ..... 3

    1.1 Purpose ..... 3

    1.2 Scope ..... 3

    1.3 Document Authority ..... 3

        1.3.1 Document Maintenance and Review ..... 4

2 Objectives ..... 4

3 Roles & Responsibilities ..... 4

    3.1 Primary Coordinating Agency ..... 4

    3.2 Local Agencies and Organizations ..... 4

    3.3 State, Regional, and Federal Agencies and Organizations ..... 5

4 Activation Threshold ..... 5

    4.1 Heat Index Readings and Heat-related Medical Conditions ..... 5

5 The Heat Index ..... 7

6 Phases ..... 9

7 Vulnerable Populations ..... 10

Appendix A Lexington Office of Homelessness Prevention & Intervention Emergency Weather Plan 2017-2018 ..... 12

## Introduction

Interest in the impact of heat on human health has increased dramatically in recent years. There is a strong consensus in the scientific community that climate change is occurring and that average global temperatures will rise substantially during this century. Global warming is anticipated to increase the number of air pollution and heat-related deaths worldwide. Cities around the world are moving to develop heat-health warning systems and public health response plans.

Extreme heat impacts different people in different ways, depending on their age, underlying medical conditions and how well they are acclimatized to hot conditions. Exposure to extreme heat over prolonged periods of time without access to cooling intervals (such as typically occur at night) makes it hard for the human body to maintain a consistent internal temperature. This stress can result in a rise of internal temperature and/or increased stress on respiratory and circulatory systems. Either circumstance can result in health problems or death. Even a short break from the extreme heat helps reduce this stress.

### 1.1 Purpose

This document is the Lexington-Fayette Urban County Government (LFUCG) Incident-Specific Plan (ISP) for an Extreme Heat Event. Henceforth, this plan will refer to Extreme Heat Event as an “EHE” and will refer to the geographic and political entity of Lexington-Fayette Urban County as “Lexington Fayette”.

EHE are often slower to develop, taking several days of continuous, oppressive heat before a significant or quantifiable impact is seen. EHE do not strike victims immediately, but their cumulative effects slowly take the lives of vulnerable populations. This ISP describes the integrated and coordinated emergency management efforts that various local, state, and federal government and non-government entities will undertake to protect public safety.

### 1.2 Scope

This EHE ISP includes the threshold for response activation, description of heat indices and associated health risks, response activities by heat emergency phase, and cooling centers by location.

### 1.3 Document Authority

The Lexington-Fayette Urban County Government Division of Emergency Management (LFUCG DEM) developed and maintains this EHE ISP and accompanying attachments and references that govern response actions related to emergencies.

Supporting agencies shall develop and maintain their own similar documents for internal use, which must be compatible with, and in support of, the overall LFUCG Emergency Operations Plan (EOP) and this ISP. All such documents must comply with the national Response Framework (NRF) and National Incident Management System (NIMS).

### 1.3.1 Document Maintenance and Review

The LFUCG DEM is the owner of this document.

The document owner will review this plan annually and, as needed, update it to accommodate changing demographics and other factors.

## 2 Objectives

In an EHE event, Lexington Fayette's objectives will be:

- To ensure that all agencies working with vulnerable groups are provided with information on what precautions to take when temperatures reach extreme levels.
- To coordinate a community response when temperatures reach extreme levels
- To ensure that high-risk populations are cared for when temperatures reach extreme levels

## 3 Roles & Responsibilities

The following entities will be involved in Lexington Fayette's response to an EHE event.

### 3.1 Primary Coordinating Agency

LFUCG DEM is the primary Lexington Fayette coordinating agency for a response to an EHE event.

### 3.2 Local Agencies and Organizations

The lead agencies and organizations for each emergency support function (ESF) and support annex have policy-making and primary response duties during an EHE activation. Some of these entities may be primary agencies in other ESFs; others may support or assist other ESFs during crises. Each of these entities has personnel who train and exercise and have specific knowledge or skill sets to assist DEM during the response, recovery, or mitigations phases of an EHE event.

