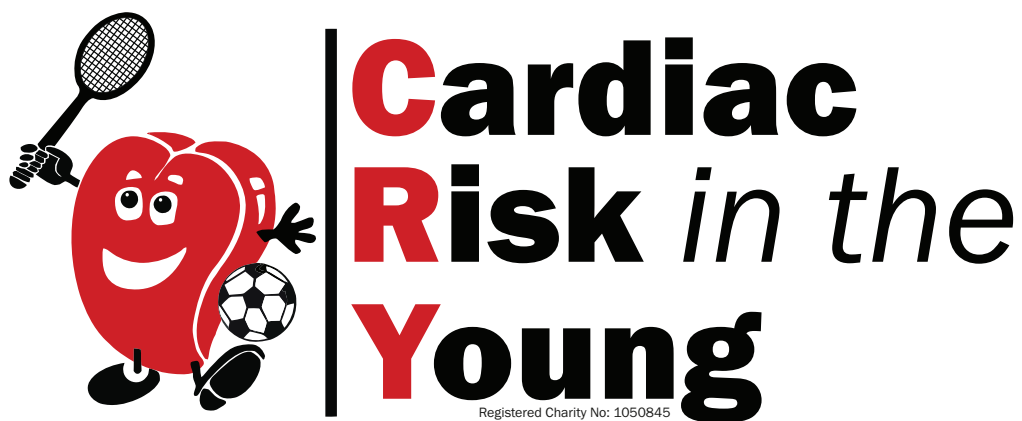


REPORT AND FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 MAY 2022



Financial statements for the year ended 31 May 2022

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Executive Summary

Statement from CRY's Chairman – Hugh Mulcahey

CRY was founded in 1995 to support families after a young sudden cardiac death and to save young lives through cardiac screening, research and raising awareness of heart conditions in young people. Whilst CRY's goals have not changed, the impact of the services provided by CRY have continued to grow, operating a national screening programme which now tests tens of thousands of young people every year, throughout the UK. Prior to the COVID-19 pandemic, CRY was on track to have tested the hearts of more young people and to have raised more funds than at any point since the charity was founded in 1995. Like many in the charity sector and beyond the pandemic had a significant impact on CRY's business model and in particular our ability to fundraise and screen young people, resulting in a significant loss in income.

However, the measures CRY took in response to COVID, including the precautionary measure of taking a Coronavirus Business Interruption Loan (CBIL), ensured we were in a sound financial position to return to fundraising and screening as lockdown restrictions started to ease. Whilst we have not completely returned to the pre COVID levels of activity, and we anticipate further challenges with the cost of living crisis as well as disruption to operations caused by flu and COVID, we are pleased to report screening and fundraising are moving in the right direction. Thanks to the tremendous efforts of the CRY staff and the ongoing support from CRY's families and fundraisers, CRY has been able to continue with our strategy to prevent young sudden cardiac deaths through screening, research and awareness as well as provide crucial support to bereaved families and young people diagnosed with cardiac conditions. The end of year level of free reserves was below the minimum level previously set by the Trustees. However, they have continued to improve since June 2022 and have been further supported by a significant unrestricted legacy donation of £194,268 in September 2022. CRY is continuing to manage a difficult situation and will endeavour to adapt to the unpredictable environment as we rebuild our free reserves to pre COVID levels.

Statement on the impact of COVID-19 from CRY's Chief Executive – Dr Steven Cox

COVID-19 has had a major impact on society and the charity sector. One of the greatest challenges CRY has faced coming out of the pandemic has been the re-establishment of the national cardiac screening programme. The programme has had to address the ongoing COVID risks faced by people at the screening. As well as incorporating routine lateral flow testing we also had to adapt to the additional requirements of PPE and social distancing. In June 2021, we converted the CRY office into a National Screening Centre to be used at weekends, whilst maintaining the space as an office for the staff returning from furlough during the week. The National Screening Centre had previously been based at St George's Hospital but had to be suspended due to the increased demands on the hospital resources caused by COVID.

The result of moving the National Screening Centre to the CRY office was a huge success. By converting the office, CRY was able to restart testing the general population in response to the increased demand as the lockdown ended. In turn, CRY families, schools and sports clubs started to re-book screening events throughout the UK.

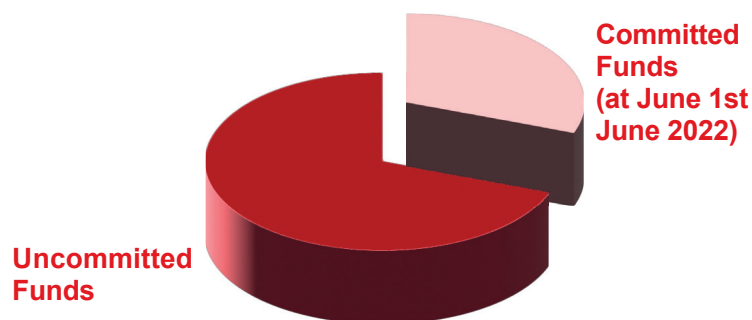
CRY's screening programme is a non-profit service which is supported by doctors who are funded through research fellowship grants. A proportion of these grants (approximately 40%) is funded out of the amount which is charged for screening events. In 2017, CRY increased the charge for a ringfenced Memorial Fund screening day (typically testing 100 young people) to £5,000. The intention was to review the cost in 2020. However, due to the impact of COVID-19, and our inability to offer



a screening service at the height of the pandemic, we postponed this review until March 2022 when we increased the amount that we charge for a screening event to £6,000 per day. This increase in cost was imperative to ensure the screening charge reflected the direct costs being incurred by the charity (including PPE, additional cleaning costs and inflation) and therefore the re-establishment, and expansion, of the screening programme would not further reduce CRY's free reserves. It is important going forward that the screening programme becomes more sustainable and less reliant on amounts raised for core funding. Considering ongoing concerns about inflation the cost of screening will be reviewed annually.

CRY currently has £4.5 million which is held within restricted funds (including 295 ringfenced memorial funds to support screening and research). On June 1st 2022 £1.375 million of these restricted funds were committed to screening events booked in the following 1-3 years. In the upcoming year it is expected that a further £1-1.5 million of these restricted funds will be committed to further events. The total amount of restricted funds ensures screening operations for 3 years, enabling the testing of more than 75,000 young people.

Total Restricted Funds (4.5 Million)



During this year, CRY families with restricted (ringfenced) funds responded positively to an appeal to release a proportion of those funds to enable us to recruit more doctors in order to re-establish the capacity of the screening programme. CRY Research Fellows (supported by research grants) are key to the CRY screening programme, with a direct relationship between the number of Research Fellows funded and the number of people we are able to screen. The Research Fellows dedicate one day a week to screening and the rest of their time to NHS work and research. CRY currently has more than 60,000 young people who have contacted the charity and registered an interest in cardiac screening. During the pandemic CRY lost tens of thousands of potential screening appointments that would normally be available in communities throughout the UK. Since restarting the programme in June 2021, CRY's screening events are often fully booked within minutes of being promoted online and the demand for screening considerably outweighs the number of events we can offer.

Whilst CRY has significant ringfenced funds which provide the funding required for the screening programme going forward for the next 3 years, the challenge with fundraising and the ongoing impact of COVID has meant that CRY's free reserves have dropped below the required level set by the Trustees (£350k). Last year CRY made the decision to put cost control measures in place to safeguard free reserves, and a CBIL of £950,000 was arranged to ensure CRY would have sufficient cash resources to be able to manage its free reserves before being able to restart screening and fundraising activities. The CBIL was secured against the CRY office which CRY purchased outright in 2013. This is CRY's largest asset and, as part of the loan financing, the office was independently valued at £990,000. This is a significantly higher value than the historic cost in 2013 which is the basis upon which it is reported in the accounts on page 26.

There is reason for optimism this year, however, there is still a significant financial impact of COVID and the new challenges of the post COVID economic pressures. One of the reasons for securing the CBIL loan was to ensure CRY's operations would not be compromised due to reduced free reserves as we re-establish the crucial component of the screening programme, namely the CRY research fellowship grants.

One of the significant financial challenges CRY has faced with re-establishing the screening programme is the additional costs we have incurred (e.g. PPE, inflated travel and accommodation expenses) The additional measures taken with PPE and social distancing meant that we were able to offer fewer appointments at each screening event, whilst also seeing an increase in last minute appointment





cancellations due to COVID infections. We accepted these additional costs as a necessary and inescapable outcome in getting the screening programme back up and running, and this partly explains the higher expenditure than income in this financial year. Reassuringly, recent analysis of June to September 2022 has shown that attendance at screening events has returned to pre COVID levels. In addition, whilst many of the screening events in 2023 had already been booked at £5,000, all new ringfenced fund screenings are being charged at the increased rate of £6,000. Our financial forecasts predict a further 6-12 months where screening expenditure will be greater than income, before this rebalances when the new increased costs are paid across the board. As such, we expect to continue to pay back the CBIL over 5 years as per the original agreement, rather than return the loan in full over the next 12 months. In November 2021 we agreed to fix the rate of interest of the loan at 2.44% over the duration of the loan and therefore it is likely to be financially prudent to retain the loan if interest rates remain elevated as well as also providing security against the unpredictable financial and societal environment we are currently operating in.

The support of CRY families and their communities throughout the crisis has been exceptional and has ensured that CRY has maintained a stable financial position. Whilst we are reporting negative free reserves of -£302k (for more information go to the reserves policy on page 26) at the end of this financial year due to the issues we have identified (e.g. increased costs of providing the screening service), the changes we have made are starting to have an impact and free reserves have markedly improved since June. This has been further supported by a significant

unrestricted legacy donation of £194,268 in September 2022.

Whilst free reserves are below the level identified as required by the Trustees, it is important to note that approximately £200,000 of the £1,375,000 of committed funds will provide the income required to pay for the research grants which are currently included in the provision of £435,000 (page 45). Provisions for all research grants are recognised in full at the time that the Research Fellow is appointed or their grant is extended and the amount of the grant is quantifiable.

CRY was founded in 1995 to support families after young sudden cardiac deaths and to screen young people to save lives. CRY's screening programme is a non-profit service, with events being booked on average 12 months in advance and therefore high levels of inflation are a vulnerability. However, CRY's mission is to save young lives through screening and research; it is why bereaved families go to such incredible lengths to support the charity and raise the funds for our vital work. Many fundraising events are planned 12 months in advance and therefore the reduction in fundraising income during this year was predictable. The significant response we have experienced from families contacting us in the last 12 months, regarding their plans for future fundraising events gives rise to optimism that the financial challenges we have experienced during the last 24 months will soon be behind us.



Legal Structure and Governance

The Trustees present their annual report and audited financial statements of the company for the year ended 31 May 2022.

Reference and Administrative Details

Company Registration Number: 3052985

Registered Charity Number: 1050845

Registered Office: Unit 1140B The Axis Centre, Cleeve Road, Leatherhead, KT22 7RD

Principal Office: Unit 1140B The Axis Centre, Cleeve Road, Leatherhead, KT22 7RD

Bankers: Lloyds TSB, High Street, Epsom, Surrey, KT19 8AT

Auditors: BGM Helmores Ltd, Emperor's Gate, 114a Cromwell Road, Kensington, London, SW7 4AG

Solicitors: A J Lutley, Springfield, Rookery Hill, Ashted Park, Ashted, Surrey, KT21 1HY

Trustees: Hugh Mulcahey (Chairman)

Dr Tim Bowker

Louise Brooker-Carey

Peadar O'Donnell

Paul Quartermann

Rebecca Trewinnard

Dr Jayesh Makan

Chief Executive: Dr Steven Cox

Structure, Governance and Management

Governing Document

Cardiac Risk in the Young was incorporated on 3 May 1995 as a company limited by guarantee and is governed by its Memorandum and Articles of Association. The company was subsequently registered as a charity with the Charity Commission and is also known by its initials – CRY.

Appointment of Trustees

The charity or the Trustees may appoint a person who is willing to act to be a Trustee either to fill a casual vacancy or as an additional Trustee. As set out in the Articles of Association the board appoints the chair of the Trustees.

Trustee induction and training

New Trustees are briefed on their legal obligations under charity and company law, the content of the Memorandum and Articles of Association, the Trustee board and decision-making processes, the business plan and recent financial performance of the charity. Their induction involves the meeting of key employees and other Trustees. Trustees are encouraged to attend appropriate external training events.

Organisation

The board of Trustees administers the charity. The board meets three to four times a year. A Chief Executive is appointed by the Trustees to manage the day-to-day operations of the charity. To facilitate effective operations, the Chief Executive has delegated authority for operational matters including development, finance, employment, public relations and fundraising.

Audit Committee

The Audit Committee is comprised of Hugh Mulcahey (CRY Trustee), Peadar O'Donnell (CRY Trustee), Rebecca Trewinnard (CRY Trustee) and Dr Steven Cox (CRY Chief Executive). The Committee meets at least twice a year. The Committee helps to ensure that sound financial policies and internal controls are in place by providing a formal mechanism for reviewing matters of corporate governance and risk management together with external audits.

Research Committee

The Research Committee is comprised of Paul Quarterman (CRY Trustee), Hugh Mulcahey (CRY Trustee), Dr Tim Bowker (CRY Trustee), Dr Jayesh Makan and Dr Steven Cox (CRY Chief Executive). The Committee oversees CRY's research strategy.

Communications Committee

The Communications Committee is comprised of Hugh Mulcahey (CRY Trustee), Louise Brooker-Carey (CRY Trustee) and Dr Steven Cox (CRY Chief Executive). The Committee oversees CRY's communication strategy.

Related parties

Professor Sanjay Sharma, CRY's Consultant Cardiologist, who is based at University of London and St George's Hospital, oversees the CRY research programme plus the clinical aspects of the CRY cardiac screening programme. All services provided by Professor Sharma are on a voluntary basis.

Professor Mary Sheppard, CRY's Expert Cardiac Pathologist, who is based at University of London, oversees the CRY Centre for Cardiac Pathology. Professor Sheppard is part funded by the Pathology research grant to the CRY Centre for Cardiac Pathology.