In addition, each lead agency or organization may call on additional agencies and organizations to provide support functions for that ESF or support annex.

Each of these entities has personnel who train and exercise and have specific knowledge or skill sets to assist DEM during the preparedness, response, or recovery phase of an EHE event.

- A. American Red Cross (ARC), Bluegrass Chapter
- B. Lexington Division of Enhanced 911 (E911)
- C. Lexington Division of Fire and Emergency Services (Lexington Fire Department – LFD)
- D. Lexington Division of Police (Lexington Police Department – LPD)
- E. Lexington-Fayette County Health Department (LFCHD)
- F. LexCall/311

- G. Lexington-Fayette Office of Homelessness Prevention and Intervention
- H. Lexington Division of Parks and Recreation
- I. The Lexington Senior Center
- J. LexTran
- K. Local healthcare entities

### 3.3 State, Regional, and Federal Agencies and Organizations

The following government agencies and organizations have primary or supporting duties during Lexington Fayette's response to a EHE event.

This list may be shortened or expanded based on the specific needs of the emergency.

- A. Kentucky Department of Military Affairs (DMA)
- B. Kentucky Community Crisis Response Board (KCCRB)
- C. Kentucky Cabinet for Health and Family Services

## 4 Activation Threshold

Preparedness plans must be in place before an EHE occurs, and increased readiness efforts must begin when high temperatures are forecast rather than when they arrive.

The threshold for activation of a response, by phase, are as follows:

Phase 1 – Readiness: The threshold for implantation of Phase 1 will be when temperatures exceeds 90 degrees Fahrenheit as described in the Office for Homelessness Prevention and Intervention annual emergency weather plan and/or the National Weather Service issues a Heat Advisory.

Phase 2 – Heat Watch: The threshold for implantation of Phase 2 will be when the National Weather Service's issues an Excessive Heat Watch.

Phase 3- Heat Emergency – The threshold for implementation of Phase 3 will be when the National Weather Service Issues an Excessive Heat Warning for Fayette County, that is expected to last 3 or more days.

The Lexington-Fayette Urban County Government Emergency Management will monitor the NWS advisories and will notify all partners within 24 hours when a Heat Wave is predicted.

### 4.1 Heat Index Readings and Heat-related Medical Conditions

The heat index is a measure that combines temperature and humidity to approximate how hot it “feels” outside (see chart below). As relative humidity increases, the air seems warmer than it actually is because the body is less able to cool itself via evaporation of perspiration.

As the heat index rises, so do health risks. It is important to recognize the early signs of heat-related illnesses and know what to do about them. During normal weather, the body's internal thermostat produces perspiration that

evaporates and cools the body. However, during periods of extreme heat and high humidity, evaporation is slowed and the body must work extra hard to maintain a normal temperature. If the body cannot cool itself, serious illness can result. Those who are susceptible (e.g. infants, children, the elderly, those with mental illness or chronic illness) are less able to sweat or regulate their internal temperature than others, and have increased risk of experiencing a range of potential adverse health outcomes.

Table 1 below list more serious medical conditions directly attributable to excessive heat exposure, along with recommended responses.

Table 1. Medical Conditions directly attributable to excessive heat exposure

Medical Condition	Symptoms	Responses
Heat cramps	Painful muscle cramps and spasms, usually in muscles of legs and abdomen. Heavy sweating.	Apply firm pressure on cramping muscles or gently massage to relieve spasm. Give sips of water; if nausea occurs, discontinue water intake. Consult with a clinician or physician if individual has fluid restrictions (e.g., dialysis patients).
Heat Exhaustion	Heavy sweating, weakness, cool skin, pale, and clammy. Weak pulse. Normal temperature possible. Possible muscle cramps, dizziness, fainting, nausea, and vomiting.	Move individual out of sun, lay him or her down, and loosen clothing. Apply cool, wet cloths. Fan or move individual to air-conditioned room. Give sips of water; if nausea occurs, discontinue water intake. If vomiting continues, seek immediate medical attention. Consult with a clinician or physician if individual has fluid restrictions (e.g., dialysis patients).
Heat stroke (sunstroke)	Altered mental state. Possible throbbing headache, confusion, nausea, and dizziness. High body temperature (106°F or higher). Rapid and strong pulse. Possible unconsciousness. Skin may be hot and dry, or patient may be sweating. Sweating likely especially if patient was previously involved in vigorous activity.	Heat stroke is a severe medical emergency. Summon emergency medical assistance or get the individual to a hospital immediately. Delay can be fatal.  Move individual to a cooler, preferably air-conditioned, environment. Reduce body temperature with a water mister and fan or sponging. Use air conditioners. Use fans if heat index temperatures are below the high 90s. Use extreme caution. Remove clothing. If temperature rises again, repeat process. Do not give fluids.

Sources: CDC, 2004a; Kunihiro and Foster, 2004; NWS, 2004.

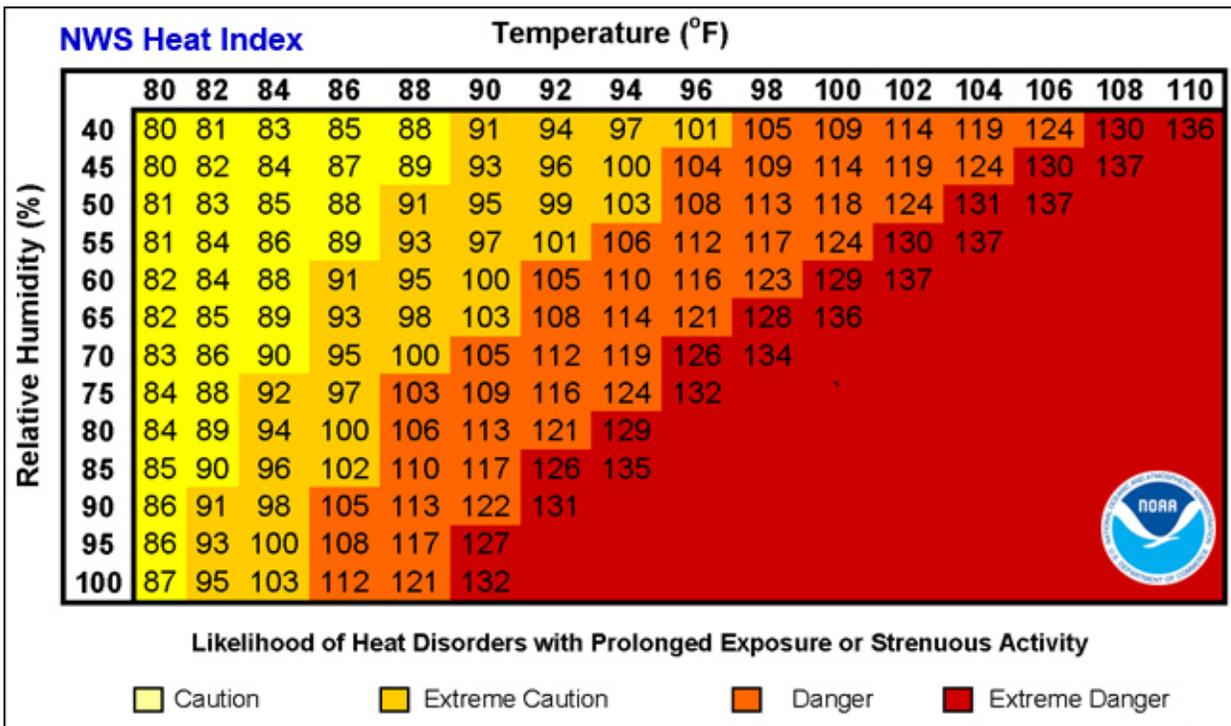
Table 2 below list other heat-related, but less severe, conditions attributable to heat or sun exposure, along with recommended responses.