Trustee attendance at meetings during the year

Hugh Mulcahey (Chairman)	All
Dr Tim Bowker	0 of 4
Louise Brooker-Carey	All
Peadar O'Donnell	All
Paul Quarterman	All
Rebecca Trewinnard	All
Dr Jayesh Makan	3 of 4

Objectives and Activities

Objectives

The objective of the charity is to support affected families and prevent young sudden cardiac deaths through awareness, screening and research.

Public benefit

CRY is a UK charity that supports families after a bereavement, both clinically and emotionally. CRY supports expert fast-track pathology and fast-track cardiology referral into the NHS to test the family. CRY also provides literature for the public written by leading cardiac experts. CRY offers a unique bereavement support programme.

The screening programme that CRY has developed gives the opportunity to save the young lives of those at risk who are asymptomatic, “fit and healthy”. There is no other charity that offers screening for young people aged 14 to 35 to schools, elite and recreational athletes and communities in the UK. CRY does not discriminate in the service we offer, whether it is an Olympic Gold Medalist or an adolescent in any local community. CRY’s screening programme is not just a service provision; it is also a research programme. CRY offers support to all people affected by cardiac conditions that can cause young sudden cardiac death.

The charity has two main aims:

1. Saving young lives
2. Helping those affected

The strategies employed to save young lives are:

- raising awareness of cardiac risk in the young
- operating a national cardiac screening programme
- funding medical research into young sudden cardiac death

The strategies employed to help those affected are:

- supporting families after a tragedy
- funding the CRY Centre for Cardiac Pathology
- funding the CRY Centre for Inherited Cardiovascular Conditions & Sports Cardiology
- supporting those diagnosed through our *myheart* Network

The Trustees confirm that they have complied with their duty to have due regard to the guidance on public benefit published by the Charity Commission in exercising their powers or duties. The public benefits of the Charity’s activities are outlined under ‘Objectives and Activities’ above.

1. Saving young lives

Raising awareness of cardiac risk in the young

Through raising awareness of these conditions, the public, medical and sporting communities will become more alert to the symptoms that can lead to a young sudden cardiac death as well as the potential risks that these conditions have on an asymptomatic population. The public will be aware of courses of action that can help to minimise their risk, including the choice to be screened at one of CRY's screening clinics.

The medical community will be aware of the specialist services that are available to facilitate diagnosing these conditions, as well as how to best manage these patients. The sporting community will be aware of the specialist cardiac services available at the CRY Centre for Sports Cardiology as well the importance of screening athletic populations. CRY also raises awareness within Parliament. It is essential that MPs are well informed of the latest research as well as the implications these findings have on public policy.

Operating a national screening programme

Systematic screening programmes are needed to establish the prevalence of cardiac conditions in the young. The aim of a screening programme is to detect a condition, or its risk factors. Once detected, preventative or therapeutic interventions can be implemented earlier and the disease can be treated when it is less advanced. In the case of cardiac conditions, the aim is to put in place treatments and lifestyle changes that will minimise the risk of a sudden cardiac death. These preventative actions may include medications, surgery or lifestyle changes. In some cases, the condition can be cured with the risk of sudden cardiac death removed. CRY operates screening programmes for the general public (between the age of 14 and 35), sports clubs and teams.

Funding medical research into young sudden cardiac death

CRY funds medical research through Research Fellowship grants. These grants cover a broad spectrum from fast track screening to pathology after a death. The grants also help to provide specialist knowledge of sports cardiology. The field-gathered data in CRY's screening programme is analysed and reported in peer reviewed journals, providing essential information on the understanding of these conditions.

2. Supporting families affected

Following a tragedy in a family where a young person has died suddenly, family members will require support. CRY offers both medical and emotional support.

CRY provides specialist cardiac information written by experts in the field, specifically for families or a non-medical community. Following a young sudden cardiac death, it is important that all first-degree relatives are screened. CRY can help with advising the family about seeing a cardiologist who specialises in these conditions. CRY offers direct medical support via the specialist Centre for Cardiac Pathology and Centre for Inherited Cardiovascular Conditions at St George's.

Funding the CRY Centre for Inherited Cardiovascular Conditions and Sports Cardiology

CRY also funds expert cardiac pathology. The importance of correct pathology cannot be overstated as it gives families the opportunity to obtain valid answers about the cause of death and to quantify the risk posed to other family members.

Funding the CRY Centre for Cardiac Pathology

CRY also funds expert cardiac pathology. The importance of correct pathology cannot be overstated as it gives families the opportunity to obtain valid answers about the cause of death and to quantify the risk posed to other family members.

Emotional Support

CRY has a select group of bereavement supporters - volunteers who have experienced a similar tragedy themselves and have been trained to help others cope with their traumatic experience. Our Bereavement Supporters have all completed the two-year Counselling Skills and Theory course so that they can support others through their loss. So many people have contacted CRY wondering if there are others who they could talk to who have suffered similar tragedies. CRY offers telephone bereavement support to anyone (aged 18 and over) who has lost a young person to a sudden cardiac death.

CRY has developed private Facebook groups specifically for bereaved mums, dads, partners, siblings, grandparents,

aunts and uncles, and friends, as a place to connect with others who have experienced a similar tragedy, and to create a support network for one another.

CRY also offers other opportunities for bereaved families to come together our annual Heart of London Bridges Walk and our annual Heart of Durham Walk.

CRY has produced a series of grief booklets designed to help families and friends feel less alone after the tragedy of a young sudden cardiac death. Our series of grief booklets include; 'A Mother's Grief', 'A Partner's Grief', 'A Father's Grief', 'Sibling Grief', 'Coping with Christmas after a Young Sudden Cardiac Death', 'Coping with Anniversaries following a Young Sudden Cardiac Death' and 'A Friend's Grief'.

Supporting those diagnosed – myheart Network

CRY has a support network called myheart for young people who have been diagnosed with cardiac condition. The group was set up after feedback from young people who found that the existing support groups were not effective in helping them deal with issues such as having an ICD fitted or undergoing ablation surgery. The network was developed as a support system that increases effective coping and decreases social isolation for young people who have been diagnosed with a cardiac condition.

We hold two myheart meetings a year where members are offered 'Question and Answer' sessions with a specialist cardiologist, and the opportunity to share experiences with other young people who have been diagnosed with a cardiac condition. The myheart website contains medical information, personal experiences from young people who are living with a cardiac condition, questions and answers videos with myheart's Consultant Cardiologist, Dr Michael Papadakis, and a 'members only' area where young people living with a cardiac condition can connect and share experiences. There is also a private myheart network Facebook group which is exclusively for people who have been diagnosed with a cardiac condition.

Achievements and Performance

CRY Centre for Inherited Cardiovascular Conditions and Sports Cardiology at St George's Healthcare NHS Trust

In 1995 St George's was the first hospital in the UK to develop a family screening clinic after CRY's donation of an echocardiogram machine established a specialist clinic in young sudden cardiac death and meant that whole families could be screened together after a tragedy.

The CRY Centre for Inherited Cardiovascular Conditions and Sports Cardiology at St George's, combines three essential features of CRY's mission to eliminate young (aged 35 and under) sudden cardiac death - offering services for 'affected families', competitive athletes and the general population. The centre provides a 'one stop shop' for young people and 'affected families' who wish to be screened for potentially life-threatening cardiac problems.

The CRY Centre is led by CRY's consultant cardiologist, Professor Sanjay Sharma, who is Professor of Inherited Cardiovascular Conditions and Sports Cardiology at St George's Hospital, London.

It is a unique service where, after a young sudden death, families will be seen shortly after the referral is received. It is a "one stop shop" where all the tests will be conducted on the same day and all family members will be seen together wherever possible (even when travelling from different parts of the country). The Centre is able to provide this service because CRY provides the funding for the doctors and support staff at the centre.

The Centre is also the leading referral centre for elite athletes whose results can often mimic disease and they can easily be misdiagnosed if not seen by an expert cardiologist.

CRY Centre for Cardiac Pathology

The CRY Centre for Cardiac Pathology (CRY CCP) is an international cardiac referral centre at St George's University of London and the leading centre in the UK. The centre was established with a donation from the Howard and Sebastian English Memorial Fund. The service is led by Professor Mary Sheppard who is an expert cardiac pathologist, with a team of staff funded by CRY. When a cause of death is 'unascertained' and the person is aged 35 years or under, the centre will provide a free fast-track cardiac diagnostic service.

The examination and report from the centre will be completed on average within 2 weeks. When pathology is not referred to this centre it can take up to 2 years for an expert investigation to be conducted. Expert pathology is essential to help the family understand the cause of death. This information will guide clinical decisions when assessing the first degree blood relatives. When expert pathology is not conducted the family could be offered inappropriate clinical tests and there is the potential for false reassurance. As well as providing a support service for bereaved families, the work conducted at this centre is resulting in ground breaking research to improve our understanding of the causes of young sudden cardiac death. In this financial year, CRY continued to fund the 3 staff that support Professor Sheppard at the centre, these being an administrator and two clinical technicians, as well as a PhD Research fellowship.

Cardiac Screening

The screening programme and procedures were reviewed to make sure that all changes were made as per the government advice in order to enable CRY to restart the screening programme. The screening programme restarted in June 2021 and 198 days of screening were held with 15,719 people screened.

The first post-pandemic public event was held in Memory of Carli Lansley on the 29th and 30th June followed by the screening in Memory of Lily Webster on 3rd and 4th July.

ECG screening

ECG screening continues to be the most cost effective way of testing large numbers of young people. Echocardiogram tests are also conducted on the same day for those few people who may show abnormal or inconclusive ECG results.

After a tragedy a family will often raise funds specifically for screening, working to potentially save the life of someone else's child even though it is too late for them.

The first post-pandemic public event was held in Memory of Carli Lansley on 29th and 30th June followed by the screening in Memory of Lily Webster on 3rd and 4th July.

- Additional 6 days of screening were funded in Memory of Carli Lansley.
- 4 days of screening were held in Memory of Lewis Marsh.
- Another 13 days of screening were funded in Memory of Aaron Dixon.
- 5 days of screening were funded in Memory of Matthew Hesmondhalgh.
- 5 days of screening were funded in Memory of Ben Hammond.
- 4 days of screening were funded in Memory of Jamie Lancaster.
- 4 days of screening were funded in Memory of Adam Lewis.
- 3 days were funded in Memory of Ben Forsyth.
- There were 6 days of screening held in Memory of Daniel Hughes.

Once again there were 2 days of screening on the Isle of Man, where hundreds of people were screened by CRY for the charity Craig's Heartstrong Foundation, which raised money for screening in memory of Craig Lunt.

There have been some new screenings this year in memory of Graeme (Tinka) Bell, Kieran Joyce, James Pilford, Daniel Blackman, Matthew Gore, Alexander Jones and Jake Anthony Pickford.

Repeated 1 day and 2 day screening events were funded in memory of Jack Thomas, Adam Green, Alex Reid, Christopher and Steve Phillips, Zoe Teale, Neil Wickers, Harry Faulkner, Josh Merrick, Richard Brember, Tom Clabburn/Claire Prosser, Oliver Marsden, James Nicholas, Thomas Hardman, Charlie Craig, Anthony Fitzgerald, Dean Mason, Andrew Parr, Jack Thomas, Andrew Oliver, Owen Morris, Kayleigh Griffiths, Martin Lockett, Cloe Waddell, Nathan Butler, Ben Forsyth, Robert Rowan, Dale Tennent-Butler, Madeline Siddall, James Patterson and Laura Hillier.

CRY's school screening continues to be an important factor in making these services readily available to young people. This year we screened: Eton College, Sedbergh School in Cumbria, Aylesbury Grammar School, Reed's School, Bude Primary School, Bishop Stortford College, Queen Elizabeth Hospital School in Bristol and Wellington College.

A number of school and college screening events are being funded by CRY ringfenced Memorial Funds. Screening at Old Swinford Hospital School was funded in Memory of Zoe Teale, Berkhamstead School was funded in Memory of Harry Faulkner and Ravenwood School was funded in memory of Ben Daniels.

Over the year there were 2 days of screening on Orkney Isle in Scotland funded in Memory of Alan Bain.

Tesco Bags of Help Centenary Grant funded 25 screening days across the UK.

Screening equipment

The VO2max machine based at St George's Hospital was upgraded to newer version in Memory of Freya Cox.

Cardiac screening at CRY Head Office in Leatherhead

In order to restart the screening programme, efforts were made to transform the CRY Head Office in Leatherhead and facilitate this as a screening centre. The first screening at the CRY head office / CRY National Screening Centre was held on 10th and 11th of July 2021.

A total of 32 screening events were held at the CRY Head Offices in Leatherhead; 4 days of screening were held in Memory of Christian Thunhurst, 3 days in Memory of Shamil Hamid, 2 days in Memory of Daniel Hughes, 2 days in Memory of Rory Embling and 2 days in Memory of Sara Pilkington.

A number of screening days were funded by Trusts: Edith Florence Memorial Trust funded 1 day, Aubrey Orchard-Lisle Charitable Trust funded 1 day, Fognal Trust funded 1 day and the Leathersellers Company Charitable Fund also funded 1 day of screening.

Screening in sport

CRY provides screening for many elite and professional sports teams/clubs which includes a medical questionnaire, resting ECG and consultation with the Cardiologist (one of Professor Sanjay Sharma's Research Fellows). If an echocardiogram is required, this is also performed on the day. Some sports have ECG and echocardiogram as standard.

Screening in elite sport has been ongoing following the COVID-19 pandemic lockdowns with many sports trying to catch up on those athletes who should have been screened during the pandemic.

CRY has provided cardiac screening to the following governing bodies/organisations:

English Institute of Sport (EIS) – Loughborough EIS had two screenings and Lilleshall EIS had one screening for some of the Olympic/Paralympic athletes ahead of Tokyo 2020. These were for the sports based there, but also for other athletes to book into ahead of the games. These were all funded by the Aaron Dixon Memorial Fund with their funding provided by the JD Foundation.