Table 2. Less severe heat-related conditions attributable to heat or sun exposure

Medical Condition	Symptoms	Responses
Heat rash (prickly heat)	A skin irritation caused by excessive sweating during hot humid weather. Most common in young children, although can occur at any age. The rash looks like a red cluster of pimples or small blisters and is most common in the neck and upper chest, in the groin, under the breasts, and in elbow creases.	Move individual to a cooler place and keep the affected area dry. Use a dusting of talcum powder to increase comfort. Usually does not require medical assistance.
Sunburn	Damage to the skin caused by too much sun exposure. The skin becomes red, painful, and warm. Blisters may develop.	Medical attention should be sought if the sunburn affects an infant or if there is fever, fluid-filled blisters, or severe pain. Otherwise, the person should avoid sun exposure, apply cold compresses or immerse the burned skin in cool water, apply moisturizing lotion to the burn, and avoid breaking the blisters.

## 5 The Heat Index

The National Oceanic Atmospheric Administration (NOAA) is a Federal Agency focused on the condition of the oceans and the atmosphere. The following NOAA charts show the health risk as temperature and relative humidity increase:



Celsius	Fahrenheit	Notes
27–32 °C	80–90 °F	Caution — fatigue is possible with prolonged exposure and activity. Continuing activity could result in heat cramps
32–41 °C	90–105 °F	Extreme caution — heat cramps, and heat exhaustion are possible. Continuing activity could result in heat stroke
41–54 °C	105–130 °F	Danger — heat cramps, and heat exhaustion are likely; heat stroke is probable with continued activity
> 54 °C	>130 °F	Extreme danger — heat stroke is imminent

**Note: exposure to full sunshine can increase Heat Index values by up to 8°C (14°F).**

Heat Advisories or Excessive Heat Warnings (see definitions in Table 5 below) are issued by the NWS in Louisville, KY. The Louisville, KY NWS covers 49 counties across central Kentucky and 10 counties in south central Indiana.

<b>Heat Wave</b>	A Special Weather Statement may be issued to highlight a heat wave that doesn't meet requirements for advisories/warnings. A heat wave is defined as 2 or more days of $\geq 90^{\circ}\text{F}$ temperatures.
<b>Excessive Heat Outlooks</b>	Issued when the potential exists for an excessive heat event in the next 3-7 days. An Outlook provides information to those who need considerable lead time to prepare for the event.
<b>Excessive Heat Watch</b>	Issued when conditions are favorable for an excessive heat event in the next 24 to 72 hours. A Watch is used when the risk of a heat wave has increased but its occurrence and timing is still uncertain. Heat indices in excess of $105^{\circ}\text{F}$ ( $41^{\circ}\text{C}$ ) during the day combined with nighttime low temperatures of $80^{\circ}\text{F}$ ( $27^{\circ}\text{C}$ ) or higher are forecast to occur for two consecutive days.
<b>Heat Advisory/Warning</b>	Issued when an excessive heat event is expected in the next 36 hours. These products are issued when an excessive heat event is occurring, is imminent, or has a very high probability of occurring. The warning is used for conditions posing a threat to life. An advisory is for less serious conditions that cause significant discomfort or inconvenience and, if caution is not taken, could lead to a threat to life. Issued within 12 hours of the onset of the following conditions: heat index of at least $105^{\circ}\text{F}$ but less than $115^{\circ}\text{F}$ for less than 3 hours per day, or nighttime lows above $80^{\circ}\text{F}$ for 2 consecutive days.

## 6 Phases

The most appropriate level of response to an EHE in Lexington- Fayette will be carried out by the city government using the thresholds and phases outlined below. If additional assistance is needed, the County Emergency Operations Center will be opened.

- Phase 1 – Readiness
- Phase 2 – Heat Watch
- Phase 3 – Heat Emergency
- Phase 4 – Recovery

### Phase 1 – Readiness

The DEM Primary On – Call person will monitor weather forecasts. If the NWS predicts that temperatures will be above 90 degrees the following actions will be taken:

- The DEM designee will notify the DEM Director and the Office of Homelessness Prevention and Intervention Office.
- The DEM designee will ensure readiness plans for the vulnerable populations are in place.
- An event in WebEOC will be created for situational awareness and documentation.
- The DEM designee will activate the Office of Homelessness Prevention and Intervention 2018 Weather plan:
  - The DEM PIO will provide information on Heat Preparedness to local media.
  - Will coordinate the Notification local media, provide updates on social media, and notify all organizations that work with people experiencing homelessness through the Office of Homelessness Prevention and Intervention.
  - Emergency Weather Sheltering Operations will begin. (refer to Annex A)
  - Watering/Cooling stations will be established
  - The Compassionate Caravan will be activated to offer free rides to shelter locations.
  - Encourage the use of Public Air Conditioned Facilities.

### Phase 2 – Heat Watch

If the NWS Issues a Heat Watch the following actions will be taken:

- The DEM designee will notify the DEM director and steps conducted in Phase 1 will be repeated
- Alert notifications will be sent out via LexAlerts and an email to the executive global list.
- 311/LexCall will function as the call center for citizens seeking information.
- Parks and Recreation will offer discounted pool admission

- LEXTRAN will provide free rides for citizens to officially identified cooling centers and pools.
- Dunbar Center would be open as a cooling center
- Senior center will be open as a cooling center

### Phase 3

If the NWS Issues a Heat Warning that last more than three days the following actions will be taken:

- The DEM designee will notify the DEM director and steps conducted in Phase 1 and 2 will be repeated
- Additional Community centers will open (subject to availability)

### Phase 4 – Recovery

There is no deactivation of a Level 1 Readiness activation. The DEM Director is the responsible for declaring the end of an EHE. A level 2 or Level 3 should only be deactivated on a day which the Louisville NWS 2-day forecast includes neither a Humidex value that exceeds the threshold. The end of an EHE will be communicated to community partners through alert notification systems. All cooling centers will be systematically closed.

Conservative deactivation thresholds are recommended, as prematurely halting municipal and public health responses to an EHE has been shown to be associated with additional deaths. Following confirmation of deactivation a news release will be issues jointly.

DEM will coordinate a conference call with partner agencies on what went well, and what improvements are needed for future heat emergencies. All After Action comments will be recorded into WebEOC.

## 7 Vulnerable Populations

Situational and physical characteristics help to identify vulnerable populations that may not comfortably or safely access and use disaster resources. Specifically, when discussing heat related emergency preparedness, the following groups could be considered vulnerable or at greater risk in a heat emergency:

- Older persons (65 years old and older)
- Infants and young children
- Women who are pregnant
- People with a mental illness or who are under the influence of drugs or alcohol
- Those with chronic diseases such as heart conditions, diabetes, obesity, and high blood pressure
- People with mobility restrictions
- People engaged in rigorous outdoor work or exercise
- Those living in poverty

- The homeless
- People who are socially isolated
- Non-English speaking people who may not have access to current information

Identifying these high-risk groups in given locations allows public health officials to develop and implement targeted notification and response actions that focus surveillance and relief efforts on those at greatest risk.

# **Lexington Office of Homelessness Prevention & Intervention**

## **Emergency Weather Plan 2017-2018**

This Emergency Weather Plan provides a coordinated response for times when extreme cold or hot weather create additional, immediate need for expanded capacity to assist people experiencing homelessness in Lexington. Extreme temperatures often force people to seek shelter who may not otherwise seek assistance. In some cases, people struggling with mental illness may not seek shelter and require additional intervention for their own safety. This plan ensures Lexington is prepared for these situations.