Gallagher Premiership Rugby for senior/contracted academy players and u18s (all 13 clubs): Bath, Bristol Bears, Exeter Chiefs, Gloucester, Harlequins, London Irish, Newcastle Falcons, Northampton Saints, Leicester Tigers, Sale Sharks, Saracens, Wasps and Worcester Warriors. These results are then used for players called up to the National Teams e.g. England Rugby, Wales etc.

Gallagher Premiership Rugby/Rugby Football Union (RFU) also screen their u16s teams associated with the above 13 clubs and also Yorkshire Rugby. Due to the u16s missing their screening in 2020 screenings at each club were held for the u16s and u17s teams to attend, so meant an extra 14 screening days to catch up following the pandemic.

Championship Rugby Union: Doncaster Knights, Ampthill RFC (shared a day with Saracens), Coventry RFC.

Women's Rugby: Wasps Women organised a screening to have their players screened which was funded through a grant from the Wasps Legends Charity. They also extended this to other younger players and associates of the club to fill the appointments.

Football: AFC Wimbledon and Arsenal FC Academy. These screenings are a mixture of ECG only or ECG and echocardiogram with some players being funded to have their screenings by the Football Association (FA) or the English Football League (EFL). For any of these screenings the results are reviewed and reported on remotely by an FA approved Cardiologist via their digital results system rather than a CRY Research Fellow. Prof Sanjay Sharma and one of his previous Research Fellows, Prof Aneil Malhotra, are both FA approved Cardiologists to do this.

Welsh Rugby Union Teams: Ospreys and Scarlets. The National Governing Body – Welsh Rugby Union also held a screening for a mixture of their players including the women's teams and men's u20s team.

The National Football League (NFL) held a screening for their academy based in London once again.

Cricket: England Cricket had their four disability squads (visually impaired, deaf, physical disability and learning disability) screened with ECG and ECHO. Leicestershire County Cricket Club shared a day with Loughborough Lightning who compete in the women's Super League. Kent County Cricket Club.

Rugby League: Leeds Rhinos. London Broncos shared a day with London Skolars.

The Royal Ballet School held a screening day at their lower school in Richmond and their upper school in Covent Garden.

British Rowing for their u19s athletes at their trials camp – Holme Pierrepont.

World Wrestling Entertainment (WWE) for their NXT talent based in Europe.

British Canoeing – opened up the appointments to other Olympic Sports so also included British Cycling and Athletics/Para-Athletics.

As CRY's other public screenings started up once again we were able to offer up to 5 athlete appointments at each of these as we did before the pandemic. This is a way for sports which have very few athletes due for screening to have them seen, rather than paying for a whole screening day/team to come out to their venue. The sports pay per athlete for these appointments so they are not funded through the memorial fund for the day. Sports/Clubs that have screened their athletes in this way include:

- Premiership Rugby (all clubs) – for any players away on their private screening day or younger players sometimes.
- Cricket: Surrey County Cricket Club, Sussex County Cricket Club, Leicestershire County Cricket Club
- England Women's Rugby (senior team and u20s team)
- NFL
- Ospreys Rugby
- Football: AFC Wimbledon, Arsenal FC Academy
- England Badminton
- British ParaTriathlon
- British Rowing
- London Broncos
- The Royal Ballet School

Research

CRY Research Fellows

CRY Research Fellows are trained to have considerable expertise in the athlete's heart, the cardiomyopathies and ion channel diseases – thus expanding the pool of specialist doctors in this complicated field of medicine.

The Research Fellows play an instrumental role in the CRY Inherited Cardiovascular Conditions Clinics within the NHS and with the field work conducted in CRY's screening programme. Each Fellow also pursues a specific area of research.

CRY has funded 6 full-time Research Fellows during all or part of the year. Dr Hamish MacLoughlan started his grant

under the supervision of Professor Sharma and Dr Michael Papadakis in October 2017.

Dr Uchenna Ozo started his fellowship grant under the supervision of Professor Sharma and Dr Michael Papadakis in February 2019.

Two Research Fellows started their grants under the supervision of Professor Sharma and Dr Michael Papadakis in February 2020, Dr Raghav Bhatia and Dr Sarandeep Kaur Marwaha.

Dr Saad Fyyaz started his grant in October 2020 and Dr Nikhil Chatrath started his grant in April 2021, both under the supervision of Professor Sanjay Sharma and Dr Michael Papadakis.

CRY is also funding the cardiologist position of Dr Michael Papadakis, to support and further expand its collaborative research programme with St George's.

Dr Gherardo Finocchiaro is also funded by CRY.

CRY funds a research nurse and two specialist physiologists, to support research and conduct ECGs, echocardiogram and VO2 max tests at the CRY Centre for Inherited Cardiovascular Conditions and Sports Cardiology.

CRY's screening programme continues to surpass all expectations and has fed into crucial research for the benefit of all involved in this field. CRY was first to identify the upper limits of wall thickness and cavity size in British athletes; CRY is the first organisation in the world to characterise cardiac dimensions in adolescent athletes – knowing how to differentiate pathology from physiology is vital for diagnosis; and the first organisation to characterise ECG changes in athletes in a document that is now the blueprint for the Sports Cardiology Section of the European Society of Cardiology.

Apart from diagnostics and these physiological goals, CRY has also been pivotal in identifying the prevalence of conditions such as hypertrophic cardiomyopathy (HCM) in sportsmen. This includes recently identifying conditions such as long QT as more common than HCM.

CRY's findings are published in reputable peer reviewed journals and CRY's guidelines are now nationally and internationally recognised. The current international cardiac screening guidelines have been based on a Caucasian population in the Veneto region of Italy. CRY's research not only highlights the importance of establishing "normal" cardiac parameters in differing ethnic groups, but it is also guiding international screening recommendations when applied to these groups.

Being part of the CRY screening programme is not only about identifying those at risk through employing the highest level of cardiac expertise. It is about taking part in a national research programme.

The academic papers published in this financial year include:

- **"Cardiac magnetic resonance in patients with ARVC and family members: the potential role of native T1 mapping."** Georgiopoulos G, Zampieri M, Molaro S, et al. *The International Journal of Cardiovascular Imaging*, June 2021.

"This study explored the diagnostic role of myocardial native T1 mapping in patients with ARVC and their first-degree relatives. Thirty ARVC patients (47% males, mean age 45 ± 27 years) and 59 first-degree relatives not meeting diagnostic criteria underwent CMR with native T1 mapping."
- **"2020 APHRS/HRS expert consensus statement on the investigation of decedents with sudden unexplained death and patients with sudden cardiac arrest, and of their families."** Stiles MK, Wilde AAM, Abrams DJ, et al. *Journal of Arrhythmia*, June 2021.
- **"The labyrinth of nomenclature in Cardiology. Eternal dilemmas and new challenges on the horizon in the personalized medicine era."** Finocchiaro G, Sinagra G, Papadakis M, et al. *European Journal of Heart Failure*, July 2021.

- **“The heart of the ageing endurance athlete: the role of chronic coronary stress.”** Parry-Williams G, Gati S, Sharma S. *European Heart Journal*, July 2021.

“Studies in lifelong male athletes aged above 40 years old show a higher prevalence of high coronary artery calcium scores (>300 Agatston units), a higher coronary plaque burden, and myocardial fibrosis compatible with subclinical myocardial infarction compared with relatively sedentary healthy controls, raising speculation that lifelong intense exercise imposes chronic coronary stress on the heart. This review article will provide a critical analysis of the existing data.”

- **“Arrhythmogenic potential of myocardial disarray in hypertrophic cardiomyopathy: genetic basis, functional consequences and relation to sudden cardiac death.”** Finocchiaro G, Sheikh N, Leone O, et al. *Europace*, July 2021.
- **“Age matters: differences in exercise-induced cardiovascular remodelling in young and middle aged healthy sedentary individuals.”** Torlasco C, D’Silva A, Bhuva AN, et al. *European Journal of Preventive Cardiology*, July 2021.

“Remodelling of the cardiovascular system (including heart and vasculature) is a dynamic process influenced by multiple physiological and pathological factors. We sought to understand whether remodelling in response to a stimulus, exercise training, altered with healthy ageing.”

- **“Cardiac hypertrophy at autopsy.”** Basso C, Michaud K, d’Amati G, et al. *Virchows Archiv: An International Journal of Pathology*, July 2021.

“Since cardiac hypertrophy may be considered a cause of death at autopsy, its assessment requires a uniform approach. Common terminology and methodology to measure the heart weight, size, and thickness as well as a systematic use of cut off values for normality by age, gender, and body weight and height are needed.”

- **“An updated approach to sudden cardiac death, the AECVP perspective.”** Michaud K, van der Wal AC, Banner J, et al. *International Journal of Legal Medicine*, July 2021.
- **“The anti-cancer drug dabrafenib is not cardiotoxic and inhibits cardiac remodelling and fibrosis in a murine model of hypertension.”** Meijles DN, Cull JJ, Cooper STE, et al. *Clinical Science (London, England: 1979)*, July 2021.
- **“Management of Congenital Long-QT Syndrome: Commentary From the Experts.”** Kaufman ES, Eckhardt LL, Ackerman MJ, et al. *Circulation. Arrhythmia and Electrophysiology*, July 2021.

“We explored the diversity of opinion among 24 clinicians with expertise in long-QT syndrome. Experts from various regions and institutions were presented with 4 challenging clinical scenarios and asked to provide commentary emphasizing why they would make their treatment recommendations.”

- **“The use of cardiac imaging in the evaluation of athletes in the clinical practice: A survey by the Sports Cardiology and Exercise Section of the European Association of Preventive Cardiology and University of Siena, in collaboration with the European Association of Cardiovascular Imaging, the European Heart Rhythm Association and the ESC Working Group on Myocardial and Pericardial Diseases.”** D’Ascenzi, Anselmi F, Mondillo S, et al. *Circulation. Genomic and Precision Medicine*, July 2021.

“This survey aimed to map the use of imaging in the setting of [pre-participation evaluation] PPE and explore physician beliefs and potential barriers that may influence individual practices.”

- **“Genotype-Phenotype Correlation of SCN5A Genotype in Patients With Brugada Syndrome and Arrhythmic Events: Insights From the SABRUS in 392 Proband.”** Milman A, Behr ER, Gray B, et al. *Circulation. Genomic and Precision Medicine*, August 2021 (also published in October 2021).

“Brugada syndrome (BrS) is associated with mutations in the cardiac sodium channel gene, SCN5A. However, genetic studies of patients with BrS with arrhythmic events have been limited. We sought to compare various

clinical, ECG, and electrophysiological parameters according to SCN5A genotype in a large cohort of BrS probands with first arrhythmic event.”

- **“Return to play with hypertrophic cardiomyopathy: are we moving too fast? A critical review.”** Drezner JA, Malhotra A, Prutkin JM, et al. *British Journal of Sports Medicine*, September 2021 (also published in January 2022).

“This review explores the potential harms and benefits of sports disqualification in athletes with HCM and details the challenges and limitations of shared decision-making when all parties may not agree.”

- **“Role of subcutaneous implantable loop recorder for the diagnosis of arrhythmias in Brugada syndrome: A United Kingdom single-center experience.”** Scrocco C, Ben-Haim Y, Devine B, et al. *Heart Rhythm*, September 2021.

“The purpose of this study was to evaluate the indications and yield of ILR monitoring in a single-center BrS registry.”

- **“Higher spatial resolution improves the interpretation of the extent of ventricular trabeculation.”** Riekerk HCE, Coolen BF, Strijkers GJ, et al. *Journal of Anatomy*, September 2021 (also published in February 2022).

“In conclusion, higher spatial resolution may affect the sensitivity of diagnostic measurements and in addition could allow for novel measurements such as counting of trabeculations.”

- **“Prevalence and clinical correlates of exercise-induced ventricular arrhythmias in arrhythmogenic right ventricular cardiomyopathy.”** Finocchiaro G, Barra B, Molaro S, et al. *The international journal of cardiovascular imaging*, September 2021 (also published in February 2022).

“Exercise has a deleterious effect on the phenotypic expression of arrhythmogenic right ventricular cardiomyopathy (ARVC) and increases the risk of sudden death. The aim of the study was to determine the prevalence and correlates of exercise-induced arrhythmias during exercise tolerance test (ETT) in patients with ARVC.”

- **“The prevalence of left and right bundle branch block morphology ventricular tachycardia amongst patients with arrhythmogenic cardiomyopathy and sustained ventricular tachycardia: insights from the European Survey on Arrhythmogenic Cardiomyopathy.”** Belhassen B, Laredo M, Roudijk RW, et al. *Europace*, September 2021 (also published in February 2022).

“In arrhythmogenic cardiomyopathy (ACM), sustained ventricular tachycardia (VT) typically displays a left bundle branch block (LBBB) morphology while a right bundle branch block (RBBB) morphology is rare. The present study assesses the VT morphology in ACM patients with sustained VT and their clinical and genetic characteristics.”

- **“Preventing esophageal complications from atrial fibrillation ablation: A review.”** Leung LWM, Akhtar Z, Sheppard MN, et al. *Heart Rhythm O2*, September 2021.
- **“Biventricular Myocardial Fibrosis and Sudden Death in Patients With Brugada Syndrome.”** Miles C, Asimaki A, Ster IC, et al. *Journal of the American College of Cardiology*, October 2021.

“This study sought to characterize the presence and distribution of ventricular myocardial fibrosis in a cohort of decedents experiencing sudden cardiac death caused by BrS.”

- **“Sudden Death in Female Athletes: Insights From a Large Regional Registry in the United Kingdom.”** Finocchiaro G, Westaby J, Bhatia R, et al. *Circulation*, November 2021.
- **“Risk of atrial fibrillation in athletes: a systematic review and meta-analysis.”** Newman W, Parry-Williams G, Wiles J, et al. *British Journal of Sports Medicine*, November 2021.
- **“Supraventricular Tachycardia Causing Left Ventricular Dysfunction.”** Zaffalon D, Pagura L, Cannatà A, et al. *The American Journal of Cardiology*, November 2021.

“There is limited evidence on characterization and natural history of supraventricular tachycardia (SVT)-induced

left ventricular (LV) dysfunction. The aim of this work was to characterize clinical features and long-term evolution of SVT-induced LV dysfunction.”

- **“Hourly variability in outflow tract ectopy as a predictor of its site of origin.”** Waight MC, Li AC, Leung LW, et al. *Journal of Cardiovascular Electrophysiology*, November 2021.

“Before ablation, predicting the site of origin (SOO) of outflow tract ventricular arrhythmia (OTVA), can inform patient consent and facilitate appropriate procedural planning. We set out to determine if OTVA variability can accurately predict SOO.”

- **“Athletes with valvular heart disease and competitive sports: a position statement of the Sport Cardiology Section of the European Association of Preventive Cardiology.”** van Buuren F, Gati S, Sharma S, et al. *European Journal of Preventative Cardiology*, December 2021.

“This article provides an overview of the recommendations from the Sports Cardiology section of the European Association of Preventive Cardiology on sports participation in individuals with valvular heart disease (VHD). The aim of these recommendations is to encourage regular physical activity including sports participation, with reasonable precaution to ensure a high level of safety for all affected individuals.”

- **“Results of a nationally implemented cardiac screening programme in elite cricket players in England and Wales.”** MacLachlan H, Dhutia H, Bhatia R, et al. *Journal of Science and Medicine in Sport*, December 2021.

“We assessed the diagnostic yield and costs of an electrocardiogram-based national screening programme in elite cricket players and the incremental value of transthoracic echocardiography and periodic evaluation.”

- **“Medical care and first aid: an interassociation consensus framework for organised non-elite sport during the COVID-19 pandemic.”** Lisa Hodgson et al. *British Journal of Sports Medicine*, January 2022.

“The ongoing prevalence of SARS-CoV-2 and subsequent 'second waves' require urgent best practice guidelines to be developed to return recreational (non-elite) sports as quickly as possible while prioritising the well-being of the participants and support staff. This guidance document describes the need for such advice and the process of collating available evidence.”

- **“First Identified Case of Fatal Fulminant Necrotizing Eosinophilic Myocarditis Following the Initial Dose of the Pfizer-BioNTech mRNA COVID-19 Vaccine (BNT162b2, Comirnaty): an Extremely Rare Idiosyncratic Hypersensitivity Reaction.”** Rohan Ameratunga et al. *Journal of Clinical Immunology*, January 2022.

“These extremely rare vaccine-related adverse events are much less common than the risk of myocarditis and other lethal complications from COVID-19 infection. The benefits of vaccination far exceed the risks of COVID-19 infection.”

- **“Sudden cardiac death in cardiomyopathies: acting upon “acceptable” risk in the personalized medicine era.”** Gherardo Finocchiaro et al. *Heart Failure Reviews*, January 2022.

- **“Healthcare resource use associated with the diagnosis of transthyretin amyloidosis cardiomyopathy.”** Clint Asher et al. *Health Science Reports*, January 2022.

“Our primary aim was to evaluate the healthcare resource use associated with the diagnosis of transthyretin amyloidosis cardiomyopathy. Second, we aim to assess the effect of the number of diagnostic tests and clinical contact points on the total time and costs between symptom onset and diagnosis defining a quantitative hypothetical optimized diagnostic pathway.”

- **“COVID-19 and myocarditis: a systematic review and overview of current challenges.”** Teresa Castiello et al. *Heart Failure Reviews*, January 2022.

“Myocardial inflammation in COVID-19 has been documented. Its pathogenesis is not fully elucidated, but the two main theories foresee a direct role of ACE2 receptor and a hyperimmune response, which may also lead to isolated

presentation of COVID-19-mediated myocarditis. The frequency and prognostic impact of COVID-19-mediated myocarditis is unknown. This review aims to summarise current evidence on this topic.”

- **“Role of subcutaneous implantable loop recorder for the diagnosis of arrhythmias in Brugada syndrome: A United Kingdom single-center experience.”** Chiara Scrocco et al. *Heart Rhythm*, January 2022.

“In a large cohort of BrS patients, continuous ILR monitoring yielded a diagnosis of tachy- or bradyarrhythmic episodes in 22% of cases. Recurrences of syncope were associated with bradyarrhythmic events. Use of ILR can be helpful in guiding the management of low-/intermediate-risk BrS patients and ascertaining the cause of unexplained syncope.”

- **“Exercise prescription in individuals with hypertrophic cardiomyopathy: what clinicians need to know.”** Sabiha Gati et al. *Heart (British Cardiac society)*, February 2022.

“This review highlights the evidence base that has resulted in a paradigm shift in the approach to exercise in HCM and liberalised recent international exercise guidelines in HCM. Practical tips for prescribing exercise in symptomatic patients and relevant precautions are provided to aid clinicians when recommending exercise as part of the management plan for all patients with HCM.”

- **“EAPC Core Curriculum for Preventive Cardiology.”** Matthias Wilhelm et al. *European Journal Of Preventative Cardiology*, February 2022.

“This is the first European Core Curriculum for Preventive Cardiology, which will help to standardize, structure, deliver, and evaluate training in preventive cardiology across Europe. It will be the basis for dedicated fellowship programmes and a European Society of Preventive Cardiology (EAPC) subspecialty certification for cardiologists, with the intention to improve quality and outcome in CVD prevention.”

- **“Cardiomyocyte BRAF and type 1 RAF inhibitors promote cardiomyocyte and cardiac hypertrophy in mice in vivo.”** Angela Clerk et al. *The Biochemical Journal*, February 2022.
- **“Corrigendum to ‘Supraventricular Tachycardia Causing Left Ventricular Dysfunction’.”** Denise Zaffalon et al. *The American Journal Of Cardiology*, February 2022.
- **“Exome Sequencing Highlights a Potential Role for Concealed Cardiomyopathies in Youthful Sudden Cardiac Death.”** Raquel Neves et al. *Circulation. Genomic And Precision Medicine*, February 2022.

“Our data further supports the inclusion of strong evidence cardiomyopathy-susceptibility genes on the genetic testing panels used to evaluate unexplained SCA survivors and autopsy-inconclusive/negative SUD decedents. However, to avoid diagnostic miscues, the careful interpretation of genetic test results in patients without overt phenotypes is vital.”

- **“Investigation on Sudden Unexpected Death in the Young (SUDY) in Europe: results of the European Heart Rhythm Association Survey.”** Elijah R Behr et al. *Europace*, February 2022.

“The aims of this centre-based survey, promoted and disseminated by the European Heart Rhythm Association (EHRA), was to investigate the current practice for the investigation of Sudden Unexplained Death in the Young (SUDY) amongst European countries. An online questionnaire composed of 21 questions was submitted to the EHRA Research Network, European Cardiac Arrhythmia Genetics (ECGen) Focus Group members, and European Reference Network GUARD-Heart healthcare partners. There were 81 respondents from 24 European countries.”

- **“Genome-wide association analyses identify new Brugada syndrome risk loci and highlight a new mechanism of sodium channel regulation in disease susceptibility.”** Julien Barc et al. *Nature Genetics*, March 2022.
- **“Cardiovascular effects of doping substances, commonly prescribed medications and ergogenic aids in relation to sports: a position statement of the sport cardiology and exercise nucleus of the European Association of Preventive Cardiology.”** Paolo Emilio Adami et al. *European Journal Of Preventive Cardiology*,

March 2022.

"This Position Paper reviews the recent literature and represents an update to the previously published Position Paper published in 2006. The objective is to inform physicians, athletes, coaches, and those participating in sport for a health enhancement purpose, about the adverse cardiovascular effects of doping substances, commonly prescribed medications and ergogenic aids, when associated with sport and exercise."

- **"Non-invasive imaging as the cornerstone of cardiovascular precision medicine."** Stephan Achenbach et al. *European Heart Journal. Cardiovascular Imaging*, March 2022.
- **"Association of Sexual Intercourse With Sudden Cardiac Death in Young Individuals in the United Kingdom."** Gherardo Finocchiaro et al. *JAMA Cardiology*, March 2022.

"This case series assesses the cardiac conditions associated with sudden deaths during or immediately after sexual intercourse."

- **"Electrocardiogram screening programme in detecting sudden cardiac disease in the young: cost efficiency and diagnostic yield-Authors' reply."** Harshil Dhutia et al. *Europace*, March 2022.
- **"Physical activity and exercise recommendations for patients with valvular heart disease."** Nikhil Chatrath et al. *Heart (British Cardiac Society)*, March 2022.
- **"Sudden cardiac death in congenital heart disease."** Paul Khairy et al. *European Heart Journal*, March 2022.
- **"Analysis of buccal mucosa as a prognostic tool in children with arrhythmogenic cardiomyopathy."** Carlos Bueno-Beti et al. *Progress In Pediatric Cardiology*, March 2022.

"Due to ethical concerns about obtaining heart biopsies in children with no apparent disease, it has not been possible to analyze molecular changes in cardiac myocytes with the onset/progression of clinical disease. Using buccal smears as a surrogate for the myocardium may facilitate future studies of mechanisms and pathophysiological consequences of junctional protein redistribution in ACM. Buccal cells may also be a safe and inexpensive tool for risk stratification and potentially monitoring response to treatment in children bearing ACM variants."

- **"Mitral valve abnormalities in decedents of sudden cardiac death due to hypertrophic cardiomyopathy and idiopathic left ventricular hypertrophy."** Raghav T Bhatia et al. *Heart Rhythm*, April 2022.
- **"Author Correction: Genome-wide association analyses identify new Brugada syndrome risk loci and highlight a new mechanism of sodium channel regulation in disease susceptibility."** Julien Barc et al. *Nature Genetics*, April 2022.
- **"Cardiac arrest with successful cardiopulmonary resuscitation and survival induce histologic changes that correlate with survival time and lead to misdiagnosis in sudden arrhythmic death syndrome."** Jose Coelho-Lima et al. *Resuscitation*, April 2022.

We provide a comprehensive characterisation of hypoperfusion-related changes in the heart following successful CPR with survival, which are time related. These features can lead to diagnostic confusion among pathologists but knowledge of history of resuscitation with survival should help with general and expert pathology assessment and improve SADS diagnostic yield, prompting genetic screening of decedents' relatives.

- **"The role of pre-participation cardiac evaluation in the management of an athlete with premature ventricular contraction-induced cardiomyopathy: a case report."** Javad Norouzi et al. *European Heart Journal. Case reports*, May 2022.

This case demonstrated that a high PVC burden of common morphology does not also represent a benign finding and requires a comprehensive evaluation to rule out any pathological condition. Furthermore, the present case highlights the critical role of pre-participation cardiac evaluation in identifying cardiac disease in asymptomatic athletes.

- **“Sports cardiology in Europe from the ancient Greek-Roman era to the present.”** Silvia Castelletti et al. *European Heart Journal*, May 2022.
- **“Erratum to: Vascular histopathology and connective tissue ultrastructure in spontaneous coronary artery dissection: pathophysiological and clinical implications.”** Marios Margaritis et al. *Cardiovascular Research*, May 2022.

Conferences

CRY International Medical Conference October 3, 2021

With the continued concern of COVID, the annual CRY International Medical Conference was once again held online, as it was in 2020. For this latest online conference, we were pleased to welcome audience members from around the world as leading experts in cardiology gave presentations, discussed various case-based scenarios and how to deal with them, and held interactive debates that viewers could engage with.

Some of CRY’s doctors such as Professor Sanjay Sharma, Dr Michael Papadakis, Professor Elijah Behr and Dr Sabiha Gati gave excellent talks at the event, along with several other experts including Professor Matts Borgensson, Professor Antonio Pelliccia and Dr John Drezner.

Core Fundraising Events

PLEASE NOTE: The figures detailed below are based on the total amount raised throughout the duration of each event. Due to the process of collecting sponsorship and donations, these final totals raised can often span more than one financial year and so do not reflect the figures that are presented in the audited accounts.

London 10,000 2021

Due to the pandemic, the 2021 event was cancelled. A virtual equivalent was offered to all participants that had places and funds.

CRY Heart of London Bridges Walk 2021

The CRY Heart of London Bridges Walk took place on Sunday 27th June 2021, but it was to be a different kind of event for its 15th year. Due to the pandemic, the event took place virtually in local communities across the UK and worldwide. 321 people registered to participate in their own version of the walk and £12,550.44 was raised. To replicate the tribute wall that we usually have at the event, we replaced the CRY website homepage for 24 hours with all those photos and messages we received so that those visiting the CRY website would see them. To keep with usual traditions, speeches were recorded from CRY Patron, Kathryn Harries and Dr Steven Cox and played through social media and the website and a 2-minute silence was observed at 11am. See the full write-up here – www.c-r-y.org.uk/london-bridges-walk-2021-write-up/

RideLondon-Surrey 46 & 100 2021

Due to the pandemic, the 2021 event was cancelled. A virtual event was offered to cyclists on the day, but this was provided independently to the physical event. Any places left for this event were converted to LM places. A new event will be unveiled for 2022.

Great North Run 2021

The 2021 event went ahead with Covid restrictions in place. The long-awaited return of the event was welcomed by all that attended. It was a brilliant day, with good running conditions for most of the day, other than a few showers. With the change of route and charity village location, the event still felt the same and everyone we spoke to felt very positive about the experience. 28 CRY runners took part in the event raising £22,729.86.