The Emergency Weather Plan will be activated when measures of extreme temperatures are reached or when other severe weather conditions take place. Extreme temperature will be defined as:

- Any day when the temperature low is expected to fall below 32 degrees, or
- Any day when the temperature high is expected to exceed 90 degrees.

The wind chill and heat index will be not taken into account in the determining temperature. Decisions about severe weather that takes place on days outside of extreme temperature situations will be made by the Office of Homelessness Prevention and Intervention in consultation with the appropriate authorities.

Any time the plan has been activated, the Office of Homelessness will notify local media, provide updates on social media, and notify all organizations that work with people experiencing homelessness.

It's important to note that, unless otherwise stated, these shelters and services are always available to people in Lexington who experience homelessness. The Emergency Weather Plan activates some changes such as transportation or extended hours but Lexington is fortunate to have a strong network of shelters and service providers that is able to meet most needs even during weather emergencies. See the table at the end of this document for a full comparison of services available.

## Donations for Extreme Weather

Public donations can be dropped off at any participating agency. In general, agencies will be in need of the following:

### *Winter:*

- Blankets
- Hats
- Winter Boots/Shoes
- Gloves
- Socks
- Scarves

### *Summer*

- Sunscreen
- Deodorant
- Bottled Water
- Baseball Hats – Summer Shade Hats

## Emergency Shelters

*Emergency shelters welcome all eligible people during emergency weather including former residents under suspension for behavioral or programmatic reasons.* Exceptions may include individuals suspended for violence and decisions will be made case by case but providers and OHPI will collaborate to ensure emergency shelter is available for anyone in need.

## Emergency Weather Plan 2017-2018

	<b>Consistent Services</b>	<b>Additional Emergency Weather Plan Services</b> (This services are in additional to consistent services and only occur when OHPI activates the emergency weather plan) <b>Emergency Cold (Low Temp Below 32): 101 days</b> <b>Emergency Heat (High Temp Above 90):_days</b>
<b>Emergency Shelters</b>	<p><b>Women and Women with Children:</b>  <i>Salvation Army</i>            Meals, showers, warm clothing as available</p> <p><b>Men:</b>  <i>Hope Center</i>            Clothing, meals, on-site clinic, non-medical detox, employment information, programming</p> <p><b>Men and Women:</b>  <i>Catholic Action Center</i>            Meals, showers, phone service, connection to social services</p> <p><b>Children Ages 6 weeks to 17 years:</b>  <i>Arbor Youth Services'</i>            Case management</p>	<p>24-hour emergency shelters welcome all eligible people during emergency weather including former residents under suspension for disciplinary or programmatic reasons.</p> <p>Exceptions may include individuals suspended for violence and decisions will be made case by case but providers and OHPI will collaborate to ensure emergency shelter is available for anyone in need.</p>
<b>Day Shelters/ Cooling Stations</b>	<p><b>Adults 18 years and over</b>  <i>New Life Day Center</i>  <u>Operating Hours:</u> Monday – Friday 8:30 am to 3:30 pm.; Saturday 8:30 am to 11:30 am            Employment information, clothing, medical care, Social Security, storage lockers</p> <p><i>Catholic Action Center</i>  <u>Operating Hours:</u> 8:00 am to 9 pm            Basic Needs, lockers, storage</p> <p><b>Youth 18 to 25 years and their children</b>  <i>Arbor Youth Services Street Outreach Center</i>  <u>Operating Hours:</u> Daily 10 am to 4 pm (extended hours as needed)            Case management</p>	<p><b>Salvation Army</b>            736 West Main Street            Lexington, KY 40508            859-252-7706            Offers a cooling station including water from 9:00 am to 4:30 pm for single women and women with children without the requirement of residency.</p> <p><b>Hope Center</b>            360 West Loudon Avenue            Lexington, KY 40508            859-252-7881            Offer a cooling station including water and food for single males without requirement of residency.</p> <p><b>Catholic Action Center</b>            1055 Industry Road            Lexington, KY 40505            859-255-0301            Offers a cooling station including water and food for single males and females from 8:00 am to 10:00 pm.</p> <p><b>Arbor Youth Services Street Outreach Center Ages 18-24</b>            540 West Third Street            Lexington, KY 40508            859-254-2501</p>