CRY Heart of Durham Walk 2021

The 12th CRY Heart of Durham Walk took place on Sunday 19th September 2021, back at Durham Amateur Rowing Club, walking through the city centre. We also launched #MyWalkForCRY for those who were unable to join us in Durham. We had 122 supporters register to take part in Durham, in addition to 12 supporters registering to walk in their local area, raising a total of £3,378.04. The Durham Walk homepage turned into the digital message wall on the day. See the full write-up here – www.c-r-y.org.uk/write-up-durham-walk-2021/

London Marathon 2021

It was announced in 2020 that the 2021 event would take place on Sunday 3rd October 2021, instead of April due to the ongoing concern of the Pandemic. The virtual London Marathon also took place on the same day. CRY had 105 runners in the physical London Marathon: 60 with a CRY place and 45 with their own place. 15 supporters took part in the Virtual London Marathon: 3 with a CRY place and 12 with their own place. In total they raised a combined £229,960.46. See the full write-up here - www.c-r-y.org.uk/london-marathon-2021-write-up/

Royal Parks Half Marathon 2021

The 2021 event went ahead with Covid restrictions in place. The event was able to go ahead at the usual date in October. 8 CRY runners took part in the event raising £4,588.40.

CRY Great Cake Bake 2021

The 10th CRY Great Cake Bake took place on Friday 26th November 2021, as part of CRY's Raising Awareness Week. The event was unfortunately hampered by the pandemic with many offices and schools not being allowed to hold cake sales. A digital pack was sent to those taking part, including 6 recipes created by CRY Staff member Nat Jenkins's Grandmother, Mollie Baggs, which were kindly donated by Nat's family. Jo Brand was involved as a judge deciding on the best cake design. A total of £7,406.94 was raised by 38 participants.

London Landmarks Half Marathon 2022

With close to 12,000 runners taking to the streets of London, the buzzing atmosphere along the route really made the day special. The enthusiastic CRY cheering team spurred on our CRY London Landmarks team with noisy whistles and cowbells! 26 CRY runners took part raising £18,254.99 to date.

London 10,000 2022

CRY doctors: Dr Michael Papadakis, Prof Sanjay Sharma, Dr Jayesh Makan, Dr Raghav Bhatia, Dr Nikhil Chatrath, Rachel Simmons & Dr Anna Marciniak took part in the London 10,000 2022, raising over £10,000.

RideLondon-Essex 2022

Around 20,000 cyclists took part in the event, with brand new routes into Essex, as the event returns after more than 1,000 days away. Riders taking on the 100-mile challenge made their way into Essex via the historic Epping Forest. From there, they cruised past some of the county's most picturesque towns and villages – where residents lined the streets to cheer them on – for around 65 miles, before heading back into central London, where rapturous applause awaited them at Tower Bridge: a fitting end to an epic day in the saddle. 6 cyclists took part in the event raising £3,643 to date.

London Marathon 2022

The 2022 edition of this event was postponed due to the pandemic and has been moved to October 2nd 2022.

Trust Donations

In this financial year CRY received 78 donations from Charitable Trusts and Foundations totalling £202,484.90. In total £60,758.90 went towards Memorial Funds, £39,420 was ringfenced for certain projects/items and £102,306 went to core funding.

Grants that we have permission to acknowledge are £200 from The Rachel & David Barnett Charitable Trust; £3,000 from the A & R Woolf Charitable Trust; £5,000 from the Aubrey Orchard-Lisle Charitable Trust; £400 from the CMS Cameron McKenna Foundation; £2,000 from The Samuel Story Family Charitable Trust; £5,000 from the Edith Murphy Foundation; £2,000 from The James Tudor Foundation; £2,000 from the Borrowes Charitable Trust; £3,000 from the GC Gibson Charitable Trust; £1,400 from the G M Morrison Charitable Trust; £500 from the Cecil Rosen Foundation.

Support

Telephone Bereavement Support

CRY has a network of 27 Bereavement Supporters who have themselves been affected by a young sudden cardiac death and have since completed a two year counselling skills and theory course so that they can offer individual telephone support to other people following a tragedy. No matter how much professional support is offered, sometimes just talking to someone "who has been through a similar experience" helps the most. In the period 1st June 2021 to 31st May 2022, CRY's Bereavement Supporters accepted 42 new referrals from bereaved families. This included bereaved mums, dads, siblings and partners.

Private Bereavement Support Facebook Groups

CRY has private Facebook groups specifically for bereaved mums, dads, siblings, partners, friends, grandparents, aunts and uncles, and a group for all family and friends. The groups are private communities for people who are in touch with CRY to connect, share their feelings and experiences with others who have experienced the loss of a young person, and be part a network of support for one another.

At the end of May 2022, there were the following number of people in each group:

Mums – 172, Dads – 28, Siblings – 115, Partners – 101, Friends – 18, Family & Friends – 72, Aunts & Uncles – 18, Grandparents – 4.

Support resources

CRY's information pack for bereaved families was converted into a digital format so that we could respond to bereaved families' requests for information without delay, even during the national lockdowns due to the COVID-19 pandemic. CRY provides emotional support literature and medical information written specifically for bereaved families, free of charge upon request by any bereaved family member. This information is offered in both digital and print format.

myheart Network meetings

The myheart network meetings are informal meetings for young people aged 18-35 who have been diagnosed with life-threatening cardiac conditions. Members have the opportunity to spend time in a group, sharing experiences and asking questions informally of an expert consultant cardiologist.

National myheart meeting *October 2021*

6 young people registered to attend the October meeting, held via Zoom. CRY myheart cardiologist, Dr Sabiha Gati, offered the opportunity for those attending to informally discuss any medical queries.

National myheart meeting *March 2022*

4 young people registered to attend the Spring 2022 myheart meeting, again held via Zoom. The session was led by Consultant Cardiologist, Dr Gherardo Finnocchiaro.

myheart Network Newsletter

The myheart annual newsletter, containing the latest news from the myheart network, personal stories from young people living with a cardiac condition and articles written by myheart's Consultant Cardiologist and CRY's Research Fellows, was distributed to cardiac units in hospitals across the UK to enable more young patients to find out about the support available.

Raising Awareness

Comment on the collapse of footballer Christian Eriksen *June 13, 2022*

The sudden collapse of Danish midfielder Christian Eriksen at the 2021 Euros is another terrible reminder of the horrendous impact cardiac conditions have on so many young people every day in the UK and across the world. CRY Chief Executive Dr Steven Cox gave a full statement on the incident and CRY's work to save young lives, while Professor Sanjay Sharma spoke with various news outlets following Eriksen's collapse to offer his expertise on the situation and explain how cases like this can be responded to or prevented to begin with.

CRY's 15th Heart of London Bridges Walk *June 27, 2021*

Our flagship event took place virtually for the second year in a row in 2021, as we marked the 15th anniversary of the CRY Heart of London Bridges Walk. Over 315 people from all over the country took part in their local areas to connect with each other and remember those they have lost. Many supporters taking part created their own walking routes, taking in local sights and landmarks.

CRY Patron Kathryn Harries took part and gave a speech before the event officially began, followed by a speech from Dr Steven Cox. There was then a 2-minute silence before walkers set off. We also brought back the digital message wall which was introduced for the first virtual version of this event in 2020. This became the homepage of the CRY website for the day, and 80 messages were shared from supporters about why they were taking part and who they

were walking in memory of.

CRY transforms its office into national screening centre *July 10-11, 2021*

CRY typically provides free heart checks for over 32,000 young people in a normal year. But due to the COVID-19 pandemic and the restrictions and lockdowns in place, we had to put our screenings on hold for around 15 months. Tens of thousands of people missed their heart tests as a result, which would have led to around 150 young people not receiving a diagnosis of a potentially life-threatening condition and the treatment, lifestyle advice or surgery that would reduce their risk of suffering a cardiac arrest.

Our screening services in the community and for both grass roots and elite sports were already scheduled to resume on June 28, but due to the waiting lists caused by the pandemic and the increased awareness and anxiety following Christian Eriksen's collapse, we worked to increase our testing capacity at the newly established screening centre at CRY's head office. Starting on July 10 and 11, CRY's offices in Leatherhead, Surrey were transformed into a specialist screening centre – with regular weekend appointments scheduled for the rest of the year and beyond as part of this innovative new service.

2021 London Landmarks Half Marathon *August 1, 2021*

The London Landmarks Half Marathon had a new theme this year to celebrate ways the nation has come together during the pandemic. CRY staff attended on the day along with a fantastic group of volunteers, whilst 32 CRY runners took part for Team CRY.

2021 Great North Run *September 12, 2021*

To help begin our fundraising efforts in this four-month period, we were pleased to send a team to take part in the Great North Run, one of the biggest running events of the year. It was fantastic for CRY to be well represented by 25 runners, along with their supporters who came along to cheer on the day.

CRY Heart of Durham Walk *September 19, 2021*

We were so pleased to be back in Durham in 2021 for the 12th annual CRY Heart of Durham Walk after having to use a virtual event format in 2020 due to COVID. In 2021, we welcomed walkers back to our 8km route through Durham and some of its most iconic landmarks. Meanwhile, people who preferred to not travel took part by completing walks in their own local areas.

BBC news story on young sudden cardiac death *October 1, 2021*

This BBC news segment raised awareness of the incidence of young sudden cardiac death and CRY's work to carry out screening events all over the UK and save young lives. It also told the story of BBC journalist Gem O'Reilly, who was diagnosed with a heart condition when she was 16 years old and has had to be careful with her health and exercise since. Gem explained how some heart conditions can be managed so you can maintain an active lifestyle.

Niki and Finn Mason were also interviewed to talk about Finn's experience with an undiagnosed heart condition, and how he has since been able to receive a diagnosis and the appropriate medical care he needed.

The report was an informative one, and also noted that we often only hear about the risk of young sudden cardiac death on a larger scale when there are high-profile cases, like with Christian Eriksen and Fabrice Muamba.

CRY's Raising Awareness Week *November 20-28, 2021*

We were thrilled to see so many supporters get involved with CRY's 2021 Raising Awareness Week. We brought back the 12 A Week Challenge, where supporters aim to complete 12 miles by either walking, running, cycling or swimming, and 76 people took part. Along with the CRY Great Cake Bake and everyone's different efforts to raise awareness, it was another successful week.

CRY announces further 12-month partnership with Sunrise Radio *February 1*

To start Heart Month 2022, we were excited to announce that we have renewed our partnership with Sunrise Radio for another 12 months. Our partnership with Sunrise Radio first started in January 2020, and since then they have used regular interviews, testimonials from CRY doctors and families, and on-air advertising to highlight CRY's work and why it's so important we do all we can to reduce the incidence of young sudden cardiac death.

Raising awareness of our efforts, the need to raise funds and encouraging people to sign up to our events has never

been more important – and that’s why we’re so pleased to be working with Tony and the team at Sunrise Radio again on such a positive media collaboration.

Pro cyclist Alice Barnes auctions cycling gear for CRY *February 12*

Professional British cyclist Alice Barnes, who also races for team Canyon-SRAM, has been actively supporting CRY online. To help raise awareness and funds during Heart Month in February, Alice held an auction on eBay, selling off some of her cycling gear that she didn’t need anymore.

Dr Raghav Bhatia interviewed on Sunrise Radio *March 14*

As our partnership with Sunrise Radio continues, so do their interviews with members of the CRY team. Recently, this included one of our Research Fellows, Dr Raghav Bhatia. Dr Bhatia began by talking about how he first learned about CRY, before explaining more about his role with the charity and why our work is so important. CRY’s research programme is a fundamental part of our work, enabling us to transform our understanding of young sudden cardiac death and the conditions that cause it. It’s always important for us to raise further awareness on large platforms like this.

London Landmarks Half Marathon *April 3*

The main fundraising event in this four-month period was the London Landmarks Half Marathon. As nearly 12,000 returned to London to take part, CRY was represented by a great team of 26 runners. It’s been fantastic to see fundraising events like this return closer to normal after the pandemic lockdowns, and for so many CRY supporters around the country to be getting involved.

Christian Eriksen and Thomas Frank visit CRY screening event *April 30*

After his sudden collapse at last year’s Euros, Christian Eriksen returned to play in the Premier League with Brentford FC – a club that’s had a strong connection to CRY for years. CRY Patron Andy Scott played and managed at Brentford, they hosted the final screening days of CRY’s 2009 testmyheart screening tour in memory of Tom Claburn, and the club has also been supporting us in memory of the team’s former technical director Robert Rowan since he died suddenly in 2018.

At the end of April, Eriksen and the club’s manager Thomas Frank attended one of CRY’s screening events, held in memory of Robert at Gunnersbury Park Sports Hub.

“I think it’s very important,” Christian said on the screening day. “To get clear of something you can avoid. I think is a very healthy thing to do. It’s obviously something that, even in my case, something happened that you wouldn’t know was going to happen. So to get that cleared out of the way from a doctor’s perspective is only a positive thing.”

Social Media

CRY continues to expand its online activity with Facebook, Twitter and Instagram. Further work expanding these networks and integrating them into our existing social media activity should see an increase in these numbers. CRY continues to use SproutSocial, a social media software that enables CRY access to in-depth analytics and the ability to track the success of its messages. CRY has also started creating graphics, infographics and short videos in-house to increase engagement and noticeability across social networks as part of the raising awareness initiative.

CRY on Twitter

Over the year CRY had 850 new followers an increase of 4.8% on the main Twitter account @CRY_UK (www.twitter.com/CRY_UK), making a total of 18,604 followers as of May 2022. Tweets have covered a variety of topics, including promoting upcoming screening days; highlighting research publications as they go to press; announcing new Patrons; thanking supporters and promoting CRY fundraising events and launching new videos.

myheart on Twitter

CRY’s Twitter account for the myheart support network has gained 46 followers an increase of 10.2% making a total of 496 followers. Tweets have covered subjects such as information on support meetings, news about the members attending events/ sharing their stories, conditions and advice. With the increase of videos filmed with Dr Michael Papadakis there has been an increase in engagement with myheart members.

CRY on Facebook

Over the year there were 874 new 'likes' an increase of 7.1% on the CRY Facebook page (www.facebook.com/CardiacRiskintheYoung), making a total of 36,704 'likes' as of May 2022. Posts on Facebook allow CRY to give more detail about upcoming screening days, research publications and CRY fundraising events. CRY has also been using Facebook advertising to reach out to new audiences to raise awareness and engage new supporters. A total of £3,236.59 was spent on adverts and sponsored posts, these adverts and posts reached 721,200 people.

myheart on Facebook

Over the year there were 4 new pages likes an increase of 1.9% for the myheart page on Facebook, which has increased the total number of 'likes' to 987.

CRY on Instagram

CRY gained 1,453 followers, an increase of 20.5% on Instagram (www.instagram.com/cardiacriskintheyoung), the total number of followers is now 8,417. The account was setup to show the 'positives' of CRY's work and add more engagement with our fundraisers. Using the hashtag #cardiacriskintheyoung we have created a feed of pictures onto the homepage of the CRY website, showing what our supporters are up to with fundraising, raising awareness and more recently screenings. The CRY account shares images from CRY and supporter events with an aim to raise awareness and thank our supporters. Thanking our supporters is crucial to keep them engaged with CRY and for CRY to engage with our younger supporters. There have been over 2,000 images posted this year with #cardiacriskintheyoung (these are a mixture of supporter and CRY posted images).

CRY's YouTube Channel

CRY has continued to expand its library of videos to raise awareness of young sudden cardiac death; support those living with conditions; and offer a catalogue of talks from the CRY conference. There were over 39,000 new views on the range of videos. There has also been an increase in subscribers with the new total being 2,070 an increase of 22%.

myheart's YouTube Channel

CRY's myheart YouTube channel is dedicated to support videos, and has had over 12,500 new views and increased in subscribers to 160. The increase on views is up compared to last year.

CRY Websites

Total number of visitors to the main CRY website was 346,997 visitors. This is an increase of 60%.

Total number of visitors to the myheart website was 11,415 visitors. This is a decrease of 47%.

Total number of visitors to sads.org.uk website was 25,057 visitors. This is a decrease of 29%.

Total number of visitors to testmyheart.org.uk website was 280,725 visitors. This is an increase of 534%.

CRY in the Media

There were 270 articles on CRY published in print media, including 26 articles in national newspapers and 16 in magazines.

Month	Total Articles	National/magazine articles
June 2021	44	<ul style="list-style-type: none"> The Mail On Sunday. “How on earth could my healthy son drop dead without warning?” – This article told the story of Toby Berlevy, who died suddenly when he was just 22 years old, and how his family have been working to raise awareness of young sudden cardiac death. 6/6/2021. The Times. “I was one of the lucky ones – if I’d played in second half I’d have died” – CRY Patron and former footballer Andy Scott was diagnosed with hypertrophic cardiomyopathy, and he recalled his own experience and the importance of screening after seeing Christian Eriksen’s collapse. 6/6/2021.
July 2021	22	
August 2021	14	<ul style="list-style-type: none"> The Daily Telegraph. ‘How Brentford miracle is tinged with pain: “Rob is looking down with pride” – This article told the story of Robert Rowan, who used to work for Brentford Football Club. Since his sudden death, Robert’s family and friends have done what they can to raise awareness and funds for CRY. 12/8/2021.
September 2021	24	
October 2021	28	<ul style="list-style-type: none"> Sunday Mail. ‘When my boy died he was 25, fit and looked so healthy. I just don’t want any other parent to suffer like this’ – Robert Cowan lost his 25-year-old son, Scott, and wants all young people to be given free heart checks at work to prevent other similar deaths. Robert and his friends and family have been supporting CRY in Scott’s memory. 3/10/2021.
November 2021	15	
December 2021	8	
January 2022	12	
February 2022	31	
March 2022	29	
April 2022	15	
May 2022	28	

Fundraising Regulator Requirements

As members of the Fundraising Regulator, CRY is committed to having a complaints procedure in place. During the period of this annual report, we received no fundraising complaints.

Strategic Report

Financial Review

During the year the funds receivable by the charity increased from £1.91 million to £2.85 million. The resources expended increased from £2.37 million to £3.09 million.

Reserves policy

The Trustees have established the level of reserves that the charity ought to have.

Unrestricted funds are needed to:

- cover support and management costs;
- provide funds which can be designated to specific projects to enable these projects to be undertaken at short notice;
- achieve a liquid reserve to provide cover for further capital expenditure.

The Trustees consider it prudent that unrestricted reserves should be sufficient to cover 6 months Support and Management Costs. The Trustees have set the required level of free reserves for the above matters at £350,000. The financial forecasts since March 2020 predicted there would be a significant ongoing impact of COVID on CRY's ability to fundraise. Income has continued to be impacted by COVID throughout this year and the free reserves reduced from £48,000 at 31st May 2021 to a negative £302,000 at 31st May 2022. The free reserve figure is calculated by subtracting CRY's tangible assets (£630,733, page 34) from the Total unrestricted funds carried forward at 31st May 2022 (£328,498, page 33). Since 1st June 2022 the free reserves have significantly improved as fundraising and screening activity have started to return to pre-COVID levels. Whilst free reserves are below the level identified as required by the Trustees, it is important to note that approximately £200,000 of the £1,375,000 of restricted funds which are already committed will provide the income required to pay for the research grants which are currently included in the provision of £435,000 (page 45). In accordance with the Charities SORP provisions for all research grants payable are made at the time that the Research Fellow is appointed or their grant is extended, and the payment can be measured reliably.

In 2020 a plan was put in place to arrange a CBIL loan to ensure CRY would maintain sufficient free reserves going forward and this is recognised in the accounts in note 11 on page 44. This loan was borrowed against the value of CRY's office which was purchased in 2013 and was valued at £990,000 just prior to the CBIL loan being approved. The level of reserves is monitored and reviewed by the Trustees throughout the year and this will inform whether to repay the loan before it is due.

An explanation of CRY's reserves and Ringfenced Funds

A significant proportion of CRY's reserve funds are "ringfenced" and have to be used for a specific project. The majority of these funds are raised by families who have suffered a tragedy from young sudden cardiac death, in order to take forward a screening programme in their community in memory of their child, sibling or partner. Once the family has reached the appropriate sum, CRY supports them in taking forward one or more screening events.

£4.5 million is now ringfenced by CRY families specifically for screening and these funds will be spent during the next 3-4 years. On 1st June 2022 £1.375 million of these ringfenced funds were committed to screening events booked in the following 1-3 years. In the upcoming year it is expected that a further £1-1.5 million of these restricted funds will be committed to further events. The total amount of ringfenced funds ensures screening operations for 3 years, enabling the testing of more than 75,000 young people.

CRY cannot use these funds for other activities such as bereavement support or raising awareness. CRY encourages families to use the funds that are ringfenced, and funding their own screening programme in memory of their relative is important to many bereaved families. We do not want to stop this essential aspect of what we offer families who contact CRY seeking support.

Investment Policy

The Trustees have considered the most appropriate investment policy for funds, and have decided that interest bearing accounts with clearing banks effectively meet their requirements to generate income and meet operational contingencies.

Risk Management

The Trustees have a risk management strategy, which comprises:

- A review of the risks the charity may face which is conducted at each board meeting;
- the establishment of systems and procedures to mitigate those risks identified;
- the implementation of procedures designed to minimise any potential impact on the charity should those risks materialise.

The major risks are considered to be those that would prevent CRY from carrying out its charitable objects permanently. The Trustees have identified the following as possible risks that the charity faces: impact of economic climate; failure to govern effectively; major fraud or financial mismanagement. The risks are regularly reviewed by the main board.

Achievements and Performance

Our achievements and performance are discussed in detail on pages 8 to 25 of this report.

Going Concern

The Trustees have reviewed the budget for the next 12 months and consider the charity has adequate resources to continue for the foreseeable future.

Related Parties

None of the Trustees received remuneration or other benefits for their work for the charity. Any transactions between the charity and the Trustees or senior management or related parties must be disclosed to the board. In the current year no such related party transactions were reported.

Plans for the Future

- 1.** To continue funding the CRY Centre for Cardiac Pathology at St George's Hospital:
 - raise awareness of the importance of pathology in the role of young sudden cardiac death
 - continue development as the leading service in this field
 - continue funding coroner referrals to expert cardiac pathologist, Professor Mary Sheppard.
- 2.** To continue funding the Research Fellows, the specialist physiologist and the maintenance of the machinery that is used at the CRY Centre for Sports Cardiology at St George's Hospital and maintaining the current service, where a fast-track cardiac screening service is available to elite athletes.
- 3.** To develop CRY's programme of cardiac screening and research:
 - continue the provision and development of the most proficient screening service to elite athletes in the UK
 - enable people in local communities who enjoy sport - many of whom aspire to be elite athletes - to access the very same level of expertise that we offer to athletes representing our country
 - continue the expansion of the infrastructure for our ECG screening service
- 4.** To expand the number of Research Fellowship grants, which will enable CRY to:
 - increase the number of screening events CRY can hold
 - increase number of referrals that can be managed at the CRY Centre for Inherited Cardiovascular Conditions and Sports Cardiology
 - increase CRY's contribution to research in the area of young sudden cardiac death, through:
 - o published abstracts and posters
 - o published articles in peer reviewed journals
 - o presentations at international conferences
- 5.** To develop CRY's counselling support programme through:
 - training programmes for bereavement supporters
 - support services we offer to families after both a bereavement and a diagnosis
 - developing a library of books and online resources to support families after a tragedy
- 6.** To raise awareness of cardiac risk in the young:
 - CRY will continue to make people aware of cardiac risk in the young and what can be done to prevent a tragedy
 - CRY will continue to drive forward and expand the impact of our Raising Awareness Week. Through an improved representative structure and increased volunteer base this event will continue to generate awareness of these conditions in local communities throughout the country
- 7.** To campaign to establish a national strategy for the prevention of young sudden cardiac death.

Statement of Trustees Responsibilities

The Trustees (who are also directors of Cardiac Risk in the Young for the purposes of company law) are responsible for preparing the Trustees' Report (including the Strategic Report) and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

Company law requires the Trustees to prepare the financial statements for each financial year which give a true and fair view of the state of affairs of the charitable company and of the incoming resources and application of resources, including the income and expenditure, of the charitable company for that period. In preparing these financial statements, the Trustees are required to:

- select suitable accounting policies and then apply them consistently;
- observe the methods and principles in the Charities SORP;
- make judgements and estimates that are reasonable and prudent;
- state whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements, and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the charitable company will continue in business.

The Trustees are responsible for keeping proper accounting records that disclose with reasonable accuracy at any time the financial position of the charitable company and enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the charitable company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

In so far as the Trustees are aware:

- there is no relevant audit information of which the charitable company's auditor is unaware; and
- the Trustees have taken all steps that they ought to have taken to make themselves aware of any relevant audit information and to establish that the auditor is aware of that information.

The Trustees are responsible for the maintenance and integrity of the corporate and financial information included on the charitable company's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Auditors

A resolution will be proposed at the Annual General Meeting that BGM Helmores Limited be re-appointed as auditors to the charity for the ensuring year.

By order of the Board

Trustee:



Date: 30th November 2022

Independent Auditors' Report

Opinion

We have audited the financial statements of Cardiac Risk in the Young for the year ended 31 May 2022 which comprise Statement of Financial Activities, the Balance Sheet, the Cash Flow Statement and the related notes, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including Financial Reporting Standard 102 The Financial Reporting Standard applicable in the UK and Republic of Ireland (United Kingdom Generally Accepted Accounting Practice).

In our opinion the financial statements:

- give a true and fair view of the state of the charitable company's affairs as of 31 May 2022 and of its incoming resources and application of resources, including its income and expenditure, for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report. We are independent of the charitable company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

In auditing the financial statements, we have concluded that the trustees' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the trustees with respect to going concern are described in the relevant sections of this report

Other information

The other information comprises the information included in the annual report, including the trustees' report, other than the financial statements and our auditor's report thereon. The trustees are responsible for the other information. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

Opinion on other matter prescribed by the Companies Act 2006

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the trustees' report, which includes the directors' report and the strategic report prepared for the purposes of company law, for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the directors' report and the strategic report included within the trustees' report have been prepared in accordance with applicable legal requirements.

Matters on which we are required to report by exception

In the light of the knowledge and understanding of the company and its environment obtained in the course of the audit, we have not identified material misstatements in the directors' report or the strategic report included within the trustees' report.

We have nothing to report in respect of the following matters where the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept or returns adequate for our audit have not been received from branches not visited by us; or
- the financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of trustees' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

Responsibilities of Trustees

As explained more fully in the Trustees' Responsibilities Statement set out on page 29, the Trustees (who are also the directors of the charitable company for the purposes of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the trustees are responsible for assessing the company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the trustees either intend to liquidate the company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at: www.frc.org.uk/auditorsresponsibilities

This description forms part of our auditor's report.

Extent to which the audit was considered capable of detecting irregularities, including fraud

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and then design and perform

audit procedures responsive to those risks, including obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion.

In identifying and addressing risks of material misstatement in respect of irregularities, including fraud and non-compliance with laws and regulations, our procedures included the following:

- We obtained an understanding of laws and regulations that affect the company, focusing on those that had a direct effect on the financial statements or that had a fundamental effect on its operations. Key laws and regulations that we identified included the Companies Act 2006, Charities SORP (FRS 102). We also compliance with other laws and legislation which may not have a direct impact on the financial statements but whose compliance is paramount to the charitable company such as General Data Protection Regulation (GDPR), employment and health and safety legislation.
- We enquired of the trustees and the Audit Committee, reviewed trustees' and Audit Committee meeting minutes for evidence of non-compliance with relevant laws and regulations. We also reviewed controls the trustees have in place to ensure compliance.
- We gained an understanding of the controls that the trustees have in place to prevent and detect fraud. We enquired of the directors about any incidences of fraud that had taken place during the accounting period.
- The risk of fraud and non-compliance with laws and regulations and fraud was discussed within the audit team and tests were planned and performed to address these risks. We identified the potential for fraud in the following areas: accounting estimates principally in respect of research grants, income recognition, related parties outside normal course of business, management override of controls, misappropriation of cash and other assets and compliance with debt covenants.
- We reviewed financial statements disclosures and tested to supporting documentation to assess compliance with relevant laws and regulations discussed above.
- We enquired of the trustees about actual and potential litigation and claims.
- We performed analytical procedures to identify any unusual or unexpected relationships that might indicate risks of material misstatement due to fraud.
- In addressing the risk of fraud due to management override of internal controls we tested the appropriateness of journal entries and assessed whether the judgements made in making accounting estimates were indicative of a potential bias.