		<p>Offers a cooling station with basic needs including water for those youth ages 18-24 from 9:00 am to 5:00 pm – Monday through Friday.</p> <p><b>Arbor Youth Services Emergency Shelter</b>  <b>Ages 6 weeks to 17</b>  323 South Upper Street  Lexington, KY 40507  859-254-2501  Offers a cooling station including water for those 17 years of age and under, 24/7/365.</p>
<b>Transportation</b>	None	<p><u>HopeMobile</u> – transportation to emergency shelter, cooling station, provides blankets, food, water and other materials. Operates Monday through Friday during the day.  859-252-7881</p> <p><u>Street Outreach</u> – transportation to emergency shelter, cooling station, provides blankets, food, water and other materials. Operates Monday through Friday 8:00 am to 11:00 pm.  859-475-7173</p> <p><u>Compassionate Caravan</u> – transportation to emergency shelter, cooling station, provides blankets, food, water and other materials. Operates as needed for cold extreme weather, for hot extreme weather operates Saturday and Sunday.</p> <p><u>Lextran</u> - People in need of a ride to a shelter/day center may board Lextran buses at no charge.</p>

## Consistent Services, Detailed

### Unaccompanied Women and Women with Children

*Salvation Army  
736 W. Main Street  
Lexington, KY 40508  
859-252-7706*

- Services Available: emergency shelter, meals, showers, clothing as available.

### Unaccompanied Men

*Hope Center  
360 W. Loudon Avenue  
Lexington, KY 40508  
859-252-7881*

- Services Available: emergency shelter, clothing, meals, on-site HealthFirst clinic, non-medical detox, employment information, access to Hope Center programming (Veteran's Program, Mental Health, Men's Recovery, Employment, Social Services), and other services as needed. Emergency shelter will have expanded capacity during inclement weather.

### Unaccompanied Men and Women

*Catholic Action Center  
1055 Industry Road  
Lexington, KY 40505  
859-255-0301*

- Services Available: emergency shelter, meals, showers, phone service, connection to social services. Emergency shelter will have expanded capacity during inclement weather.

### Children and Youth Ages 6 weeks to 17 years

*Arbor Youth Services  
323 South Upper Street  
Lexington, KY 40507  
859-254-2501*

- Services Available: Emergency shelter and individualized attention to secure basic needs and appropriate shelter.

## 8 Day Shelters

Day Shelters are facilities open during daytime hours as a place for individuals with no other place to seek refuge from emergency weather conditions. Each facility may have its own eligibility criteria for entrance.

***New Life Day Center***

*224 North Martin  
Luther King Blvd.  
Lexington, KY 40508  
859-721-2325*

- Operating Hours: Monday – Friday 8:30 am to 3:00 pm;  
Saturday 8:30 am to 11:30 am
- Services: Connections to employment, clothing, medical care, Social Security, and other resources; storage lockers available.

***Catholic Action Center***

*1055 Industry Road  
Lexington, KY 40505  
859-255-0301*

- Normal Operating Hours: 8:00 am to 10:00 pm – residents must check in for shelter bed by 9:30 pm.
- Services: Meals, Showers, Phone Service, Connection to Social Services.

***Arbor Youth Services Street Outreach  
Center (Youth 18-25 years old and their  
children) 540 West Third Street***

*Lexington, KY 40508  
859-254-2501*

- Operating Hours: Daily 9:00 am to 4:00 pm (extended hours as needed – no one turned out to the street)
- Services: Individualized attention to secure basic needs and appropriate shelter.