Due to the inherent limitations of an audit, there is an unavoidable risk that we may not have detected some material misstatements in the financial statements, even though we have properly planned and performed our audit in accordance with auditing standards. For example, as with any audit, there remained a higher risk of non-detection of irregularities, as these may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls. We are not responsible for preventing fraud or non-compliance with laws and regulations and cannot be expected to detect all fraud and non-compliance with laws and regulations.

Use of our report

This report is made solely to the charitable company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the charitable company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the charitable company and the charitable company's members as a body, for our audit work, for this report, or for the opinions we have formed



Date: 9th December 2022

Paul Davis FCA (Senior Statutory Auditor)
for and on behalf of BGM Helmores Limited

Chartered Accountants and Statutory Auditors
114a Cromwell Road, London, SW7 4AG

Statement of Financial Activities

	Note	Unrestricted Funds 2022 £	Restricted Funds 2022 £	Total Funds 2022 £	Unrestricted Funds 2021 £	Restricted Funds 2021 £	Total Funds 2021 £
INCOMING RESOURCES							
Donations and Legacies	2	1,549,084	938,112	2,487,196	939,126	581,186	1,520,312
Investment Income		6,197	-	6,197	15,772	-	15,772
Screening		300,090	-	300,090	22,420	-	22,420
Other Income Received	3	59,104	-	59,104	353,575	-	353,575
TOTAL INCOMING RESOURCES		1,914,475	938,112	2,852,587	1,330,839	581,186	1,912,079
RESOURCES EXPENDED							
Raising Funds		441,453	-	441,453	362,177	-	362,177
Charitable Activities							
Screening		501,149	659,691	1,160,840	517,307	39,054	556,361
Family support		285,793	-	285,793	294,386	-	294,386
Research Grants	4	530,432	97,935	628,367	305,288	394,064	699,352
Awareness & PR		484,950	-	484,950	390,996	-	390,996
		1,802,234	757,626	2,559,950	1,507,977	433,118	1,941,095
Other Expenditure		86,650	-	86,650	70,524	-	70,524
TOTAL RESOURCES EXPENDED	5	2,330,427	757,626	3,088,053	1,940,678	433,118	2,373,796
Net Incoming / (Outgoing) Resources		(415,952)	180,486	(235,466)	(609,785)	148,068	(461,717)
Transfers between funds		-	-	-	25,000	(25,000)	-
Net movement in funds for the year		(415,952)	180,486	(235,466)	(584,785)	123,068	(416,717)
Total Funds brought forward at 1 June 2021		744,450	4,323,009	5,067,459	1,329,235	4,199,941	5,529,176
Total funds carried forward at 31 May 2022		328,498	4,503,495	4,831,993	744,450	4,323,009	5,067,459

There are no recognised gains or losses other than disclosed above. All results derive from continuing operations.

Balance Sheet at 31 May 2022

	Note	2022 £	2022 £	2021 £	2021 £
Fixed assets					
Tangible assets	7		630,733		696,001
Current assets					
Debtors	8	249,507		125,424	
Cash at bank and in hand	9	6,019,142		6,268,892	
		<u>6,268,649</u>		<u>6,394,316</u>	
Creditors: Amounts falling due within one year	10	<u>1,403,931</u>		<u>1,164,163</u>	
Net current assets			<u>4,864,718</u>		<u>5,230,153</u>
Total assets less current liabilities			5,495,451		5,926,154
Creditors: Amounts falling due greater than one year	11		663,458		858,695
Net assets	13		<u>4,831,993</u>		<u>5,067,459</u>
The funds of the charity:					
Unrestricted funds:	14		328,498		744,450
Restricted funds	14		4,503,495		4,323,009
Total Charity Funds			<u>4,831,993</u>		<u>5,067,459</u>

The financial statements on pages 33 to 47 were approved by the Board of Trustees on 30th November 2022 and signed on its behalf by:

H Mulcahey  - Trustee

P O'Donnell  - Trustee

Date: 30th November 2022

Cash Flow Statement

	Notes	2022 £	2021 £
Net cash provided by operating activities	1	<u>(253,090)</u>	<u>157,561</u>
Cash flows from investing activities:			
Interest from investments		3,919	1,279
Purchase of plant and equipment		(579)	(25,293)
Net cash used in investing activities		<u>3,340</u>	<u>(24,014)</u>
Cash flows from financing activities:			
Proceeds from borrowings		-	950,000
Net cash generated in financing activities		-	950,000
Change in cash and cash equivalents in the reporting period		(249,750)	1,083,547
Cash and cash equivalents at the beginning of the reporting period		6,268,892	5,185,345
Cash and cash equivalents at the end of the reporting period	2	<u>6,019,142</u>	<u>6,268,892</u>
1. Reconciliation of net incoming resources to net cash inflow from operating activities			
		2022 £	2021 £
Net outgoing resources for reporting period		(235,466)	(461,717)
Depreciation charges		65,843	77,999
Movement in debtors		(128,002)	206,095
Movement in creditors		44,535	335,184
Net cash (used)/provided by operating activities		<u>(253,090)</u>	<u>157,561</u>
2. Analysis of cash and cash equivalents			
		2022 £	2021 £
Cash at Bank		6,019,142	6,268,892
		<u>6,019,142</u>	<u>6,268,892</u>

Notes to the Accounts

1. Accounting Policies

1.1 Basis of preparation

The financial statements have been prepared in accordance with Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK (FRS 102) (Effective 1 January 2019) - (Charities SORP (FRS 102)), the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) and the Companies Act 2006.

Cardiac Risk in the Young ('CRY') meets the definition of a public benefit entity under FRS 102. Assets and liabilities are initially recognised at historical cost or transaction value unless otherwise stated in the relevant accounting policy note(s).

1.2 Legal status of the Charity

The charity is a company limited by guarantee and has no share capital. In the event of the charity being wound up, the liability in respect of the guarantee is limited to £1 per member of the charity.

1.3 Incoming resources

Screening fees income are accounted for on a receivable basis.

Donations are accounted for on a receivable basis as soon as they are capable of accurate financial measurement and includes any taxation recoverable under Gift Aid. Gifts in kind are included in the Statement of Financial Activities at their gross value to the charity.

Donated professional services and donated facilities are recognised as income when the charity has control over the item, any conditions associated with the donated items have been met, the receipt of economic benefit from the use by the charity of the items probable and that economic benefit can be measured reliably. In accordance with the Charities SORP (FRS 102), general volunteer time is not recognised.

Donated professional services and donated facilities are recognised on the basis of the value of the gift to the charity which is the amount the charity would have been willing to pay to obtain services or facilities of equivalent economic benefit on the open market; a corresponding amount is then recognised in expenditure in the period of receipt.

Government grants are recognised at the fair value of the asset received or receivable when there is reasonable assurance that the grant conditions will be met and the grants will be received.

Donated fixed assets are taken to income at the value to the charity with the other entry being capitalised in fixed assets.

Legacies receivable are considered on a case by case basis and recognised as the earlier of the date on which: the charity is aware that probate has been granted, the estate has been finalised and notification has been made by the executor(s) to the charity that a distribution will be made, or when a distribution is received from the estate. Receipt of a legacy, in whole or in part, is only considered probable when the amount can be measured reliably and the charity has been notified of the executor's intention to make a distribution. If the legacy is in the form of an asset other than cash or an asset listed on a recognised stock exchange, recognition is subject to the value of the asset being able to be reliably measured and title to the asset has passed to the charity. Where legacies have been notified to the or the charity is aware of the granting of probate, and the criteria for income recognition have not been met, then the legacy is treated as a contingent asset and disclosed if material.

1.4 Tangible Fixed Assets

Tangible fixed Assets are initially measured at cost net of depreciation and impairment losses.

Depreciation is recognised so as to write off the cost or valuation of assets less their residual values over their useful lives on the following basis- assets held under finance leases are depreciated in the same way as owned assets:

Leasehold Property	2%
Equipment	25%
Motor vehicles	20%

It is the charity's policy not to capitalise fixed assets costing below £500.

The gains or loss arising on disposal of an asset is determined as the difference between the sale proceeds and the carrying value of the asset, and is credited or charged to profit or loss.

At each reporting period end date, CRY reviews the carrying amounts of its tangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Where it is not possible to estimate the recoverable amount of an individual asset, the company estimates the recoverable amount of the cash-generating unit to which the asset belongs.

1.5 Expenditure

Expenditure is recognised once there is a legal or constructive obligation to make a payment to a third party, it is probable that settlement will be required and the amount of the obligation can be measured reliably. All expenditure is accounted for on an accruals basis under the following activity headings:

Fundraising

Costs incurred in financing fundraising activities including allocated staff costs and support costs.

Screening

These include all costs associated with the screening of individuals including the salary cost of time spent by employees, travel, subsistence and depreciation of related fixed assets.

Family Support

Costs incurred in undertaking Family Support including allocated staff costs and support costs.

Awareness and PR

This includes all costs for the purpose of promoting the charity's activities and increasing awareness in the public.

Research

The costs include research fellows, research assistants, donated equipment and related research expenses.

Governance

Includes staff time and expenses for time spent in connection with trustees meetings, plus the cost of audit and professional fees. Salary costs are charged in accordance with time spent.

Support costs

Costs incurred directly in support of expenditure on the objects of the charity and include functions such as Human Resources and Information Technology. All costs are allocated between the expenditure categories of the SOFA on a basis designed to reflect the use of the resource.

Stationery and brochures

Costs incurred in respect of stationery and brochures are written off as incurred.

1.6 Debtors

Trade and other debtors are recognised at the settlement amount due after any discount offered. Prepayments are valued at the amount prepaid net of any trade discounts due. Accrued income and tax recoverable is included at the best estimate of the amounts receivable at the balance sheet date.

1.7 Financial Instruments

The charity only has financial assets and financial liabilities of a kind that qualify as basic financial instruments. Basic financial instruments are initially recognised at transaction value and subsequently measured at their settlement value with the exception of bank loans which are subsequently measured at amortised cost using the effective interest method.

1.8 Cash and Cash Equivalents

Cash and cash equivalents are basic financial assets and include cash in hand, deposits held at call with banks, other short-term liquid investments with original maturities of three months or less, and bank overdrafts.

1.9 Creditors and Provisions

Creditors and provisions are recognised where the charity has a present obligation resulting from a past event that will probably result in the transfer of funds to a third party and the amount due to settle the obligation can be measured or estimated reliably. Debt instruments are subsequently carried at amortised cost, using the effective interest rate method.

Trade creditors are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Amounts payable are classified as current liabilities if payment is due within one year or less. If not, they are presented as non-current liabilities. Trade creditors are recognised initially at transaction price and subsequently measured at amortised cost using the effective interest method.

1.10 Employee Benefit

The costs of short-term employee benefits are recognised as a liability and an expense.

The cost of any unused holiday entitlement is recognised in the period in which the employee's services are received.

Termination benefits are recognised immediately as an expense when the company is demonstrably committed to terminate the employment of an employee or to provide termination benefits.

1.11 Pensions

In line with recent changes in pension legislation CRY has enrolled eligible employees into an auto-enrolment pension scheme. The basic contributions for the scheme are 3% (3% April 2021) of pensionable earnings by CRY and 5% (5% April 2021) by the employees. Pension costs are charged to the Statement of Financial Activities as incurred. There were £7,168 (2021: £7,174) of outstanding contributions at the year end.

1.12 Leases

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessees. All other leases are classified as operating leases.

Assets held under finance leases are recognised as assets at the lower of the assets fair value at the date of inception and the present value of the minimum lease payments. The related liability is included in the balance sheet as a finance lease obligation. Lease payments are treated as consisting of capital and interest elements. The interest is charged to the profit and loss account so as to produce a constant periodic rate of interest on the remaining balance of the liability.

Rentals payable under operating leases, including any lease incentives received, are charged to income on a straight line basis over the term of the relevant lease except where another more systematic basis is more representative of the time pattern in which economic benefits from the lease asset are consumed.

1.13 Funds held by the charity are either:

Unrestricted funds – these are funds which can be used in accordance with the charitable objects at the discretion of the trustees.

Designated funds – these are funds which have been designated by the trustees for research projects.

Restricted funds – these are funds that can only be used for particular restricted purposes within the charity's objects.

Restrictions arise when specified by the donor or when funds are raised for particular restricted purposes.

1.14 Going Concern

After producing a budget for 12 months from the date of signing the accounts, the trustees have reasonable expectations that the charity has adequate resources to continue acting as a going concern and has thus adopted this basis in preparing the accounts.

1.15 Significant areas of estimation and judgement

The preparation of the financial statements requires judgements, estimations and assumptions to be made which affect the reported values of assets, liabilities, income and expenditure. The nature of such could result in actual outcomes differing from expectation. Management has applied judgement in the follow material area:

– Research grants are recognised in full by the charity as soon as the criteria for a constructive obligation has been met, payment is probable, can be measured reliably and there are no conditions attached which limit its recognition.

2. Donations and Legacies

	2022 £	2021 £
Donations		
Gifts	2,362,202	1,468,287
Legacies	8,967	13,000
Trusts	101,807	39,700
Sponsorship	14,220	(675)
	<u>2,487,196</u>	<u>1,520,312</u>

3. Other Income Received

Furlough grant receivable	51,645	346,242
Other government grants	7,459	7,333
	<u>59,104</u>	<u>353,575</u>

4. Research

	2022 £	2021 £
Research costs		
Medical Research - Professor Sharma - St George's, University of London	328,997	332,822
Cardiac Pathology and Coroners' Referral Research	231,938	233,652
Medical Research - Dr Papadakis - St George's, University of London	66,488	132,878
Medical Research - Liverpool John Moores	944	-
See note 12	<u>628,367</u>	<u>699,352</u>

Please see the trustees report page 45 for further information in respect of provisions for research grants.

5. Total resources expended

	Direct Staff Costs £	Other Direct Costs £	Support & Management Costs £	Total 2022 £
Screening	674,350	340,319	146,171	1,160,840
Family Support	220,687	8,060	57,046	285,793
Awareness & PR	201,858	128,114	154,978	484,950
Governance	12,481	-	74,169	86,650
Research (Note 4)	-	628,367	-	628,367
Fundraising	249,181	83,110	109,162	441,453
	<u>1,358,557</u>	<u>1,187,970</u>	<u>541,526</u>	<u>3,088,053</u>

Prior year analysis

	Direct Staff Costs £	Other Direct Costs £	Support & Management Costs £	Total 2021 £
Screening	384,478	33,446	138,437	556,361
Family Support	237,119	1,605	55,662	294,386
Awareness & PR	198,671	73,583	118,742	390,996
Governance	11,144	-	59,380	70,524
Research (Note 4)	-	699,352	-	699,352
Fundraising	259,821	18,985	83,371	362,177
	1,091,233	826,971	455,592	2,373,796

Support and Management Costs	2022 £	2021 £
Staff Costs (not included in direct staff costs above)	223,173	184,601
Rent & Rates	8,072	11,316
Heat, Light & Power	5,170	2,264
Motor Expenses	11,837	7,963
Travelling	186	75
Printing, Stationery and Telephone	20,656	12,610
Postage and carriage	22,244	5,802
Computer Expenses	61,178	45,829
Professional Fees	21,439	34,286
Auditors Remuneration	21,600	23,640
Insurance	36,687	30,424
Maintenance	16,619	9,562
Bad Debts	-	-
General Expenses	1,542	(526)
Bank charges and Interest	25,280	12,747
Depreciation	65,843	77,999
Profit on disposal of fixed assets	-	(3,000)
	541,526	455,592

Support Costs allocated to activities	Screening	Family support	Awareness & PR	Fundraising	Governance	Total 2022
	£	£	£	£	£	£
Premises	2,426	539	6,839	1,980	1,461	13,245
General Office	91,189	12,098	121,748	36,690	36,534	298,259
Management	7,624	6,013	3,800	11,816	1,415	30,668
Finance	34,815	30,497	9,986	48,260	22,532	146,090
Information Technology	826	817	1,421	808	184	4,056
Human Resources	9,291	7,082	11,184	9,608	12,043	49,208
Total	146,171	57,046	154,978	109,162	74,169	541,526

Prior year analysis

Support Costs allocated to activities	Screening	Family support	Awareness & PR	Fundraising	Governance	Total 2021
	£	£	£	£	£	£
Premises	3,164	548	6,495	1,878	1,494	13,579
General Office	89,706	9,721	87,710	26,497	31,736	245,370
Management	9,571	7,729	6,404	10,362	1,714	35,780
Finance	26,486	29,572	6,195	35,389	23,790	121,432
Information Technology	509	613	1,063	466	60	2,711
Human Resources	9,001	7,479	10,875	8,779	586	36,720
Total	138,437	55,662	118,742	83,371	59,380	455,592

Costs were allocated on the basis of staff time other than premises and general office costs which were allocated on a usage basis.

6. Staff costs and number of employees

	2022 £	2021 £
Wages and salaries	1,402,197	1,099,644
Social security costs	110,872	89,502
Pension costs	39,659	21,512
Other staff costs (including staff training)	29,002	65,176
	<u>1,581,730</u>	<u>1,275,834</u>
Direct Staff Costs	1,358,557	1,091,233
Support Staff Costs	223,173	184,601
	<u>1,581,730</u>	<u>1,275,834</u>

One employee received a salary in excess of £60,000 in the year to 31 May 2022 (2021: 1).

'The charity trustees were not paid or received any other benefits from employment with CRY in the year (2021: £nil) neither were they reimbursed expenses during the year (2021: £nil). No charity trustee received payment for professional or other services supplied to the charity (2021: £nil)

The key management personnel of the charity, comprise the CRY Founder, the Chief Executive Officer and the Director of Screening and Research. The total employee benefits of the key management personnel of the charity were £133,599 (2021:£140,959).

Total employee benefits include: Salary, pension and healthcare.

The average monthly number of employees during the year was:

	2022	2021
Management and administration	8	8
Charitable work	68	60
Total	<u>76</u>	<u>68</u>
The above includes the following part time staff	<u>31</u>	<u>23</u>

Net incoming resources before transfers

This is stated after charging:	2022 £	2021 £
Depreciation	65,843	77,999
Auditors' remuneration		
For audit services	9,970	9,970
For other services	11,630	13,670
Loss/(Profit) on disposal of fixed assets	-	(3,000)

7. Tangible fixed assets

	Long Leasehold Property £	Equipment £	Motor Vehicles £	Total £
Cost				
At 1 June 2021	678,201	914,477	99,491	1,692,169
Additions	-	575	-	575
At 31 May 2022	<u>678,201</u>	<u>915,052</u>	<u>99,491</u>	<u>1,692,744</u>
Depreciation				
At 1 June 2021	108,488	845,256	42,424	996,168
Charge for the year	13,488	37,699	14,656	65,843
At 31 May 2022	<u>121,976</u>	<u>882,955</u>	<u>57,080</u>	<u>1,062,011</u>
Net Book Value				
At 31 May 2022	<u>556,225</u>	<u>32,097</u>	<u>42,411</u>	<u>630,733</u>
At 31 May 2021	<u>569,713</u>	<u>69,221</u>	<u>57,067</u>	<u>696,001</u>

All fixed assets are used for charitable purposes.

8. Debtors

	2022	2021
	£	£
Trade Debtors	24,600	11,650
Prepayments	93,007	79,181
Accrued Income	131,900	34,593
	<u>249,507</u>	<u>125,424</u>

9. Cash at bank and in hand

	2022	2021
	£	£
Deposit account	5,061,138	5,303,500
Current account	955,402	960,563
Cash in hand	2,602	4,829
	<u>6,019,142</u>	<u>6,268,892</u>

10. Creditors: Amounts falling due within one year

	2022	2021
	£	£
Bank Loan (Note 11)	189,323	91,547
Trade Creditors	109,002	36,119
Other Creditors	34,863	14,649
Taxation and Social Security	19,271	19,271
Accruals and deferred income	616,671	595,094
Research (Note 12)	434,801	407,483
	<u>1,403,931</u>	<u>1,164,163</u>

11. Creditors: Amounts falling due after one year

	2022	2021
	£	£
Bank Loan	663,458	858,695
	<u>663,458</u>	<u>858,695</u>

The bank loan is secured by fixed charges over all the charity's leasehold property.

The loan is for a term of 6 years and with monthly instalments commencing in November 2021, after an initial 12 month capital repayment holiday. Interest accrues at 2.44% over Bank of England Base Rate.

12. Research

	2022 £	2021 £
Provision at 1 June 2021	407,483	428,505
Recognised in statement of financial activities (Note 4)	628,367	699,352
Grant payments in the year	(601,049)	(720,374)
Provision at 31 May 2022	434,801	407,483

Grant commitment at 31 May 2022

Institution	Activity	Type	Number of grants	Total
St George's University of London	Research under Professor Sharma	Fellows	8	326,467
St George's University of London	Research under Professor Sharma	Cardiac Physiologists	2	33,334
Cardiac Pathology and Coroners' Referral Research			2	75,000
Total Grants			12	434,801

See note 16 in respect of further information on these projects

13. Analysis of net assets between funds

	Tangible assets £	Net current assets £	Total £
Unrestricted funds	630,733	(302,235)	328,498
Restricted funds	-	4,503,495	4,503,495
	630,733	4,201,260	4,831,993

14. Analysis of Funds

	Balance at 1 June 2021 £	Incoming Funds £	Outgoing Funds £	Balance at 31 May 2022 £
Unrestricted funds	744,450	1,914,475	(2,330,427)	328,498
Restricted funds (Note 16)	4,323,009	938,112	(757,626)	4,503,495
	5,067,459	2,852,587	(3,088,053)	4,831,993

15. Research Costs

Cardiac Pathology Research

After a death, fast track expert pathology is crucial. CRY has designated significant funds to support essential research and fund the expertise required to conduct these investigations at The CRY Centre for Cardiac Pathology (CRY CCP), which is based at St George's Hospital, University of London, Tooting, London. Expert cardiac pathology is essential to help understand the cause of death as well as inform which tests are required for the testing of first degree blood relatives.

Coroners' Referral

CRY is funding coroners' referrals to The CRY Centre for Cardiac Pathology for young people (aged 35 or under) where the cause of death in the initial pathology is "unascertained". Coroners sometimes do not have the funds to access a service where they can refer complex cases to an expert pathologist. This means that many deaths are simply recorded as unascertained or, incorrectly, such as epilepsy, asthma or drowning. This service allows coroners to refer cases directly and receive a full report of the actual cause of death within 2 weeks.

St George's, University of London

CRY has funded 7 research fellowship grants during this year. All seven grants are supervised by Professor Sharma and Dr Michael Papadakis. CRY is funding a cardiologist to support and further expand its collaborative research programme with St George's. The fellows under the supervision of Professor Sharma and Dr Papadakis focus on the data obtained in CRY's screening programme and take forward projects relating to Young Sudden Cardiac Death, inherited cardiovascular conditions and sports cardiology. Research Fellowship funding is essential for CRY's screening programme. A research fellow is present at every screening to ensure that all abnormal ECG findings are evaluated immediately with follow-up ECHO (ultrasound of the heart). CRY is also funding a cardiac nurse and two full time physiologists to work at the CRY Centre for Inherited Cardiovascular Conditions and Sports Cardiology. The research fellows, physiologists, and the nurse support Professor Sharma, to provide a specialist service for bereaved families after a tragedy, where all family members can be seen together and have all necessary tests conducted on the same day.

16.Restricted Funds

	Balance at 1 June 2021 £	Incoming Funds £	Outgoing Funds £	Balance at 31 May 2022 £
Restricted				
Memorial Funds	4,170,994	840,192	(568,430)	4,442,756
Cardiff City Football Club	19,946	-	(15,000)	4,946
Robert Luff Foundation	20,000	20,000	(20,000)	20,000
Stanley Grundy Foundation	5,000	-	(5,000)	-
Aubrey Orchard-Lisle Charitable Trust	5,000	-	(5,000)	-
The Geoff and Fiona Squire Foundation	477	-	-	477
Carval Foundation	3,521	-	(3,521)	-
James Tudor Foundation	3,000	1,670	(4,353)	317
The Anthony and Elizabeth Mellows Charitable Settlement	1,000	-	-	1,000
W.E.D. Charitable Trust	1,000	500	-	1,500
Brian Shaw Trust	1,000	-	(1,000)	-
Wrexham Rugby Club	2,500	-	-	2,500
The Rothley Trust	821	-	(821)	-
The Edith Florence Spence Memorial Trust	2,000	5,000	(7,000)	-
Chapman Charitable Trust	1,000	-	-	1,000
Wasps Foundation	2,500	-	(2,500)	-
Tesco Bags of Help Grant	77,500	57,500	(120,000)	15,000
The Sir Robert Gooch Charitable Trust	500	500	-	1,000
The Pannet Charitable Trust	250	250	-	500
The Fognal Trust	5,000	-	(5,000)	-
The Stanton Ballard Charitable Trust	-	500	-	500
Glasdon Charitable Programme	-	12,000	-	12,000
	4,323,009	938,112	(757,626)	4,503,495

16. Restricted Funds (continued)

Restricted funds include 295 active funds (2021: 289) which have been set up to fund primarily screening events, but also provide funds for research fellows, raising awareness and for the purchase of ECG machines and a screening van.

- The Cardiff City Football Club and the Rhonda Mayoral Fund donations were restricted to provide funding for screening in South Wales.
- Robert Luff Foundation donation was restricted to finance research costs.
- Stanley Grundy Foundation donation was restricted to fund cardiac screening.
- Aubrey Orchard-Lisle donation was restricted to fund cardiac screening.
- The Geoff and Fiona Squire Foundation donation was restricted to fund the purchase of an ECG machine for screenings.
- Carval Foundation donation was restricted to fund the purchase of reading barcode Scanner.
- James Tudor Foundation donation was restricted to fund Heart Screening Booklet.
- The Anthony and Elizabeth Mellows Charitable Settlement restricted for St George's Centre.
- W.E.D. Charitable Trust donation for restricted for St George's Centre.
- Brian Shaw Trust donation restricted for St George's Centre.
- Wrexham Rugby Club donation were restricted to provide funding for screening in Wales.
- The Rothley Trust donation was restricted to fund Durham Walk leaflet.
- The Edith Florence Spence Memorial Trust donation was restricted to fund cardiac screening.
- Chapman Charitable Trust donation was restricted to fund cardiac screening.
- Wasps Foundation donation was restricted to fund cardiac screening.
- Tesco Bags of Help grant was restricted to fund cardiac screening.
- The Sir Robert Gooch Charitable Trust donation was restricted to fund cardiac screening.
- Pannet Charitable Trusts donation was restricted to fund Cardiac screening in East Sussex.
- The Fognal Trust donation was restricted to fund cardiac screening.
- The Stanton Ballard Charitable Trust restricted to fund cardiac screening.
- Glasdon Charitable Programme was restricted to fund cardiac screening.

18. Contingent liability

The charity had no contingent liabilities at 31 May 2022.

19. Taxation

The charity is considered to pass the tests set out in Sch. 6, para. 1 of the Finance Act 2010 and therefore it meets the definition of a charitable company for UK corporation tax purposes. Accordingly, the company is potentially exempt from taxation in respect of income or capital gains received within categories covered by Pt. 11, Ch. 3 of the Corporation Tax Act 2010 or s. 256 of the Taxation of Chargeable Gains Act 1992, to the extent that such income or gains are applied exclusively to charitable purposes.

